

Review Timeline

School Name	Initial Questions and Concerns Delivered to School	Initial CSAC Meeting	Initial CSAC Report Delivered	Initial Public Hearing	School Response Due (15 Calendar days after Initial CSAC)	Final Questions and Concerns Delivered to School	Final CSAC Meeting	Final CSAC Report Delivered	Final Public Hearing #2 (if necessary)	Public Comments Closes	Secretary Decision to State Board for Assent (as required)
The Bryan Allen Stevenson School of Excellence	2/1/2022	2/8/2022 9:00 AM - 12:00 PM Virtual Cabinet Room Delaware Department of Education 401 Federal Street Dover, DE 19901	2/11/2022	2/14/2022 5:00 PM Cabinet Room Virtual	2/28/2022	3/10/2022	3/24/2022 9:00 AM - 12:00 PM Virtual/ Library Conference Room Delaware Department of Education 401 Federal Street Dover, DE 19901	3/31/2022	4/4/2022 5:00 PM Virtual/ Georgetown Public Library Conference Room A 123 West Pine Street Georgetown, DE 19947	4/11/2022	5/2/2022 5:00 PM Cabinet Room Delaware Department of Education 401 Federal Street Dover, DE 19901

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Delaware Charter School Application
January 3, 2022

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School Proposal Overview

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School Proposal Overview

Provide information for the primary point of contact for the applicant team. This individual will serve as the contact for all communications, interviews, and notices regarding the submitted application. (**Note!** Names and contact information may be shared with external groups by the Delaware Department of Education.) The information in this section is not included in narrative page limit.

Name of proposed school	The Bryan Allen Stevenson School of Excellence
Opening year	Fall of 2023
Geographic community †	Georgetown, DE
Model or focus (e.g., Arts, College Preparatory, Dual-Language, etc.)	Service-Learning
Primary contact person (name, email, mobile phone, fax)	Dr. Julius Mullen drjuilius@basseinc.org (302) 858-6184
Mailing address	P.O. 531 Georgetown, DE 19947
Board Chair (name, email, mobile phone, fax)	Chantalle Ashford chantalle@basseinc.org (757) 561-7417
Name of applicant group or entity applying	The Bryan Allen Stevenson School of Excellence, INC. Board of Directors

† Identification of geographic community may be as specific as a neighborhood or as general as the city/town identified for the school location.

Provide the names and roles in the applicant team and current employer of all persons on the applicant team.

Name	Role	Current Employment & Title
Karl Armand	Board Member	Attorney Comcast Corporation
Chantalle Ashford	Co-Board Chair	English Teacher Indian River High School Indian River School District
Dr. Teresa E.S. Berry, EdD	Co-Board Chair	Principal New Directions Learning Academy

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		Dorchester County
Diaz Bonville	Board Member	Delaware State Human Relations Commissioner U.S. Congresswoman Lisa Blunt Rochester's Kent/Sussex County Outreach Coordinator
Stacie Burton	Board Member	Community Liaison Office of The Governor State of Delaware
Dr. Katherine Cauley, PHD	Secretary	Retired University Professor Wright State University
Derick Dailey	Board Member	Litigation Associate Davis & Gilbert LLP
Jonathan Edwards	Board Member	Transformation Change Agent Citizens Bank
Karen V. Higgins	Board Member	Retired Law Enforcement Executive
Dr. Joseph Kim, MD	Board Member	Family Physician Nanticoke Health Services
Brad Owens	Board Member	Outreach and Engagement Coordinator Delaware Psychological Services
Betsy Renzo	Vice Board Chair	Director of WAVE Social Contract, LLC
Amy Shepherd	Board Member	Director of Diversity, Equity, and Inclusion Librarian St. Anne's Episcopal School
Denise Snyder	Treasurer	Retired Educator Indian River School District

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Does the school expect to contract or partner with a Charter Management Company or other organization for school management/operation?

Yes

No

If yes, provide the name of the Charter Management Company or other partner organization if known.

(Note! If the applicant plans to contract with a Charter Management Company, the applicant must complete the Charter Management Company and Highly Successful Charter School Operator Supplement (See Section 2.5) in addition to the application narrative.)

Proposed Principal/School Leader Information (if known)

Proposed Principal/School Leader Candidate (name, email, mobile phone, fax)	Kirsten Croner kirsten@basseinc.org (302) 304-0899 Dr. Julius Mullen drjulius@basseinc.org (302) 858-6184
Current Employment	Jounce Partners, LLC. See Jounce Memorandum of Understanding (Croner) The Bryan Allen Stevenson School of Excellence

The Bryan Allen Stevenson School of Excellence
 Section 0 - School Proposal Overview & Enrollment Projection

School Enrollment Projection

Grades	Year 1 2023-24	Year 2 2024-25	Year 3 2025-26	Year 4 2026-27	Year 5 2027-28	Year 6 2028-29
K	0	0	0	0	0	0
1	0	0	0	0	0	0
2	0	0	0	0	0	0
3	0	0	0	0	0	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0
6	125	100	100	100	100	100
7	125	125	100	100	100	100
8	0	125	125	100	100	100
9	0	0	125	125	100	100
10	0	0	0	125	125	100
11	0	0	0	0	125	125
12	0	0	0	0	0	125
Total Students	250	350	450	550	650	750
Classes per grade	5	4/5	4/5	4/5	4/5	4/5
Average number of students per class	25	25	25	25	25	25

(Note! Provide additional columns if you will not reach full enrollment by year five.)

Student Demographics: Provide your estimated student demographics below.

	Low Income%	Special Education %	English Language Learners (ELL) %
Projected Demographics	28%	19%	22%

School Enrollment Projections

The Bryan Allen Stevenson School of Excellence
 Section 0 - School Proposal Overview & Enrollment Projection

School Enrollment Projection

Grades	Year 1 2023-24	Year 2 2024-25	Year 3 2025-26	Year 4 2026-27	Year 5 2027-28	Year 6 2028-29
K	0	0	0	0	0	0
1	0	0	0	0	0	0
2	0	0	0	0	0	0
3	0	0	0	0	0	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0
6	125	100	100	100	100	100
7	125	125	100	100	100	100
8	0	125	125	100	100	100
9	0	0	125	125	100	100
10	0	0	0	125	125	100
11	0	0	0	0	125	125
12	0	0	0	0	0	125
Total Students	250	350	450	550	650	750
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Average number of students per class	25	25	25	25	25	25

(Note! Provide additional columns if you will not reach full enrollment by year five.)

Student Demographics: Provide your estimated student demographics below.

	Low Income%	Special Education %	English Language Learners (ELL) %
Projected Demographics	28%	19%	22%

Section 1.1 - Executive Summary

The Bryan Allen Stevenson School of Excellence
Section 1 - Executive Summary

1.1 Executive Summary

14 Del. C. §§ 512(1)-(3). And (5)-(6)

The purpose of the Executive Summary is to provide a high-level overview of the application. The Executive Summary does not receive a rating and is to contain the following. The page limit for the Executive Summary is 5 pages.

1. Mission and Vision Statements

- a. Provide a mission statement and a vision statement that will give the reviewers and interested members of the public an overview of the proposed charter school. The mission and vision statements should be specific, clear, and brief and provide the foundation for the entire school proposal and operational plan. Accordingly, the mission and vision statements must be aligned with the legislative intent set forth in 14 Del. C. § 501, the approval criteria in 14 Del. C. § 512 and the restrictions on charter schools in 14 Del. C. § 506.

VISION: To foster critically conscious individuals who are self-empowered leaders and advocates for change in our community.

MISSION: To create pathways, through proximity, for our students, their families, and our community.

2. Educational Need and Target Population

- a. Identify the target population, grade levels, and school district(s) that the school will serve. Briefly describe the intended effect on the existing community and provide a rationale for the chosen location.
- b. Explain how the proposed charter school, including the grade levels chosen, will clearly meet the identified needs of the community and the targeted student population.
- c. Identify how many families have indicated their intent to enroll in your school.

[Recent studies indicate](#) that many students who graduate from Delaware public high schools are not adequately prepared for post-secondary opportunities. Approximately half of Delaware’s 11th-grade students fail to meet state and national College and Career Readiness requirements. Even more troubling, the discrepancies for students that are low-income and with disabilities have fallen even farther considering the pandemic. The challenges facing students in rural Sussex County are especially acute. The majority of school districts here are performing below the state average in College and Career Readiness measures.

These same districts are also home to some of the largest populations of students from low-income households, students with disabilities, English-Language Learners, and students of color. Although Sussex County contains some of the most diverse rural school districts in the country, the state has still not closed the gaps for the educational outcomes of its rural students.

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BASSE was explicitly designed to help increase Sussex County's students' college and career readiness through a service-learning curriculum that will provide students with rigorous academic and real-world learning experiences. Students' access to opportunities to practice their knowledge and skills and develop their identities as citizens of Sussex County, Delaware, and the world will improve their outcomes.

To date, we have had 75 parents fill out our interest survey, 10 of which had eligible children and indicated that they intend to prioritize sending their students to BASSE. Unfortunately, due to the coronavirus pandemic, we have been unable to host as many in-person events as we had imagined. However, we have recently hired an Executive Director and Director of Development. A key component of their roles will add on-the-ground capacity to our parent and community outreach efforts. We plan to continue collecting parent intent signatures during the application process through various virtual events and in-person events.

3. Community Engagement

- a. Describe how the applicant has assessed demand and solicited support for the school.
- b. Describe any relationships the applicant currently has or plans to build to engage students, parents, and the community in support of the school.

BASSE has hosted various community events to assess demand and solicit support for the school, including community focus groups at many public libraries in Sussex County, a virtual webinar series informing the community about the school, and offering space for feedback on several parent-focused webinars. We have also partnered with other community organizations to host joint virtual and in-person events to reach more community members and families. These events have been positively received by the community and helped us to refine the school's design.

BASSE currently has several engagement opportunities planned to continue to engage students, parents, and the community in support of the school. The first is that BASSE hired a Public Ally to be our Community Outreach Coordinator (COC). Our first COC led our parent webinars and virtual parent and family-focused events. The COC also planned and successfully executed an education conference to engage the community around their vision for education. Our current COC is continuing the work that our first began.

Secondly, we have hired a Director of Development, who's role, in addition to fundraising, will be to further build relationships with the community and families. For instance, she has already connected with several childcare centers in the state and plans to engage with the Boys and Girls Clubs in Sussex County this winter and spring on a weekly basis.

We have also built strong relationships with community organizations and held joint events with the Lewes Public Library, First State Community Action Agency, and Peace Week Delaware. In addition, the Kim and Evans Family Foundation hosted a joint fundraiser with us this Spring. We have also participated in service events where we handed out over 200 backpacks and tabled at local community gathering places, such as the Movies at Midway theater in Rehoboth Beach.

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Additionally, we have letters of support from a wide range of individuals and organizations who support our school's vision and mission and whom we intend to engage with throughout the application process and the school's opening. There are also developing opportunities for student engagement, such as a social media internship, a book club, and participation in BASSE's inaugural Youth Leadership Lab, a student youth development program.

4. Educational Plan

- a. Briefly describe the most important characteristics of the educational program, including any specific educational philosophy, instructional methods, educational model, or other important features of the proposed school.
- b. Briefly describe the learning environment and culture.
- c. Briefly describe the plan to improve student learning for *all* students, including exceptional children, English language learners, gifted learners, migrant and homeless children, and any other special student populations.
- d. Briefly describe how the school will use assessment to improve student learning.

BASSE will be an innovative free public high school in Sussex County, providing students with countless opportunities to learn through a community-focused, service-learning lens. With a strong focus on academic rigor, BASSE will offer students a unique chance to make a lasting impact on their own lives, school, and community.

The proposed education program at BASSE is an innovative and rigorous model designed to help students discover who they are and who they want to be as citizens of their local communities, country, and the world. The BASSE model roots challenging academic experiences in real-world experiences with a unique combination of service-learning, the International Baccalaureate curriculum, and interdisciplinary cross-curricular thematic units. The BASSE educational model is student-centered; each student will complete a Personalized Learning Plan (in collaboration with their families and school staff). The lesson planning materials require teachers to consider students' interests and identities since social-emotional learning is a school-wide focus. BASSE students will have the opportunity to develop their ability to think independently and apply their knowledge to the real world in partnership with local community organizations and businesses to complete service projects that will positively impact and empower their ability to be community leaders. BASSE will ensure post-secondary readiness for all students. Our school's two pillars are the International Baccalaureate (IB) program and the service-learning requirement for all students. The BASSE model will use the IB curriculum, Dr. Ghody Muhammad's equity framework, cross-curricular themes, and service-learning projects to build a rigorous and collaborative curriculum that encourages students to make connections across subject areas and enhance their understanding of the world outside of the classroom

BASSE will implement the Multi-Tiered Systems of Support (MTSS) Framework to assess all students' comfort and success, especially students from special populations, such as exceptional children, English language learners, gifted learners, migrant and homeless children. The MTSS process focuses on multiple levels of support for all students to ensure that students receive services to support them academically, behaviorally, and socially-emotionally. The MTSS process will also support the school in analyzing its policies, practices, and programs to ensure

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that all student needs are met. Through consistent assessment of student performance via the MTSS process, students' in-class formative and summative assessments, the evaluation of the impact of the service projects, and the consistent check-ins with students and families about students' Personalized Learning Plans, BASSE will evaluate student learning and develop ways to improve the effectiveness of our learning model for student success.

Additionally, BASSE will infuse trauma-informed care as conveyed by the Delaware Department of Education (DDOE) developmental framework. BASSE believes a trauma-informed school requires knowledge and infusion of principles of trauma-informed care with a commitment to implement with fidelity. Implementing a trauma-informed approach will be an ongoing organizational evolutionary process across the entire educational platform. BASSE will perform specific activities to ensure full integration of trauma-informed care, including but not limited to social-emotional learning, professional development, student training, family and community awareness, self-care for staff, mindfulness, expressive therapies, wraparound services, and best practice trauma treatment models as appropriate.

5. Leadership and Governance

- a. Briefly outline the role of the Board in regards to school governance, academic oversight and fiscal oversight.
- b. Highlight the strengths of the School Leadership team and the proposed Board.
- c. Explain how the governance and management structures will provide for stable, effective governance and leadership throughout the five-year charter term and thus fulfill the school's mission and vision.
- d. Identify the critical qualifications, credentials and attributes you have identified for your School Leader.

A successful charter school must provide an innovative solution to education in the community where it will open. Additionally, a successful charter school must practice sound financial decision-making, have an effective governance structure, and provide oversight to the school leadership. The school's primary goal must be student-centered and focused. The goal of a charter school is to educate students and provide the best educational options for students and families in the community where it is founded.

The Board will primarily be responsible for ensuring the school follows the rules and regulations of the state and federal government, and will focus on, but not be limited to, oversight of leadership, fiscal viability and monitoring, the hiring and evaluation of school leadership, the relationship between community and school, fundraising, governance, and community engagement. The Board has set up processes to successfully fulfill these duties, including monthly meetings, quarterly retreats, policy development, and a requirement of ethics training.

The Board of BASSE was formed as a diverse group of community members with ties to Sussex County and the life and work of Bryan Stevenson to fulfill these duties. The Board has representation from across the State of Delaware. We believe this representation is critical to the long-term success of our school, providing valuable resources to people, funding, and networks. Sixty percent of the Board is from or currently lives in Sussex county, and the other

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Section 1 - Executive Summary

forty percent of the Board lives and works in Kent or New Castle county. Each founding group member was selected based on their alignment with the vision and mission of the school and the contributions they can make to the success of the school as reviewed in their specific qualifications, such as their expertise in education, safety, fiscal responsibility, and the rule of law.

Our inaugural director of development, Crystal Timmons-Bryant, has extensive local and statewide experience with non-profits, government, and private businesses. Kirsten Croner is the founding instructional school leader of The Bryan Allen Stevenson School of Excellence. And Dr. Julius Mullen, our inaugural executive director, brings over twenty years of executive leadership and non-profit management experience, most recently as Chief Clinical Officer of Children and Family First and previously with Delaware Guidance Services. The BASSE team is inspired by the potential of our leadership team.

6. Business Plan

- a. Provide a brief overview of the business plan that includes facilities, financial management, transportation, prospective partners, and access to financial resources.

It is the intent of the Bryan Allen Stevenson School of Excellence that the operating costs of the school, primarily personnel costs and fringe benefits, contracts, facility lease, and transportation, be paid through State and Local Appropriations unless otherwise specified by federal law in the case of federal funding. Private funds will be used to provide specific programming (for now, foundation contributions in the startup year and year 1 of operations to defer the cost of rent.) and can be changed if funding does not materialize so that the academic fidelity of the program does not suffer. A 2% contingent reserve will be available in each of the four projection years.

The Bryan Allen Stevenson School of Excellence has created a fundraising plan to cover the total cost of the school's budget for the first five years of operation.

Money raised through fundraising activities will be collected by a Fundraising Committee of the BASSE board and deposited into the school's fundraising bank account according to required procedures. Decisions for the use of these funds will become part of the overall financial planning process for the school, subject to review by the Board, and will be included in the school's annual financial audit. BASSE recognizes a significant investment will be required to open by the Fall of 2023, BASSE has prepared an appropriate financial and development plan that outline the appropriate pathways to funding prior to opening. A working draft of our development plan is included in the attachments.

Section 1.2 - Founding Group and School Leadership

The Bryan Allen Stevenson School of Excellence
Section 2 - Founding Group and School Leadership

1.2 Founding Group and School Leadership

14 *Del. C.* § 512(1)

Founding Group Membership [14 *Del. C.* § 512(1)]

- a. Identify the key members of the Founding Group for the proposed school. Identify *only* those individuals who will play a substantial ongoing role in school development, governance, and/or management, and will thus share responsibility for the school. These may include proposed Board members, school leaders/management, staff members, or other essential partners.

Explain what role each individual will play, and note which Founding Group members are certified educators, parents, and members of the community as required by 14 *Del. C.* § 512(1).

Board of Directors

Chantalle Ashford, Educator, Co-Board Chair
Dr. Teresa Berry, Educator, Co-Board Chair
Betsy Renzo, Educator & Attorney, Vice Board Chair
Katherine Cauley, Retired Professor, Secretary
Denise Snyder, Retired Educator, Treasurer
Karl Armand, Attorney, Founding Board member
Karen V. Higgins, Retired Law Enforcement Executive, Founding Board member
Amy Shepherd, Educator, Founding Board member
Brad Owens, Outreach and Engagement Coordinator, Founding Board member
Dr. Joseph Kim, Family Physician, Board Member
Diaz Bonville, Community Outreach Coordinator, Board Member
Stacie Burton, Community Outreach Coordinator, Board Member
Derick Dailey, Attorney, Board Member
Jonathan Edwards, Financial Professional, Board Member

Principal Advisory Board Members

Bryan A. Stevenson, Attorney & Founder of the Equal Justice Initiative
Dr. Howard Stevenson, Professor, University of Pennsylvania (Racial Empowerment Collaborative) & Founder, Lion's Story
Christy Taylor, Educator & BASSE Founding Group

School Launch Partner

Kirsten Croner, Educator, School Launch Partner, and Future Dean of Academic Excellence

Executive Director

Dr. Julius Mullen, Executive Leader and Nonprofit Manager, Executive Director

Director of Development

Crystal Timmons-Bryant, Nonprofit Consultant, Director of Development

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Section 2 - Founding Group and School Leadership

Founder

Alonna Berry, Educator & Consultant, Founding Board Chair

- b. Explain the Founding Group’s collective qualifications for establishing a high-quality charter school in Delaware and in assuming stewardship of public funds. Address the following in your response.
- Experience and/or involvement in K -12 public education system;
 - Experience in the design and operation of a charter school (if the school has closed or is slated for closure, non-renewal, or dissolution, describe the circumstances that led to such closure, non-renewal, or dissolution);
 - School leadership, administration, and governance;
 - Research based curriculum and instructional strategies that will ensure that all students meet or exceed the expectations of the Delaware Content Standards (Common Core State Standards in English language arts and mathematics-and Next Generation Science Standards);
 - Business management, including but not limited to Delaware financial and accounting systems and the funding procedures for Delaware charter schools;
 - Personnel management;
 - Diversity issues, including but not limited to outreach, student enrollment, and instruction;
 - At-risk populations and children with disabilities, including but not limited to students eligible for special education and related services; English language learners; migrant/homeless students; and other at-risk populations that the school intends to serve;
 - School operations, including but not limited to charter school funding/finance, school bus transportation, facilities management, and school lunch/breakfast programs, and health and safety; and
 - Parent and community engagement.

Required Experience	Founding Members
<p>Experience and/or involvement in K -12 public education system:</p> <p>Nine of our founding members have experience working in K-12 public education, with seven members having specific experience in Delaware public schools. These members have been teachers, school leaders, school-based staff, instructional coaches, special service coordinators, department chairs, and the Delaware Department of Education employees. Five of those listed are certified by the State of Delaware as school leaders or teachers (these are noted with an *).</p>	<p>Chantalle Ashford* Dr. Teresa Berry* Dr. Katherine Cauley Diaz Bonville Kirsten Croner* Derick Dailey Betsy Renzo Denise Snyder* Christy Taylor</p>
<p>Experience in the design and operation of a charter school:</p> <p>Mrs. Croner was a teacher at Prestige Academy in Wilmington, DE, which closed due to low enrollment numbers in 2016. During her time as Teach For America staff, Mrs. Croner had monthly contact with charter school leaders to help develop and coach their teachers. Ms. Snyder was the</p>	<p>Kirsten Croner Betsy Renzo Denise Snyder</p>

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Section 2 - Founding Group and School Leadership

<p>special education coordinator at Sussex Academy. Mrs. Renzo has specific experience as an executive specialist in Aspire Public Schools, a charter school management organization with 35 charter schools and over 1200 employees in California and Tennessee.</p>	
<p>School leadership, administration, and governance:</p> <p>Dr. Berry is the school leader of the New Directions Learning Academy in Dorchester County, MD; she is also certified to serve as a superintendent. Ms. Shepherd is the Director of Diversity and Inclusion at the St. Anne’s Episcopal School in Middletown, DE; she also serves on their school leadership team. Mrs. Croner has a degree in school leadership and is certified to be a school leader in Delaware. Dr. Joseph Kim served as a board member of the former Jefferson School. He also manages a foundation and is on the Nanticoke Hospital Board. Mrs. Snyder was the special education coordinator at Sussex Academy. Ms. Renzo served in an administrative role at Aspire Public Schools; she also has a master’s in educational leadership, policy, and organization from Stanford University. As a Teach For America staff member Mrs. Croner worked directly with school leaders, both traditional and charter. Mr. Dailey and Mr. Armand both serve the Board’s governance committee, applying their expertise as attorneys to our Board’s policy creation and implementation. Ms. Ashford is currently pursuing a degree in educational leadership and policy at American University.</p>	<p>Karl Armand Chantalle Ashford Dr. Teresa Berry Kirsten Croner Derick Dailey Dr. Joseph Kim Betsy Renzo Amy Shepherd Denise Synder</p>
<p>Research-based curriculum and instructional strategies that will ensure that all students meet or exceed the expectations of the Delaware Content Standards:</p> <p>Ms. Ashford has a master’s in the art of teaching, specifically English Language Arts from the Relay Graduate School of Education. Both Mrs. Croner and Mrs. Snyder have master’s degrees in elementary education from Wilmington University and Salisbury University, respectively. Dr. Berry has a master’s degree in curriculum and instruction from Delaware State University. Dr. Katherine Cauley has over thirty years of experience in curriculum development, specifically in service learning and community-based education, has conducted research and is extensively published in these areas. All five of these members have experience in leading and coaching teachers in research-based curriculum and instructional practices.</p>	<p>Chantalle Ashford Dr. Teresa Berry Kirsten Croner Denise Snyder Dr. Katherine Cauley</p>
<p>Business management:</p> <p>Dr. Berry has experience managing school-based budgets and requests as a school leader. Several of our founding members have executive leadership experience, running large-scale organizations like hospitals (Dr. Kim), small businesses (Mr. Owens and Ms. Taylor), nonprofits (Dr. Stevenson and Mr.</p>	<p>Karl Armand Dr. Teresa Berry Derick Dailey Dr. Joseph Kim Brad Owens Bryan Stevenson</p>

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Section 2 - Founding Group and School Leadership

<p>Stevenson), foundations (Dr. Kim), and law firms (Mr. Stevenson). Mr. Dailey is the chief of the financial litigation unit as a U.S. attorney for Delaware. Mr. Armand serves as the national contract manager for Comcast, specializing in contracts with schools and libraries. Ms. Timmons-Bryant has over 28 years of business management skills that has been in both in Corporate American as a regional manager for a larger retail chain as well as 15 years in Non-Profit Management. Her leaderships experiencing has been focused on training and development for several organizations in a Human Resources capacity and audit compliance. Dr. Mullen has over 15 years as a nonprofit executive for Children & Families First managing million-dollar contracts from local, state and federal funding sources. His role primarily involved overseeing school based MTSS services at varying levels.</p>	<p>Dr. Howard Stevenson Christy Taylor Dr. Julius Mullen Crystal Timmons-Bryant</p>
<p>Personnel management:</p> <p>Several of our founding members have experience managing teams in the education, criminal justice, nonprofit, financial, and healthcare sectors, as well as personnel selection, management, and evaluation.</p>	<p>Chantalle Ashford Dr. Teresa Berry Diaz Bonville Kirsten Croner Jonathan Edwards Karen Higgins Dr. Joseph Kim Brad Owens Betsy Renzo Amy Shepherd Denise Snyder Bryan Stevenson Dr. Howard Stevenson Dr. Katherine Cauley Dr. Julius Mullen Crystal Timmons-Bryant</p>
<p>Diversity Issues</p> <p>Mr. Stevenson’s, our school’s namesake, Equal Justice Initiative, has several projects focused on educating the American public about the history of racism in our country. Dr. Stevenson’s work focuses on building personal and professional development skills in managing racial trauma in education spaces. Dr. Berry is a member of the Dorchester County School Equity Committee. Ms. Shepherd is the Director of Diversity and Inclusion at the St. Anne’s Episcopal School in Middletown, DE. Mrs. Renzo served on the Diversity Committee at Wilmington Friends Independent School in Wilmington, DE. Ms. Ashford and Mrs. Croner have developed and facilitated diversity, equity, and inclusion professional development for novice educators at Teach For America. Ms. Ashford has served as a teacher contractor to the Teacher and Leader Effectiveness Unit and the Educator Support Team at the Delaware Department of Education, focusing</p>	<p>Chantalle Ashford Kirsten Croner Amy Shepherd Betsy Renzo Bryan Stevenson Dr. Howard Stevenson Dr. Julius Mullen</p>

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<p>on teacher diversity and culturally competent instructional practices; she is currently pursuing her educational doctorate in educational leadership and policy with a focus in antiracism, equity, and inclusion. Dr. Mullen was trained by Social Current’s which is a national platform focused on infusing diversity, equity and inclusion policies and practices across organizational landscape. He also launched an agency-wide diversity task force at Children & Families First, developed a strategic plan and lead implementation.</p>	
<p>At-risk populations and children with disabilities and other at-risk populations that the school intends to serve:</p> <p>Ms. Ashford, Dr. Berry, Mrs. Croner, and Mrs. Snyder are certified special education teachers. Mrs. Croner minored in special education at Wilmington University while pursuing her master's in elementary education. Mr. Bonville has experience working with English language learners as a former employee of the Indian River School District (IRSD). Both Mrs. Snyder and Mr. Bonville have experience working with special populations of students through the Transitioning our Toddlers to School program in IRSD. Ms. Renzo has experience working with special populations of students at the Eastside College Preparatory School in Palo Alto, CA—a tuition-free private school for would-be first-generation college students. Dr. Berry’s current school leadership position is at New Directions Learning Academy, an alternative school for at-risk students. Dr. Mullen has extensive experience in working with children, parents and families who have been exposed to traumatic events. He has trained thousands of professionals, community members, parents and youth on the prevalence and impact of trauma on neurological development and brain functioning. Julius has been the driving force behind many statewide efforts to integrate trauma informed care within a variety of systemic structures. He’s also written two children books focused on brain science and diversity for parents and professionals who support kids who are stressed with trauma and mental health challenges.</p>	<p>Chantalle Ashford Dr. Teresa Berry Diaz Bonville Kirsten Croner Betsy Renzo Denise Synder Dr. Julius Mullen</p>
<p>School operations:</p> <p>Several of our founding Board Members have a plethora of experience at every level of K-12 education. Experiences include working at a charter management company to building principal, classroom teacher, Director of Diversity, school librarian, human resources, and budget management. Ms. Ashford, Dr. Berry, Mr. Bonville, Mrs. Croner, Dr. Kim, Ms. Renzo, Mrs. Shepherd, and Mrs. Snyder collectively have participated in a national fellowship focused on rural schools and operations, written dissertations on topics related to school operations and actively created school opening and closing procedures, school safety and security policies, and have managed funding/finance, bus transportation, and school lunch and breakfast distribution.</p>	<p>Chantalle Ashford Dr. Teresa Berry Diaz Bonville Kirsten Croner Dr. Joseph Kim Betsy Renzo Amy Shepherd Denise Snyder</p>

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<p>Parent and community engagement:</p> <p>Many BASSE Board Members are active community members and volunteers across the state of Delaware, with specific affiliations in Sussex County. Mr. Bonville and Ms. Burton both work full-time as community outreach specialists for state and federal government entities. Additionally, Dr. Kim, both a parent and a local physician, engages with parents and families daily through his medical practice in Laurel, DE. Ms. Ashford currently serves as a classroom teacher in Sussex County and regularly engages with students and families in various settings. Ms. Shepherd currently shares as the hair of community engagement for BASSE and effectively supports, plans, and markets various parent outreach and coordination events. Ms. Timmons-Bryant has worked in engaging community members in several different avenues throughout her career as well as on a personal level. Ms. Timmons-Bryant has actively help engage the community to rally around several mission driven focus such as the hunger studies done by Feeding America, Summer and After School Food Service sites for the underserved population in high at-risk populations, to community dinners that served anyone in need. She has helped engage community members to sit on boards that created change in the communities and help bring diversity in several aspects to create a cohesive impact for the community. Dr. Cauley has specific experience with community academic partnerships integrating educational, health and social services for families and children to ensure success in school, as well as access to health care, food, housing, and transportation, and employment support. Dr. Mullen has received national, state and local recognition for leading a parent-driven grass roots mentoring organization in Sussex County. He was able to galvanized parents, community leaders and educators to provide whole-child support for over 200 marginalized youth. His most prized outcome came in the form of impressive high school and post high school impact. Consequently, 100% of youth graduated from high school and 96% of youth graduated from college, attended college, enlisted in military and/or employed gainfully for at least two years.</p>	<p>Chantalle Ashford Diaz Bonville Stacie Burton Dr. Joseph Kim Amy Shepherd Crystal Timmons-Bryant Dr. Julius Mullen Dr. Katherine Cauley</p>
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- c. Describe the Founding Group’s ties to and knowledge of the proposed school community.
- Summarize each person’s experience, qualifications, and affiliations that will be directly relevant to developing a high-quality charter school that reflects the school’s mission and vision. Explain why each individual was chosen to participate in this Founding Group.
 - Explain how and why the Founding Group decided to form a school in Delaware.

The Bryan Allen Stevenson School of Excellence was founded during a Stevenson family kitchen table conversation discussing the needs of the Sussex County community, especially for students. Following the conversation, a diverse group of Sussex County community members was convened to help design and support the school. From the beginning, the school's vision was inspired by the work of Delaware

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native Bryan Stevenson, the school's namesake, who is a prolific social justice activist and attorney. Mr. Stevenson says, "You have to find ways, no matter what your field of study, to get proximate to people who are suffering, to get closer to people who are excluded, to go into the parts of the community that other people say you shouldn't go to...proximity is a pathway through which we learn the kind of things we need to know to make healthier communities."

Mr. Stevenson's theory of proximity, combined with BASSE's founders' experiences with the Rural School Leadership Academy (RSLA), gave them the understanding that schools must be co-created and co-designed with the community, not on its behalf. Based on these experiences, three major challenges became clear: a rural ecosystem often fosters gaps in innovation, lacks proximate access to social services, and limits access to opportunities for the students and families that live in them. This inspired the founding group to focus particularly on community collaborations and partnerships in developing BASSE. The path to a strong and healthy community is complex and requires deep collaboration at every point. Consequently, as the Board of Directors for BASSE was expanded and finalized, an Advisory Board was established, formal partnerships with the community began to be established, and a broad group of supporters joined the effort of creating a new and innovative community school that will lead to increase proximity and progress for our students and the Sussex County community at large.

Consequently, the governing structures of BASSE intentionally reflect the diverse demographics of Sussex County, wherein two-thirds of the traditional school districts in the County, over fifty percent of the students are students of color. Hence, the BASSE Board of Directors' membership, for example, is two-thirds people of color. Additionally, because representation from across the State of Delaware is critical to the long-term success of our school, providing valuable resources to people, funding, and networks, sixty percent of the Board is from or currently lives in Sussex County, and the other forty percent of the board lives and works in Kent or New Castle County. Each founding group member was selected based on their alignment with the school's vision and mission and the contributions they can make to the school's success as reviewed in their specific qualifications, listed in the chart above. For everyone involved in the founding and ongoing work of establishing BASSE, the focus is on ensuring that a free public school is available in Sussex County to provide countless opportunities for students to learn through a community-focused, service-learning lens coupled with academic rigor in the formal classroom. In keeping with the work of the school's namesake, students will be provided work and service experiences that will ensure students' knowledge of their community's needs and challenges, and assets, helping them to navigate and innovate across those spaces successfully. Combined with a rigorous academic curriculum, BASSE will offer students a unique chance to explore, achieve, and positively impact their school and community.

- d. Provide, as **Attachment 1 (Founding Group Résumés and Biographies)**. Include full résumés (including contact information) and professional biographies (brief narratives) for the individuals named. Label each document with the individual's affiliation with the proposed school.

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Principal/Founding Group, School Leader, and School Leadership Team [14 Del. C. § 512(1)]

Background [14 Del. C. § 512(1)]

Explain the circumstances and motivations that brought the Founding Group together to propose this school.

The Bryan Allen Stevenson School of Excellence is named in honor of Bryan Stevenson, a prolific social justice activist and lawyer from Milton, Delaware. Mr. Stevenson often talks about the notion of proximity in his work. “Proximity is a pathway through which we learn the kind of things we need to know to make healthier communities.” By “getting proximate,” or closer, to the needs of the community, one can see problems for what they are and create sustainable solutions. The founders know the path to a strong and healthy community is complex and requires deep collaboration at every point. Therefore, a small group of community members, living in or with close ties to Sussex County and Mr. Stevenson, came together to determine what proximity means for the rural Sussex County community. Through collaboration, it was determined that the rural ecosystem fosters gaps in innovation, a lack of coordinated social services, and limited access to opportunities.

The BASSE founding group wants to ensure that a free public school is available in Sussex County to provide countless opportunities for students to learn through a community-focused service-learning lens and academic rigor. Students will be provided work and service experiences that will give students the knowledge of their community needs and challenges, hopefully inspiring their innovation in those spaces. Combined with a rigorous academic curriculum, BASSE will offer students a unique chance to explore, achieve, and positively impact their school and community:

Principal/School Leader, Founding Group, and School Leadership Team [14 Del. C. §512 (1)]

1. If the Principal/School Leader candidate has been identified:
 - a. Explain why this individual is well qualified to lead the proposed school in achieving its mission and goals. Summarize the proposed leader’s academic and organizational track-record. Provide specific evidence that demonstrates the leader’s capacity to design, launch, and manage a high performing school. If the School Leader has never run a school, describe any principal leadership training programs that the proposed leader has completed or is currently participating in. (**Note!** Also provide, as **Attachment 2**, the qualifications, résumé and professional biography for this individual).
 - b. Provide specific data that demonstrates strong evidence of the school leader’s ability to effectively serve the proposed target population.

BASSE has established a partnership with Jounce, INC to identify and incubate a school leader during our planning year. This program will give our school leader hands-on experience working in Delaware charter schools, learning from other Delaware school leaders, and coaching teachers. Please review the role and job description here.

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Kirsten Croner is the founding instructional leader for The Bryan Allen Stevenson School of Excellence. Kirsten joins BASSE bringing with her 11 years of education experience, having held various leadership positions. Kirsten completed her School Leadership certification through Wilmington University in 2013, allowing Kirsten to serve in an administrative role within any Delaware school. Kirsten is currently working with Jounce Partners to develop as a school leader, working with various schools in Delaware and Pennsylvania, training teachers and administrators to better serve their respective schools and school communities. In addition to Kirsten's current role as School Launch Partner with Jounce Partners, Kirsten also brings two years of leadership experience, having served as the Manager of Teacher Leadership Development with Teach For America Delaware from 2017-2019. In that role, Kirsten worked with novice teachers, serving in under-served communities, to become teachers who focused on student-led classrooms, using data to guide instruction, and working with families to serve the school community best. During Kirsten's years in the classroom, she served as a general educator, special educator, a case manager, and held numerous committee positions within various schools. As a teacher, Kirsten co-authored the math portion of a charter renewal application, co-wrote middle school math curriculum, revised middle school math curriculum to meet the specific needs of students classified as Special Education, and assisted in rewriting 5th-grade math curriculum.

2. If the candidate is not yet identified, summarize the Board and/or other Founding Group members' academic and organizational performance record and provide specific evidence that demonstrates the Board's ability to effectively serve the proposed target population.

Not Applicable

3. Who will work on a full-time or nearly full-time basis immediately after approval to lead development of the school? How will this person be compensated prior to the school receiving per-pupil funding?
 - Executive Director: This position will be fully funded through individual giving and grants.
 - Director of Development: This position will be fully funded through individual giving and grants.
 - School Launch Partner-Jounce Partnership: This position is 60% funded through Jounce Partners. BASSE is responsible for the remaining 40%, which will be funded through individual giving and grants.
 - Community Outreach Coordinator: This position is made possible through a partnership with Public Allies. This full-time 10-month employee's total cost is partially funded through Public Allies, a federally funded program. BASSE will fund the remaining portion through individual giving and grants.
4. Describe the responsibilities and qualifications of the school's leadership/management team (beyond the School Leader). If known, identify the individuals who will fill these positions and provide, as **Attachment 3**, the qualifications, résumés, and professional biographies for these individuals. If these positions are vacant, explain the timeline, criteria, and process for recruitment and hiring.

The Director of Development will be responsible for planning, organizing, and directing all BASSE fundraising, including meeting prospective donors and supporters continually to establish

The Bryan Allen Stevenson School of Excellence

Section 2 - Founding Group and School Leadership

effective communications with them; growing a major gifts program including identification, cultivation, and solicitation of major donors; overseeing grant seeking including research, proposal writing, reporting requirements, prospect research, fundraising database, and gift recognition programs; building the planned giving program with a focus on deferred gifts such as bequest expectancies; directing the annual fund program, including mailings and annual fundraising drives, and capital campaigns and other major fundraising drives; coordinating special fundraising events; and making public appearances/accept speaking engagements to share information about BASSE.

Our Director of Development, Crystal Timmons-Bryant, has worked in Nonprofit for over 15 years, building and maintaining grassroots relationships with funders, social service partners, community, faith leaders, elected officials and others throughout the state. Over the last seven years building her business consulting for nonprofits, she helped improve the quality of life for all Delawareans by focusing on improving community outcomes in education, income, and health.

The Executive Director will report to the Board of Directors and will manage and support the development of the Academic Head of School, Development Director, Community Outreach Coordinator, and other staff. They are responsible for all state and federal regulatory compliance, fiscal solvency, and managing external relations for the school, all internal affairs of the school, and are ultimately responsible for school climate, educational outcomes, staff excellence, and student success.

Our Executive Director, Dr. Julius Mullen, comes to BASSE with over two decades of education experience, executive leadership, non-profit management, and behavioral health expertise. A native of Sussex County, Julius brings a unique set of skills, knowledge, and background which align perfectly with the fundamental mission of BASSE - proximity. Dr. Mullen has embraced the concept of proximity throughout his professional and personal journey. He has earned a portfolio of credentials and experiences propelling his ability toward getting proximate or closer to solving real challenges impacting many students and families in Delaware. He has served as the chief clinical officer for Children & Families First for the last ten years, primarily overseeing an array of education services.

Section 1.2 - Founding Group and School Leadership :: Attachment 1

Chantalle J. Ashford

23069 Meadow Wood Ct Unit 307, Seaford, DE 19973 | (757) 561 - 7417 | cjashford@email.wm.edu | chantalle.ashford@irsd.k12.de.us | chantalle@basseinc.org

Education

EDUCATION DOCTORATE | 2023 | AMERICAN UNIVERSITY SCHOOL OF EDUCATION

- Education Leadership and Policy

MASTER'S IN ART OF TEACHING | 2017 | RELAY GRADUATE SCHOOL OF EDUCATION

- Major: English Language Arts

BACHELOR OF ARTS | 2014 | THE COLLEGE OF WILLIAM & MARY

- Major: Psychology
- Minor: Africana Studies

Work Experience

EDUCATIONAL EQUITY TEACHER CONSULTANT | DE DEPARTMENT OF EDUCATION | AUGUST 2018 – PRESENT

- Advises the development of the state's educator equity strategic plan
- Plans for the Educator Equity Summit
- Engages with stakeholders
- Plans for culturally relevant pedagogy training
- Plans for systems-level equity training and supports

LEAD MENTOR TEACHER | TEACH FOR AMERICA-RELAY DELAWARE SUMMER INTENSIVE | APRIL 2017 – JULY 2017

- Coached Teach For America Corps Members
- Planned and Facilitated professional development for TFA Corps Members

CHORUS/ENGLISH/SPECIAL EDUCATION | INDIAN RIVER SCHOOL DISTRICT | AUGUST 2014 – PRESENT

- Planned and instructed choir and general music
- Plans and instructs secondary English
- Facilitates various student activities (Drama Club, Poetry Out Loud, Class)
- Serves as a member of the Instructional Leadership Team

INSTRUCTIONAL COACH | TEACH FOR AMERICA SUMMER COLLABORATIVE | FEBRUARY 2015 – JULY 2015

- Facilitated one on one professional development conversations with counselors
- Led professional development for counselors
- Assisted in the development of curriculum and lesson plans
- Assisted in operational functions

Board Service

VICE BOARD CHAIR | THE BRYAN ALLEN STEVENSON SCHOOL OF EXCELLENCE, INC. | OCTOBER 2017 – PRESENT

- Plans and leads board meetings
- Engages in strategic planning
- Engages in stakeholder engagement

- Other duties as assigned by the Board Chair

BOARD CO-CHAIR | TFA COLLECTIVE – DELAWARE CHAPTER | AUGUST 2016 – PRESENT

- Plans and leads board meetings
- Plans and participates in organizational events
- Supports current corps members and alumni of color

ADVISORY BOARD MEMBER | DELAWARE CAMPAIGN FOR ACHIEVEMENT NOW | JANUARY 2017 – PRESENT

- Advises Executive Director on organizational plans at annual board meetings
- Attends and participates in organization events
- Supports the organization as requested

Related Experience

DELAWARE WRITING PROJECT FELLOW | DE DEPARTMENT OF EDUCATION | OCTOBER 2018 – APRIL 2019

CCSSO DIVERSE LEARNER READY TEACHERS | DE DEPARTMENT OF EDUCATION | APRIL 2018 – APRIL 2019

The Diverse Learner Ready Teacher convenings are organized and hosted by the Council of Chief State School Officers as an effort to diversify the education workforce and support future and current educators in effectively teaching students of different cultural backgrounds.

- Selected as a member of the Delaware delegation

ENGAGE DELAWARE FELLOWSHIP | TEACH FOR AMERICA | AUGUST 2017 – MAY 2018

The Engage Delaware Fellowship offers Teach For America Alumni in the Delaware region who have expressed interest in impacting educational outcomes for students opportunities to engage with policymakers and educational leaders in our state while working on a year-long fellowship project.

- Participated in a micro-community whose on-going project is promoting teacher diversity and culturally responsive teaching practices.

RURAL SCHOOL LEADERSHIP FELLOW | TEACH FOR AMERICA | JUNE 2016 – MAY 2018

RSLA supports TFA alumni who are exploring school leadership positions in rural regions while early in their careers in the education sector. Participants in the year-long program learn early school leadership skills, deepen their exposure to the role of the principal, and build a national network of aspiring school leaders in rural communities.

EDUCATOR AS CATALYST FELLOW | DELAWARE DEPARTMENT OF EDUCATION | JUNE 2016

The EAC Fellowship is for exceptional Delaware educators who have a passion for education and want to gain hands-on exposure to policy work.

- Researched and presented policy for the recruitment and retention of educators of color

TEACH FOR AMERICA CORPS MEMBER | JUNE 2014 – JUNE 2016

- Good to Great Fellow
- Homeroom Leader

Certification Tests

- Praxis I Writing (5720) | 176
- Praxis II Special Education Core Knowledge & Applications (5354) | 171
- Praxis II Music Content Knowledge (5113) | 162
- Praxis II English Language Arts (5038) | 196
- Praxis II Elementary Education, all subtests (5032 – 5035) | 187, 170, 197, 168

Teresa E. S. Berry

1000 Woodlytown Road
Magnolia, Delaware 19962

(302) 373-6267
berryt@dcpsmd.org

EDUCATION

Delaware State University, Dover, Delaware
M.A. Curriculum Development, 2000
Minor: Special Education
B.A. History; Political Science, 1984

CERTIFICATION

Administrator I
Administrator II
History 5-12
Special Education

CAREER AWARDS & HONORS

DCPS TOY Nominee 1999-2000, 2003-2004
Aspiring Principals 1997, 2000, 2009& 2012
Service Learning Fellow 1998
Employee Recognition 1999
Who's Who Teachers 2002
Academy Leadership 2009
Starfish Award 2013

Professional Experience

Assistant Principal, Maces Lane Middle School, Cambridge, Maryland 2014-Present
Assisted the principal in overall leadership and management of the school. Aided in recruitment of top educators in Maryland.

Assistant Principal, Sandy Hill Elementary School, Cambridge, Maryland 2013-2014
Assisted the principal in overall leadership and management of the school.

Assistant Principal, Cambridge-South Dorchester High School, Cambridge, Maryland 2007-2014
Assisted principal in overall leadership and management of the school. Coordinated and/or assisted in the scheduling of classes and extra-curricular activities. Assisted in maintaining discipline throughout the student body, dealing with special cases when necessary. Assisted principal in implementing and monitoring curriculum. Monitoring students in various settings and supervising after school activities. Coordinating and assisting in cafeteria duty. Serving with parent, faculty and student groups as requested in advancing educational and related activities and objectives. Performs other duties as assigned.

Dean of Students, Mace's Lane Middle School, Cambridge, Maryland 2005-2007
I set up and created a new program to help those students who were retained under the heading of the Grade Completion Program. Included in this special program title is the refocus program, after school detention school wide, mentoring to the local elementary school and peer mediation? Additionally, I taught two of the grade completion classes and handled discipline for the 8th grade students.

Behavioral Intervention Specialist, Maces Lane Middle School 2003-2005
Set up and organized a Refocus program. This was a school wide program that covered steps to discipline for the classroom teacher. I also set up school wide up lunch and after school detention programs as well as a mediation program.

7th Grade Teacher, Maces Lane Middle School 1995-2003
taught 7th grade American History, Reading and Math enrichment. This included a formal debate, multicultural world reports, Rome Day, Kwanzaa, peer mediation and Renaissance Day.

Calvary Christian Academy, Dover Delaware 1994-1995
Students were involved in learning using the Abeka Curriculum stressing phonics, spelling, math and reading at an exaggerated rate. Under my supervision, the first ever 1st grade sleepover was set up and organized. All teachers participated in a Williamsburg, Virginia Christian Leadership Conference once/year

Cape Henlopen High School, Lewes, Delaware 1994-1995
Subjects taught: Problems of Democracy, American History and Ethnic Studies.

Smyrna High School, Smyrna, Delaware 1991-1993
Subjects taught were World History, American History and Honors American History.

FBLG Middle School, Yigo, Guam 1986-1987
While in Guam, I taught reading, social studies and a mini-course in softball. Set up the first in-school suspension program led me to organize and design a program just for the school.

Student Teaching, Central Middle School, Dover, Delaware 1991
During my student teaching I taught Social Studies and Clinic to over 100 eighth grade students.

Other Related Experience/Activities: 1990-1995
Graduate Assistant, Delaware State University, Dover, Delaware
Organized and developed a Resource Library for Education majors.

Coordinator, National Youth Sports Program, Dover, Delaware 1990-1993
I organized workshops/seminars for children ages 10 – 16

Betsy Renzo
6 York Road, Wilmington, DE 19803
(215) 933-9297
E-mail Address: betsy.cepparulo@gmail.com

Education

- Stanford University, School of Education, Palo Alto, CA** **June 2012**
- Master of Arts in Education: Policy, Organization and Leadership Studies
- Temple Beasley School of Law, Philadelphia, PA** **May 2007**
- Juris Doctor
 - Senior Note/Comment Editor, Temple Political and Civil Rights Law Review
 - SPIN (Student Public Interest Network) Steering Committee
 - Women's Law Caucus
- Skidmore College, Saratoga Springs, NY** **May 2004**
- Bachelor of Arts- Summa Cum Laude in Psychology, Minor in Italian Language
 - Deans list: 2000-2004
 - Phi Beta Kappa; Periclean Honors Society; Psi Chi, National Honors Society in Psychology
- George School, Newtown, PA** **June, 2000**
- High School Diploma

Education Employment

- WAVE Learning System** **August 2020- Present**
Director
- Founder and Director of educational equity nonprofit program that partners with schools to offer support for distance learning during the COVID-19 pandemic.
 - Program management, strategy and organization
 - Supervising, training, and managing team of 15 employees
 - Fundraising and development - writing grants, leading fundraising team meetings, and managing corporate sponsorships
 - Budgeting and finance - overseeing projected cash flow and actual income and debt
 - Cultivating and securing partnerships - drafting and executing memoranda of understanding, negotiating terms of partnership agreements, and meeting with program partners.
 - Overseeing and supervising program operations at multiple sites
 - Drafting policies and procedures for programmatic excellence
 - Responding to student behavioral, academic, and emotional needs
- Wilmington Friends School** **August, 2015-Present**
Grade Dean, Global Peace & Justice Studies Teacher, US History Teacher, Faculty Staff Administration Committee Clerk
- Grade Dean -Ninth and Tenth Grade
 - Full time high school teacher, concentrating on social justice and global/local diversity
 - Clerk- Faculty Staff Administration Committee
 - Founder- Service Learning Committee
- Eastside College Preparatory School** **August, 2013-July, 2015**
AP Government & Politics teacher, Speech & Debate coach, certified Zumba instructor
- Full time teacher AP U.S. Government & Politics
 - Full time teacher Speech & Debate elective
- Aspire Public Schools** **June, 2012-July, 2013**
Executive Specialist to CEO
- Assist the CEO in matters related to Executive functions, including the organization of Board of Directors' meetings, research, writing, reviewing, planning, and organizing internal and external events, documents, and funder relationships.

Legal Employment

Drinker, Biddle & Reath, LLC

August 2017- August 2019

Law Clerk

- Research and writing of legal memoranda, drafting of pleadings, assisting in case management for the corporate real estate team.

Williams & Hand, P.C.

October 2009- July, 2011

Second Year Associate, Doylestown, Pa

- Family law litigation, including divorce, equitable distribution, child custody, spousal support, child support and protection from abuse.

Supreme Court of the Republic of Palau

September 2008-September 2009

Law Clerk for the Four Supreme Court Justices, Koror, Palau

- Draft and research legal memoranda, opinions and orders; advising the legislature on drafting new legislation, administer and grade the Palau Bar Examination, assist the judges with trial and motions.

United States District Court for the Eastern District of Pennsylvania

September 2007- August 2008

Law Clerk for the Honorable Cynthia M. Rufe, Philadelphia, Pa

- Draft and research legal memoranda, opinions and orders; research and assist the judge in trial and motions.

Defender Association of Philadelphia

May 2006-May 2007

Legal intern, Philadelphia, PA

- Oral advocacy in motions, bench warrant hearings and preliminary arraignments; client interviewing and advising; researching and brief writing; negotiating plea bargains and diversionary programs.
- Extensive training in criminal defense and appellate issues.

Volunteer

Bryan Allen Stevenson School for Excellence

Aug. 2017- Present

Founding Board Member & Secretary of the Board, Sussex County, DE

- Opening in the Fall of 2022, the Bryan Allen Stevenson School for Excellence will be the first public charter school of its kind in Sussex County, Delaware. Modeled after author, lawyer and Equal Justice Initiative Executive Director Bryan Stevenson’s work with underserved communities, the school will provide learning and service opportunities for traditionally underserved students.

Publications and Awards

- **High School Curriculum Fellowship 2017**, International Center on Nonviolent Conflict. Grant for developing curriculum and teaching unit on civil resistance movements and nonviolent direct action.
- **Pennsylvania Family Lawyer**, Volume 32, Issue No. 1, March, 2010; *Gruber Test not Controlling Where children Relocated Pursuant to Earlier Order: R.M.G., Jr. v. F.M.G.*, 986 A.2d 1234 (Pa. Super. 2009). Reviews and summarizes the law in this case note.
- **Temple Political and Civil Rights Law Review**, Fall 2006; *Unveiling the Juvenile Purgatory: Is Life Really Better than Death?* Makes an argument for a proportionality review of crime and punishment for juveniles receiving mandatory life without parole following the abolition of juvenile capital punishment.

Personal

- Zumba Fitness Instructor, YMCA

January, 2012- Present

References: References available upon request

CURRICULUM VITAE

Katherine L. Cauley

Personal Data

Citizenship United States of America
Home Address 11 Sabrina Drive Rehoboth Beach, Delaware 19971
Home Telephone 937 469 1695
Email katherine.cauley@wright.edu

Education

MCP Hahnemann University, Executive Leadership in Academic Medicine, 2000
University of Maryland, PhD, 1985
University of Cincinnati, MEd, 1978
DePauw University, BA, 1974

Professional Experience, *Highlights*

Wright State University, Dayton Ohio 1993-Present

Professor Emeritus, Retired

Professor, School of Medicine, School of Public Health, and School of Professional Psychology, where I developed and taught the service learning curriculum with a focus on interprofessional community-based clinical training for health professions students

Vice-Chair Department of Community Health

Director, Center for Healthy Communities, for which I secured over \$5million in grants and contracts annually to support community-academic partnerships and interdisciplinary curricular development

Director, International Education, placing fifty students a year in developing countries

Director, Community Engaged Scholarship and Teaching for the University

Published over forty peer reviewed books and articles, made over 100 national and international presentations at professional conferences; provided numerous domestic and international consultations; provided extensive service to the academy and the community

Served as board chair and board member on numerous community based educational and social services organizations

Presidential Award for Faculty Excellence in Community Engagement

George Washington University, Washington, DC 1989-1993

Assistant Professor, Department of Psychology

Director, AIDS Policy Center

Iona College, New Rochelle, New York 1985-1989

Associate Professor, Psychology, Freshman Year Experience

Director, Psychological Service Center

Updated December, 2021

Women's Legal Defense Fund, Washington, DC 1983-1985

Prince George's County Public Schools, Maryland 1976-1983
Bowie, Oxon Hill High Schools, Oxon Hill Junior High School,
English, Speech and Theater

Deer Park High School, Cincinnati, Ohio 1974-1976
English, Speech and Theater

Volunteer Experience in Retirement, present

Dialogue Toward Action

Group Facilitator for Anti-racist Workshops

Braver Angels at <https://braverangels.org/our-story/>

Delaware State Coordinator, trained Moderator for workshops aimed at bridging the political divide and encouraging civil dialogue in communities

Bryan A. Stevenson School of Excellence <https://www.basseinc.org/>

Board of Directors, Secretary, Member, Development Committee Member,
Education Committee Member

CAMPRehoboth <https://www.camprehoboth.com/>

Grants Committee, volunteer at various public events

Center for Inland Bays <https://www.inlandbays.org/>

Support Center activities with time and enthusiasm

ESL Program with Lutheran Church of Our Savior <https://tinyurl.com/esllcos>

Advisory Board Chair, Level 3 Instructor

University of Delaware, Biden School of Public Policy and Administration

Advisory Board member

Selected Publications relevant to Service Learning Curricular Development
Cauley, K., & Sweeney, R. (2007). Strengthening diversity through community
and civic engagement: Sustaining the student-institution-community
relationship. *Metropolitan Universities Journal*, Vol. 18 (1). (R)

Updated December, 2021

- Cauley, K., Canfield, C., Clasen, C., Dobbins, J., Hemphill, S., Jaballas, E., & Walbroehl, G. (2001). Service learning: Integrating student learning and community service. *Education for Health*, Vol. 14(2), pgs. 173-181. (R)
- Cauley, K. (2000). Principle 1: Partners have agreed-upon mission, values, goals and measurable outcomes for the partnership. In Connors, K., & Seifer, S. (Eds). *Partnership Perspectives*, Issue II, Volume I, San Francisco, California: Community-Campus Partnerships for Health. (invited)
- Canfield, A., Clasen, C., Dobbins, J., Cauley, K., Hemphill, S., Rodney, M., & Walbroehl, G. (2000). Service-learning in health professions education: A multiprofessional example. *Academic Exchange*, Vol. 4, pgs. 102-108. (R)
- Cauley, K. (2000). Integrating student learning objectives with community service objectives through service learning in health professions schools curricula. *Community Campus Partnerships for Health National Conference*, Pre-conference Publication. (Invited)
- Cauley, K., Jaballas, E., & Holton, B. (2000). Medical students go back to kindergarten: Service learning and medical education in the public schools. In Seifer, S., Hermanns, K., & Lewis, J. (Eds.). *Concepts and Models for Service Learning in Medical Education*. Washington, D.C.: American Association for Higher Education. (R)
- Cauley, K., Maurana, C., & Clark, M. (1995). Service learning for health professions students in the community: Matching enthusiasm, talent, and time with experience, real need and schedules. In Raybuck J. (Ed.). *Expanding Boundaries in Service and Learning*. Washington, D.C.: Cooperative Education Association, pgs. 54-57. (R)

Please inquire through telephone or email for additional or more detailed information. Thank you.

Denise M. Snyder

25382 S. Oak Drive, Millsboro, DE 19966
(h) 302-934-8655 (c) 302-542-8305
dsnyder2558@gmail.com

“...Mrs. Snyder makes students feel accepted, valued and successful. Her interactions emphasize positive outcomes. She builds on the contributions of students. She shows sensitivity and assists when needed...”

Mary Bixler
former administrator, East Millsboro Elementary School

“...Mrs. Snyder assesses her own performance by consistently having discussions with peers and supervisors. She makes an effort to improve upon what she knows and is doing as it relates to performance and learning...”

Lesia Jones
Supervisor of Special Projects
Indian River School District

Professional Profile

Energetic and enthusiastic coordinator and leader who is involved in local church, district, conference and jurisdictional ministries within the United Methodist Church.

Recently retired from the Indian River School District, July 1, 2014

- Holds Masters Degree in Elementary Education and Bachelors Degree in Special Education. Also certified in Early Childhood Education.
- Experienced in use of the Internet and educational as well as office software.
- Dedicated to enthusiastic and dynamic teaching and leading as a means of creating and nurturing a lifelong love of knowledge in children, youth and adults.
- Dedicated to providing resources and education surrounding the issues of Social Justice that interfere with success for all persons.

Education, Honors and Certifications

B.S. Special Education

Bloomsburg University, Bloomsburg, PA 1980

M.S. Elementary Education

Salisbury University, Salisbury, MD 1995

Kappa Delta Pi Honor Society Member

Professional Certifications

Early Childhood Education

Key Qualifications

Certified in Elementary (K-6) and Special Education (0-21), Certified in Early Childhood Education (birth-2), Certified Lay Speaker, Dover District Lay Leader (United Methodist Church), Member of Nominations Team for Northeastern Jurisdiction of United Methodist Women (United Methodist Church), President of the Northeastern Jurisdiction of United Methodist Women (United Methodist Church).

Plan and instruct participants using wide variety of teaching aids, motivational and implementation strategies to engage participants in active learning.

Incorporate learning modality principles into small group and individual instruction. Develop and conduct inter-generational activities. Utilize resources available through various sources. Design and adapt curriculum to fit individual needs for children, youth and adults.

Coordinate meetings, instruction, activities, etc. as well as take part in all of these when necessary.

Working currently with United Methodist Women to enhance Vacation Bible School and Sunday School Curriculum making the lessons friendlier for teachers and students with disabilities.

Author of the Children’s Study for United Methodist Women Mission u 2018, “What About Our Money”.

"...always eager to learn how to improve and further develop partnerships that foster success. ...flexible to outside demands without compromising her core principles..."

Darlene St. Peter,
former supervisor.

"My ability to share my love of learning with children, youth and adults is truly a gift I acknowledge and accept."

Denise Snyder

Experienced Educator

Designed and conducted various faculty, student and parent workshops for training and educational purposes. Coordinator of program for Early Childhood Special Needs children for 6 years. Classroom teacher for 29 years. Conducted tutoring sessions for students. Planned and implemented busing/transportation for Early Childhood Special Education students. Provided in-service training for teachers. Conducted evaluations for students to determine if Special Education services were needed. Maintained records of student progress and Individual Education Plans. Worked in conjunction with State of Delaware Birth to 3 program staff to insure smooth transitions between our programs for parents and students.

Experienced Leader within the United Methodist Church

Planned and conducted worship services in my local church as well as throughout the Peninsula-Delaware Conference of the United Methodist Church. Held various positions within the local church such as Administrative Council Secretary, Family Ministries Coordinator, Sunday School Superintendent, Local Missions Coordinator, Youth Council Co-Leader.

Planned and conducted workshops and trainings for United Methodist Women including being the Dean for the School of Christian Mission for a 2 year term. Planned and conducted District and Conference training events such as The Well, District training days, United Methodist Women District Events, etc.

Dover District Lay Leader, elected June 2012. Northeastern Jurisdiction United Methodist Women Nominations Team Member, elected May 2012. Northeastern Jurisdiction United Methodist Women President, elected May 2016, Usher for Peninsula-Delaware Annual Conference 2008-2015. President Dover District United Methodist Women. Secretary Peninsula-Delaware Conference United Methodist Women, Vice President Peninsula-Delaware Conference United Methodist Women.

Currently working with United Methodist Women Northeastern Jurisdiction Leadership Team to plan and hold our quadrennial event on the Waterfront in Baltimore, MD in 2020. This event includes nationally known speakers, service projects for participants, overnight lodging and meals. We anticipate 600 attendees for the event.

Theological Base through Lay Servanthood

Certified Lay Speaker within the Peninsula-Delaware Annual Conference. The following courses have been completed: Basic Lay Servant, Living Our Beliefs, Go Preach, Leading Worship, Devotional life in the Wesleyan Heritage, Discovering Spiritual Gifts. I am also an avid reader. Among the books I have recently read are: Educated, Just Mercy, Unapologetic, Catch the Fire, So You Want to Talk About Race, American Like Me, No Justice, White Rage, Homegoing, Small Great Things, Worshiping With United Methodists, Renegade Gospel, Why I Am a United Methodist, Cross Talk, UnChristian...What a new generation really thinks about Christianity, White Like Me, Finding Our Way...Love and Life in the United Methodist Church.

Computer Skills

- **Software:** Microsoft Windows®, Microsoft Office including Word, Publisher, Excel and PowerPoint.
- Working knowledge of the Internet
- Working knowledge of social media such as Facebook

Employment

Educator

- **Special Education Teacher, Early Childhood through grade 5, Indian River School District, August 1980 to June 2008**
- **Coordinator for Transitioning Our Toddlers to School program, Indian River School District, August 2008 to July 1, 2014**
- **Special Education Coordinator, Middle and High School grades 6-12, Sussex Academy, October 2016 to June 30, 2018**

Professional Affiliations

National Association for the Education of Young Children
Teachers Network Leadership Institute Fellow
Delaware State Education Association
National Education Association
Delaware State Education Association Retired
United Methodist Women

Community Service

Volunteer at West Side New Beginnings teaching Vacation Bible School to students during June and July. Topics include managing money, being a leader, loving others, managing behavior, success in school.

Prepare meals at the Soup Kitchen of Grace United Methodist Church, Millsboro every Thursday.

Serve on multiple committees within the Peninsula-Delaware Annual Conference of The United Methodist Church.

Teach Mission u classes in Baltimore, MD and Reading, PA dealing with Social Justice concerns.

Teach healthy cooking classes as a Pampered Chef Consultant.

Karl J. Armand

karl_armand@comcast.com

2871 Aramingo Avenue/ Philadelphia/ PA | 19134 | tel: 609.284.7956

EDUCATION: WIDENER UNIVERSITY, Delaware Law School, Wilmington, DE

Juris Doctor, Graduation: December 2016

Delaware Journal of Corporate Law - Widener Law Review

TEMPLE UNIVERSITY, Fox School of Business, Philadelphia, PA

Bachelor of Business Administration, Graduation: August 2009

MAJOR: Law and Business

People First Certificate in Human Resource Management

EMPLOYMENT HISTORY:

COMCAST BUSINESS, Philadelphia, PA

National Contracts Manager

January 2018– Present

- Managed compliance checks, and negotiated contractual documents including RFPs and NDAs for mid-market, local and federal government, and education agreements.
- Onboarded and trained new CHQ contract team members; designed and facilitated E-Rate contract training for national sales and support teams; moderated contract compliance team ENPS huddles- including month to month data tracking/analysis and escalation followup.
- Leveraged knowledge of telecom products/services while coordinating among business, legal, and finance teams to create positive customer experiences and ongoing relationships.

J.P. MORGAN CHASE, Newark, DE

Compliance Analyst- Money Laundering Investigator

November 2017– January 2018

- Performed investigations on high profile financial accounts based on political entanglement and banking trends to determine risk factors, uncover illegal acts and analyze client fit.
- Enforced corporate and banking regulations to ensure compliance and avoid violations.

DI CROCE LAW OFFICE, Shamong, NJ

Law Clerk/Summer Associate

April 2017– October 2017

- Performed legal research, drafted pleadings, briefs, contracts and non-disclosure agreements.
- Handled criminal defense, real estate/property, corporate/small business cases and lawsuits.

CHESTER COUNTY DISTRICT ATTORNEY'S OFFICE, West Chester, PA

Certified Legal Prosecuting Intern

May 2016 – December 2016

- Appeared in court on behalf of Chester County District Attorney for Preliminary Hearings.
- Analyzed complaints, prosecuted crimes and negotiated plea agreements in criminal cases.

WEITZ & LUXENBERG, Cherry Hill, NJ

Paralegal/Legal Intern

April 2015 – August 2015

- Drafted motions and prepared asbestos product information packages for asbestos litigation.
- Perform research on bankrupt corporations with histories of asbestos exposure to employees.

TUCKER LAW GROUP, Philadelphia, PA

Paralegal

September 2009– September 2013

- Managed personal injury and employment/EEOC cases from client intake through resolution.
- Portfolio included litigation on behalf of and against corporations, hospitals, and universities.

SKILLS & PROGRAMS

- MS Office, MS OneDrive, MS Teams, Pramata, Salesforce, Sharepoint, Westlaw.

Karen V. Higgins

Phone: 302-595-4122

Cellular: 240-350-6265

E-mail: kvalhig@gmail.com

322 Friedman Dr

New Castle, DE 19720-5625

Employment Status – Retired May 31, 2013

Education

Master of Arts, Business and Organizational Security Management
Webster University - 2004

Bachelor of Science, Criminal Justice
University of Delaware - 1978

Certifications

USPS Advanced Leadership Program – 2004: Nominated and successfully completed a management leadership program sponsored by the U.S. Postal Service. Attendees selected from a cross section of employees nationwide. Focus of the program included personal awareness, business foundations, business decision making, and strategic business planning. Successful candidates were recognized with engraved bricks in the foundation of the U.S. Postal Service training facility in Potomac, MD.

Criminal Law Paralegal – 1978: Attended and successfully completed the Institute for Para-Legal Training, Philadelphia, PA obtaining certification as a Criminal Law Paralegal. Employed as a para-legal specializing in subrogation cases for the law firm of White & Williams.

Post-Retirement:

January 2018 – Present: Founding Board Member, Bryan Allen Stevenson School of Excellence

July 2014 – Present: Board of Directors, Priority Plus Federal Credit Union, Newport Delaware

April 2014 – May 2019: Northern View Management Corporation, Homeowner's Association
Board of Directors

March 2014 – Present: Volunteer Tutor, Literacy Delaware (formerly Literacy Volunteers Serving Adults), Basic Reading

Employment

Spanning a career of 32 years with the U.S. Postal Service. I worked in an entry level clerk position for approximately four years before reaching my objective of becoming a postal inspector in the U.S. Postal Inspection Service. A postal inspector is a federal law enforcement agent with responsibility for the protection of postal employees, facilities and assets.

Responsibilities of postal inspectors include, but are not limited to mail fraud, corporate fraud and other financial crimes: money laundering, emergency preparedness, disaster management, mail theft, corporate security, and executive protection. I have worked in each of these areas as either a primary assignment or as the manager/executive responsible for the function.

Positions Held

April 2011 – May 2013: Inspector in Charge, Philadelphia Field Division - Executive position with responsibility for a field division encompassing the Eastern and Central Districts of Pennsylvania, Southern New Jersey and the State of Delaware.

March 2005 – April 2011: Inspector in Charge, Intelligence Group – Executive position with responsibility for management of Headquarters based groups supporting the investigative and security functions of the U.S. Postal Inspection Service. Duties included liaison with Information Technology and development of investigative databases, oversight for the Career Development Unit, Technical Services Division, and the Polygraph Unit. Offices located in Washington, DC, Arlington, VA and Potomac, MD.

July 2004 – March 2005: Assistant Inspector in Charge Washington Field Division – Provided direct supervision of four team leaders and the Manager of the Postal Police Division (armed uniform security officers) making a team of approximately 160 employees covering the District of Columbia and the States of Maryland and Virginia. Areas of focus included revenue fraud, personnel and facilities security, dangerous mail substances, and financial crimes investigations. Office location Columbia, MD.

September 2002 – July 2004: Assistant Inspector in Charge, Manager, Project Services Group – Direct report to the Assistant Chief Postal Inspector, responsible for the development of nationally focused projects to support investigative and security programs. Office location Washington, DC.

October 1999 – September 2002: Assistant Inspector in Charge, Strategic Planning and Management Process – Responsible for development of the Annual Performance Plan in compliance with the Government Performance and Results Act (GPRA). Assisted in the development of the Inspection Service five-year strategic plan. Office location Washington, DC.

September 1995 – September 1999: Team Leader, Revenue Investigations – Supervisor of team of federal agents responsible for investigating crimes, which defrauded the Postal Service of revenue. Office location Philadelphia, PA.

July 1989 – September 1995: Postal Inspector Field Agent – Working Revenue Investigations, Internal Crimes, and Internal Narcotics Investigations in a team environment and holding responsibility for development of individual case load. Performed analysis and coordination leading to the arrest and conviction of multiple subjects in each functional area. Office location Newark, NJ.

September 1985 – July 1989: Postal Inspector Field Agent – Twelve-week basic training program followed by initial field assignment. Reopened an unstaffed domicile with a primary focus on external crimes including mail theft, assaults, robberies and burglaries. Office locations Potomac, MD and Chattanooga, TN.

April 1981 – September 1985: Clerk craft employee with varying assignments in mail processing. Office locations Philadelphia, PA and Wilmington, DE.

Amy Golden-Shepherd

Director of Diversity, Equity, and Inclusion
School Librarian

amygoldshep@gmail.com

302-379-9474

Diversity, equity, and inclusion educator and leader who facilitates trainings for faculty and staff and provides opportunities for students to thrive in their school experience. Preschool through eighth grade independent school educator and librarian.

Skills & Expertise

- Anti-racist Education
- Racial Identity Awareness
- Microaggression/
Microaffirmation Instruction
- Affinity Group
Implementation
- Parent
Education
- Strong Writing Skills
- Event Management
- Extensive knowledge of
children's literature

Professional Experience

St. Anne's Episcopal School | Middletown, DE

Director of Diversity, Equity, and Inclusion

Librarian (2005-Present)

Introduced and implemented a robust diversity, equity, and inclusion training plan for faculty and staff. Developed a student diversity council for middle school students and implemented affinity groups. Compiled an anti-racist/racial literacy curriculum for Preschool-Eighth Grade.

- Researches and invites top diversity and inclusion experts to lead multiple sessions on crucial topics.
- Provides opportunities for all students to feel valued, heard, and affirmed in their identities.
- Facilitates parent education opportunities
- Provides access to print and digital resources to teachers and students.

*In the time of Covid-19, created and implemented an equitable distance learning program for students unable to return to school in person.

Bryan Allen School of Excellence | Sussex County, DE

Board Member, Community Engagement Subcommittee Chair (2018-Present)

Boys and Girls Club of Delaware | Middletown, DE (2003-2004)

Education Director for a school site.

Chester Upland School District | Chester, PA (1998-2002)

First Grade Teacher in a bilingual first grade class

Education

Cornell University, Diversity and Inclusion Certificate 2018

Temple University, B.S. Early Childhood and Elementary Education

BRADLEY OWENS, J.D.

Wilmington, Delaware
brad@socialcontract.org
(302) 745-7380

For the past decade, I have immersed myself in the criminal justice system, dedicating my work to helping those who have been marginalized and incarcerated, especially those who also suffer from mental health, substance use, and chronic health disorders. Over time, I have developed the approach to address these social issues with evidence-based practices, while also pursuing solutions that incorporate social entrepreneurship, healthy living, and community collaboration. In efforts to actualize my ambitious vision to create lasting social change, I deliberately developed my skills in technical writing, public speaking, and interpersonal communication. Below are specific areas of expertise and interests.

- Criminal justice systems
- Prison reentry services
- Capital punishment
- Juvenile justice
- Case management
- Cognitive behavioral treatment
- Program design & implementation
- Project management
- Staff training & development
- Quality assurance & improvement
- Nonprofit management
- Grant writing
- Public speaking
- Social entrepreneurship

EDUCATION

Charlotte School of Law | Charlotte, North Carolina
Juris Doctor (2015) | Magna Cum Laude; GPA 3.57 (Top 10%)

Delaware Law School | Wilmington, Delaware
Paralegal Certificate (2012) | GPA 4.0

West Chester University of Pennsylvania | West Chester, Pennsylvania
Bachelor of Science, Criminal Justice (2010) | Cum Laude; GPA 3.3

RELEVANT EXPERIENCE

Social Contract, LLC | Wilmington, DE | socialcontract.org
Senior Consultant, July 2020 – Current

- Manage the *Advancing Wilmington Through the Workforce Project* which includes the design and implementation of *Central: a capacity building entity for DE social service programs*.
- Support State of Delaware contracts related to the Department of Corrections, cognitive behavioral treatment programs, and reentry services.

Delaware Psychological Services | Newark, DE | delawarepsychologicalservices.com
Director of Outreach and Engagement, Nov. 2019 – July 2020

- Develop and sustain relationships with client referral sources (e.g., hospitals, psychiatric centers, primary care providers, prisons, inpatient treatment centers, schools, etc.).
- Supervise Peer Support staff to ensure high quality “in-reach” and service linkage.
- Provide training and resources on evidence-based practices, including CBT, motivational interviewing, employment practices, etc.

Connections Community Support Programs | Delaware (Statewide) | connectionsensp.org

Training Coordinator | Correctional Behavioral Health Programs, Nov. 2017 – Current (PT)

- Train program staff in cognitive behavioral treatment (CBT) group facilitation and program fidelity to ensure close adherence to principles of effective intervention.
- Lead fidelity monitoring and new program implementation efforts in the Key/Crest Program, the largest residential treatment program in Delaware correctional facilities (over 400 active participants).

Director | Reentry Planning Services, November 2017 - June 2019

- Directed and managed reentry team (10 FTEs) to provide reentry planning services for over 300 incarcerated or formerly incarcerated individuals per month.
- Prioritized services for individuals with significant chronic care, mental health, and substance abuse needs.

Project Manager | Opioid Use Disorder Case Management Project, March - June 2019

- Managed the launch of a two-year, \$600K State Opioid Response Grant in partnership with the Delaware Division of Substance Abuse and Mental Health and the Delaware Department of Corrections.
- Led upstart of a case management team (4 FTEs) to identify, engage, and connect pretrial inmates to community-based Opioid Use Disorder treatment resources upon release from jail.

Lead Trainer & Group Facilitator | Think Things Through CBT Program, Nov. 2017 – Current

- Managed the implementation of a new CBT program, Think Things Through, in Delaware prisons (using curricula from Univ. of Cincinnati Correctional Institute).
- Currently facilitating two group cohorts at Howard R. Young Correctional Institution.

Delaware Center for Justice | Wilmington, Delaware | dcjustice.org

Reentry Navigator, October 2015 - November 2017

- Served as a case manager at the Achievement Center in partnership with the Wilmington HOPE Commission, provided case management services for high-risk men returning to the community following incarceration, and facilitated over 300 CBT groups.
- Played a critical role in the Reentry Court Program with the Superior Court and with Probation and Parole department in New Castle County.
- Achieved 95% employment rate for clients served in FY 2016. Out of 41 enrolled clients in FY 2016, only four clients received new felony charges.

8th Amendment Project | Charlotte, North Carolina | 8thamendment.org

Law Clerk, November 2014 - May 2015

- Assisted with the campaign to abolish the death penalty in the State of Delaware.
- Compiled data and analysis on restitution and inmate employment statutes from each State's Department of Corrections (data used to support arguments for policy reform).
- Conducted legal research and drafted memoranda regarding execution methods and the constitutionality of the death penalty.

MHM Services, Inc. | Dover, Delaware | mhm-services.com

Sex Offender Treatment Specialist, August 2010 - April 2012

- Implemented sex offender treatment program in Delaware prisons, co-facilitated daily group sessions, and interviewed hundreds of inmates eligible for treatment participation.

COMMUNITY SERVICE

Jordyn K. Owens Memorial Foundation | Delaware

Founder, 2010

- 501(c)(3) fund established with the Delaware Community Foundation in memory of my younger sister, Jordyn Owens.
- Traveled to Delaware high schools to speak on issues related to underage drinking, drug use, and decision-making. Spoke to tens of thousands of teenagers between 2010-2015.

Blueprint Communities | Wilmington, Delaware

Core Team Member, 2016 - 2017

- Served on planning committees focused on community redevelopment initiatives throughout Northeast Wilmington.
- Provided insight and advice related to current community crime issues, economic development plans, and community organizing.

Invisible to Invincible | Charlotte, North Carolina

Co-Founder, 2014

- Created youth mentoring program for incarcerated youth (ages 16-17).
- Program has served hundreds of youth and is still in operation today.

BUSINESS AND CONSULTING SERVICES

Conflux, LLC – “Where ideas and solutions come together.”

Founder & Managing Member (Est. 2019), bradowens@conflux302.com

- General consulting services on projects related to the areas of expertise outlined above.

COMMITTEES, BOARD MEMBERSHIPS, CERTIFICATES & AWARDS

Co-Chair, Case Management Committee, Delaware Correctional Reentry Commission (Current)

Board Member, Bryan Allen Stevenson School of Excellence (2018 - Current)

Certified Lead Trainer, CBT Programming, Univ. of Cincinnati Correctional Institute (2018)

Award Recipient, Judge Haile L. Alford Excellence Award, MJL Section of the DSBA (2016)

REFERENCES

Kathleen Jennings
Attorney General
Delaware Dept. of Justice
kathleen.jennings@delaware.gov
(302) 379-4445

Jim Elder
Former Bureau Chief, Correctional Healthcare
Services, Delaware Dept. of Corrections
james.elder@delaware.gov
(302) 222-4272

Honorable Charles Butler
Judge, New Castle County Superior Court
charles.butler@delaware.gov

Cerron Cade
Delaware Secretary of Labor
cerron.cade@delaware.gov
(302) 983-4621

Dr. Robin Timme
Chief Psychologist, Connections, CSP
rtimme@connectionscsp.org
(302) 383-4099

Dr. Dorothy Dillard
Director, Center for Neighborhood
Revitalization & Research
Delaware State University
ddillard@desu.edu

(302) 893-1131

Charles Madden
Director of Talent Acquisition
Delaware Prosperity Partnership
cmadden@choosedelaware.com
(302) 588-6259

(302) 753-1406

Corie Priest
Community Engagement
Delaware Attorney General's Office
cpriest@delaware.gov
(302) 298-5302

JOSEPH HILL KIM, DO FAAFP

123 Village Drive

Seaford, Delaware 19973

302-629-7166 (h) 443-614-7454 (c)

daekim@aol.com (h) joseph.h.kim@tidalhealth.org (w)

CERTIFICATION

Fellow, American Academy of Family Physicians
2013-current
Board Certified in Family Medicine
2006-current

PROFESSIONAL LICENSES

Delaware Physician License

POSTGRADUATE TRAINING

St. Francis Hospital
Family Medicine Residency
Wilmington, Delaware
June 2003-June 2006

EDUCATION

Philadelphia College of Osteopathic Medicine, Philadelphia, Pennsylvania
Doctor of Osteopathy
August 1999-June 2003
Salisbury State University, Salisbury, Maryland
Bachelor of Science, Summa cum Laude
Major: Biology
August 1994-June 1998

EMPLOYMENT

Family Physician, TidalHealth Medical Partners, Laurel, Delaware

- Provide inpatient and outpatient care
- Nanticoke Physician Network
- February 2009-current

Hospitalist, Nanticoke Memorial Hospital, Seaford, Delaware

- Provide part time coverage for hospitalists
- October 2007-2015

Medical Director, Peninsula Home Care, Seaford, Delaware

- Provide medical guidance in home care
- 2009-2018

Family Physician, Office of Curtis Smith, DO, Laurel, Delaware

- Provided inpatient, nursing home, and outpatient care
- August 2006-January 2009

House Physician, St. Francis Hospital

- Provided emergent care for hospital patients
- Directed cardiac and respiratory codes

- October 2004-2006

HONORS, AWARDS, AND ACTIVITIES

Alternate Delegate, American Academy of Family Physicians Congress of Delegates

- March 2019-current

Clinical Assistant Professor, Philadelphia College of Osteopathic Medicine

- July 2019-current

Clinical Assistant Professor of Family and Community Medicine, Sidney Kimmel Medical College of Thomas Jefferson University

- January 2019-current

Clinical Instructor, Philadelphia College of Osteopathic Medicine

- January 2019-July 2019

President-Elect of Medical Staff, Nanticoke Memorial Hospital

- January 2019-current

Board of Director Member, Nanticoke Memorial Hospital

- January 2019-current

Committee Member, eBright Health, LLC. Choosing Wisely Work Group

- July 2018-current

Chairperson, Family Practice Department, Nanticoke Health Services

- January 2017-2018

Chairperson, Nanticoke Integrated Health Alliance

- July 2015-2019

Director, Medical Student Education, Nanticoke Health Services

- July 2015-current

Member, Workforce and Education Committee, Delaware Center for Health Innovation

- October 2014-2018

Board of Director Member, Nanticoke Health Systems

- January 2011-December 2014

President of Medical Staff, Nanticoke Memorial Hospital

- January 2013-December 2014

Chairperson, Bylaws Committee, Nanticoke Memorial Hospital

- January 2011-2013

Board of Director Member, Delaware Academy of Family Physicians

- May 2012-current

President, Delaware Academy of Family Physicians

- May 2012-2013

Treasurer, Sussex County Medical Society

- 2010-2011

Speaker, Delaware Heart Truth

- Educate prevention, assessment, and treatment of cardiovascular disease in women

- 2010-2011

Chairperson, Family Practice Department, Nanticoke Health Services

- January 2009-December 2010

Sussex Child Health Promotion Coalition Member, Seaford, Delaware

- 2008-2010

Peer Review Committee Member, Nanticoke Memorial Hospital

- 2008-2010

Chief Resident, St. Francis Family Medicine

- 2005-2006

PROFESSIONAL MEMBERSHIPS

Delaware Academy of Family Physicians

- 2003-present

Medical Society of Delaware

- 2003-2017

American Academy of Family Physicians

- 2000-present

COMMUNITY AND VOLUNTEER EXPERIENCES

President, Kim and Evans Family Foundation, Inc.

- January 2018-current
- Our mission is to better the lives of disadvantaged people and animals in Sussex County and beyond.

Board of Director Member, Bryan A. Stevenson School of Excellence, Georgetown, DE

- January 2020-current

Board of Director Member, the Jefferson School, Georgetown, Delaware

- May 2014-June 2020

Preceptor for students

- Teach and mentor nurse practitioner and medical students
- 2009-current

Coordinator for Salisbury University Pre-Medical Student Shadowing Program

- Established program for qualified pre-medical students to follow community physicians
- 2010-current

INTERESTS

Preventive medicine, travelling, mentoring students, community fund-raising

REFERENCES

Available upon request

Diaz J. Bonville

Diaz, the fifth eldest of two brothers and three sisters was born December 24, 1955 to the late Roland Harrison Bonville, Sr. and the late Sara Bell Shockley Bonville. He grew up in Slaughter Neck, Delaware and attended public schools in Slaughter Neck and the Cape Henlopen School District graduating in 1973. He went on to attend College at Delaware Technical and Community College in Georgetown, Delaware, where he received an Associate's Degree in Human Services with a strong concentration in program management and administration.

Diaz lives in Rehoboth with his wife of thirty seven years, the former Linda Elizabeth Duffy. Together, they have three daughters, Dilinda, 1999 graduate of Cape Henlopen High School and a Paraprofessional for the Cape Henlopen School District; Latoya, 2006 graduate of Grambling State University, Grambling, Louisiana, and Jalisa, a 2012 graduate of Howard University, Washington, D.C.

Diaz is Co-Founder/Volunteer OF the West Rehoboth Children & Youth Program, a community based after-school and summer enrichment program for at-risk, low-income, disadvantaged youth.

In addition to his school work duties, Diaz is quite busy in his church as well. He is a member of Faith United Methodist Church in Rehoboth, Delaware where he serves on several ministries to include administrative council assistant, care team, finance, health education/wellness, lay leader, pastor parish relations, trustees, worship, text message ministry, and vision team. Diaz is a volunteer on several community organizations. He has over thirty years' experience in mobilizing and organizing at-risk communities, children, youth and their families, church and after school and summer enrichment programs.

He was the first in his family to graduate from high school and college. As an African American, he has many first. He was the first African American Community Prevention Coordinator for the cities of Rehoboth Beach and Lewes, the first to receive the Delaware Technical and Community College Alumni Walk of Success, first Community Home-Liaison for the Indian River School District TOTS Program, first to serve as president of the Coalition for West Rehoboth, first African American to serve as Safety Educator for Sussex County, first African American School / Community Home Liaison for the Indian River School District A.P.E.L.L. (Accelerating Preliterate English Language Learners) Program, first African American to serve as Kent/Sussex Outreach Coordinator for U.S. Congresswoman Lisa Blunt Rochester (Delaware At-Large)

Diaz church, school and community involvement has brought him several honors and rewards. His volunteerism has gained local, state, and national media attention to include two televisions commercial to educate the community about prostate cancer and cauterization. In his spare time, Diaz enjoys reading, traveling, writing, public speaking, mentoring, volunteering and the Spanish culture. His favorite quote is "To whom much is given much is expected" and "Moving On – Moving Forward."

Diaz J. Bonville

35681 Wolfeneck Road
Rehoboth, Delaware 19971
(Home) 302-645-7544 – (Cell) 302-528-2265
(E-Mail) Diaz122455@aol.com

Objective: To obtain a professional position in the Human Services field / Politics where I can apply my diverse skills in a myriad of settings.

EMPLOYMENT EXPERIENCES

U.S. Congresswoman Lisa Blunt Rochester Delaware-At-Large) Kent/Sussex County Outreach Coordinator (2017 – Present)

Responsibilities Include:

- Supervise staff and oversee downstate office;
- Speaks to local groups when the Congresswoman is not available;
- Travels throughout the Kent and Sussex Counties to keep abreast of local concerns;
- Meets with elected officials and representatives of local groups on behalf of the Congresswoman;
- Prepares periodic reports for the State Director on pending cases and district activities in Kent and Sussex Counties.

INDIAN RIVER SCHOOL DISTRICT

Family Service Coordinator (2017 - Retired)

Responsibilities Include:

- Initiate collaborative partnerships with parents to establish mutual trust and respect.
- In collaboration with other staff, as appropriate, assess each family's need for social services; develop an individualized plan that responds to the family's need; deliver and/or coordinate the delivery of needed social services to each family; review and update;
- Collaborate with other staff, as appropriate, to develop individualized Family Partnership Agreements (FPA) that describe the family's goals, strengths, responsibilities and timetables and strategies for achieving these goals; build upon any pre-existing family plans; review and revisit with families so the FPA remains current and useful; monitor; analyze; aggregate; report.
- Provide comprehensive community resource information to families, individualizing to respond to the family's needs and concerns to the maximum extent possible;
- Refer families to community agencies/programs; assess accessibility, relevance and usefulness of assistance received;
- Assist with the establishment and maintenance of ongoing collaborative relationships with community organizations responsive to the concerns of the families of children birth through age 5, pregnant women and their families; participate in community awareness events.

INDIAN RIVER SCHOOL DISTRICT

**A.P.E.L.L. (Accelerating Preliterate English Language Learners)
School / Community Liaison – (2014 – 2017).**

Responsibilities Include:

- Act as a school contact for family.
- Interpret cross-cultural information.
- Assess family needs.
- Explain school policies and community resources available.
- Connect families with accessing food banks and donated clothing.
- Assist with registration.
- Conduct interview with family and student in regards to past schooling experiences.
- Assess students' level of proficiency in native language.
- Explain program options and graduation requirements.
- Medical information and immunizations.
- Translate school communications.
- Interpret parent conferences, school meetings, school events.
- Conduct home visits as necessary.
- Assist students with transition between programs, schools, events.
- Serve as an advocate for students.
- Assist students with scheduling, home work, and after school and summer school programs.
- Consult with home school teachers and counselors in regards to students' needs.
- Communicate with families in regards to students' progress.
- Assist with assessment of students' strengths and weaknesses, collaborate with family, community, A.P.E.L.L. teachers / paras and home school teachers / seek support from community agencies for students and their families, attend parent meetings as needed.

INDIAN RIVER SCHOOL DISTRICT

**T.O.T.S. (Transitioning Our Toddlers To School) Community Home-Liaison
(2010 – 2014).**

Responsibilities Include:

- Interrupter/Translator for Hispanic population.
- Assists teachers in the instructional process.
- Works with students, parents, education staff, school, and community to identify eligible students.
- Works closely/on-going communication with teachers/administration at all facilities.
- Conducts Home and Community-Based visits.
- Advises families of T.O.T.S. and community resources.
- Maintain student's records and protects their confidentiality, as directed by program coordinator.
- Performs other assigned duties.
- Builds partnerships with community members from district poverty pockets.
- Providing transportation for T.O.T.S. students when needed.

INDIAN RIVER SCHOOL DISTRICT

Student Advisor (1999 – 2010)

Responsibilities Include:

- Assists students in dealing with academic, social and career expectations as they relate to a multi-cultural, multi-racial community.
- Develops a relationship between students, home, teachers, and administration to help students emotionally, socially, and academically.
- Works to prevent students from dropping out of school.
- Interfaces with minority populations on a regular basis.
- Increases the academic, social, and vocational expectations of the total student population. Advises and assists the student population in obtaining the services provided by other agencies for the betterment of the student, family, and school.
- Provides individual and/or group advisory services in relation to students' school experiences, progress in learning, and interaction with the community.
- Consults and cooperates with school and pupil personnel services, and teachers to discover and to help develop abilities of students.
- Works with students on an individual basis in the solution of personal problems related to home and family relations, health, and emotional adjustment.
- Works to improve student's self-image and career aspirations.

INDIAN RIVER SCHOOL DISTRICT

Bridges Coordinator/Summer School Administrator Part Time). This is a professional position in the field of providing remedial educational services to middle/high school students **(2000 Summer Only).**

Responsibilities Include:

- Participation in staff orientation.
- Notify potential participants.
- Register participants and maintain attendance records.
- Assist in staff training.
- Communicate transportation needs to the Director of Instruction.
- Finalize student lists.
- Supervise daily program activities.
- Keep daily staff attendance records.
- Communicate substitute needs to the building principal.
- Submit teacher and student attendance records.
- Serve as liaison between teachers and District Office.
- Oversee Bridges post-test administration.
- Submit high school pass-fail rosters, grades, and course counts.
- Record "pre-test and post-test" data.
- Compile and submit gains data.
- Track student daily attendance
- Submit attendance roster.
- Gather and submit final grades.
- Calculate and submit staff hours.

WEST REHOBOTH CHILDREN AND YOUTH PROGRAM, REHOBOTH, DELAWARE.

Co-Founder/Program Director. This is a community based program for low-income /at-risk children and youth ages 5-15. **(Part Time 2002 – 2017).**

Responsibilities Include:

- Planning and organizing a structured curriculum for at risk youth.
- Provide cultural educational enrichment activities, computer tutorial, homework assistance, health and nutritional programs and educational field trips.
- Designing and implantation of a flexible, after school program.
- Oversees volunteers, peer helpers, youth leaders, activities including submission of weekly reports.
- Completion of all record keeping, attendance, monthly narratives, time sheets, and reimbursement reports.
- Myriad of secretarial duties.
- Collection, verification and submission of employee time sheets.
- Planning and coordinating programs with the Executive Director, including arts and crafts, culture enrichment, health and welfare and nutrition education.
- Assists with other duties as directed by executive director.
- Prepare press releases and contact media for special programs.

CHILD, INC. FAMILY SUPPORT & PARENT EDUCATION SERVICES.

Parent Education Instructor (Part Time Position) – This is a professional position in the field of providing families and educators with the knowledge and resources that will help families become an integral part of their children's educational process **(Part Time 2000 – 2003)**

Responsibilities Include:

- Conducting parent training sessions.
- Assisting in development of curriculum.
- Coordinating activities with consultant trainers as well as with volunteers.
- Identifying program participants whom may need to be brought to the attention of the Division of Social Services or referred for clinical services.
- Communicate effectively, particularly in public speaking and instruction.
- Ability to prepare accurate reports and communications in writing.

JOBS FOR DELAWARE GRADUATES, INC., GEORGETOWN, DELAWARE.

Summer Worksite Trainer/Coordinator – This is a professional position in the field of assisting academically at-risk youth during the summer subsidized employment experience **(June 2001 – August 2001 and June 2002 – August 2002 Summer Part Time).**

Responsibilities Include:

- Assist in the recruiting and qualifying phase of the program.
- Provide employer orientation to subsidized employment goals and procedures.
- Evaluate each workday to plan integration of learning rich workplace activities, and to develop SCANS comprehensive and work skills.

- Conduct participant orientation to the workday; establish work site procedures and expectations.
- Provide ongoing job and like skills training and counseling to participants.
- Integrate learning rich activities into the work place in conjunction with employers.
- Oversee the participants' work.
- Work with the employer/supervisor to evaluate participants' work habits and needs.
- Address special needs of participants to assist them in achieving work place competencies.
- Act as a liaison and ombudsperson on behalf of participants with Social Service Administrators and other professionals to address specific issues.
- Maintain accurate records and portfolios for participants.
- Submit weekly reports, time sheet and other data as required in reporting guidelines.
- Plan and implement recognition activities for participants who have achieved work place competencies.
- Assume other responsibilities as mutually agreed upon by the Worksite Trainer/Coordinator and the designated County Career Specialist.

CITY OF REHOBOTH BEACH, DELAWARE REHOBOTH BEACH, DELAWARE. Community Prevention Coordinator (1991 - 1995). The community prevention coordinator is responsible for mobilizing/organizing the community to address the issue of substance abuse prevention. This is a full-time position hired by and answerable to city government.

Responsibilities Include:

- Meet all local officials, inform them about the DECCASA program and explore the development of partnerships.
- Conduct outreach to local groups including churches, civic groups, businesses, schools, parent groups, youth groups, labor organizations, etc. to generate an awareness of the project and a growing enthusiasm for the prevention of substance abuse. Help these groups to form linkages with local government and with each other.
- Assist local groups to identify ways in which they can begin to promote substance abuse prevention.
- Represent the community at Cluster meetings, form appropriate linkages.
- Provide Above The Influence training to all interested groups (at least 200 people per year) in the community, attempting to reach as many people as possible with the most extensive ATI training.
- Attend weekend training retreat to learn about and become immersed in the ATI culture-based change model.
- Plan diversion activities for community youth age 12 - 15, as specified in the WCASA Model.
- Work closely with the mayor and city government.
- Provide culture-based change intervention strategies designed to impact community norms and values about alcohol and other drug use and abuse.
- Responsible for grant writing, fund raising, development of volunteer resources, and new program design and implementation.
- Coordinating and supporting Community Advisory Board in doing fund raising and in conducting Community Needs and Resource Assessments And Prevention Action Plans.

**UNIVERSITY OF DELAWARE CO-OPERATIVE EXTENSION,
GEORGETOWN, DELAWARE. (1995 – 1999)**

Extension Agent/Safety Education – This is a professional position in the field of highway safety, injury prevention and community education.

Responsibilities Include:

- Planning and coordination of comprehensive, multi-disciplinary highway safety program for Sussex County.
- Develop and maintain computer database for highway crashes/incidents from information from Delaware State Police and other agencies to determine priority-programming needs.
- Develop, implement, and monitor countywide community highway safety education and awareness activities.
- Responsible for the administrative day-to-day operations of the Sussex County CTSP office including accounting, personnel supervision, preparing county and state reports, and completing and maintain state reimbursement.
- Plan, write, and coordinate media campaigns to insure continuous, effective coverage of noteworthy highway safety activities.
- Develop highway safety-related materials to provide information, education, and awareness to citizens of county.
- Prepare safety grant proposals for ongoing financial support of CTSP in county.
- Identify additional sources of revenue to support projects.
- Perform other related duties as may be assigned by Extension Safety Specialist.

**DELMARVA CLERGY UNITED FOR SOCIAL ACTION, INC., ELLENDALE,
DELAWARE (Administrator Temporary Part Time)**

Responsibilities Include:

- Develops and coordinates grant-funded programs for community based programs.
- Reviews literature dealing with funds available through grants from government agencies and private foundations to determine feasibility of developing programs to supplement local annual budget allocations.
- Discusses program requirements and sources of funds available with Administrative Board and personnel.
- Confers with personnel affected by proposed program to develop program goals and objectives, outline how funds are to be used, and explain procedure necessary to obtain funding.
- Works with fiscal officer in preparing narrative justification for purchase of new equipment and other budgetary expenditures.
- Writes grant application, according to format required, and submits application to funding agency and foundation.
- Meets with representatives of funding sources to work out final details of proposal.
- Directs and coordinates evaluation and monitoring of grant-funded program or write specifications for evaluation or monitoring of program by outside agency.

- Assists administrative personnel in writing periodic reports to comply with grant requirements.
- Maintains master files on grants.
- Monitor paperwork connected with grant-funded programs.

EDUCATION

- Associates Degree in Human Services, Delaware Technical & Community College, Georgetown, Delaware.

STACIE BURTON

24925 Johnson Road • Georgetown, DE 19947 • (302) 344-5724
stacie.burton@yahoo.com

PASSIONATE PHILANTHROPIC ADVOCATE

Positive change advocate passionate about diversity training, social justice, urban planning, and community organization. Strategic planner values variety in perspectives, ideas, and contributions of community builders. Proven interpersonal, communications, and multi-tasking skills within a fast-paced environment. Team leader who exercises high integrity while driving productivity. Seeking leadership opportunities and is dedicated to creating positive changes within communities.

EDUCATION & EMPLOYMENT

Master of Science in Management – Organizational Leadership - 2017

Master of Science in Management – Public Administration – 2015

Bachelor of Science in Business Management – 2014

Wilmington University, Georgetown, DE

Office of the Governor

Community Liaison and Keep Delaware Litter Free Coordinator

2018- Present
Statewide for Delaware

- Staff the governor at various events and meetings.
- Meet with stakeholders, community leaders and organizations as a conduit to the governor.
- Prepare briefing memos for the governor.
- Organize and establish partnerships for community cleanup efforts.
- Coordinate and plan events to advance governor's message and agenda.

Staff Assistant and Constituent Relations Support

2016-2018

Dover, DE

- Assist staff with all administrative needs.
- Create cases in Sales Force for constituents and provide timely responses to inquiries.
- Build relationships with every state agency liaison to assist with case work processes.
- Provide help with tracking, printing and delivering tributes and proclamations.

DELAWARE MENTOR

Direct Support Professional

2015 – 2017

Georgetown, DE

- Structure activities towards increasing self-confidence, self-awareness, and leadership development for teens.
- Partner with clinical staff to devise individual behavioral plans while providing transportation for various outings.
- Uphold energetic atmosphere encouraging active participation, positive role modeling, and peer/group motivation.
- Record client activities, important behavioral details and progresses.

Delaware Democratic Party

Field Organizer

Aug – Nov, 2016

Georgetown, DE

- Tactfully recruited and managed volunteers and consistently trained them in one-on-one and group settings.
- Set and achieved measurable targets by meeting strategic goals and exceeding challenges with a positive attitude and outcomes.

SUSSEX COUNTY GOVERNMENT

Accountant I

2006 – July 2016

Georgetown, DE

- Perform management of operations: planning, deadline compliance, and program development.
- Prove proficiency in accounting functions consisting of general accounting, journal entry preparation, general ledger, payroll, reconciliations, budgeting, financial statement research and conducted profit/loss reviews.

NOTEWORTHY CERTIFICATIONS

- NIH Training Certification for Protecting Human Research Participants, 2015
- Fair Housing Act I, 2014
- Interpersonal Communication, Telephone Etiquette, and Customer Service Training, 2014

COMMUNITY INVOLVEMENT

- **National Board Member**, Turning Point Suffragist Memorial (TPSM)
- **Board Member**, Foster Grandparents Advisory Council
- **Board Member**, Innocence Delaware
- **Board Member**, National Coalition of 100 Black Women (NCBW)

DERICK D. DAILEY
ddailey6@gmail.com | (267) 303-1992

EDUCATION

Fordham University School of Law, New York, NY 2017
J.D., *Louis Stein Scholar*
National Black Law Students Association, *National Chair* (2016-17)

Yale University, New Haven, CT 2014
M.A., Theology and Ethics, *Dames Scholar*
Yale Presidential Public Service Fellow

Westminster College, Fulton, MO 2011
B.A., Political Science, *Triple "S" Scholar*; Senior of the Year

EXPERIENCE

Davis & Gilbert LLP, New York, NY 2021 – present
Litigation Associate

United States Attorney's Office, Wilmington, DE 2019 - 2021
Assistant United States Attorney

Chief of the Financial Litigation Unit: responsible for the collection of debt and litigation stemming from debt owed to victims of criminal and civil judgments, including but not limited to, civil fraud prosecutions, criminal restitution, defaults on government loans, environmental fines, and overpayments made by the United States and various government programs; conducts depositions and debtor examinations, responsible for millions in outstanding debt, manages over 300 active files, supervises FLU Paralegal, and partners with local and state agencies

Civil/Criminal Litigation: manages complex general defensive litigation, tax, and healthcare fraud cases with a focus on the Federal Tort Claims Act, the False Claims Act and the Anti-Kickback Statute, handles civil rights and affirmative enforcement litigation involving ADA matters and spearheads the Sexual Harassment in Housing Initiative; handles white-collar criminal matters from indictment to sentencing

Consumer Bankruptcy and Corporate Financial Restructuring: responsible for chapters 7, 11, and 13 bankruptcy matters, including adversary proceedings

Other Responsibilities: federal representative on the District's Re-entry Court; serves as a member of the office's Leadership Council; and coordinator of the Summer Law Clerkship Program

Dowd Bennett LLP, St. Louis, MO 2017- 2019
Litigation Associate

Participated in all phases of trial preparation in state and federal court, including discovery, case management and strategy, depositions, and motion practice; defended claims including those under the False Claims Act and the Anti-Kickback Statute; assisted on regulatory corporate compliance matters for a number of Fortune Global 100 companies; managed a federal prisoner's 1983 claim in federal court; settled a labor and employment claim involving a shooting at a national bank headquarters; served as Special Advisor to the St. Louis City Circuit Attorney's Office relating to criminal justice issues; and assisted in the development of the report of the Ferguson Commission after the shooting of Michael Brown in Ferguson, Missouri.

Legal Extern, Eastern District for New York

Researched and drafted memoranda relating to white-collar and public corruption matters; drafted Responses to 3582(c)(2) Motions to Modify Terms of Imprisonment

Brennan Center for Justice at NYU School of Law, New York, NY

2015

James E. Johnson Legal Intern

Researched and drafted memoranda relating to municipal voter identification programs and campaign finance reform and assisted in publishing "*The 50-State Student Voter Guide and Building a Diverse Bench: A Guide to Judicial Nominating Commissioners.*" (2016).

Teach For America, Blytheville, AR

2011- 2012

5th and 6th grade Teacher

Taught Middle School Reading, Social Studies and English/Language Arts; co-founded the Parent-Teacher Partnership and facilitated community engagement opportunities

LEADERSHIP AND CIVIC ENGAGEMENT

- Yale Club of Philadelphia Board, *Director* (2019 - present)
- Bryan Allen Stevenson School for Excellence Board, *Director* (2019 - present)
- Whitney/Strong Foundation Board, *Director* (2019 - present)
- ArchCity Defenders Board, *Director* (2019); Young Friends Chairperson
- Merit Selection Panel for U.S. Magistrate Judge Hon. Nanette A. Baker, *Member* (2018)
- Justice Revival, *Board Member* and *Treasurer* (2017 – present)
- Yale Black Alumni Association Board, *Director* and *Executive Officer* (2015 – 2019)
- Bread for the World, Bread for the World Institute and the Alliance to End Hunger Board, *Director* and *Executive Officer* (2009 – 2017)

PUBLICATIONS

- Contributing Author, *Lament and Hope*, Bread for the World Newsletter, Washington, D.C. (2019)
- *Righteous Resistance: A Church on the Margins*, Justice Revival Blog, Washington, D.C. (2018)
- Contributing Author, *Mr. President: Interfaith Perspectives on the Historic Presidency of Barack Obama*, Sims Publishing, Washington, D.C. (2017)
- *Divine Possibility: Ending Hunger by 2030*, New Haven: Yale University Press. (2014)

SELECT SPEECHES AND PRESENTATIONS

- Lecturer, Political Science Department at Rutgers University – New Brunswick, New Brunswick, NJ (2019)
- Panelist, Parkway Center City Middle College, Philadelphia, PA (2019)
- Panelist, Public Interest Law Day at Villanova Law School, Villanova, PA (2019)
- Executive Lecturer, *Theo-Legal Imagination: Doing the Right Thing, In the Right Way, For the Right Reasons*, Hancock Symposium on Democracy, Westminster College, Fulton, MO (2019)
- Keynote Speaker, KIPP St. Louis 2019 Senior Pennant Ceremony, St. Louis, (2019)
- Presenter, *Freedom of Religious Expression in the Prison Context*, Continuing Legal Education Course, Dowd Bennett 2019 Firm Retreat, Boca Grande, FL (2019)
- Moderator, *The Power and Purpose of a Black Prosecutor*, featuring St. Louis City Circuit Attorney Kimberly Gardner and St. Louis County Prosecutor Wesley Bell, Washington University – St. Louis School of Law, St. Louis, MO (2018)
- Keynote Speaker, Westminster College Freshman Convocation, Fulton, MO (2017)

BAR ADMISSIONS

- Admitted in District of Columbia and State of Missouri; New York (admission pending)

PROFESSIONAL ASSOCIATIONS

- American Bar Association; National Bar Association and Federal Bar Association

Jonathan Edwards
(302) 535-1025
jonathan.edwards21@yahoo.com

Education

Bachelor of Behavioral Science, May 2014, Delaware State University

Work Experience

Loft Realty, Licensed Salesperson, July 2020 to Present

- Analyze market trends, conditions, and activities to accurately advise clients in competitive markets
- Build and maintain relationships with clients to ensure satisfactory transactions
- Manage appointments and show homes to prospective buyers
- Generate list of properties based on buyers needs
- Help clients list homes for sale and prepare competitive market analysis

Citizens National Bank, Change Agent, June 2020 to Present

- Helping to implement and create new ways to bank across our footprint
- Coaching branches on how to improve systems and processes
- Managing information and data through different waves of change across our footprint
- Brainstorming with team leads on effective ways to bring quality transition and effective change
- Maintaining and leading branches through certification processes

Citizens National Bank, Universal Banker, March 2019 to June

2020

- Engage with customers to develop a positive customer experience; strive to make each customer interaction the best experience of their day
- Develop new and existing customers by understanding their financial needs, providing products and solutions to help them spend and save
- Go above and beyond for customers to strengthen and retain long term relationships
- Grow new business and drive referrals to branch colleagues and partners to support the broader financial needs of customers
- Serve as the financial liaison to customers while providing world class customer service
- Open new accounts and assist with teller transactions as needed
- Bring a positive energy and confidence to Citizens Bank and its customers every day
- Receive consistent laudatory comments from customers and leadership alike

Sallie Mae, Personal Loan Banker, April 2018 to January 2019

- Initiates the start-to-finish process for new personal loans
- Assists customers with disbursement issues and online access
- Maintains monthly disbursement goal of 700k-1 million+
- Ensures customers have knowledge of comparative interest rates and benefits
- Markets the benefits of our loan product to ensure our customers make informed decisions

Sallie Mae, Collector I, September 2017 to April 2018

- Communicate with debtors in regards to the repayment of their delinquent debt
- Profile debtors and obtain financial information. Update demographic and financial information on each call. Negotiate the best possible arrangements.
- Refer accounts for legal or administrative wage garnishment processes if applicable as dictated by department and/or client requirements.
- Work within FDCPA, state regulations, department/division & DMO Compliance Policies.
- Maintain clear, concise and accurate documentation of all attempts and/or contacts made and received for accounts in accordance with company and client specifications.
- Maintain current knowledge of and comply with all federal and state rules and regulations governing collections including FDCPA, Privacy Act, FCRA, etc.

Incorporating Services, Ltd., Client Services Assistant, February 2017 to July 2017

- Responsible for assisting in corporate formations and filings
- Filing of company charter documents
- Retrieval of corporate record retrievals
- Handle phone call requests for expedited filing or retrievals
- Assist with UCC searches and filings
- Provides nationwide services to wide range of clientele, law firms, accounting firms and other corporate service companies

Jonathan Edwards
215 Thornton Street, Dover, DE 19901

Dover Federal Credit Union, Member Service Representative, June 2015 –September 2016

- Promoted to Member Services Representative assuming responsibility for interviewing loan applicants, obtaining credit reports for all accounts, verifying debts, reviewing credit reports for adverse history, credit inquiries, and debt repayment information
- Wholly met and exceeded all established consumer and personal loans goals by \$550k over 4 month period!
- Fully responsible for timely, accurate, and complete loan file submissions to loan processors and underwriters thus developing good professional relationships enabling timely loan application movement
- Above and beyond customer interaction which results in alleviating customer concerns by keeping them updated on the status of their loan by face to face interaction and follow up phone calls

Dover Federal Credit Union, Call Center Representative, April 2015-June 2015

- Name-selected to assist in Call Center because of exceptional customer service skills and talent for dealing with difficult customers.
- Responsible for handling incoming phone calls from members and other departments to research errors and member issues.
- Calmed difficult members by can-do attitude, compassion, and concern.
- Skillful in active listening; identified and recommended products and services to help meet members' needs.

Dover Federal Credit Union, Teller, June 2014 - April 2015

- Balanced currency, coin, and checks in cash drawers at ends of shifts, and calculated daily transactions using computers, calculators, or adding machines.
- Cashed checks and paid out money after verifying that signatures are correct, that written and numerical amounts agree, and that accounts have sufficient funds.
- Received checks and cash for deposit, verified amounts, and checked accuracy of deposit slips.
- Examined checks for endorsements and verified other information such as dates, bank names, identification of the persons receiving payments and the legality of the documents.
- Entered customers' transactions into computers in order to record transactions and issue computer-generated receipts.

Honors

Sallie Mae Top Performer, April 2018, Member Sigma Alpha Pi, National Society of Leadership and Success*Member of Chi Alpha, Campus Ministries *Member of National Society of Collegiate Scholars* Delaware State University Academic Scholarship Recipient*Aspire Scholarship Recipient

Licenses

Delaware Real Estate Salesperson License

Skills & Service

Audio Engineering and Production for Pentecostals of Dover since 2015
Production Lead Coordinator for Convoy of Hope Dover

**Section 1.2 - Founding Group and School Leadership :: Attachment 1 ::
Founding Group resumes**

Chantalle J. Ashford

23069 Meadow Wood Ct Unit 307, Seaford, DE 19973 | (757) 561 - 7417 | cjashford@email.wm.edu | chantalle.ashford@irsd.k12.de.us | chantalle@basseinc.org

Education

EDUCATION DOCTORATE | 2023 | AMERICAN UNIVERSITY SCHOOL OF EDUCATION

- Education Leadership and Policy

MASTER'S IN ART OF TEACHING | 2017 | RELAY GRADUATE SCHOOL OF EDUCATION

- Major: English Language Arts

BACHELOR OF ARTS | 2014 | THE COLLEGE OF WILLIAM & MARY

- Major: Psychology
- Minor: Africana Studies

Work Experience

EDUCATIONAL EQUITY TEACHER CONSULTANT | DE DEPARTMENT OF EDUCATION | AUGUST 2018 – PRESENT

- Advises the development of the state's educator equity strategic plan
- Plans for the Educator Equity Summit
- Engages with stakeholders
- Plans for culturally relevant pedagogy training
- Plans for systems-level equity training and supports

LEAD MENTOR TEACHER | TEACH FOR AMERICA-RELAY DELAWARE SUMMER INTENSIVE | APRIL 2017 – JULY 2017

- Coached Teach For America Corps Members
- Planned and Facilitated professional development for TFA Corps Members

CHORUS/ENGLISH/SPECIAL EDUCATION | INDIAN RIVER SCHOOL DISTRICT | AUGUST 2014 – PRESENT

- Planned and instructed choir and general music
- Plans and instructs secondary English
- Facilitates various student activities (Drama Club, Poetry Out Loud, Class)
- Serves as a member of the Instructional Leadership Team

INSTRUCTIONAL COACH | TEACH FOR AMERICA SUMMER COLLABORATIVE | FEBRUARY 2015 – JULY 2015

- Facilitated one on one professional development conversations with counselors
- Led professional development for counselors
- Assisted in the development of curriculum and lesson plans
- Assisted in operational functions

Board Service

VICE BOARD CHAIR | THE BRYAN ALLEN STEVENSON SCHOOL OF EXCELLENCE, INC. | OCTOBER 2017 – PRESENT

- Plans and leads board meetings
- Engages in strategic planning
- Engages in stakeholder engagement

- Other duties as assigned by the Board Chair

BOARD CO-CHAIR | TFA COLLECTIVE – DELAWARE CHAPTER | AUGUST 2016 – PRESENT

- Plans and leads board meetings
- Plans and participates in organizational events
- Supports current corps members and alumni of color

ADVISORY BOARD MEMBER | DELAWARE CAMPAIGN FOR ACHIEVEMENT NOW | JANUARY 2017 – PRESENT

- Advises Executive Director on organizational plans at annual board meetings
- Attends and participates in organization events
- Supports the organization as requested

Related Experience

DELAWARE WRITING PROJECT FELLOW | DE DEPARTMENT OF EDUCATION | OCTOBER 2018 – APRIL 2019

CCSSO DIVERSE LEARNER READY TEACHERS | DE DEPARTMENT OF EDUCATION| APRIL 2018 – APRIL 2019

The Diverse Learner Ready Teacher convenings are organized and hosted by the Council of Chief State School Officers as an effort to diversify the education workforce and support future and current educators in effectively teaching students of different cultural backgrounds.

- Selected as a member of the Delaware delegation

ENGAGE DELAWARE FELLOWSHIP | TEACH FOR AMERICA | AUGUST 2017 – MAY 2018

The Engage Delaware Fellowship offers Teach For America Alumni in the Delaware region who have expressed interest in impacting educational outcomes for students opportunities to engage with policymakers and educational leaders in our state while working on a year-long fellowship project.

- Participated in a micro-community whose on-going project is promoting teacher diversity and culturally responsive teaching practices.

RURAL SCHOOL LEADERSHIP FELLOW | TEACH FOR AMERICA | JUNE 2016 – MAY 2018

RSLA supports TFA alumni who are exploring school leadership positions in rural regions while early in their careers in the education sector. Participants in the year-long program learn early school leadership skills, deepen their exposure to the role of the principal, and build a national network of aspiring school leaders in rural communities.

EDUCATOR AS CATALYST FELLOW | DELAWARE DEPARTMENT OF EDUCATION | JUNE 2016

The EAC Fellowship is for exceptional Delaware educators who have a passion for education and want to gain hands-on exposure to policy work.

- Researched and presented policy for the recruitment and retention of educators of color

TEACH FOR AMERICA CORPS MEMBER | JUNE 2014 – JUNE 2016

- Good to Great Fellow
- Homeroom Leader

Certification Tests

- Praxis I Writing (5720) | 176
- Praxis II Special Education Core Knowledge & Applications (5354) | 171
- Praxis II Music Content Knowledge (5113) | 162
- Praxis II English Language Arts (5038) | 196
- Praxis II Elementary Education, all subtests (5032 – 5035) | 187, 170, 197, 168

Teresa E. S. Berry

1000 Woodlytown Road
Magnolia, Delaware 19962

(302) 373-6267
berryt@dcpsmd.org

EDUCATION

Delaware State University, Dover, Delaware
M.A. Curriculum Development, 2000
Minor: Special Education
B.A. History; Political Science, 1984

CERTIFICATION

Administrator I
Administrator II
History 5-12
Special Education

CAREER AWARDS & HONORS

DCPS TOY Nominee 1999-2000, 2003-2004
Aspiring Principals 1997, 2000, 2009& 2012
Service Learning Fellow 1998
Employee Recognition 1999
Who's Who Teachers 2002
Academy Leadership 2009
Starfish Award 2013

Professional Experience

Assistant Principal, Maces Lane Middle School, Cambridge, Maryland 2014-Present
Assisted the principal in overall leadership and management of the school. Aided in recruitment of top educators in Maryland.

Assistant Principal, Sandy Hill Elementary School, Cambridge, Maryland 2013-2014
Assisted the principal in overall leadership and management of the school.

Assistant Principal, Cambridge-South Dorchester High School, Cambridge, Maryland 2007-2014
Assisted principal in overall leadership and management of the school. Coordinated and/or assisted in the scheduling of classes and extra-curricular activities. Assisted in maintaining discipline throughout the student body, dealing with special cases when necessary. Assisted principal in implementing and monitoring curriculum. Monitoring students in various settings and supervising after school activities. Coordinating and assisting in cafeteria duty. Serving with parent, faculty and student groups as requested in advancing educational and related activities and objectives. Performs other duties as assigned.

Dean of Students, Mace's Lane Middle School, Cambridge, Maryland 2005-2007
I set up and created a new program to help those students who were retained under the heading of the Grade Completion Program. Included in this special program title is the refocus program, after school detention school wide, mentoring to the local elementary school and peer mediation? Additionally, I taught two of the grade completion classes and handled discipline for the 8th grade students.

Behavioral Intervention Specialist, Maces Lane Middle School 2003-2005
Set up and organized a Refocus program. This was a school wide program that covered steps to discipline for the classroom teacher. I also set up school wide up lunch and after school detention programs as well as a mediation program.

7th Grade Teacher, Maces Lane Middle School 1995-2003
taught 7th grade American History, Reading and Math enrichment. This included a formal debate, multicultural world reports, Rome Day, Kwanzaa, peer mediation and Renaissance Day.

Calvary Christian Academy, Dover Delaware 1994-1995
Students were involved in learning using the Abeka Curriculum stressing phonics, spelling, math and reading at an exaggerated rate. Under my supervision, the first ever 1st grade sleepover was set up and organized. All teachers participated in a Williamsburg, Virginia Christian Leadership Conference once/year

Cape Henlopen High School, Lewes, Delaware 1994-1995
Subjects taught: Problems of Democracy, American History and Ethnic Studies.

Smyrna High School, Smyrna, Delaware 1991-1993
Subjects taught were World History, American History and Honors American History.

FBLG Middle School, Yigo, Guam 1986-1987
While in Guam, I taught reading, social studies and a mini-course in softball. Set up the first in-school suspension program led me to organize and design a program just for the school.

Student Teaching, Central Middle School, Dover, Delaware 1991
During my student teaching I taught Social Studies and Clinic to over 100 eighth grade students.

Other Related Experience/Activities: 1990-1995
Graduate Assistant, Delaware State University, Dover, Delaware
Organized and developed a Resource Library for Education majors.

Coordinator, National Youth Sports Program, Dover, Delaware 1990-1993
I organized workshops/seminars for children ages 10 – 16

Betsy Renzo
6 York Road, Wilmington, DE 19803
(215) 933-9297
E-mail Address: betsy.cepparulo@gmail.com

Education

- Stanford University, School of Education, Palo Alto, CA** **June 2012**
- Master of Arts in Education: Policy, Organization and Leadership Studies
- Temple Beasley School of Law, Philadelphia, PA** **May 2007**
- Juris Doctor
 - Senior Note/Comment Editor, Temple Political and Civil Rights Law Review
 - SPIN (Student Public Interest Network) Steering Committee
 - Women's Law Caucus
- Skidmore College, Saratoga Springs, NY** **May 2004**
- Bachelor of Arts- Summa Cum Laude in Psychology, Minor in Italian Language
 - Deans list: 2000-2004
 - Phi Beta Kappa; Periclean Honors Society; Psi Chi, National Honors Society in Psychology
- George School, Newtown, PA** **June, 2000**
- High School Diploma

Education Employment

- WAVE Learning System** **August 2020- Present**
Director
- Founder and Director of educational equity nonprofit program that partners with schools to offer support for distance learning during the COVID-19 pandemic.
 - Program management, strategy and organization
 - Supervising, training, and managing team of 15 employees
 - Fundraising and development - writing grants, leading fundraising team meetings, and managing corporate sponsorships
 - Budgeting and finance - overseeing projected cash flow and actual income and debt
 - Cultivating and securing partnerships - drafting and executing memoranda of understanding, negotiating terms of partnership agreements, and meeting with program partners.
 - Overseeing and supervising program operations at multiple sites
 - Drafting policies and procedures for programmatic excellence
 - Responding to student behavioral, academic, and emotional needs
- Wilmington Friends School** **August, 2015-Present**
Grade Dean, Global Peace & Justice Studies Teacher, US History Teacher, Faculty Staff Administration Committee Clerk
- Grade Dean -Ninth and Tenth Grade
 - Full time high school teacher, concentrating on social justice and global/local diversity
 - Clerk- Faculty Staff Administration Committee
 - Founder- Service Learning Committee
- Eastside College Preparatory School** **August, 2013-July, 2015**
AP Government & Politics teacher, Speech & Debate coach, certified Zumba instructor
- Full time teacher AP U.S. Government & Politics
 - Full time teacher Speech & Debate elective
- Aspire Public Schools** **June, 2012-July, 2013**
Executive Specialist to CEO
- Assist the CEO in matters related to Executive functions, including the organization of Board of Directors' meetings, research, writing, reviewing, planning, and organizing internal and external events, documents, and funder relationships.

Legal Employment

Drinker, Biddle & Reath, LLC

August 2017- August 2019

Law Clerk

- Research and writing of legal memoranda, drafting of pleadings, assisting in case management for the corporate real estate team.

Williams & Hand, P.C.

October 2009- July, 2011

Second Year Associate, Doylestown, Pa

- Family law litigation, including divorce, equitable distribution, child custody, spousal support, child support and protection from abuse.

Supreme Court of the Republic of Palau

September 2008-September 2009

Law Clerk for the Four Supreme Court Justices, Koror, Palau

- Draft and research legal memoranda, opinions and orders; advising the legislature on drafting new legislation, administer and grade the Palau Bar Examination, assist the judges with trial and motions.

United States District Court for the Eastern District of Pennsylvania

September 2007- August 2008

Law Clerk for the Honorable Cynthia M. Rufe, Philadelphia, Pa

- Draft and research legal memoranda, opinions and orders; research and assist the judge in trial and motions.

Defender Association of Philadelphia

May 2006-May 2007

Legal intern, Philadelphia, PA

- Oral advocacy in motions, bench warrant hearings and preliminary arraignments; client interviewing and advising; researching and brief writing; negotiating plea bargains and diversionary programs.
- Extensive training in criminal defense and appellate issues.

Volunteer

Bryan Allen Stevenson School for Excellence

Aug. 2017- Present

Founding Board Member & Secretary of the Board, Sussex County, DE

- Opening in the Fall of 2022, the Bryan Allen Stevenson School for Excellence will be the first public charter school of its kind in Sussex County, Delaware. Modeled after author, lawyer and Equal Justice Initiative Executive Director Bryan Stevenson’s work with underserved communities, the school will provide learning and service opportunities for traditionally underserved students.

Publications and Awards

- **High School Curriculum Fellowship 2017**, International Center on Nonviolent Conflict. Grant for developing curriculum and teaching unit on civil resistance movements and nonviolent direct action.
- **Pennsylvania Family Lawyer**, Volume 32, Issue No. 1, March, 2010; *Gruber Test not Controlling Where children Relocated Pursuant to Earlier Order: R.M.G., Jr. v. F.M.G.*, 986 A.2d 1234 (Pa. Super. 2009). Reviews and summarizes the law in this case note.
- **Temple Political and Civil Rights Law Review**, Fall 2006; *Unveiling the Juvenile Purgatory: Is Life Really Better than Death?* Makes an argument for a proportionality review of crime and punishment for juveniles receiving mandatory life without parole following the abolition of juvenile capital punishment.

Personal

- Zumba Fitness Instructor, YMCA

January, 2012- Present

References: References available upon request

CURRICULUM VITAE

Katherine L. Cauley

Personal Data

Citizenship United States of America
Home Address 11 Sabrina Drive Rehoboth Beach, Delaware 19971
Home Telephone 937 469 1695
Email katherine.cauley@wright.edu

Education

MCP Hahnemann University, Executive Leadership in Academic Medicine, 2000
University of Maryland, PhD, 1985
University of Cincinnati, MEd, 1978
DePauw University, BA, 1974

Professional Experience, *Highlights*

Wright State University, Dayton Ohio 1993-Present

Professor Emeritus, Retired

Professor, School of Medicine, School of Public Health, and School of Professional Psychology, where I developed and taught the service learning curriculum with a focus on interprofessional community-based clinical training for health professions students

Vice-Chair Department of Community Health

Director, Center for Healthy Communities, for which I secured over \$5million in grants and contracts annually to support community-academic partnerships and interdisciplinary curricular development

Director, International Education, placing fifty students a year in developing countries

Director, Community Engaged Scholarship and Teaching for the University

Published over forty peer reviewed books and articles, made over 100 national and international presentations at professional conferences; provided numerous domestic and international consultations; provided extensive service to the academy and the community

Served as board chair and board member on numerous community based educational and social services organizations

Presidential Award for Faculty Excellence in Community Engagement

George Washington University, Washington, DC 1989-1993

Assistant Professor, Department of Psychology

Director, AIDS Policy Center

Iona College, New Rochelle, New York 1985-1989

Associate Professor, Psychology, Freshman Year Experience

Director, Psychological Service Center

Updated December, 2021

Women's Legal Defense Fund, Washington, DC 1983-1985

Prince George's County Public Schools, Maryland 1976-1983
Bowie, Oxon Hill High Schools, Oxon Hill Junior High School,
English, Speech and Theater

Deer Park High School, Cincinnati, Ohio 1974-1976
English, Speech and Theater

Volunteer Experience in Retirement, present

Dialogue Toward Action

Group Facilitator for Anti-racist Workshops

Braver Angels at <https://braverangels.org/our-story/>

Delaware State Coordinator, trained Moderator for workshops aimed at bridging the political divide and encouraging civil dialogue in communities

Bryan A. Stevenson School of Excellence <https://www.basseinc.org/>

Board of Directors, Secretary, Member, Development Committee Member,
Education Committee Member

CAMPRehoboth <https://www.camprehoboth.com/>

Grants Committee, volunteer at various public events

Center for Inland Bays <https://www.inlandbays.org/>

Support Center activities with time and enthusiasm

ESL Program with Lutheran Church of Our Savior <https://tinyurl.com/esllcos>

Advisory Board Chair, Level 3 Instructor

University of Delaware, Biden School of Public Policy and Administration

Advisory Board member

Selected Publications relevant to Service Learning Curricular Development
Cauley, K., & Sweeney, R. (2007). Strengthening diversity through community and civic engagement: Sustaining the student-institution-community relationship. *Metropolitan Universities Journal*, Vol. 18 (1). (R)

Updated December, 2021

- Cauley, K., Canfield, C., Clasen, C., Dobbins, J., Hemphill, S., Jaballas, E., & Walbroehl, G. (2001). Service learning: Integrating student learning and community service. *Education for Health*, Vol. 14(2), pgs. 173-181. (R)
- Cauley, K. (2000). Principle 1: Partners have agreed-upon mission, values, goals and measurable outcomes for the partnership. In Connors, K., & Seifer, S. (Eds). *Partnership Perspectives*, Issue II, Volume I, San Francisco, California: Community-Campus Partnerships for Health. (invited)
- Canfield, A., Clasen, C., Dobbins, J., Cauley, K., Hemphill, S., Rodney, M., & Walbroehl, G. (2000). Service-learning in health professions education: A multiprofessional example. *Academic Exchange*, Vol. 4, pgs. 102-108. (R)
- Cauley, K. (2000). Integrating student learning objectives with community service objectives through service learning in health professions schools curricula. *Community Campus Partnerships for Health National Conference*, Pre-conference Publication. (Invited)
- Cauley, K., Jaballas, E., & Holton, B. (2000). Medical students go back to kindergarten: Service learning and medical education in the public schools. In Seifer, S., Hermanns, K., & Lewis, J. (Eds.). *Concepts and Models for Service Learning in Medical Education*. Washington, D.C.: American Association for Higher Education. (R)
- Cauley, K., Maurana, C., & Clark, M. (1995). Service learning for health professions students in the community: Matching enthusiasm, talent, and time with experience, real need and schedules. In Raybuck J. (Ed.). *Expanding Boundaries in Service and Learning*. Washington, D.C.: Cooperative Education Association, pgs. 54-57. (R)

Please inquire through telephone or email for additional or more detailed information. Thank you.

Denise M. Snyder

25382 S. Oak Drive, Millsboro, DE 19966
(h) 302-934-8655 (c) 302-542-8305
dsnyder2558@gmail.com

“...Mrs. Snyder makes students feel accepted, valued and successful. Her interactions emphasize positive outcomes. She builds on the contributions of students. She shows sensitivity and assists when needed...”

Mary Bixler
former administrator, East Millsboro Elementary School

“...Mrs. Snyder assesses her own performance by consistently having discussions with peers and supervisors. She makes an effort to improve upon what she knows and is doing as it relates to performance and learning...”

Lesia Jones
Supervisor of Special Projects
Indian River School District

Professional Profile

Energetic and enthusiastic coordinator and leader who is involved in local church, district, conference and jurisdictional ministries within the United Methodist Church.

Recently retired from the Indian River School District, July 1, 2014

- Holds Masters Degree in Elementary Education and Bachelors Degree in Special Education. Also certified in Early Childhood Education.
- Experienced in use of the Internet and educational as well as office software.
- Dedicated to enthusiastic and dynamic teaching and leading as a means of creating and nurturing a lifelong love of knowledge in children, youth and adults.
- Dedicated to providing resources and education surrounding the issues of Social Justice that interfere with success for all persons.

Education, Honors and Certifications

B.S. Special Education

Bloomsburg University, Bloomsburg, PA 1980

M.S. Elementary Education

Salisbury University, Salisbury, MD 1995

Kappa Delta Pi Honor Society Member

Professional Certifications

Early Childhood Education

Key Qualifications

Certified in Elementary (K-6) and Special Education (0-21), Certified in Early Childhood Education (birth-2), Certified Lay Speaker, Dover District Lay Leader (United Methodist Church), Member of Nominations Team for Northeastern Jurisdiction of United Methodist Women (United Methodist Church), President of the Northeastern Jurisdiction of United Methodist Women (United Methodist Church).

Plan and instruct participants using wide variety of teaching aids, motivational and implementation strategies to engage participants in active learning.

Incorporate learning modality principles into small group and individual instruction. Develop and conduct inter-generational activities. Utilize resources available through various sources. Design and adapt curriculum to fit individual needs for children, youth and adults.

Coordinate meetings, instruction, activities, etc. as well as take part in all of these when necessary.

Working currently with United Methodist Women to enhance Vacation Bible School and Sunday School Curriculum making the lessons friendlier for teachers and students with disabilities.

Author of the Children’s Study for United Methodist Women Mission u 2018, “What About Our Money”.

"...always eager to learn how to improve and further develop partnerships that foster success. ...flexible to outside demands without compromising her core principles..."

Darlene St. Peter,
former supervisor.

"My ability to share my love of learning with children, youth and adults is truly a gift I acknowledge and accept."

Denise Snyder

Experienced Educator

Designed and conducted various faculty, student and parent workshops for training and educational purposes. Coordinator of program for Early Childhood Special Needs children for 6 years. Classroom teacher for 29 years. Conducted tutoring sessions for students. Planned and implemented busing/transportation for Early Childhood Special Education students. Provided in-service training for teachers. Conducted evaluations for students to determine if Special Education services were needed. Maintained records of student progress and Individual Education Plans. Worked in conjunction with State of Delaware Birth to 3 program staff to insure smooth transitions between our programs for parents and students.

Experienced Leader within the United Methodist Church

Planned and conducted worship services in my local church as well as throughout the Peninsula-Delaware Conference of the United Methodist Church. Held various positions within the local church such as Administrative Council Secretary, Family Ministries Coordinator, Sunday School Superintendent, Local Missions Coordinator, Youth Council Co-Leader.

Planned and conducted workshops and trainings for United Methodist Women including being the Dean for the School of Christian Mission for a 2 year term. Planned and conducted District and Conference training events such as The Well, District training days, United Methodist Women District Events, etc.

Dover District Lay Leader, elected June 2012. Northeastern Jurisdiction United Methodist Women Nominations Team Member, elected May 2012. Northeastern Jurisdiction United Methodist Women President, elected May 2016, Usher for Peninsula-Delaware Annual Conference 2008-2015. President Dover District United Methodist Women. Secretary Peninsula-Delaware Conference United Methodist Women, Vice President Peninsula-Delaware Conference United Methodist Women.

Currently working with United Methodist Women Northeastern Jurisdiction Leadership Team to plan and hold our quadrennial event on the Waterfront in Baltimore, MD in 2020. This event includes nationally known speakers, service projects for participants, overnight lodging and meals. We anticipate 600 attendees for the event.

Theological Base through Lay Servanthood

Certified Lay Speaker within the Peninsula-Delaware Annual Conference. The following courses have been completed: Basic Lay Servant, Living Our Beliefs, Go Preach, Leading Worship, Devotional life in the Wesleyan Heritage, Discovering Spiritual Gifts. I am also an avid reader. Among the books I have recently read are: Educated, Just Mercy, Unapologetic, Catch the Fire, So You Want to Talk About Race, American Like Me, No Justice, White Rage, Homegoing, Small Great Things, Worshiping With United Methodists, Renegade Gospel, Why I Am a United Methodist, Cross Talk, UnChristian...What a new generation really thinks about Christianity, White Like Me, Finding Our Way...Love and Life in the United Methodist Church.

Computer Skills

- **Software:** Microsoft Windows®, Microsoft Office including Word, Publisher, Excel and PowerPoint.
- Working knowledge of the Internet
- Working knowledge of social media such as Facebook

Employment

Educator

- **Special Education Teacher, Early Childhood through grade 5, Indian River School District, August 1980 to June 2008**
- **Coordinator for Transitioning Our Toddlers to School program, Indian River School District, August 2008 to July 1, 2014**
- **Special Education Coordinator, Middle and High School grades 6-12, Sussex Academy, October 2016 to June 30, 2018**

Professional Affiliations

National Association for the Education of Young Children
Teachers Network Leadership Institute Fellow
Delaware State Education Association
National Education Association
Delaware State Education Association Retired
United Methodist Women

Community Service

Volunteer at West Side New Beginnings teaching Vacation Bible School to students during June and July. Topics include managing money, being a leader, loving others, managing behavior, success in school.

Prepare meals at the Soup Kitchen of Grace United Methodist Church, Millsboro every Thursday.

Serve on multiple committees within the Peninsula-Delaware Annual Conference of The United Methodist Church.

Teach Mission classes in Baltimore, MD and Reading, PA dealing with Social Justice concerns.

Teach healthy cooking classes as a Pampered Chef Consultant.

Karl J. Armand

karl_armand@comcast.com

2871 Aramingo Avenue/ Philadelphia/ PA | 19134 | tel: 609.284.7956

EDUCATION: WIDENER UNIVERSITY, Delaware Law School, Wilmington, DE

Juris Doctor, Graduation: December 2016

Delaware Journal of Corporate Law - Widener Law Review

TEMPLE UNIVERSITY, Fox School of Business, Philadelphia, PA

Bachelor of Business Administration, Graduation: August 2009

MAJOR: Law and Business

People First Certificate in Human Resource Management

EMPLOYMENT HISTORY:

COMCAST BUSINESS, Philadelphia, PA

National Contracts Manager

January 2018– Present

- Managed compliance checks, and negotiated contractual documents including RFPs and NDAs for mid-market, local and federal government, and education agreements.
- Onboarded and trained new CHQ contract team members; designed and facilitated E-Rate contract training for national sales and support teams; moderated contract compliance team ENPS huddles- including month to month data tracking/analysis and escalation followup.
- Leveraged knowledge of telecom products/services while coordinating among business, legal, and finance teams to create positive customer experiences and ongoing relationships.

J.P. MORGAN CHASE, Newark, DE

Compliance Analyst- Money Laundering Investigator

November 2017– January 2018

- Performed investigations on high profile financial accounts based on political entanglement and banking trends to determine risk factors, uncover illegal acts and analyze client fit.
- Enforced corporate and banking regulations to ensure compliance and avoid violations.

DI CROCE LAW OFFICE, Shamong, NJ

Law Clerk/Summer Associate

April 2017– October 2017

- Performed legal research, drafted pleadings, briefs, contracts and non-disclosure agreements.
- Handled criminal defense, real estate/property, corporate/small business cases and lawsuits.

CHESTER COUNTY DISTRICT ATTORNEY'S OFFICE, West Chester, PA

Certified Legal Prosecuting Intern

May 2016 – December 2016

- Appeared in court on behalf of Chester County District Attorney for Preliminary Hearings.
- Analyzed complaints, prosecuted crimes and negotiated plea agreements in criminal cases.

WEITZ & LUXENBERG, Cherry Hill, NJ

Paralegal/Legal Intern

April 2015 – August 2015

- Drafted motions and prepared asbestos product information packages for asbestos litigation.
- Perform research on bankrupt corporations with histories of asbestos exposure to employees.

TUCKER LAW GROUP, Philadelphia, PA

Paralegal

September 2009– September 2013

- Managed personal injury and employment/EEOC cases from client intake through resolution.
- Portfolio included litigation on behalf of and against corporations, hospitals, and universities.

SKILLS & PROGRAMS

- MS Office, MS OneDrive, MS Teams, Pramata, Salesforce, Sharepoint, Westlaw.

Karen V. Higgins

Phone: 302-595-4122

Cellular: 240-350-6265

E-mail: kvalhig@gmail.com

322 Friedman Dr

New Castle, DE 19720-5625

Employment Status – Retired May 31, 2013

Education

Master of Arts, Business and Organizational Security Management
Webster University - 2004

Bachelor of Science, Criminal Justice
University of Delaware - 1978

Certifications

USPS Advanced Leadership Program – 2004: Nominated and successfully completed a management leadership program sponsored by the U.S. Postal Service. Attendees selected from a cross section of employees nationwide. Focus of the program included personal awareness, business foundations, business decision making, and strategic business planning. Successful candidates were recognized with engraved bricks in the foundation of the U.S. Postal Service training facility in Potomac, MD.

Criminal Law Paralegal – 1978: Attended and successfully completed the Institute for Para-Legal Training, Philadelphia, PA obtaining certification as a Criminal Law Paralegal. Employed as a para-legal specializing in subrogation cases for the law firm of White & Williams.

Post-Retirement:

January 2018 – Present: Founding Board Member, Bryan Allen Stevenson School of Excellence

July 2014 – Present: Board of Directors, Priority Plus Federal Credit Union, Newport Delaware

April 2014 – May 2019: Northern View Management Corporation, Homeowner's Association
Board of Directors

March 2014 – Present: Volunteer Tutor, Literacy Delaware (formerly Literacy Volunteers Serving Adults), Basic Reading

Employment

Spanning a career of 32 years with the U.S. Postal Service. I worked in an entry level clerk position for approximately four years before reaching my objective of becoming a postal inspector in the U.S. Postal Inspection Service. A postal inspector is a federal law enforcement agent with responsibility for the protection of postal employees, facilities and assets.

Responsibilities of postal inspectors include, but are not limited to mail fraud, corporate fraud and other financial crimes: money laundering, emergency preparedness, disaster management, mail theft, corporate security, and executive protection. I have worked in each of these areas as either a primary assignment or as the manager/executive responsible for the function.

Positions Held

April 2011 – May 2013: Inspector in Charge, Philadelphia Field Division - Executive position with responsibility for a field division encompassing the Eastern and Central Districts of Pennsylvania, Southern New Jersey and the State of Delaware.

March 2005 – April 2011: Inspector in Charge, Intelligence Group – Executive position with responsibility for management of Headquarters based groups supporting the investigative and security functions of the U.S. Postal Inspection Service. Duties included liaison with Information Technology and development of investigative databases, oversight for the Career Development Unit, Technical Services Division, and the Polygraph Unit. Offices located in Washington, DC, Arlington, VA and Potomac, MD.

July 2004 – March 2005: Assistant Inspector in Charge Washington Field Division – Provided direct supervision of four team leaders and the Manager of the Postal Police Division (armed uniform security officers) making a team of approximately 160 employees covering the District of Columbia and the States of Maryland and Virginia. Areas of focus included revenue fraud, personnel and facilities security, dangerous mail substances, and financial crimes investigations. Office location Columbia, MD.

September 2002 – July 2004: Assistant Inspector in Charge, Manager, Project Services Group – Direct report to the Assistant Chief Postal Inspector, responsible for the development of nationally focused projects to support investigative and security programs. Office location Washington, DC.

October 1999 – September 2002: Assistant Inspector in Charge, Strategic Planning and Management Process – Responsible for development of the Annual Performance Plan in compliance with the Government Performance and Results Act (GPRA). Assisted in the development of the Inspection Service five-year strategic plan. Office location Washington, DC.

September 1995 – September 1999: Team Leader, Revenue Investigations – Supervisor of team of federal agents responsible for investigating crimes, which defrauded the Postal Service of revenue. Office location Philadelphia, PA.

July 1989 – September 1995: Postal Inspector Field Agent – Working Revenue Investigations, Internal Crimes, and Internal Narcotics Investigations in a team environment and holding responsibility for development of individual case load. Performed analysis and coordination leading to the arrest and conviction of multiple subjects in each functional area. Office location Newark, NJ.

September 1985 – July 1989: Postal Inspector Field Agent – Twelve-week basic training program followed by initial field assignment. Reopened an unstaffed domicile with a primary focus on external crimes including mail theft, assaults, robberies and burglaries. Office locations Potomac, MD and Chattanooga, TN.

April 1981 – September 1985: Clerk craft employee with varying assignments in mail processing. Office locations Philadelphia, PA and Wilmington, DE.

Amy Golden-Shepherd

Director of Diversity, Equity, and Inclusion
School Librarian

amygoldshep@gmail.com

302-379-9474

Diversity, equity, and inclusion educator and leader who facilitates trainings for faculty and staff and provides opportunities for students to thrive in their school experience. Preschool through eighth grade independent school educator and librarian.

Skills & Expertise

- Anti-racist Education
- Racial Identity Awareness
- Microaggression/
Microaffirmation Instruction
- Affinity Group
Implementation
- Parent
Education
- Strong Writing Skills
- Event Management
- Extensive knowledge of
children's literature

Professional Experience

St. Anne's Episcopal School | Middletown, DE

Director of Diversity, Equity, and Inclusion

Librarian (2005-Present)

Introduced and implemented a robust diversity, equity, and inclusion training plan for faculty and staff. Developed a student diversity council for middle school students and implemented affinity groups. Compiled an anti-racist/racial literacy curriculum for Preschool-Eighth Grade.

- Researches and invites top diversity and inclusion experts to lead multiple sessions on crucial topics.
- Provides opportunities for all students to feel valued, heard, and affirmed in their identities.
- Facilitates parent education opportunities
- Provides access to print and digital resources to teachers and students.

*In the time of Covid-19, created and implemented an equitable distance learning program for students unable to return to school in person.

Bryan Allen School of Excellence | Sussex County, DE

Board Member, Community Engagement Subcommittee Chair (2018-Present)

Boys and Girls Club of Delaware | Middletown, DE (2003-2004)

Education Director for a school site.

Chester Upland School District | Chester, PA (1998-2002)

First Grade Teacher in a bilingual first grade class

Education

Cornell University, Diversity and Inclusion Certificate 2018

Temple University, B.S. Early Childhood and Elementary Education

BRADLEY OWENS, J.D.

Wilmington, Delaware
brad@socialcontract.org
(302) 745-7380

For the past decade, I have immersed myself in the criminal justice system, dedicating my work to helping those who have been marginalized and incarcerated, especially those who also suffer from mental health, substance use, and chronic health disorders. Over time, I have developed the approach to address these social issues with evidence-based practices, while also pursuing solutions that incorporate social entrepreneurship, healthy living, and community collaboration. In efforts to actualize my ambitious vision to create lasting social change, I deliberately developed my skills in technical writing, public speaking, and interpersonal communication. Below are specific areas of expertise and interests.

- Criminal justice systems
- Prison reentry services
- Capital punishment
- Juvenile justice
- Case management
- Cognitive behavioral treatment
- Program design & implementation
- Project management
- Staff training & development
- Quality assurance & improvement
- Nonprofit management
- Grant writing
- Public speaking
- Social entrepreneurship

EDUCATION

Charlotte School of Law | Charlotte, North Carolina
Juris Doctor (2015) | Magna Cum Laude; GPA 3.57 (Top 10%)

Delaware Law School | Wilmington, Delaware
Paralegal Certificate (2012) | GPA 4.0

West Chester University of Pennsylvania | West Chester, Pennsylvania
Bachelor of Science, Criminal Justice (2010) | Cum Laude; GPA 3.3

RELEVANT EXPERIENCE

Social Contract, LLC | Wilmington, DE | socialcontract.org
Senior Consultant, July 2020 – Current

- Manage the *Advancing Wilmington Through the Workforce Project* which includes the design and implementation of *Central: a capacity building entity for DE social service programs*.
- Support State of Delaware contracts related to the Department of Corrections, cognitive behavioral treatment programs, and reentry services.

Delaware Psychological Services | Newark, DE | delawarepsychologicalservices.com
Director of Outreach and Engagement, Nov. 2019 – July 2020

- Develop and sustain relationships with client referral sources (e.g., hospitals, psychiatric centers, primary care providers, prisons, inpatient treatment centers, schools, etc.).
- Supervise Peer Support staff to ensure high quality “in-reach” and service linkage.
- Provide training and resources on evidence-based practices, including CBT, motivational interviewing, employment practices, etc.

Connections Community Support Programs | Delaware (Statewide) | connectionsensp.org

Training Coordinator | *Correctional Behavioral Health Programs, Nov. 2017 – Current (PT)*

- Train program staff in cognitive behavioral treatment (CBT) group facilitation and program fidelity to ensure close adherence to principles of effective intervention.
- Lead fidelity monitoring and new program implementation efforts in the Key/Crest Program, the largest residential treatment program in Delaware correctional facilities (over 400 active participants).

Director | *Reentry Planning Services, November 2017 - June 2019*

- Directed and managed reentry team (10 FTEs) to provide reentry planning services for over 300 incarcerated or formerly incarcerated individuals per month.
- Prioritized services for individuals with significant chronic care, mental health, and substance abuse needs.

Project Manager | *Opioid Use Disorder Case Management Project, March - June 2019*

- Managed the launch of a two-year, \$600K State Opioid Response Grant in partnership with the Delaware Division of Substance Abuse and Mental Health and the Delaware Department of Corrections.
- Led upstart of a case management team (4 FTEs) to identify, engage, and connect pretrial inmates to community-based Opioid Use Disorder treatment resources upon release from jail.

Lead Trainer & Group Facilitator | *Think Things Through CBT Program, Nov. 2017 – Current*

- Managed the implementation of a new CBT program, Think Things Through, in Delaware prisons (using curricula from Univ. of Cincinnati Correctional Institute).
- Currently facilitating two group cohorts at Howard R. Young Correctional Institution.

Delaware Center for Justice | Wilmington, Delaware | dcjustice.org

Reentry Navigator, October 2015 - November 2017

- Served as a case manager at the Achievement Center in partnership with the Wilmington HOPE Commission, provided case management services for high-risk men returning to the community following incarceration, and facilitated over 300 CBT groups.
- Played a critical role in the Reentry Court Program with the Superior Court and with Probation and Parole department in New Castle County.
- Achieved 95% employment rate for clients served in FY 2016. Out of 41 enrolled clients in FY 2016, only four clients received new felony charges.

8th Amendment Project | Charlotte, North Carolina | 8thamendment.org

Law Clerk, November 2014 - May 2015

- Assisted with the campaign to abolish the death penalty in the State of Delaware.
- Compiled data and analysis on restitution and inmate employment statutes from each State's Department of Corrections (data used to support arguments for policy reform).
- Conducted legal research and drafted memoranda regarding execution methods and the constitutionality of the death penalty.

MHM Services, Inc. | Dover, Delaware | mhm-services.com

Sex Offender Treatment Specialist, August 2010 - April 2012

- Implemented sex offender treatment program in Delaware prisons, co-facilitated daily group sessions, and interviewed hundreds of inmates eligible for treatment participation.

COMMUNITY SERVICE

Jordyn K. Owens Memorial Foundation | Delaware

Founder, 2010

- 501(c)(3) fund established with the Delaware Community Foundation in memory of my younger sister, Jordyn Owens.
- Traveled to Delaware high schools to speak on issues related to underage drinking, drug use, and decision-making. Spoke to tens of thousands of teenagers between 2010-2015.

Blueprint Communities | Wilmington, Delaware

Core Team Member, 2016 - 2017

- Served on planning committees focused on community redevelopment initiatives throughout Northeast Wilmington.
- Provided insight and advice related to current community crime issues, economic development plans, and community organizing.

Invisible to Invincible | Charlotte, North Carolina

Co-Founder, 2014

- Created youth mentoring program for incarcerated youth (ages 16-17).
- Program has served hundreds of youth and is still in operation today.

BUSINESS AND CONSULTING SERVICES

Conflux, LLC – “Where ideas and solutions come together.”

Founder & Managing Member (Est. 2019), bradowens@conflux302.com

- General consulting services on projects related to the areas of expertise outlined above.

COMMITTEES, BOARD MEMBERSHIPS, CERTIFICATES & AWARDS

Co-Chair, Case Management Committee, Delaware Correctional Reentry Commission (Current)

Board Member, Bryan Allen Stevenson School of Excellence (2018 - Current)

Certified Lead Trainer, CBT Programming, Univ. of Cincinnati Correctional Institute (2018)

Award Recipient, Judge Haile L. Alford Excellence Award, MJL Section of the DSBA (2016)

REFERENCES

Kathleen Jennings
Attorney General
Delaware Dept. of Justice
kathleen.jennings@delaware.gov
(302) 379-4445

Jim Elder
Former Bureau Chief, Correctional Healthcare
Services, Delaware Dept. of Corrections
james.elder@delaware.gov
(302) 222-4272

Honorable Charles Butler
Judge, New Castle County Superior Court
charles.butler@delaware.gov

Cerron Cade
Delaware Secretary of Labor
cerron.cade@delaware.gov
(302) 983-4621

Dr. Robin Timme
Chief Psychologist, Connections, CSP
rtimme@connectionscsp.org
(302) 383-4099

Dr. Dorothy Dillard
Director, Center for Neighborhood
Revitalization & Research
Delaware State University
ddillard@desu.edu

(302) 893-1131

Charles Madden
Director of Talent Acquisition
Delaware Prosperity Partnership
cmadden@choosedelaware.com
(302) 588-6259

(302) 753-1406

Corie Priest
Community Engagement
Delaware Attorney General's Office
cpriest@delaware.gov
(302) 298-5302

JOSEPH HILL KIM, DO FAAFP

123 Village Drive

Seaford, Delaware 19973

302-629-7166 (h) 443-614-7454 (c)

daekim@aol.com (h) joseph.h.kim@tidalhealth.org (w)

CERTIFICATION

Fellow, American Academy of Family Physicians
2013-current
Board Certified in Family Medicine
2006-current

PROFESSIONAL LICENSES

Delaware Physician License

POSTGRADUATE TRAINING

St. Francis Hospital
Family Medicine Residency
Wilmington, Delaware
June 2003-June 2006

EDUCATION

Philadelphia College of Osteopathic Medicine, Philadelphia, Pennsylvania
Doctor of Osteopathy
August 1999-June 2003
Salisbury State University, Salisbury, Maryland
Bachelor of Science, Summa cum Laude
Major: Biology
August 1994-June 1998

EMPLOYMENT

Family Physician, TidalHealth Medical Partners, Laurel, Delaware

- Provide inpatient and outpatient care
- Nanticoke Physician Network
- February 2009-current

Hospitalist, Nanticoke Memorial Hospital, Seaford, Delaware

- Provide part time coverage for hospitalists
- October 2007-2015

Medical Director, Peninsula Home Care, Seaford, Delaware

- Provide medical guidance in home care
- 2009-2018

Family Physician, Office of Curtis Smith, DO, Laurel, Delaware

- Provided inpatient, nursing home, and outpatient care
- August 2006-January 2009

House Physician, St. Francis Hospital

- Provided emergent care for hospital patients
- Directed cardiac and respiratory codes

- October 2004-2006

HONORS, AWARDS, AND ACTIVITIES

Alternate Delegate, American Academy of Family Physicians Congress of Delegates

- March 2019-current

Clinical Assistant Professor, Philadelphia College of Osteopathic Medicine

- July 2019-current

Clinical Assistant Professor of Family and Community Medicine, Sidney Kimmel Medical College of Thomas Jefferson University

- January 2019-current

Clinical Instructor, Philadelphia College of Osteopathic Medicine

- January 2019-July 2019

President-Elect of Medical Staff, Nanticoke Memorial Hospital

- January 2019-current

Board of Director Member, Nanticoke Memorial Hospital

- January 2019-current

Committee Member, eBright Health, LLC. Choosing Wisely Work Group

- July 2018-current

Chairperson, Family Practice Department, Nanticoke Health Services

- January 2017-2018

Chairperson, Nanticoke Integrated Health Alliance

- July 2015-2019

Director, Medical Student Education, Nanticoke Health Services

- July 2015-current

Member, Workforce and Education Committee, Delaware Center for Health Innovation

- October 2014-2018

Board of Director Member, Nanticoke Health Systems

- January 2011-December 2014

President of Medical Staff, Nanticoke Memorial Hospital

- January 2013-December 2014

Chairperson, Bylaws Committee, Nanticoke Memorial Hospital

- January 2011-2013

Board of Director Member, Delaware Academy of Family Physicians

- May 2012-current

President, Delaware Academy of Family Physicians

- May 2012-2013

Treasurer, Sussex County Medical Society

- 2010-2011

Speaker, Delaware Heart Truth

- Educate prevention, assessment, and treatment of cardiovascular disease in women

- 2010-2011

Chairperson, Family Practice Department, Nanticoke Health Services

- January 2009-December 2010

Sussex Child Health Promotion Coalition Member, Seaford, Delaware

- 2008-2010

Peer Review Committee Member, Nanticoke Memorial Hospital

- 2008-2010

Chief Resident, St. Francis Family Medicine

- 2005-2006

PROFESSIONAL MEMBERSHIPS

Delaware Academy of Family Physicians

- 2003-present

Medical Society of Delaware

- 2003-2017

American Academy of Family Physicians

- 2000-present

COMMUNITY AND VOLUNTEER EXPERIENCES

President, Kim and Evans Family Foundation, Inc.

- January 2018-current
- Our mission is to better the lives of disadvantaged people and animals in Sussex County and beyond.

Board of Director Member, Bryan A. Stevenson School of Excellence, Georgetown, DE

- January 2020-current

Board of Director Member, the Jefferson School, Georgetown, Delaware

- May 2014-June 2020

Preceptor for students

- Teach and mentor nurse practitioner and medical students
- 2009-current

Coordinator for Salisbury University Pre-Medical Student Shadowing Program

- Established program for qualified pre-medical students to follow community physicians
- 2010-current

INTERESTS

Preventive medicine, travelling, mentoring students, community fund-raising

REFERENCES

Available upon request

Diaz J. Bonville

Diaz, the fifth eldest of two brothers and three sisters was born December 24, 1955 to the late Roland Harrison Bonville, Sr. and the late Sara Bell Shockley Bonville. He grew up in Slaughter Neck, Delaware and attended public schools in Slaughter Neck and the Cape Henlopen School District graduating in 1973. He went on to attend College at Delaware Technical and Community College in Georgetown, Delaware, where he received an Associate's Degree in Human Services with a strong concentration in program management and administration.

Diaz lives in Rehoboth with his wife of thirty seven years, the former Linda Elizabeth Duffy. Together, they have three daughters, Dilinda, 1999 graduate of Cape Henlopen High School and a Paraprofessional for the Cape Henlopen School District; Latoya, 2006 graduate of Grambling State University, Grambling, Louisiana, and Jalisa, a 2012 graduate of Howard University, Washington, D.C.

Diaz is Co-Founder/Volunteer OF the West Rehoboth Children & Youth Program, a community based after-school and summer enrichment program for at-risk, low-income, disadvantaged youth.

In addition to his school work duties, Diaz is quite busy in his church as well. He is a member of Faith United Methodist Church in Rehoboth, Delaware where he serves on several ministries to include administrative council assistant, care team, finance, health education/wellness, lay leader, pastor parish relations, trustees, worship, text message ministry, and vision team. Diaz is a volunteer on several community organizations. He has over thirty years' experience in mobilizing and organizing at-risk communities, children, youth and their families, church and after school and summer enrichment programs.

He was the first in his family to graduate from high school and college. As an African American, he has many first. He was the first African American Community Prevention Coordinator for the cities of Rehoboth Beach and Lewes, the first to receive the Delaware Technical and Community College Alumni Walk of Success, first Community Home-Liaison for the Indian River School District TOTS Program, first to serve as president of the Coalition for West Rehoboth, first African American to serve as Safety Educator for Sussex County, first African American School / Community Home Liaison for the Indian River School District A.P.E.L.L. (Accelerating Preliterate English Language Learners) Program, first African American to serve as Kent/Sussex Outreach Coordinator for U.S. Congresswoman Lisa Blunt Rochester (Delaware At-Large)

Diaz church, school and community involvement has brought him several honors and rewards. His volunteerism has gained local, state, and national media attention to include two televisions commercial to educate the community about prostate cancer and cauterization. In his spare time, Diaz enjoys reading, traveling, writing, public speaking, mentoring, volunteering and the Spanish culture. His favorite quote is "To whom much is given much is expected" and "Moving On – Moving Forward."

Diaz J. Bonville

35681 Wolfeneck Road
Rehoboth, Delaware 19971
(Home) 302-645-7544 – (Cell) 302-528-2265
(E-Mail) Diaz122455@aol.com

Objective: To obtain a professional position in the Human Services field / Politics where I can apply my diverse skills in a myriad of settings.

EMPLOYMENT EXPERIENCES

U.S. Congresswoman Lisa Blunt Rochester Delaware-At-Large) Kent/Sussex County Outreach Coordinator (2017 – Present)

Responsibilities Include:

- Supervise staff and oversee downstate office;
- Speaks to local groups when the Congresswoman is not available;
- Travels throughout the Kent and Sussex Counties to keep abreast of local concerns;
- Meets with elected officials and representatives of local groups on behalf of the Congresswoman;
- Prepares periodic reports for the State Director on pending cases and district activities in Kent and Sussex Counties.

INDIAN RIVER SCHOOL DISTRICT

Family Service Coordinator (2017 - Retired)

Responsibilities Include:

- Initiate collaborative partnerships with parents to establish mutual trust and respect.
- In collaboration with other staff, as appropriate, assess each family's need for social services; develop an individualized plan that responds to the family's need; deliver and/or coordinate the delivery of needed social services to each family; review and update;
- Collaborate with other staff, as appropriate, to develop individualized Family Partnership Agreements (FPA) that describe the family's goals, strengths, responsibilities and timetables and strategies for achieving these goals; build upon any pre-existing family plans; review and revisit with families so the FPA remains current and useful; monitor; analyze; aggregate; report.
- Provide comprehensive community resource information to families, individualizing to respond to the family's needs and concerns to the maximum extent possible;
- Refer families to community agencies/programs; assess accessibility, relevance and usefulness of assistance received;
- Assist with the establishment and maintenance of ongoing collaborative relationships with community organizations responsive to the concerns of the families of children birth through age 5, pregnant women and their families; participate in community awareness events.

INDIAN RIVER SCHOOL DISTRICT

**A.P.E.L.L. (Accelerating Preliterate English Language Learners)
School / Community Liaison – (2014 – 2017).**

Responsibilities Include:

- Act as a school contact for family.
- Interpret cross-cultural information.
- Assess family needs.
- Explain school policies and community resources available.
- Connect families with accessing food banks and donated clothing.
- Assist with registration.
- Conduct interview with family and student in regards to past schooling experiences.
- Assess students' level of proficiency in native language.
- Explain program options and graduation requirements.
- Medical information and immunizations.
- Translate school communications.
- Interpret parent conferences, school meetings, school events.
- Conduct home visits as necessary.
- Assist students with transition between programs, schools, events.
- Serve as an advocate for students.
- Assist students with scheduling, home work, and after school and summer school programs.
- Consult with home school teachers and counselors in regards to students' needs.
- Communicate with families in regards to students' progress.
- Assist with assessment of students' strengths and weaknesses, collaborate with family, community, A.P.E.L.L. teachers / paras and home school teachers / seek support from community agencies for students and their families, attend parent meetings as needed.

INDIAN RIVER SCHOOL DISTRICT

**T.O.T.S. (Transitioning Our Toddlers To School) Community Home-Liaison
(2010 – 2014).**

Responsibilities Include:

- Interrupter/Translator for Hispanic population.
- Assists teachers in the instructional process.
- Works with students, parents, education staff, school, and community to identify eligible students.
- Works closely/on-going communication with teachers/administration at all facilities.
- Conducts Home and Community-Based visits.
- Advises families of T.O.T.S. and community resources.
- Maintain student's records and protects their confidentiality, as directed by program coordinator.
- Performs other assigned duties.
- Builds partnerships with community members from district poverty pockets.
- Providing transportation for T.O.T.S. students when needed.

INDIAN RIVER SCHOOL DISTRICT

Student Advisor (1999 – 2010)

Responsibilities Include:

- Assists students in dealing with academic, social and career expectations as they relate to a multi-cultural, multi-racial community.
- Develops a relationship between students, home, teachers, and administration to help students emotionally, socially, and academically.
- Works to prevent students from dropping out of school.
- Interfaces with minority populations on a regular basis.
- Increases the academic, social, and vocational expectations of the total student population. Advises and assists the student population in obtaining the services provided by other agencies for the betterment of the student, family, and school.
- Provides individual and/or group advisory services in relation to students' school experiences, progress in learning, and interaction with the community.
- Consults and cooperates with school and pupil personnel services, and teachers to discover and to help develop abilities of students.
- Works with students on an individual basis in the solution of personal problems related to home and family relations, health, and emotional adjustment.
- Works to improve student's self-image and career aspirations.

INDIAN RIVER SCHOOL DISTRICT

Bridges Coordinator/Summer School Administrator Part Time). This is a professional position in the field of providing remedial educational services to middle/high school students **(2000 Summer Only).**

Responsibilities Include:

- Participation in staff orientation.
- Notify potential participants.
- Register participants and maintain attendance records.
- Assist in staff training.
- Communicate transportation needs to the Director of Instruction.
- Finalize student lists.
- Supervise daily program activities.
- Keep daily staff attendance records.
- Communicate substitute needs to the building principal.
- Submit teacher and student attendance records.
- Serve as liaison between teachers and District Office.
- Oversee Bridges post-test administration.
- Submit high school pass-fail rosters, grades, and course counts.
- Record "pre-test and post-test" data.
- Compile and submit gains data.
- Track student daily attendance
- Submit attendance roster.
- Gather and submit final grades.
- Calculate and submit staff hours.

WEST REHOBOTH CHILDREN AND YOUTH PROGRAM, REHOBOTH, DELAWARE.

Co-Founder/Program Director. This is a community based program for low-income /at-risk children and youth ages 5-15. **(Part Time 2002 – 2017).**

Responsibilities Include:

- Planning and organizing a structured curriculum for at risk youth.
- Provide cultural educational enrichment activities, computer tutorial, homework assistance, health and nutritional programs and educational field trips.
- Designing and implantation of a flexible, after school program.
- Oversees volunteers, peer helpers, youth leaders, activities including submission of weekly reports.
- Completion of all record keeping, attendance, monthly narratives, time sheets, and reimbursement reports.
- Myriad of secretarial duties.
- Collection, verification and submission of employee time sheets.
- Planning and coordinating programs with the Executive Director, including arts and crafts, culture enrichment, health and welfare and nutrition education.
- Assists with other duties as directed by executive director.
- Prepare press releases and contact media for special programs.

CHILD, INC. FAMILY SUPPORT & PARENT EDUCATION SERVICES.

Parent Education Instructor (Part Time Position) – This is a professional position in the field of providing families and educators with the knowledge and resources that will help families become an integral part of their children's educational process **(Part Time 2000 – 2003)**

Responsibilities Include:

- Conducting parent training sessions.
- Assisting in development of curriculum.
- Coordinating activities with consultant trainers as well as with volunteers.
- Identifying program participants whom may need to be brought to the attention of the Division of Social Services or referred for clinical services.
- Communicate effectively, particularly in public speaking and instruction.
- Ability to prepare accurate reports and communications in writing.

JOBS FOR DELAWARE GRADUATES, INC., GEORGETOWN, DELAWARE.

Summer Worksite Trainer/Coordinator – This is a professional position in the field of assisting academically at-risk youth during the summer subsidized employment experience **(June 2001 – August 2001 and June 2002 – August 2002 Summer Part Time).**

Responsibilities Include:

- Assist in the recruiting and qualifying phase of the program.
- Provide employer orientation to subsidized employment goals and procedures.
- Evaluate each workday to plan integration of learning rich workplace activities, and to develop SCANS comprehensive and work skills.

- Conduct participant orientation to the workday; establish work site procedures and expectations.
- Provide ongoing job and like skills training and counseling to participants.
- Integrate learning rich activities into the work place in conjunction with employers.
- Oversee the participants' work.
- Work with the employer/supervisor to evaluate participants' work habits and needs.
- Address special needs of participants to assist them in achieving work place competencies.
- Act as a liaison and ombudsperson on behalf of participants with Social Service Administrators and other professionals to address specific issues.
- Maintain accurate records and portfolios for participants.
- Submit weekly reports, time sheet and other data as required in reporting guidelines.
- Plan and implement recognition activities for participants who have achieved work place competencies.
- Assume other responsibilities as mutually agreed upon by the Worksite Trainer/Coordinator and the designated County Career Specialist.

CITY OF REHOBOTH BEACH, DELAWARE REHOBOTH BEACH, DELAWARE. Community Prevention Coordinator (1991 - 1995). The community prevention coordinator is responsible for mobilizing/organizing the community to address the issue of substance abuse prevention. This is a full-time position hired by and answerable to city government.

Responsibilities Include:

- Meet all local officials, inform them about the DECCASA program and explore the development of partnerships.
- Conduct outreach to local groups including churches, civic groups, businesses, schools, parent groups, youth groups, labor organizations, etc. to generate an awareness of the project and a growing enthusiasm for the prevention of substance abuse. Help these groups to form linkages with local government and with each other.
- Assist local groups to identify ways in which they can begin to promote substance abuse prevention.
- Represent the community at Cluster meetings, form appropriate linkages.
- Provide Above The Influence training to all interested groups (at least 200 people per year) in the community, attempting to reach as many people as possible with the most extensive ATI training.
- Attend weekend training retreat to learn about and become immersed in the ATI culture-based change model.
- Plan diversion activities for community youth age 12 - 15, as specified in the WCASA Model.
- Work closely with the mayor and city government.
- Provide culture-based change intervention strategies designed to impact community norms and values about alcohol and other drug use and abuse.
- Responsible for grant writing, fund raising, development of volunteer resources, and new program design and implementation.
- Coordinating and supporting Community Advisory Board in doing fund raising and in conducting Community Needs and Resource Assessments And Prevention Action Plans.

**UNIVERSITY OF DELAWARE CO-OPERATIVE EXTENSION,
GEORGETOWN, DELAWARE. (1995 – 1999)**

Extension Agent/Safety Education – This is a professional position in the field of highway safety, injury prevention and community education.

Responsibilities Include:

- Planning and coordination of comprehensive, multi-disciplinary highway safety program for Sussex County.
- Develop and maintain computer database for highway crashes/incidents from information from Delaware State Police and other agencies to determine priority-programming needs.
- Develop, implement, and monitor countywide community highway safety education and awareness activities.
- Responsible for the administrative day-to-day operations of the Sussex County CTSP office including accounting, personnel supervision, preparing county and state reports, and completing and maintain state reimbursement.
- Plan, write, and coordinate media campaigns to insure continuous, effective coverage of noteworthy highway safety activities.
- Develop highway safety-related materials to provide information, education, and awareness to citizens of county.
- Prepare safety grant proposals for ongoing financial support of CTSP in county.
- Identify additional sources of revenue to support projects.
- Perform other related duties as may be assigned by Extension Safety Specialist.

**DELMARVA CLERGY UNITED FOR SOCIAL ACTION, INC., ELLENDALE,
DELAWARE (Administrator Temporary Part Time)**

Responsibilities Include:

- Develops and coordinates grant-funded programs for community based programs.
- Reviews literature dealing with funds available through grants from government agencies and private foundations to determine feasibility of developing programs to supplement local annual budget allocations.
- Discusses program requirements and sources of funds available with Administrative Board and personnel.
- Confers with personnel affected by proposed program to develop program goals and objectives, outline how funds are to be used, and explain procedure necessary to obtain funding.
- Works with fiscal officer in preparing narrative justification for purchase of new equipment and other budgetary expenditures.
- Writes grant application, according to format required, and submits application to funding agency and foundation.
- Meets with representatives of funding sources to work out final details of proposal.
- Directs and coordinates evaluation and monitoring of grant-funded program or write specifications for evaluation or monitoring of program by outside agency.

- Assists administrative personnel in writing periodic reports to comply with grant requirements.
- Maintains master files on grants.
- Monitor paperwork connected with grant-funded programs.

EDUCATION

- Associates Degree in Human Services, Delaware Technical & Community College, Georgetown, Delaware.

STACIE BURTON

24925 Johnson Road • Georgetown, DE 19947 • (302) 344-5724
stacie.burton@yahoo.com

PASSIONATE PHILANTHROPIC ADVOCATE

Positive change advocate passionate about diversity training, social justice, urban planning, and community organization. Strategic planner values variety in perspectives, ideas, and contributions of community builders. Proven interpersonal, communications, and multi-tasking skills within a fast-paced environment. Team leader who exercises high integrity while driving productivity. Seeking leadership opportunities and is dedicated to creating positive changes within communities.

EDUCATION & EMPLOYMENT

Master of Science in Management – Organizational Leadership - 2017

Master of Science in Management – Public Administration – 2015

Bachelor of Science in Business Management – 2014

Wilmington University, Georgetown, DE

Office of the Governor

Community Liaison and Keep Delaware Litter Free Coordinator

2018- Present
Statewide for Delaware

- Staff the governor at various events and meetings.
- Meet with stakeholders, community leaders and organizations as a conduit to the governor.
- Prepare briefing memos for the governor.
- Organize and establish partnerships for community cleanup efforts.
- Coordinate and plan events to advance governor's message and agenda.

Staff Assistant and Constituent Relations Support

2016-2018

Dover, DE

- Assist staff with all administrative needs.
- Create cases in Sales Force for constituents and provide timely responses to inquiries.
- Build relationships with every state agency liaison to assist with case work processes.
- Provide help with tracking, printing and delivering tributes and proclamations.

DELAWARE MENTOR

Direct Support Professional

2015 – 2017

Georgetown, DE

- Structure activities towards increasing self-confidence, self-awareness, and leadership development for teens.
- Partner with clinical staff to devise individual behavioral plans while providing transportation for various outings.
- Uphold energetic atmosphere encouraging active participation, positive role modeling, and peer/group motivation.
- Record client activities, important behavioral details and progresses.

Delaware Democratic Party

Field Organizer

Aug – Nov, 2016

Georgetown, DE

- Tactfully recruited and managed volunteers and consistently trained them in one-on-one and group settings.
- Set and achieved measurable targets by meeting strategic goals and exceeding challenges with a positive attitude and outcomes.

SUSSEX COUNTY GOVERNMENT

Accountant I

2006 – July 2016

Georgetown, DE

- Perform management of operations: planning, deadline compliance, and program development.
- Prove proficiency in accounting functions consisting of general accounting, journal entry preparation, general ledger, payroll, reconciliations, budgeting, financial statement research and conducted profit/loss reviews.

NOTEWORTHY CERTIFICATIONS

- NIH Training Certification for Protecting Human Research Participants, 2015
- Fair Housing Act I, 2014
- Interpersonal Communication, Telephone Etiquette, and Customer Service Training, 2014

COMMUNITY INVOLVEMENT

- **National Board Member**, Turning Point Suffragist Memorial (TPSM)
- **Board Member**, Foster Grandparents Advisory Council
- **Board Member**, Innocence Delaware
- **Board Member**, National Coalition of 100 Black Women (NCBW)

DERICK D. DAILEY
ddailey6@gmail.com | (267) 303-1992

EDUCATION

Fordham University School of Law, New York, NY 2017
J.D., *Louis Stein Scholar*
National Black Law Students Association, *National Chair* (2016-17)

Yale University, New Haven, CT 2014
M.A., Theology and Ethics, *Dames Scholar*
Yale Presidential Public Service Fellow

Westminster College, Fulton, MO 2011
B.A., Political Science, *Triple "S" Scholar*; Senior of the Year

EXPERIENCE

Davis & Gilbert LLP, New York, NY 2021 – present
Litigation Associate

United States Attorney's Office, Wilmington, DE 2019 - 2021
Assistant United States Attorney

Chief of the Financial Litigation Unit: responsible for the collection of debt and litigation stemming from debt owed to victims of criminal and civil judgments, including but not limited to, civil fraud prosecutions, criminal restitution, defaults on government loans, environmental fines, and overpayments made by the United States and various government programs; conducts depositions and debtor examinations, responsible for millions in outstanding debt, manages over 300 active files, supervises FLU Paralegal, and partners with local and state agencies

Civil/Criminal Litigation: manages complex general defensive litigation, tax, and healthcare fraud cases with a focus on the Federal Tort Claims Act, the False Claims Act and the Anti-Kickback Statute, handles civil rights and affirmative enforcement litigation involving ADA matters and spearheads the Sexual Harassment in Housing Initiative; handles white-collar criminal matters from indictment to sentencing

Consumer Bankruptcy and Corporate Financial Restructuring: responsible for chapters 7, 11, and 13 bankruptcy matters, including adversary proceedings

Other Responsibilities: federal representative on the District's Re-entry Court; serves as a member of the office's Leadership Council; and coordinator of the Summer Law Clerkship Program

Dowd Bennett LLP, St. Louis, MO 2017- 2019
Litigation Associate

Participated in all phases of trial preparation in state and federal court, including discovery, case management and strategy, depositions, and motion practice; defended claims including those under the False Claims Act and the Anti-Kickback Statute; assisted on regulatory corporate compliance matters for a number of Fortune Global 100 companies; managed a federal prisoner's 1983 claim in federal court; settled a labor and employment claim involving a shooting at a national bank headquarters; served as Special Advisor to the St. Louis City Circuit Attorney's Office relating to criminal justice issues; and assisted in the development of the report of the Ferguson Commission after the shooting of Michael Brown in Ferguson, Missouri.

Legal Extern, Eastern District for New York

Researched and drafted memoranda relating to white-collar and public corruption matters; drafted Responses to 3582(c)(2) Motions to Modify Terms of Imprisonment

Brennan Center for Justice at NYU School of Law, New York, NY

2015

James E. Johnson Legal Intern

Researched and drafted memoranda relating to municipal voter identification programs and campaign finance reform and assisted in publishing "*The 50-State Student Voter Guide and Building a Diverse Bench: A Guide to Judicial Nominating Commissioners.*" (2016).

Teach For America, Blytheville, AR

2011- 2012

5th and 6th grade Teacher

Taught Middle School Reading, Social Studies and English/Language Arts; co-founded the Parent-Teacher Partnership and facilitated community engagement opportunities

LEADERSHIP AND CIVIC ENGAGEMENT

- Yale Club of Philadelphia Board, *Director* (2019 - present)
- Bryan Allen Stevenson School for Excellence Board, *Director* (2019 - present)
- Whitney/Strong Foundation Board, *Director* (2019 - present)
- ArchCity Defenders Board, *Director* (2019); Young Friends Chairperson
- Merit Selection Panel for U.S. Magistrate Judge Hon. Nanette A. Baker, *Member* (2018)
- Justice Revival, *Board Member* and *Treasurer* (2017 – present)
- Yale Black Alumni Association Board, *Director* and *Executive Officer* (2015 – 2019)
- Bread for the World, Bread for the World Institute and the Alliance to End Hunger Board, *Director* and *Executive Officer* (2009 – 2017)

PUBLICATIONS

- Contributing Author, *Lament and Hope*, Bread for the World Newsletter, Washington, D.C. (2019)
- *Righteous Resistance: A Church on the Margins*, Justice Revival Blog, Washington, D.C. (2018)
- Contributing Author, *Mr. President: Interfaith Perspectives on the Historic Presidency of Barack Obama*, Sims Publishing, Washington, D.C. (2017)
- *Divine Possibility: Ending Hunger by 2030*, New Haven: Yale University Press. (2014)

SELECT SPEECHES AND PRESENTATIONS

- Lecturer, Political Science Department at Rutgers University – New Brunswick, New Brunswick, NJ (2019)
- Panelist, Parkway Center City Middle College, Philadelphia, PA (2019)
- Panelist, Public Interest Law Day at Villanova Law School, Villanova, PA (2019)
- Executive Lecturer, *Theo-Legal Imagination: Doing the Right Thing, In the Right Way, For the Right Reasons*, Hancock Symposium on Democracy, Westminster College, Fulton, MO (2019)
- Keynote Speaker, KIPP St. Louis 2019 Senior Pennant Ceremony, St. Louis, (2019)
- Presenter, *Freedom of Religious Expression in the Prison Context*, Continuing Legal Education Course, Dowd Bennett 2019 Firm Retreat, Boca Grande, FL (2019)
- Moderator, *The Power and Purpose of a Black Prosecutor*, featuring St. Louis City Circuit Attorney Kimberly Gardner and St. Louis County Prosecutor Wesley Bell, Washington University – St. Louis School of Law, St. Louis, MO (2018)
- Keynote Speaker, Westminster College Freshman Convocation, Fulton, MO (2017)

BAR ADMISSIONS

- Admitted in District of Columbia and State of Missouri; New York (admission pending)

PROFESSIONAL ASSOCIATIONS

- American Bar Association; National Bar Association and Federal Bar Association

Jonathan Edwards
(302) 535-1025
jonathan.edwards21@yahoo.com

Education

Bachelor of Behavioral Science, May 2014, Delaware State University

Work Experience

Loft Realty, Licensed Salesperson, July 2020 to Present

- Analyze market trends, conditions, and activities to accurately advise clients in competitive markets
- Build and maintain relationships with clients to ensure satisfactory transactions
- Manage appointments and show homes to prospective buyers
- Generate list of properties based on buyers needs
- Help clients list homes for sale and prepare competitive market analysis

Citizens National Bank, Change Agent, June 2020 to Present

- Helping to implement and create new ways to bank across our footprint
- Coaching branches on how to improve systems and processes
- Managing information and data through different waves of change across our footprint
- Brainstorming with team leads on effective ways to bring quality transition and effective change
- Maintaining and leading branches through certification processes

Citizens National Bank, Universal Banker, March 2019 to June

2020

- Engage with customers to develop a positive customer experience; strive to make each customer interaction the best experience of their day
- Develop new and existing customers by understanding their financial needs, providing products and solutions to help them spend and save
- Go above and beyond for customers to strengthen and retain long term relationships
- Grow new business and drive referrals to branch colleagues and partners to support the broader financial needs of customers
- Serve as the financial liaison to customers while providing world class customer service
- Open new accounts and assist with teller transactions as needed
- Bring a positive energy and confidence to Citizens Bank and its customers every day
- Receive consistent laudatory comments from customers and leadership alike

Sallie Mae, Personal Loan Banker, April 2018 to January 2019

- Initiates the start-to-finish process for new personal loans
- Assists customers with disbursement issues and online access
- Maintains monthly disbursement goal of 700k-1 million+
- Ensures customers have knowledge of comparative interest rates and benefits
- Markets the benefits of our loan product to ensure our customers make informed decisions

Sallie Mae, Collector I, September 2017 to April 2018

- Communicate with debtors in regards to the repayment of their delinquent debt
- Profile debtors and obtain financial information. Update demographic and financial information on each call. Negotiate the best possible arrangements.
- Refer accounts for legal or administrative wage garnishment processes if applicable as dictated by department and/or client requirements.
- Work within FDCPA, state regulations, department/division & DMO Compliance Policies.
- Maintain clear, concise and accurate documentation of all attempts and/or contacts made and received for accounts in accordance with company and client specifications.
- Maintain current knowledge of and comply with all federal and state rules and regulations governing collections including FDCPA, Privacy Act, FCRA, etc.

Incorporating Services, Ltd., Client Services Assistant, February 2017 to July 2017

- Responsible for assisting in corporate formations and filings
- Filing of company charter documents
- Retrieval of corporate record retrievals
- Handle phone call requests for expedited filing or retrievals
- Assist with UCC searches and filings
- Provides nationwide services to wide range of clientele, law firms, accounting firms and other corporate service companies

Jonathan Edwards
215 Thornton Street, Dover, DE 19901

Dover Federal Credit Union, Member Service Representative, June 2015 –September 2016

- Promoted to Member Services Representative assuming responsibility for interviewing loan applicants, obtaining credit reports for all accounts, verifying debts, reviewing credit reports for adverse history, credit inquiries, and debt repayment information
- Wholly met and exceeded all established consumer and personal loans goals by \$550k over 4 month period!
- Fully responsible for timely, accurate, and complete loan file submissions to loan processors and underwriters thus developing good professional relationships enabling timely loan application movement
- Above and beyond customer interaction which results in alleviating customer concerns by keeping them updated on the status of their loan by face to face interaction and follow up phone calls

Dover Federal Credit Union, Call Center Representative, April 2015-June 2015

- Name-selected to assist in Call Center because of exceptional customer service skills and talent for dealing with difficult customers.
- Responsible for handling incoming phone calls from members and other departments to research errors and member issues.
- Calmed difficult members by can-do attitude, compassion, and concern.
- Skillful in active listening; identified and recommended products and services to help meet members' needs.

Dover Federal Credit Union, Teller, June 2014 - April 2015

- Balanced currency, coin, and checks in cash drawers at ends of shifts, and calculated daily transactions using computers, calculators, or adding machines.
- Cashed checks and paid out money after verifying that signatures are correct, that written and numerical amounts agree, and that accounts have sufficient funds.
- Received checks and cash for deposit, verified amounts, and checked accuracy of deposit slips.
- Examined checks for endorsements and verified other information such as dates, bank names, identification of the persons receiving payments and the legality of the documents.
- Entered customers' transactions into computers in order to record transactions and issue computer-generated receipts.

Honors

Sallie Mae Top Performer, April 2018, Member Sigma Alpha Pi, National Society of Leadership and Success*Member of Chi Alpha, Campus Ministries *Member of National Society of Collegiate Scholars* Delaware State University Academic Scholarship Recipient*Aspire Scholarship Recipient

Licenses

Delaware Real Estate Salesperson License

Skills & Service

Audio Engineering and Production for Pentecostals of Dover since 2015
Production Lead Coordinator for Convoy of Hope Dover

**Section 1.2 - Founding Group and School Leadership :: Attachment 1 ::
Founding Group Biographies**

The Bryan Allen Stevenson School of Excellence
Section 2 - Attachment 1.1 - Founding Group Biographies

Board of Directors

Chantalle Ashford, Educator, Co-Board Chair
Dr. Teresa Berry, Educator, Co-Board Chair
Betsy Renzo, Educator & Attorney, Vice Board Chair
Dr. Katherine Cauley, Retired Professor, Secretary
Denise Snyder, Retired Educator, Treasurer
Lori Crawford, Associate Professor, Founding Board member
Karl Armand, Attorney, Founding Board member
Karen V. Higgins, Retired Law Enforcement Executive, Founding Board member
Amy Shepherd, Educator, Founding Board member
Brad Owens, Outreach and Engagement Coordinator, Founding Board member
Dr. Joseph Kim, Family Physician, Founding Board Member
Diaz Bonville, Community Outreach Coordinator, Founding Board Member
Stacie Burton, Community Outreach Coordinator, Founding Board Member
Derick Dailey, Attorney, Founding Board Member
Jonathan Edwards, Financial Professional, Founding Board Member

Principal Advisory Board Members

Bryan A. Stevenson, Attorney & Founder of the Equal Justice Initiative
Dr. Howard Stevenson, Professor, University of Pennsylvania (Racial Empowerment Collaborative) & Founder, Lion's Story
Christy Taylor, Educator & BASSE Founding Group

Founder

Alonna Berry, Educator & Consultant, Board Chair

Executive Director

Dr. Julius Mullen, Executive Leader and Nonprofit Manager, Executive Director*

School Launch Partner

Kirsten Croner, Educator, School Launch Partner, and Future Dean of Academic Excellence*

Director of Development

Crystal Timmons-Bryant, Nonprofit Consultant, Director of Development*

**Executive Director, School Launch Partner, and Director of Development are resumes included in Attachment 2 and 3.*

The Bryan Allen Stevenson School of Excellence
Section 2 - Attachment 1.1 - Founding Group Biographies

Board of Directors

Chantalle Ashford, Educator, Co-Board Chair, Founding Board Member

Chantalle is a 2014 alumna of the College of William & Mary and a former Teach For America corps member. Receiving her master's degree in teaching from the Relay Graduate School of Education in 2017, she is currently in her seventh year of service as an educator. Over the course of her career, she has led in choral, special education, and English classrooms. Chantalle is also committed to pursuing educational leadership beyond the classroom, participating in both the national Rural School Leaders Academy (2016-2018) as well as the Delaware Department of Education's Educators as Catalyst Fellowship (2016). With the Rural School Leadership Academy, Chantalle deepened her knowledge of school leadership through a rural lens. After completing her initial fellowship at the Delaware Department of Education (DDOE), Chantalle has continued to contract with the DDOE as a teacher consultant specializing in equity. Specifically, Chantalle has supported the DDOE's Diverse and Learner Ready Teacher's Initiative through the Council of Chief State School Officers and helped to develop Delaware's equity framework and guidance documents. Through these opportunities, Chantalle explored her ability to be an educational change agent, which led her to her current service as the vice board chair of the Bryan Allen Stevenson School of Excellence. She is currently pursuing her doctoral degree in Educational Leadership and Policy at American University. Chantalle is a Delawarean who is committed to educational excellence for all.

Dr. Teresa Berry, EdD, Educator, Co-Board Chair, Founding Board Member

Dr. Teresa Berry has had a wide array of educational experiences throughout her 30-year career. She has served in the roles of teacher, behavioral intervention specialist, in-school suspension specialist, dean of students, assistant principal, and pupil personnel worker until promoted to her current leadership position as principal of New Directions Learning Academy(NDLA) with Dorchester County Public Schools. Teresa set up and created an in-school suspension program in Guam. She has worked in the states of Arizona, Delaware, and Maryland.

Teresa holds certifications in Delaware and Maryland as Administrator I and II, Superintendent, History, Special Education, and Reading. She is currently participating in the Rural Leadership Academy with Teach for America.

Dr. Berry holds a Doctorate in Education from Wilmington University, writing her dissertation on the Impact of Teacher Absenteeism on Students Achievement in Rural schools. Additionally, she has a Master of Arts in Curriculum and Instructions and a Bachelor of Arts in History and Political Science from Delaware State University.

The Bryan Allen Stevenson School of Excellence
Section 2 - Attachment 1.1 - Founding Group Biographies

Betsy Renzo, Educator & Attorney, Vice Board Chair, Founding Board Member

Betsy has extensive experience in law and education. After graduating from Skidmore College in 2004, and from the Temple University Beasley School of Law in 2007, she worked for four years as an attorney in Pennsylvania. In 2012, she graduated from Stanford University's Graduate School of Education with a Master's Degree in Policy, Organization, and Leadership Studies.

Next, she worked as an Executive Specialist to the CEO of Aspire Public Schools, a charter school management organization in Oakland, California, before teaching AP Government to underserved students in East Palo Alto for two years at Eastside College Preparatory School. In 2015, she moved to Delaware and taught Global Peace and Justice Studies to 9th-grade students at Wilmington Friends School. Currently, Betsy leads WAVE, a non-profit working to increase the effectiveness of remote learning for students across the city of Wilmington. Betsy also works part-time at Drinker, Biddle & Reath, LLP, as a law clerk.

Dr. Katherine Cauley, Ph.D., Retired Professor, Secretary, Founding Board Member

Katherine Cauley, PhD., is a graduate of DePauw University, BA, the University of Cincinnati, MEd, the University of Maryland, PhD, and the MCP Hahneman University Executive Women's Leadership Program. After eight years teaching English, speech, and theater in public secondary schools, Dr. Cauley joined the faculties of Iona College (1985-1989), George Washington and Johns Hopkins Universities (1989-1993), and Wright State University, Schools of Medicine, Public Health and Professional Psychology (1993-2017) where she taught psychology, interprofessional ethics, global health, and community-based primary care, served as Vice Chair of the Department of Community Health, Directed a community-academic partnership called the Center for Healthy Communities, directed the University Community Engagement Program, Directed the International Education Program, developed service-learning curricula, secured \$5mil in grants and contracts, conducted research, and published over forty peer-reviewed books, and articles. Much of Dr. Cauley's research focused on the impact of service-learning related to social responsibility and academic success. Retired in 2017, Dr. Cauley is Professor Emerita and now resides in Rehoboth Beach, DE, where, in addition to serving on the BASSE Board of Directors, she teaches ESL classes, as is a member of the Advisory Board of the Biden School of Public Policy and Administration at the University of Delaware.

Denise Snyder, Retired Educator, Treasurer, Founding Board Member

Denise is an educator with over 35 years of experience with the public education system in Delaware. She holds a Bachelor of Science degree in special education, a Master of Elementary Education, and an additional 60 credits as a retired educator in the State of Delaware. After teaching 35 years in the Indian River School District, Denise went back on a part-time basis as a special education coordinator to assist Sussex Academy Charter School

The Bryan Allen Stevenson School of Excellence
Section 2 - Attachment 1.1 - Founding Group Biographies

for 2 two years. She is the author of a Children's study titled "What About Our Money," which was published by United Methodist Women in 2018. Denise Snyder was chosen as one of the 25 founding members of the Teachers' Leadership Network, a partnership with the Department of Education and the Rodel Foundation in Delaware.

Lori Crawford, Educator, Founding Board Member

Lori is an Associate Professor of Art at Delaware State University. Ms. Crawford has been a faculty member in the DSU Department of Art since 1996. Additionally, Lori is the parent of a Delaware high school student who attended Providence Creek Academy.

Karl Armand, Attorney, Founding Board Member

Karl serves as the National Contracts Manager for Comcast Business and specializes in school district/public library contracts and requests for proposals with Comcast. This experience allows him to understand the forethought and trajectory planning for K-12 education and infrastructure. He graduated with a BA in law and business from Temple University in 2009 and went on to receive his JD from Widener University Law School in 2016. Following graduation, he was an Anti-Money Laundering Analyst for J.P. Morgan Chase in Newark, DE, before entering his current position as a National Contract Manager for Comcast.

Karen V. Higgins, Retired Law Enforcement Executive, Founding Board Member

Spanning a career of 32 years with the U.S. Postal Service, Karen retired as the lead executive, Inspector in Charge, for the U.S. Postal Inspection Service's Philadelphia Division. As the Inspector in Charge, Karen had oversight and responsibility for the division's investigators, administrative, and uniformed police personnel; and overall division management. Karen is a native Delawarean, raised in Sussex County. She received her Bachelor of Science degree in Criminal Justice from the University of Delaware, a Criminal Law Paralegal certificate from the Philadelphia Institute for Paralegal Training, and a Master of Arts degree in Business and Organizational Security Management from Webster University. Post-retirement, Karen serves on the Board of Directors for the Priority Plus Federal Credit Union, Wilmington, Delaware, and volunteers with the Literacy Delaware tutoring program. Karen serves on the Governance subcommittee of the Bryan Allen Stevenson School of Excellence.

The Bryan Allen Stevenson School of Excellence
Section 2 - Attachment 1.1 - Founding Group Biographies

Amy Shepherd, Educator, Founding Board Member

Amy Shepherd is the BASSE subcommittee chair for Community Engagement. Amy has spent her 26-year career as an educator, with a deep commitment to educating the whole child with a focus on equitable teaching practices. She is currently the Director of Diversity, Equity, and Inclusion and School Librarian at St. Anne's Episcopal School in Middletown, DE, where she has served for 16 years. Amy is certified in Early Childhood and Elementary Education and holds a professional certificate from Cornell University in Diversity and Inclusion. In addition to her work with BASSE and St. Anne's, Amy is also a board member of the Unequal Justice Project through the Delaware Historical Society and a board member of the Delaware Social Justice Remembrance Coalition, which was founded by her 15-year-old daughter after she was inspired by Bryan Stevenson's work at the Legacy Museum and the National Memorial for Peace and Justice. Amy currently serves on the leadership team of an independent school and plans to facilitate professional development in the areas of diversity, equity, and inclusion.

Brad Owens, Outreach and Engagement Coordinator, Founding Board Member

Brad serves as the Director of Outreach and Engagement with Delaware Psychological Services (DPS): a behavioral health care provider with two clinic locations in Delaware. Prior to DPS, Brad served in various roles related to prison reentry, including a role as the Director of Reentry Planning Services for Connections, CSP. Currently, Brad focuses his work on initiatives related to workforce development, case management, behavioral health care, and reentry services. Brad earned a Bachelor's Degree in Criminal Justice from West Chester University in 2010 and a Law Degree from Charlotte School of Law in 2015.

Dr. Joseph Kim, MD, Family Physician, Founding Board Member

Dr. Joseph Kim is a family physician in Laurel, Delaware, employed with the Nanticoke Physicians Network and has over 17 years of experience in the medical field. He is the current President of the Medical Staff for Nanticoke Memorial Hospital and serves on the Board of Directors. Dr. Kim is a board trustee and past president of the Delaware Academy of Family Physicians, as well as Delaware alternate delegate for the American Academy of Family Physicians. Dr. Kim and his wife, Nicole, started a charitable foundation, the Kim and Evans Family Foundation, Inc, to better the lives of disadvantaged people and animals in Sussex County and beyond. He has one daughter who attends Sussex Academy. They currently reside in Seaford, Delaware.

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Section 2 - Attachment 1.1 - Founding Group Biographies

Diaz Bonville, Community Outreach Coordinator, Founding Board Member

Diaz serves as the Community Outreach Coordinator for the Office of Lisa Blunt Rochester, U. S. Representative. Additionally, Diaz is the co-founder of the West Rehoboth Children & Youth Program, a community-based afterschool program for at-risk, low-income, disadvantaged youth. Diaz is a graduate of Cape Henlopen School District and has an associate's degree in Human Services with a concentration in Program Management.

Stacie Burton, Community Outreach Coordinator, Founding Board Member

Stacie serves as the Community Relations Liaison for the Office of the Governor in Delaware. She is presently an active mentor with the Big Brothers and Big Sisters Organization. Stacie is a committee member of the 20th District Democratic Committee. She is also on the broadcasting committee for the Southern Delaware Alliance for Racial Justice, also known as SDARJ. Stacie serves as the President of the Sussex County Women's Democratic club. Recently, Stacie was named to the National Board of Directors for Turning Point Suffragist Memorial.

Stacie Burton recently graduated from Wilmington University with a Master of Science degree in Public Administration. Stacie has lived and worked in Sussex County, Delaware, her entire life, with nearly 10 ten years of public service with Sussex County Government. She presently works as a staff assistant and constituent services representative for Governor John Carney.

Derick Dailey, Attorney, Founding Board Member

Derick D. Dailey is an Assistant United States Attorney in the U.S. Attorney's Office for the District of Delaware. In his role, Derick is Chief of the Financial Litigation Unit, represents the United States and its interests in chapter 7, 11, and 13 bankruptcy cases and adversary proceedings, and litigates affirmative civil enforcement cases (ADA, FCA, etc.), general defensive, and white-collar criminal matters in federal court. Derick also serves on the District's Re-entry Court and is a member of the District's Leadership Council.

Jonathan Edwards, Financial Professional, Founding Board Member

Jonathan currently works as the Distribution Change Agent, managing multiple branches for Citizens Bank. He has expertise in loan processes, banking, fraud disputes, and branch processes. During his career, he has worked for several national and local financial institutions, including Dover Federal Credit Union, Sallie Mae, and Citizens Bank.

The Bryan Allen Stevenson School of Excellence
Section 2 - Attachment 1.1 - Founding Group Biographies

Principal Advisory Board Members

Bryan A. Stevenson, Attorney & Founder of the Equal Justice Initiative

Bryan Stevenson is the founder and Executive Director of the Equal Justice Initiative (EJI) in Montgomery, Alabama. Mr. Stevenson is a widely acclaimed public interest lawyer who has dedicated his career to helping the poor, the incarcerated, and the condemned. Under his leadership, EJI has won major legal challenges eliminating excessive and unfair sentencing, exonerating innocent death row prisoners, confronting abuse of the incarcerated and the mentally ill, and aiding children prosecuted as adults. Mr. Stevenson has successfully argued several cases in the United States Supreme Court and recently won a historic ruling that mandatory life-without-parole sentences for all children 17 or younger are unconstitutional.

Dr. Howard Stevenson, Ph.D., Professor, University of Pennsylvania (Racial Empowerment Collaborative) & Founder, Lion's Story

Dr. Howard Stevenson is the Constance Clayton Professor of Urban Education, Graduate School of Education at the University of Pennsylvania. He is the Executive Director of the Racial Empowerment Collaborative, designed to promote racial literacy in education, health, and community institutions. His most recent research focuses on helping children and adults develop and use assertive coping strategies during face-to-face microaggressions. Key to this racial healing work is the use of culture to reduce in-the-moment threat reactions and increase access to memory, physical mobility, and voice.

Christy Taylor, Educator & BASSE Founding Group

Christy is a lifelong music educator in Sussex County, Delaware. Over her 30 year career, she has taught music in public and private schools across the state of Delaware. Additionally, she's instructed professional musicians at Delaware State University and the University of Maryland Eastern Shore. Christy is deeply committed to the local community in Sussex County and an active member of various community organizations. She leads a local jazz group, Shades of Blue, and runs a local music business, Taylor Music.

The Bryan Allen Stevenson School of Excellence
Section 2 - Attachment 1.1 - Founding Group Biographies

Executive Director

Dr. Julius Mullen, Executive Leader and Nonprofit Manager, Executive Director

Dr. Julius Mullen comes to BASSE with over two decades of education experience, executive leadership, non-profit management, and behavioral health expertise. A native of Sussex county, Julius brings a unique set of skills, knowledge, and background which align perfectly with the fundamental mission of BASSE - proximity. Dr. Mullen has embraced the concept of proximity throughout his professional and personal journey. He has earned a portfolio of credentials and experiences propelling his ability toward getting proximate or closer to solving real challenges impacting so many students and families in Delaware. He has served as the chief clinical officer for Children & Families First for the last ten years primarily overseeing an array of education services. Julius graduated with an education doctorate in innovation and leadership from Wilmington University; completed executive leadership certification from University of Michigan and Alliance of Strong Families and Communities; managed multi-million dollar education program operations; lead a variety of school-based multi-tier services; taught hundreds of doctorate, master and bachelor level education, psychology and prevention science courses; developed and implemented a grassroots parent-driven mentoring program and trained thousands of education professionals, mental health practitioners, community leaders, parents and youth in a variety of topics. Dr. Mullen values the significance of board governance and education policy as he sits on several state and national boards including the role of interim president for Trauma Matters Delaware, long-term board member for Sussex Child Health Coalition (founding board president), former board member for professional mental health counselor, board member of national Executive Leadership Institute and advisory member of the national education policy committee for Social Current.

Complimenting his educational leadership expertise, Dr. J is a licensed professional counselor of mental health in Delaware, a nationally board-certified counselor, and trained in several evidence-based therapeutic interventions. He is also a national expert in trauma-informed care/social emotional learning where he conducts keynotes, presentations, and seminars at national conferences and events. He also developed and lead several organization-wide initiatives at Children & Families First including a Brain Science Training Institute for professional and community disciplines, a professional development program for leaders, and a trauma response support team for helping professionals. Most recently, Julius has increased his attention on infusing equity policies and procedures across systems where he co-chaired United Way Racial Justice Collaborative, serves on Populations of Inequities Coalition with Beebe Healthcare, and oversees an Equity, Diversity, and Inclusion Task Force at Children & Families First. Dr. J and his wife, Natasha wrote two children's books Just Love Me and I Got A Big Brain highlighting student diversity and youth resilience in schools.

The Bryan Allen Stevenson School of Excellence
Section 2 - Attachment 1.1 - Founding Group Biographies

Reflecting on his new role, Julius commented, “I am excited, honored, and humbled to join a diverse team of talented and compassionate parents, students, founders, board members, professionals, and stakeholders. Our mission focuses on proximity which emphasizes the closer we get to people and things, the better we understand the answers. We will use hands-on service opportunities, academic rigor, personalized learning, and community partnerships to help students be who they were meant to be regardless of any life circumstance. When we “get closer” to understanding what matters most to students, a bridge of hope, healing, and promise can make the ultimate difference in a child’s trajectory. Families, generations, and communities can be forever changed. Our school plan is to partner with other schools in Sussex County by ensuring options for all students to obtain the most suitable education based on their holistic needs. There is no “I” in BASSE but there is a powerful “A”. The success of our school will take All of us, so All educational dreams and aspirations for All students can be realized.”

The Bryan Allen Stevenson School of Excellence
Section 2 - Attachment 1.1 - Founding Group Biographies

School Launch Partner

Kirsten Croner, Educator, School Launch Partner, Future Dean of Academic Excellence

Kirsten began her professional career in the banking industry and has used that experience in her educational career. In 2010, Kirsten transitioned into her career in education as a classroom teacher supporting various grade levels and students, including students in the traditional classroom setting, special education students, and English language learners. Since then, Kirsten has held a variety of roles in the education field, including special education case manager and curriculum developer. Kirsten co-wrote several math curriculums focusing on the needs of students classified as Special Education as well as co-writing the math portion for a charter renewal application for the state of Delaware.

After spending seven years in the classroom, Kirsten joined the Teach For America Delaware team as the Manager of Teacher Leadership Development. During this time, Kirsten coached, mentored, and developed 20+ novice teachers yearly and created alignment between TFA and its partner schools. Additionally, Kirsten has experience tracking student and teacher data trends, implementing social-emotional learning standards in the classroom, and developing diversity, equity, and inclusion training for teachers.

Kirsten graduated from Neumann College with a B.S. in Sport Management, followed by obtaining her M.Ed. in Elementary Education with a concentration in Special Education. Kirsten also obtained her School Leadership certification, with all graduate coursework being completed at Wilmington University.

As a native Delawarean, Kirsten is committed to positively impacting her community both inside and outside the classroom. Her volunteer efforts include coaching girls' basketball, as well as sitting on several committees focused on bullying in schools and teacher engagement in the communities they serve. Currently, Kirsten works as a tutor for Path to Success, a program developed by Delmarva Power to bring high school juniors and seniors job opportunities upon graduation.

Kirsten is the founding instructional school leader of The Bryan Allen Stevenson School of Excellence.

The Bryan Allen Stevenson School of Excellence
Section 2 - Attachment 1.1 - Founding Group Biographies

Director of Development

Crystal Timmons-Bryant, Nonprofit Consultant, Director of Development

Crystal Timmons-Bryant has worked in Nonprofit for over 15 years, building and maintaining grassroots relationships with funders, social service partners, community, faith leaders, elected officials, and others throughout the state. Over the last 7 years building her business consulting for Nonprofits she helped to improve the quality of life for all Delawareans by focusing on improving community outcomes in the areas of education, income, and health.

Crystal started her career in Nonprofit with the Food Bank of Delaware as the Milford Branch Manager. Crystal's role evolved when she took over the Summer Food Service and After School at Risk Food Service Program through the Department of Education, she and her team served meals to over 2,000,000 at-risk youth in one summer throughout Delaware. Crystal also secured a grant that led her to work with Feeding America as a train-the-trainer and helped to open several school pantries in at-risk communities in other states as well as securing funding to pilot school base mobile pantries in all three counties which lead to securing the funding to open more. During that time Crystal also secured a grant to purchase a mobile food truck that provided mobile pantries in the at-risk communities. Crystal worked with local businesses and community members to secure funding for a capital campaign for the Milford Expansion that would provide a culinary school and training program in Sussex County.

During her time at The Food Bank of Delaware, Crystal, a single mother, completed her Bachelor of Science in Communication with a concentration on Asian, African American, and Hispanic cultures. Crystal knew the importance of wrap-around services for people needing a hand up and knew she wanted to be able to help raise awareness and money to provide the services for those in need. Crystal started working with United Way of Delaware as their Community Relations Manager and was responsible for fundraising, community engagement activities, and advancing UWD's relationships with stakeholders throughout Sussex County. During this time, Crystal used her skills in grant writing and secured a USDA grant that provided her the first \$300,000.00 to build a Poultry Farm in Sussex County. Crystal took pride in her farm and placed as a top grower several times before selling in 2018.

For the past five years, Crystal has served as a consultant for Sussex County Health Coalition where she helped drive the mission to engage the entire community in a collaborative family-focused effort to improve the health of children, youth, and families in Sussex County by working in proximity with public, private and nonprofits.

Crystal's love of the community and desire to provide EVERYONE who works and lives in this community a place of hope. La Esperanza became near and dear to her after her friend Matt Haley introduced her to the Carmelite Sisters of Charity—Sister Maria Mairlot, Sister Rosa Alvarez, and Sister Ascencion Banegas, Crystal started volunteering and later became the

The Bryan Allen Stevenson School of Excellence
Section 2 - Attachment 1.1 - Founding Group Biographies

Interim Executive Director in 2015 & 2016 where she worked closely with the board to hire and train the leadership and grow programs. For the past two years, Crystal acted as a part-time operations consultant.

Crystal has volunteered her services to many smaller nonprofits in Sussex County helping them with startup questions, board governance, and grant writing.

Crystal is excited and eager to bring her skills to the team at BASSE and continue to support the mission to create pathways through proximity, for our students, their families, and our community.

**Section 1.2 - Founding Group and School Leadership :: Attachment 2 -
Principal/School Leader candidate qualifications, resume, and
professional biography**



**BRYAN ALLEN STEVENSON
SCHOOL OF EXCELLENCE**

Meet Kirsten Croner

*The Bryan Allen Stevenson School of Excellence
School Launch Partner*



Kirsten Croner is the founding instructional school leader of The Bryan Allen Stevenson School of Excellence. Kirsten began her professional career in the banking industry and has used that experience in her educational career. In 2010, Kirsten transitioned into her career in education as a classroom teacher supporting various grade levels and students, including students in the traditional classroom setting, special education students, and English language learners. Since then, Kirsten has held a variety of roles in the education field, including special education case manager and

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Kirsten graduated from Neumann College with a B.S. in Sport Management, followed by obtaining her M.Ed. in Elementary Education with a concentration in Special Education. Kirsten also obtained her School Leadership certification, with all graduate coursework being completed at Wilmington University.

The Bryan Allen Stevenson School of Excellence
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As a native Delawarean, Kirsten is committed to positively impacting her community both inside and outside of the classroom. Her volunteer efforts include coaching girls' basketball, as well as sitting on several committees focused on bullying in schools and teacher engagement in the communities they serve. Currently, Kirsten works as a tutor for Path to Success, a program developed by Delmarva Power to bring high school juniors and seniors job opportunities upon graduation.

Kirsten (Patton) Croner

505 Lisbeth Road, Newark, DE
19713 | 302-304-0899 | Kirstencroner@gmail.com

Profile

- Organized, resourceful educator with more than 10 years in the field of education. Proven ability to educate students as well as manage multiple behaviors in both an urban and suburban setting. Known for excellent planning and problem solving as well as growing novice teachers into actual educators, in multiple settings, with little to no familiarity with the community they are in.

Skills & Abilities

TEACHER DEVELOPMENT

- Successfully managed and grew in skill set, over 20 teachers yearly.
- Authored and presented professional development on a wide variety of topics.
- Taught teachers how to effectively use data to drive instruction.

CURRICULUM DESIGN

- Created middle school math curriculum to be used for 6th grade as well as participated in the creation and amendment of elementary math curriculum.
- Revised previously used middle school math curriculum to be used for students with special needs throughout grades 5-8.
- Assisted in writing the math portion of a Charter Renewal proposal.

PLANNING

- Arranged and executed I.E.P. meetings for students with special needs.
- Organized and provided programming for parent participation meetings.
- Scheduled team building activities along with professional development sessions aligned with the goals of Teach For America.

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COMMUNICATION

- Participated and facilitated ongoing meetings with administrators to ensure positive working relationships and teachers were meeting expectations.
- Participated and facilitated weekly debrief meetings with teachers based on classroom observations.
- Participated in weekly check-ins with my supervisor to ensure that all parts of the program were running as intended.

LEADERSHIP

- Planned and executed multiple professional development sessions based on the needs of partner schools and teachers.
- Led after-school program for low-income students with no parental support once the school day let out.
- Chartered an Anti-Bully Program.

Education

M.ED. CERTIFICATE | 2013 | WILMINGTON UNIVERSITY

- School Leadership

M.ED. | 2012 | WILMINGTON UNIVERSITY

- Major: Elementary Education
- Minor: Special Education

**The Bryan Allen Stevenson School of Excellence
Section 2 - Attachment 2 - School Leader Biography and Resume**

Experience

SCHOOL LAUNCH PARTNER | JOUNCE PARTNERS AND THE BRYAN ALLEN STEVENSON SCHOOL OF EXCELLENCE | 12/2020 - PRESENT

AVID COORDINATOR | BRANDYWINE SCHOOL DISTRICT | 07/2020 - 12/2020

SPECIAL EDUCATION TEACHER | BRANDYWINE SCHOOL DISTRICT | 09/2019 - 12/2020

MANAGER, TEACHER LEADERSHIP DEVELOPMENT | TEACH FOR AMERICA | 08/2017 - 09/2019

5TH GRADE TEACHER | BRANDYWINE SCHOOL DISTRICT | 08/2015-08/2017

2ND GRADE TEACHER | CHRISTINA SCHOOL DISTRICT | 08/2014-06/2015

5TH GRADE TEACHER | CHRISTINA SCHOOL DISTRICT | 11/2013-06/2014

6TH AND 7TH GRADE CASE MANAGER/7TH GRADE MATH CO TEACHER | PRESTIGE ACADEMY | 08/2013-11/2013

6TH AND 7TH GRADE CASE MANAGER | PRESTIGE ACADEMY | 08/2012-08/2013

6TH GRADE MATH TEACHER | PRESTIGE ACADEMY | 06/2011-08/2012


MIDDLE SCHOOL SS SPEC ED TEACHER | CHRISTINA SCHOOL DISTRICT | 08/2010-06/2011

LONG-TERM SUBSTITUTE TEACHER | CHRISTINA SCHOOL DISTRICT | 01/2010-06/2010

**Section 1.2 - Founding Group and School Leadership :: Attachment 3 -
School Leadership Team Leadership Team Resumes and Biographies**

JULIUS MULLEN SR.

Ed.D., NCC, LPCMH, M.Ed.

 (302) 858-6184

 drjmullen@gmail.com

 Dover, DE

CORE EXPERTISE

Executive Leadership
Educational Development
Clinical Supervision
Youth Empowerment
Self-Care and Compassion Fatigue
Trauma and Brain Science
Children & Families Mental Health
Equity, Diversity and Inclusion
Emotional Intelligence
African-American Health/Well-Being
Training and Public Speaking

EDUCATION

Executive Leadership Institute
University of Michigan & Alliance
for Stronge Families and
Communities / 2016

**Aspiring Leadership
Certification**
National Executive Leadership
Program / 2011

Ed.D. in Innovation & Leadership
Wilmington University / 2004

M.Ed. in School Counseling
Wilmington University / 1998

BA in Behavioral Science
Wilmington University / 1995

AAS in Criminal Justice
Delaware Technical &
Community College / 199



CAREER HIGHLIGHTS

- **Lead** a portfolio of education, mental health and professional development programs comprising of 100+ employees, students and volunteers.
- **Managed** a platform of non-profit entities with an operating budget of nearly ten million dollars.
- **Developed** multiple educational initiatives and projects leading to state and national awards and recognition.
- **Expanded** several behavioral health programs with integration of evidenced based practice, innovative strategic development resulting with positive outcomes.
- **Mentored** professionals at varying levels of expertise including executive leaders, doctorate students and education/mental health professionals.
- **Trained** over ten thousand professionals and students across the United States in the field of education, leadership, mental health, trauma and equity.
- **Served** on many state and national boards as president, advisory and member.



EXECUTIVE AND EDUCATIONAL LEADERSHIP

Chief Clinical Officer

2011 – Present

Children & Families First Inc.

- Serve as C-Suite member of executive management team.
- Oversee portfolio of best practice programs in areas of education, trauma informed care, behavioral health and child welfare.
- Responsible for articulating and implementing mission alignment, strategic vision and agency priorities.
- Manage and monitor approximately ten million dollars in operation budgets.
- Maintain communication between board of directors, executive management and organizational staff by integrating collaborative consultation.
- Lead strategic planning, program evaluation and outcome analysis process based on best practice protocols.
- Promote and diversify funding through effective resource stewardship with a mix of federal, state, local funding and private philanthropic support.
- Enhance the structure of the organization by staying abreast of best practices in education, mental health and child welfare arenas.
- Serve as point person for integration of trauma informed care and social emotional learning throughout agency.
- Lead and infuse Brain Science Training Institute in partnership with local university.
- Direct agency-wide professional development program for c-suite, directors, managers and supervisors.
- Manage clinical supervision department with compliance with agency and educational state regulations.
- Lead and integrate equity, diversity and inclusion policies and practices across organization.
- Supervise agency innovation lab to empower staff voice in solving macro challenges.
- Collaborate and network with state and national stakeholders, partners and experts.

Director of Educational Day Treatment

2006 – 2011

Children & Families First Inc.

- Lead education and clinical operation of day treatment staff, mental health professionals and teacher assistants.
- Direct staff in maintaining clinical program in compliance with council on accreditation standards and Delacare licensing guidelines.
- Function as a role model in clinical specialty, demonstrating competency in clinical judgement, selected technical skills, and appropriate knowledge base.
- Maintain standards that meet regulatory requirements and ensured staff compliance with professional and departmental standards, policies, and procedures.
- Plan, organized and distributed work among direct care staff to maximize performance and efficiency.
- Manage operations and workflow through effective planning, organization and delegation.
- Promote professional development of staff and contribute directly to staff education.
- Conduct employee performance evaluations of staff and recommendations for promotion, discipline, or dismissal.

JULIUS MULLEN SR.

Ed.D., NCC, LPCMH, M.Ed.

(302) 858-6184

drjmullen@gmail.com

Dover, DE

CREDENTIALS

Licensed Professional Counselor
of Mental Health / 2006

National Board for Certified
Counselors / 2006

Trauma Focused Cognitive
Behavioral Therapy / 2010

AWARDS & RECOGNITION

Governors Trauma Champion Award
CFF Trauma Response Team / 2021

National Change in Mind Brain Science
Organization / 2017

Jefferson Award Winners (2x)
2007 2014

Delaware Catalyst For Change Award
2011

Delaware Superstars in Education
Man Up Mentoring / 2006

Washington Post / 2007
Man Up Mentoring

Head Start Parent of the Year / 1995
First State Community Action Agency

Numerous awards and recognition in
print and television media for
educational, mental health and youth
mentoring accomplishments

IMPACT Delaware Inc.
100% (n=202) High School Graduation
96% (n=194) Post Graduation Success
College Graduates, College Attendees,
Military Enlisted or/and
Gainfully Employed / 2018



TEACHING, TRAINING AND PUBLIC SPEAKING

Adjunct Professor

2004 – Present

Wilmington University, Delaware

- Teach in several departments including doctorate of prevention science, master of school counseling, master of clinical mental health and undergraduate of social and behavioral sciences. Certified to teach face-to-face, hybrid and online.

Trainer/Public Speaker

2004 – Present

- Present to local, state and national audiences in the areas of education, mental health, trauma/brain science and equity (keynote, conferences, seminar, workshops, panels, etc.)

Author

2021

- Published two children books: *Just Love Me* and *I Got A Big Brain*



CLINICAL COUNSELING EXPERTISE

Outpatient Therapist

2017 – Present

Milestones Consultants, LLC.

- Provide mental health treatment to adults addressing anxiety, depression and trauma.
- Implement trauma-informed interventions to treat identified clinical issues.
- Conduct individual and group therapy as primary therapeutic modalities.

Program Manager of Intensive Outpatient Services

2003-2006

Delaware Guidance Services, Inc.

- Oversee, manage and supervise mental health program serving children, youth and their families.
- Provide clinical supervision to counselors, community interventionist and students.
- Organize, review and analyze data ensuring quality treatment outcomes.
- Collaborate with mental health agencies, schools, courts and community stakeholders.

School-Based Therapist

2000 - 2003

Delaware Guidance Services, Inc.

- Provide evidenced-based mental health treatment to students and families in schools.
- Conduct individual, family and group therapeutic modalities as primary interventions.
- Consult with teachers, administrators, parents and community leaders to ensure quality services for all students.
- Assess and make educational recommendations based on student needs

Crisis Counselor

1998 - 2000

Delaware Guidance Services, Inc.

- Evaluate children and adolescents for suicidality, homicidal ideation and other psychological risks.
- De-escalate clients with best practice crisis intervention procedures and strategies.
- Coordinate services with emergency room personnel, psychiatric staff and other mental health professionals.
- Refer youth to appropriate level of service based on safety and psychological need.



ADDITIONAL EXPERIENCE & INVOLVEMENT

Board President

2021 – Present

Trauma Matters Delaware

Board Member

2020 – 2021

Trauma Matters Delaware

Board Vice President

2007 - 2017

Board of Professional Counselor Regulation

Board Member

2017 – Present

National Executive Leadership Institute

Co-Executive Director

2005 – Present

IMPACT Delaware

Board President

2004 – 2010

Sussex County Health Coalition



PROFESSIONAL SUMMARY

Accomplished business executive experienced in leading companies and expanding growth into the future. Impeccable record of achieving long-term growth and Sustainability. Develop and implement strategic and operational plans to achieve objectives. Successful professional bringing 12 years of broad-based business experience in strategic planning and overall operations. Experience in nonprofit.

SKILLS

- Non-Profit Management
- Development
- Networking
- Research
- Analytical thinking
- Prioritization
- Planning
- Creative thinking
- Multitasking
- Customer relations
- Grant writing
- HR Management
- Collaboration
- Auditing/
- Operations Management
- Training
- Problem-solving
- Coordination
- Public speaking
- Marketing and communication

EXPERIENCE

President/Executive Director, CTU Consulting, Jan 2015 - Current, Milford, DE

- Non-Profit Management
- Help forming 501c3 for organizations
- HR Management
- Operations Management
- Set and monitored objectives, performance indicators, and metrics to assess employee progress.
- Directed the development, implementation, and management of products and services.
- Raised seed and angel funding to launch initiatives contained in aggressive business plan.
- Maintained quality and precision by developing culture of stability and strong performance.
- Supervised facility operations in home office and at remote locations, ensuring safety and functionality of services.
- Established company culture, vision, goals, and objectives.

- Spear headed development, implementation, and management of an effective human resources program.
- Reviewed systems in place to manage internal controls of all financial activities and contributed strategic planning.
- Participated in forecasting budget and assessing long-term financial and sustainability planning, reporting to Executive team.
- Led management team in all aspects of business development including consumer research, competitive research, and emerging opportunities.
- Reduced costs by improving efficiency across the board and renegotiation key contracts with more favorable pricing structures.
- Identified and corrected deficiencies with forward-thinking approaches to address organization-wide and department-level problems.
- Developed budgets for product development and new product introduction.
- Supervised Office Manager and Administrative Staff, ensuring that all operating units received adequate support for operations.
- Developed highly functioning HR operation that met changing needs and requirements of organization.
- Monitored operations for cost-effectiveness, quality, and productivity, using quantitative data.
- Participated in seminars and additional training to expand knowledge and skills.
- Assisted team members and managers with tasks to maintain productivity and meet project milestones.
- Evaluated existing marketing materials, social media, and advertising to develop strategy for prioritizing future marketing activities.
- Met with local business owners and company decision-makers to discuss marketing goals and needs.
- Developed relationships internally and in field to understand program scope, resource requirements, and new and potential areas of work.
- Expanded revenue-generating and fundraising activities to support existing program operations.
- Promoted and advanced mission, strategic plan, and partnership development to elevate organizational reach and impact.
- Served as key member of development team influencing and driving strategy, relationships, and best practices to accomplish market and region financial goals.
- Compiled and developed materials to submit to granting or other funding organizations.
- Handled crisis communications with well-organized plans, excellent media relations and smooth approach to controlling narrative.
- Obtained favorable media coverage for the organization's activities by cultivating strong connections with media representatives and writing fresh, interesting press releases.
- Developed multi-pronged approaches to keeping the organization in the public eye, including sponsoring events and hosting parties.
- Required minimal oversight to complete job tasks, meeting all deadlines and goals.
- Reviewed activities regularly to identify opportunities for improvement.
- Observed production, developmental, and experimental activities to determine operating procedure and relevant details for readers.

- Assisted in special event production and coordination, including various sized benefits and corporate-related events and meetings.
- Monitored processes and recommended methods for improvement.
- Assisted team members and managers with tasks to maintain productivity and meet project milestones.

Owner, Devil Dog Poultry Farms, Jul 2013 - Dec 2018, Bridgeville, DE

- Grower of 81,000 Broiler (3) Poultry Farm.
- Provided repair service and all aspects of operations for Poultry houses.
- Facility manager of Devil Dog Poultry Farms.
- Placement of Top 5 grower and better than average Grower for three years in a row.
- Grant writing for USDA programs.
- Became a support person for new growers with Amick Farms.
- Identified areas for expansion by analyzing market, consumer trends, and competition.
- Increased revenue and reduced risk by enforcing company policies and improving operations.
- Met with prospective clients to present company offerings, discuss products, and showcase service solutions.
- Managed stewardship and finances, including ensuring compliance with federal, state, and local regulations.
- Raised seed to launch the startup funding.
- Monitored operations for cost-effectiveness, quality, and productivity, using quantitative data.

Executive Director, La Esperanza, Inc, Jan 2015 - Jun 2016, Georgetown, DE

- Secured and maximized funding from prospective foundations, corporations and governments while maintaining relationships with current funders.
- Ensured ongoing local programming excellence supporting Maryland families living with Alzheimer's and driving quality care in the state.
- Built relationships with local, state, and Federal government as well as corporate partners and community organizations.
- Engaged and Supported constituents on public policy priorities on the state and federal level.
- Served as the organization's primary spokesperson.
- Approved all staff for hiring or termination and delegated day-to-day personnel management to the HR department.
- Developed administrative, personnel, organizational, and program policies.
- Ensured financial integrity of organization as contract signatory.
- Created smooth-functioning environment to ensure efficiency of operations.
- Supervised the Office Manager to ensure efficient clerical and administrative support.
- Managed staff training and development to improve processes and quality of services.
- Served as chief agency spokesperson, directing media interactions and public relations.
- Oversaw and managed all aspects of organizational operations, including the delivery of program services.
- Increased revenue by implementing fundraising campaigns and identifying available grant money.

- Reviewed systems in place to manage internal controls of all financial activities and contributed strategic planning as high-level partner and advisor to President, Senior Vice President, and Board of Directors.
- Interviewed, hired, and trained department managers in using an inclusive management style.
- Set and monitored objectives, performance indicators, and metrics to assess employee progress.
- Maintained quality and precision by developing culture of stability and strong performance.
- Maintained an inclusive working relationship with the Board of Directors, staff, partners, and members, emphasizing open dialogue, complete transparency, and professional rapport.
- Stayed on top of changes in legislation and the competitive landscape to keep the business agile and responsive to changing industry demands.
- Developed highly functioning HR operation that met changing needs and requirements of organization.
- Reviewed systems in place to manage internal controls of all financial activities and contributed strategic planning.
- Participated in forecasting budget and assessing long-term financial and sustainability planning, reporting to Executive team.
- Established company culture, vision, goals, and objectives.
- Oversaw IT operations, working with Office Manager to achieve required IT capacity and reliability of service.
- Participated in forecasting budget and assessing long-term financial and sustainability planning.
- Managed stewardship and finances, including ensuring compliance with federal, state, and local regulations.
- Served as chief operating officer for policies, operations, productivity, and quality.
- Developed budgets for product development and new product introduction.
- Spearheaded development, implementation, and management of an effective human resources program.
- Identified and corrected deficiencies with forward-thinking approaches to address organization-wide and department-level problems.

Community Relations Associate, United Way of Delaware, Mar 2012 - Jul 2014, Wilmington, DE

- Actively engages the community to work collaboratively to advance UWD's Education, Income, and health goals.
- Actively develops relationships, solicits personal and corporate contributions, and develops fundraising strategies to meet or exceed revenue goals, i.e., increase participation, pledge amounts dollars designated to UWD and retention of donors.
- Identifies volunteers and loaned executives; coordinates their activities to reach Kent and Sussex strategic goals.
- Assists with developing the revenue goals for assigned divisions in Kent and Sussex in order to set goals and expected outcomes including realization for developmental and anticipated grow at existing accounts.

- Identifies and recruits key community stakeholders to be UWD advocates and/or advisory members.
- Ensures campaign account information and computer database are current and accurate.
- Manages the day-to-day responsibilities for the Georgetown office.
- Develop and assists with recognition events, thank you programs and other UWD related events and trainings such as marquee event, annual kick off events, and awareness events.
- Ensure that materials and information distributed are accurate, professional and reflect the highest standards.
- Clearly articulates UWD's mission, vision, and strategic focus areas to all stakeholders.
- Speaks at public events throughout the year.
- Develops and maintains relationships with all strategic partners, specifically corporate, government academia non-profit partner's faith leaders and other community leaders.
- Handles special projects and other duties as assigned.
- Advised the group's managers on business decisions and how to manage transitions with successful communications strategies.
- Built strong network of partnerships with community, consumer, and public interest groups to further PR objectives.
- Maintained positive public image through effective highlights of organization's accomplishments and agenda.
- Coordinated strategic responses to critical incidents and crises facing the organization.
- Volunteered for and tackled new assignments and tasks to ease staff member burden.

Branch Manager, Food Bank of Delaware, Mar 2007 - Feb 2012, Milford, DE

- Acts as a liaison between the Food Bank of Delaware and its member agencies, performing community outreach, Network Meetings, communications, monitoring, and special activities involving Food Bank membership, training, monitoring, and performance evaluations.
- Develop, direct, and assist in raising funds for the Milford facility Capital Campaign, working with the committee members, and driving for a 3.2 million build.
- Oversees all operations for Kent/Sussex county out of the Milford facility of special.
- Develop, direct, and assist in the partnership of the state food closets set up and monitoring and maintaining.
- Supervise, train, and evaluate all Milford staff and staff related to special programs an average of 30 plus employees in 2 locations.
- Identify, cultivate, and steward the volunteer program for the Milford facility and volunteer staff.
- Currently overseeing 2300 hours monthly of volunteers.
- Key Member of Senior management team; direct all development and communication strategies initiative and activities.
- Play a key role in Developing and implements operational policies and procedures for The Food Bank of Delaware; evaluates program effectiveness in achieving goals and objectives.
- Develop all job descriptions for the entire staff.

- Work closely with the Board of Directors, Executive Committee as well as act as a key member of the Anti- Hunger Coalition, Strategic planning committee, and public policy program.
- Reviews, performs statistical analysis and interpretation of collected data relating to policies, procedures, organization, managerial and operational practices for all programs.
- Research analysis of all new programs develop policy and procedures.
- Research funders and write grant proposals; coordinate site visits; manage grants calendar for special programs and Milford facility, work within the community, civic and social service organizations to promote program, obtain support.
- Analyzes and evaluates the effectiveness of operations in meeting established goals and objectives.
- Provides technical assistance in understanding and developing management objectives and controls for resolution of issues and concerns.
- Key Member of Feeding American speaking and training other Food Banks at National conferences and acting as a mentor for other Food Banks for Feeding American for all special programs.
- Reviewed branch processes, staff performance, and KPIs regularly to verify branch operations.
- Worked diligently to deepen relationships, acquire new clients, and enhance service delivery to drive portfolio growth.
- Implemented customized coaching and development plans to close employee knowledge gaps and build important skills in line with branch targets.
- Administered budgets and managed accounts to achieve branch financial goals.
- Provided an active presence within the community by networking with organizations and building community relationships to generate new business.
- Reviewed financials for customers to determine loan approvals and credit lines.
- Implemented custody and control of assets processes for loan collateral and securities.
- Reviewed market conditions, competitor activities, and potential business risks to develop mitigation and improvement strategies.
- Coordinated delivery times and locations by issuing clear shipping and routing instructions.
- Established skilled staff and managed performance to deliver consistent results.
- Implemented procedures to promote efficient operation and utilization of warehouse equipment.
- Balanced staffing requirements, work hours, and vacations to effectively coordinate employee schedules.
- Managed facility security with strong eye to detail, observant approach, and minimal shrinkage.
- Monitored employee practices and corrected teams on insufficient safety practices.
- Used critical thinking skills to find solutions to complex problems and escalated serious concerns to general management.
- Supported employee onboarding and offboarding, training, and scheduling.
- Supported operations across all departments, including production design, camera, electrical, and audio.
- Directed production innovation efforts and strategy development for new features.

- Played central role in household administration, including management, administration, and bookkeeping responsibilities.
- Addressed and resolved customer inquiries and complaints and engaged with customers to determine satisfaction levels with products offered.
- Managed employee performance through disciplining, coaching, and counseling.

EDUCATION

Associated of Arts,

University of Phoenix – October 2011

Bachelor of Science, Communication

University of Phoenix - July 2010

Section 1.3 - Education Plan

The Bryan Allen Stevenson School of Excellence
Section 3 - Education Plan

1.3 Education Plan

14 *Del. C.* §§ 512(4)-(8) and (11)

The educational program should meet the requirements of 14 *Del. C.* §§ 512(4), (5), (6) and (7) and applicable regulations.

Curriculum and Instructional Design [14 *Del. C.* § 512(6)]

1. Provide a synopsis of the proposed educational program, including key components of the education model and any unique or innovative features.

The Bryan Allen Stevenson School of Excellence (BASSE) is a secondary school centered on a service-learning curriculum.

BASSE students will participate in real-world, hands-on, experiential learning experiences, including but not limited to community service internships, implementation of community projects developed during class time, and service-learning during extended school time. BASSE will have an extended school day with a later start time to model the average workday.

BASSE will begin by using the Middle Years Programme provided by the International Baccalaureate (IB) Programme in grades 6 through 10. As students enter grades 11 and 12, they will have the option to choose between two academic pathways: the IB Diploma Programme and the IB Career-Related Programme. As BASSE's faculty and staff begin to understand what students' career-related interests are, the BASSE team will explore complementing the Career-Related Programme with the Delaware Career and Technical Pathways program.

The International Baccalaureate Mission Statement:

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end, the organization works with schools, governments, and international organizations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their difference, can also be right.

BASSE is committed to implementing the IB model because it aligns with our school model and values service and rigorous instruction. BASSE believes that all students can and should have access to an IB curriculum and that access will prepare all students who walk through BASSE's doors for any form of post-secondary success, both college, and career. In years one through three, BASSE will start the accreditation process with the IB, on a path to become a fully accredited IB school at the end of year three.

The Bryan Allen Stevenson School of Excellence

Section 3 - Education Plan

The BASSE curriculum will be interdisciplinary and thematic. The curriculum is designed to help students develop their ability to recognize connections between and across subjects, as is required for success in a post-secondary world.

BASSE will further enrich the experience of students by providing this unique education model in a culturally responsive, culturally relevant, and trauma-informed environment informed by the evidence-based practices of Dr. Bruce Perry, Dr. Howard Stevenson, Dr. Gholdy Muhammad, and other education researchers in the field.

Please see our Statement of Curricular Philosophy [here](#).

2. Provide a synopsis of how the proposed instructional design reflects the needs of the school's target population, and how *all* students will meet or exceed the expectations of the Delaware Content Standards (English Language Arts, Mathematics, Next Generation Science Standards, Social Studies, Health, Physical Education, Visual and Performing Arts, and World Languages). The Delaware Content Standards are available at: <http://www.doe.k12.de.us/domain/374>
 - a. The description of the instructional design should include, as appropriate, the educational approach (or approaches), including class size and structure, teaching methods with a supporting research base, technology integration for all grades to be served, and how the design relates to the mission of the school.

The Bryan Allen Stevenson School of Excellence (BASSE) intends to have a student-centered approach to learning supported by the inquiry-based International Baccalaureate curriculum and an interdisciplinary, cross-curricular approach delivering content. Our teachers will serve as facilitators who support student-driven learning by providing students with a relevant curriculum related to their interests and scaffolding and differentiation to ensure that all students can meet the expectations of the Delaware Content Standards.

In order to create classrooms that can fulfill the mission of being student-centered, we will aim to provide smaller classrooms (25 students at maximum) with multiple adults to provide students with the support and resources they need. In addition to the traditional classroom teacher, students will have access to paraprofessionals, student teachers through Delaware State University, and residency teachers from the Relay Graduate School of Education. Additionally, students will have access to technology, such as Chromebooks or iPads, to make sure they build the technological competencies necessary for success in the 21st century.

In grades 6 through 10, students will be engaged in learning in 60- to 80-minute rotating learning blocks, in which they will receive content instruction, as well as opportunities to integrate that content with service projects in small groups. As students progress to grades 11 and 12, in-classroom content learning will be complemented by out-of-school learning experiences through the students' completion of service hours with various community partners, as well as their completion of practical service projects that will require them to combine what they've learned inside the classroom with their experiences outside of the classroom.

The Bryan Allen Stevenson School of Excellence

Section 3 - Education Plan

Our school also plans to center students' social-emotional learning, as well as their mental health. In partnership with Delaware Guidance, we will provide students with workshops and curriculum to help them cope with the challenges they face as adolescents, as well as help them develop their empathy. The development of their intra- and inter-personal skills will not only support their participation in a service-learning curricular model but will support their success in the ever-changing and diverse world beyond high school.

BASSE's mission is "[t]o create pathways, through proximity, for our students, their families, and our community." (Case For Support). By providing students with both in-school and out-of-school opportunities for service and learning, technological resources, social-emotional development, and professionals who are focused on facilitating positive learning experiences, we plan to fulfill this mission.

- b. Present evidence that the proposed educational program is research-based and has been or will be rigorous, engaging, and effective for the expected student population. If evidence of effectiveness in other schools serving similar populations is not available, explain why the proposed program is likely to succeed with the targeted population.

The Bryan Allen Stevenson School of Excellence (BASSE) will focus its curriculum on two research-based pillars: (1) a whole-school IB model and (2) a service-learning graduation component for all students. IB is an internationally recognized and researched curriculum focused on preparing students for a global market. Please review the attached research briefs outlining the impact of a whole-school IB curriculum on post-secondary success:

- [IB Diploma Programme Research Brief](#)
- [IB Career-related Programme](#)
- [IB Diploma Programme](#)
- [IB The Middle Years Programme](#)
- [IB Global Research Snapshot](#)

The BASSE model will also focus on a service-learning requirement for all students.

Service-learning is a research-based practice that many states and schools around the US and world require of their students. Please review the linked [research brief](#) outlining the impact of service-learning on post-secondary success.

3. Provide an overview of the planned curriculum, including, as **Attachment 4**, 1 scope and sequence per content area per grade band (K-2, 3-5, 6-8, 9-12) the school plans to serve. The scope and sequence documents should identify course outcomes and demonstrate clear alignment with the Delaware Content Standards (**English Language Arts, Mathematics, Next Generation Science Standards, Social Studies, Health, Physical Education, Visual and Performing Arts, and World Languages**). If the proposed school commits to joining the Science Coalition, then a signed MOU would replace the scope and sequence requirement for Science. If the proposed school commits to joining the Social Studies Coalition, then a signed MOU would replace the scope and sequence requirement for Social Studies.

The Bryan Allen Stevenson School of Excellence

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4. Provide, as **Attachment 5**, 1 Mathematics unit with corresponding summative assessment and scoring rubrics, and 1 English Language Arts (ELA) unit with corresponding summative assessment and scoring rubrics to demonstrate alignment of instruction to the Delaware Content Standards. If the proposed school does not intend to join the Delaware Science or Social Studies Coalitions, then 1 Science unit and 1 Social Studies unit with corresponding summative assessments and scoring rubrics to demonstrate alignment of instruction to the Next Generation Science Standards and Delaware Social Studies Content Standards are also required.
5. Describe how the school will ensure that all students have equitable access to the curriculum.

BASSE is committed to serving a student body that will come to us with a diverse set of experiences and skills. Our students will be provided with several supports to ensure that they have equitable access to the curriculum.

From the start, we plan to take the first weeks of the school year to get to know our students academically and socially. We will give students assessments to help screen for their academic readiness, such as the SRI and SMI. We will also collect data through ACEs screening and our [Wellness Wheel](#), which educators will complete in partnership with Delaware Guidance, to help develop social-emotional plans for all of our students that will also be included in their [Personalized Learning Plans](#) (PLP).

Additionally, teachers will receive training on using the [Equity Framework for Historical and Cultural Literacy](#) in their curriculum development. The Equity Framework for Historical and Cultural Literacy is a practical framework for implementing culturally responsive and relevant classroom practices. Researched and designed by Dr. Gholdy Muhammad, this framework helps teachers encourage literacy at all levels and in all contents by infusing their unit and lesson plans with history. Teachers will seek to develop students in four areas: identity (students' development of their understanding of themselves and others), skills (students' development of content-specific skills and knowledge), intellect (students' development as scholars and their interests in academic pursuits), and criticality (students' development in their ability to engage in conversations about power, equity, and oppression). Dr. Muhammad presented this framework at the 2020 Collaborative for Academic, Social, and Emotional Learning (CASEL) conference. CASEL is a state partner in social-emotional learning.

6. Describe the methods and systems that teachers will use to provide differentiated instruction to meet the needs of **all** students, including those who are gifted and talented.

At the beginning of each school year, students will fill out their [Personalized Learning Plan \(PLP\)](#) with their caregivers, their Advisory Teacher, and their College and Career Readiness Counselor. If a student is identified as a student with a disability or as an English Language Learner, our Special Education Coordinator and ELL Instructor will also participate in the PLP process. The

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PLP will be a breathing and living document that will help guide teachers in getting to know their students and plan for their social-emotional as well as academic needs.

The PLP is the centralized document to which all teachers will have access in order to guide their planning. Additionally, because of our curricular model, teachers will use design thinking models to help plan flexible and adaptable academic learning environments for students that will create a naturally differentiated and individualized learning process for BASSE's students.

A couple of examples of other information that could supplement the PLP are included below:

- BASSE is inspired by Howard Gardner's (1983) concept of multiple intelligences where he posits students learning style is not consolidated into a singular context. He believed the pathway to effective relational skills and teaching practices for all student learners are much more intellectually expansive. Gardner identified several types of intelligences which will be infused into the educational supports for students attending BASSE. These intelligences are linguistic (use of words and vocabulary), logical-mathematical (use of numbers and calculations), spatial (use of visualization), naturalistic (use of nature and animals), intrapersonal (use of individual introspection), interpersonal (use of socializing with others), bodily-kinesthetic (use of hands, mind, and body) and musical (use of sounds and rhythm). Inclusion of these intelligences in their PLPs will be based on the individual strengths and needs of students as appropriate.
 - The Search Institute (2021) identifies 40 developmental assets classified with positive supports and strengths that students need to succeed in school and in life. Half of the assets focus on the relationships and opportunities they need in their families, schools, and communities (external assets). The remaining assets focus on the social-emotional strengths, values, and commitments that are nurtured within young people (internal assets). These assets could be included in the PLP and in collaboration with United Way of Delaware and other appropriate organizations, BASSE will utilize developmental assets to highlight student strengths, attributes, and characteristics.
7. Provide a synopsis of plans for additional academic support for at-risk students, including a description of how the school plans to implement procedures to determine whether a student responds to scientific, research-based interventions for reading and mathematics.

BASSE will implement the Multi-Tiered Systems of Support (MTSS) Framework to assess at-promise students' comfort and success at BASSE. The MTSS process focuses on multiple levels of support for all students, not just those identified as disabled. BASSE's at-promise students, and all students, will receive services to support them academically, behaviorally, and socially-emotionally. The MTSS process will also support the school in analyzing its policies, practices, and programs to ensure that all student needs are met, especially those identified as at-promise.

BASSE will infuse trauma informed care as conveyed by the Delaware Department of Education (DDOE) developmental framework. BASSE believes a trauma-informed school requires knowledge and infusion of principles of trauma-informed care with a commitment to

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implement with fidelity. The implementation of a trauma-informed approach will be an ongoing organizational evolutionary process across the entire educational platform. BASSE's trauma-informed approach will not be a school model monitored by a basic checklist. Rather, it will be a profound paradigm shift in knowledge, perspective, attitudes and skills that continues to deepen and unfold over time. The continuum will start with BASSE becoming trauma-aware and moves to trauma-sensitive to trauma responsive to being fully trauma-informed. Trauma-informed philosophy and principles will become embedded in the BASSE's pedagogical practices, written policies, climate and culture.

As indicated in the DDOE developmental framework, BASSE's fundamental purpose of integrating trauma-informed care:

- to create an environment where people are respectful, competent, sensitive and culturally aware;
- to implement evidence-based trauma-informed principles and approaches that address the effects associated with trauma;
- to develop a common language and framework for dialogue and discussion to enhance communication and progress;
- to assess the implementation of basic principles of trauma-informed approaches in various settings;
- to increase the effectiveness of all services and assistance; and
- to ensure that the educational community does no harm.

Students in Tier 1 will receive instruction guided by research-based pedagogical techniques and strategies, BASSE's Positive Behavioral Interventions and Supports program, access to socially and emotionally supportive curriculum and supports (through Delaware Guidance Services), and a Personalized Learning Plan. If students are not achieving mastery and success receiving Tier 1 supports alone, they will be moved into Tier 2. In Tier 2, students will receive targeted support and interventions in a small-group or individually, depending on the intervention and support needed, with progress monitoring for six weeks. At the end of the six weeks, the supports, interventions, and student progress will be evaluated, and the student will either move back to receiving Tier 1 supports alone, receive another six weeks of Tier 2 support and interventions (that will possibly be adjusted based on the evaluation results), or move into Tier 3. In Tier 3, students will receive even more personalized and targeted instruction. This level of the process also lasts for six weeks, with a similar decision tree as that of Tier 2. The next step for students who are not successful after Tier 3 will be a recommendation for more formalized services, such as a recommendation for a special education evaluation.

Dr. Bruce Perry's Neurosequential Education Model will drive the overall philosophical integration of trauma informed care for BASSE. The Neurosequential Model is a developmentally-informed, biologically-respectful approach to caregiving, education and therapeutics. Drawing on core concepts from many disciplines including the neurosciences,

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anthropology, developmental psychology and sociology, the Neurosequential Model is an evidence-based framework useful for student problem solving and educational outcomes evaluation and modification. The Neurosequential Model in Education (NME) brings this neurodevelopmental and trauma informed approach to the classroom. The NME is not a specific “program” or “intervention.” It includes a “capacity-building” process that provides an introduction to important concepts related to how we learn by focusing on how the brain works, develops, changes and is impacted by developmental adversity including trauma. These concepts have broad applicability in education, sport, drama, and music. Further, the NME provides practical examples of application of these key concepts in everyday educational settings.

BASSE will perform specific activities to ensure full integration of trauma informed care including but not limited to social emotional learning, professional development, student training, family and community awareness, self-care for staff, mindfulness, expressive therapies, wraparound services and best practice trauma treatment models as appropriate.

8. Explain how the graduation requirements will ensure student readiness for college or other post-secondary opportunities (trade school, military service, or entering the workforce).

The Bryan Allen Stevenson School of Excellence will ensure post-secondary readiness for all students. Our school's two pillars are the International Baccalaureate (IB) program and the service-learning requirement for all students. Our decision to use IB is centered on the Middle Years Programme model, which provides BASSE with the tools to differentiate and personalize learning effectively for all students. As students transition into their upper years, they have the option to choose between the IB Diploma Programme, which has a proven track record of producing some of the most competitive students worldwide in the collegiate environment, or the IB Career-Related Programme, which is based on experiential learning and will offer career and technical education tracks for students to have real-world experience. Finally, all students at BASSE will be required to complete a service-learning experience as a graduation requirement. This experience will put BASSE students in an experiential learning environment in the community where they will build networks and an understanding of the postsecondary world.

BASSE’s mission is “[t]o create pathways, through proximity, for our students, their families, and our community” (Case For Support). BASSE believes that our model and pillars support our mission, which is centered on postsecondary readiness. Ultimately, BASSE’s goal is to ensure that every student who walks through our door is prepared for post-secondary success and their role in a global and digital society. As a secondary institution, our role is to prepare students for the jobs that exist and the jobs that are not yet in existence, for we know that our students' innovation will drive the future workforce.

Student Performance Goals [14 Del. C. § 512(4) and (6)]

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Outline the clearly measurable annual performance status and growth goals that the school will set in order to monitor and evaluate its progress accelerating student achievement. Respond to the following with regard to the proposed school's student performance goals and the Delaware School Success Framework (DSSF).

1. Describe the student performance standards for the school as a whole.

Our mission is to create pathways, through proximity, for our students, their families, and our community. To ensure that BASSE is following through on its mission, we have developed performance measures that are in line with those presented within the Delaware School Success Framework (DSSF) and that encompass our core beliefs, curricular tenants, and the key components of our mission to hold ourselves and our students accountable in their pursuit of college and career readiness.

Performance Goal 1: School-Based Success

Academic Achievement

- By the third year of operation, and for each year thereafter, between 70 and 89% of all BASSE students will meet or exceed the proficiency standards set by the DDOE in all assessed subjects as measured by content and grade-level assessments available to educators on the PerformancePlus website as well as other assessments such as the Achieve3000 LevelSet assessment of Lexile and the Math180 Math Inventory assessment.
- By the third year of operation, and for each year thereafter, between 60 and 79% of all BASSE students will meet or exceed their growth targets as measured by content and grade-level assessments available to educators on the PerformancePlus website as well as other assessments such as the Achieve3000 LevelSet assessment of Lexile and the Math180 Math Inventory assessment.
- By the third year of operation, and for each year thereafter, between 60 and 79% of BASSE students belonging to historically underserved subgroups will meet or exceed their growth targets as measured by content and grade-level assessments available to educators on the PerformancePlus website as well as other assessments such as the Achieve3000 LevelSet assessment of Lexile and the Math180 Math Inventory assessment.

College and Career Readiness

- By the third year of operation, and for each year thereafter, at least 40% of BASSE students will meet or exceed the proficiency standard on the Smarter Balanced assessment
- By the third year of operation, and for each year thereafter, at least 40% of BASSE students will meet or exceed the proficiency standard for 80% of their IB exams

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- At least 85% of BASSE students will graduate from high school within four years
- At least 85% of BASSE students will be accepted into a 2-year or 4-year college

Performance Goal 2: 21st Century Skills

- All BASSE students will demonstrate growth in the three domains of 21st Century Skills (Learning and Innovation, Information, Media, and Technology, and Life and Career) through various forms of assessment including, but not limited to, teacher observations, student portfolios, student reflections on their work, and parent surveys documenting their observations of their children's growth.
- 95% of all third-year BASSE students will demonstrate proficiency across the 21st Century Skill domains through various forms of assessment including, but not limited to, teacher observations, student portfolios, student reflections on their work, and parent surveys documenting their observations of their children's proficiency.

Performance Goal 3: Real-World Working Experiences

- 100% of BASSE graduates will complete at least 100 hours of an internship, a fellowship, part-time employment, community service, or some combination of work experiences listed as a part of their Individualized Service Practicum.

2. In addition to the State's mandatory assessments, identify the primary interim assessments that the school will use to assess student learning needs and demonstrate academic progress throughout the year. Explain how these interim assessments align with the school's curriculum, performance goals, and Delaware Content Standards (Common Core State Standards in English Language Arts, Mathematics, and Next Generation Science Standards).

The primary interim assessments that the school will use to assess student learning needs and demonstrate academic progress throughout the year will be a combination of teacher-designed common assessments, as well as the assessments provided by the International Baccalaureate Programmes.

The IB assessments will be aligned with the curriculum because they will be provided by our curriculum provider, the International Baccalaureate Organization. There is clear alignment between IB and both the [Delaware Content Standards \(CCSS\)](#) and the [Next Generation Science Standards](#).

In creating additional common assessments, teachers will use the above performance goals, the standards, and our curriculum, along with an Understanding by Design-based approach to developing these assessments to ensure that they are aligned.

3. If the school plans to adopt or develop additional academic performance goals or assessments beyond the State's mandatory assessments, explain what standards the school will use, and describe

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the adoption or development process that has taken place or will take place. Include the timeline for achievement of student performance goals and the assessment of such performance.

BASSE does not plan to adopt or develop additional academic performance goals beyond the State's mandatory assessments in the first three years of operation. All assessments listed in question two are designed to be formative in nature to guide instruction and interventions throughout the year.

However, after completing the process for and receiving accreditation from the International Baccalaureate Programme (IB), BASSE will reevaluate its performance goals to align the appropriate IB standards and metrics. BASSE will engage with the Charter School Office and other relevant stakeholders to receive approval for these new performance standards.

Additionally, please see the proposed IB timeline [here](#).

4. Explain the school's policies and standards for promoting students' from one grade to the next. Describe how and when promotion and graduation criteria will be communicated to parents and students.

Students who have successfully met all grade-level performance standards will be moved to the next grade level. The decision to retain a student in his/her current grade level will be at the discretion of the student's academic team. The student's academic team consists of their Advisory teacher, College & Career Readiness counselor, caregiver, and the school leader. Additional team members may be added as necessary, including, but not limited to, their Individualized Education Plan Case Manager or their English Language Learner instructor.

Students and caregivers will participate in student-led conferences once per marking period. These conferences will provide check-in points for students and families on their students' progress on all performance goals. During the second marking period conferences, any students at risk of being retained for the year will be required to have a full academic team conference where a plan will be developed to help the student meet the necessary performance goals to be promoted. The team also has the power to determine if a retention plan needs to be developed instead. Either option will require data to support the team's recommendation and requires the full cooperation of the student and caregiver(s) to go into effect.

Promotion and graduation criteria will be communicated to parents and students during the beginning of the year home visit, as well as in the student and family handbook, and at student-led conferences.

5. Explain the process for ensuring that **all** students in grades 8-12 have a complete student success plan. Describe how the success plans will be monitored as required by 14 Del. C. § 5.0.

In the summer prior to the next school year, each student will begin their student success plan, also known as their personalized learning plan, in partnership with their parents and Advisory teacher during the initial home visit. Students will continue to revisit this plan during

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student-led conferences and meetings with their Advisory teacher and College and Career Readiness counselor throughout the school year.

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High School Graduation Requirements (*High Schools Only*) [14 Del. C. §§ 512(4), (5), (6) and (7)]

1. High schools will be expected to meet the Delaware Graduation Requirements, which may be amended from time to time. The requirements can be found at:

<http://regulations.delaware.gov/AdminCode/title14/500/505.shtml#TopOfPage>

2. Explain how the school will meet these requirements and monitor them through the use of the State's pupil accounting system. Explain how students will earn credit hours, how grade-point averages will be calculated, what information will be on transcripts, and what elective courses will be offered. If graduation requirements for the school will exceed those required by the State of Delaware, explain the additional requirements.

[The Bryan Allen Stevenson School of Excellence course offerings](#) will allow students to access and earn the required credits to graduate in the State of Delaware. BASSE will use a Standards-Based grading system that can be calculated into grade point averages upon request. This process will require translating the Standards-Based proficiency levels (Advanced, Proficient, Basic, and Below Basic) into traditional numerical credit values (4.0, 3.0, 2.0, and 1.0) and dividing the earned numerical credit values by the attempted numerical credit values.

Students official transcripts will include:

- Student's Name
- School Name and Website
- Graduation Date
- Each Course Taken with Overall Proficiency Level (Grade) and Credits Earned
- Proficiency Distribution Across Class
- Calculated GPA
- Weighted GPA
- Any College Entrance Exam Scores
- Service-Learning Requirement Description and Student Completion Level
- If Applicable, IB Diploma Results, AP Courses, College-Level Courses, and Certificate Program Completion

3. If applicable, also explain how the school will meet the requirements for any and all Career and Technical Education (CTE) pathways courses. Requirements include, but are not limited to:
 - a. Programs must follow a State-approved Pathway Standard and be of sufficient size and scope to be effective for graduates;
 - b. Applications must be approved;
 - c. Documented and appropriate labor market opportunities must sufficiently exceed the current training supply;
 - d. Laboratory facilities and equipment must meet all safety requirements pursuant to 14 DE Admin. Code § 885 and reflect current industry standards;
 - e. Curriculum must follow current standards and include a State-approved end-of-pathway assessment;
 - f. Student access to the program must follow the Office of Civil Rights CTE (vocational education) guidelines for admission and recruitment available at:

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<http://www2.ed.gov/about/offices/list/ocr/docs/vocre.html>;

- g. Pathways must follow an approved Program of Study;
- h. A Program of Study document must be submitted with the application. The state template is available through this link:
https://education.delaware.gov/educators/academic-support/career_and_technical_education/statemodel_programs_of_study/; and
- i. Programs must include student participation in the related Career and Technical Student Organization.
This website will provide further information on Delaware CTE requirements:
https://education.delaware.gov/educators/academic-support/career_and_technical_education/

BASSE will not offer any CTE courses in the first two years of opening.

- 4. Explain how the school's graduation requirements will ensure student readiness for college or other postsecondary opportunities (trade school, military service, or entering the workforce).

Graduates of BASSE will be proficient in the areas of reading, writing, and mathematics. Students' participation in the International Baccalaureate Programme will ensure that students have an opportunity to excel in higher-level courses with the rigor necessary for college success and state assessments. BASSE graduates will also understand the challenges and need to be competitive within any modern global economy because of their coursework and service-learning experiences.

Each BASSE graduate will have completed an Individualized Service Practicum. The Individualized Service Practicum (ISP) will require students, over the course of their 11th and 12th-grade years, to work closely with one of our partner organizations to design and implement a service project. These projects will be aligned to their academic and their post-secondary goals when possible. Finally, students will be required to complete a paper about their service project and its outcomes. The ISP will help students demonstrate their mastery of the State standards, their gained knowledge from completing the IB coursework, and their practical application of 21st-century skills.

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School Calendar and Schedule [14 Del. C. § 512(6)]

1. Provide, in **Attachment 6**, the school's proposed calendar for the first year of operation. Include the length of the school day, as well as start and dismissal times. Explain how the calendar will support the success of the educational program.
2. Provide, in **Attachment 7**, Hourly Attendance Survey (see attached).

Supplemental Programming [14 Del. C. § 512(6)]

1. Describe the extra- or co-curricular activities or programming the school will offer; how often they will occur; and how they will be funded.

The Bryan Allen Stevenson School of Excellence (BASSE) will offer a wide range of extracurricular and co-curricular activities that allow every student to develop individual interests and abilities. These activities reflect the mission of the school and provide opportunities that support and extend academic learning. An ample variety of interest clubs and athletic teams ensure that all BASSE students have the opportunities to engage in this valuable part of their secondary school experience. All clubs will be advised by a certified teacher and sometimes by an outside coach or director. In all cases, regardless of extra- or co-curricular status, clubs will be connected to academic standards (appropriate to the club), and students will need to be able to demonstrate growth or mastery of skills at the end of their club time.

"Extracurricular activities" shall mean those activities which are sponsored or approved by BASSE but are not explicitly connected to academic learning. Such activities shall ordinarily be:

- Conducted outside the regular school day or during "Club" time; and
- Available to all BASSE students who voluntarily elect to participate.

Extracurricular activities will be determined by the students' interests and the availability of relevant and qualified club advisors. Extracurricular activities will be determined the summer prior to each school year, at least two weeks prior to the first day of school. These activities could include Chess Club, a Black Student Organization, or Soccer.

"Co-curricular activities" refers to activities, programs, and learning experiences that complement, in some way, what students are learning in school – i.e., skills that are related to or follow the academic curriculum. Such activities shall ordinarily be:

- Conducted outside the regular school day or during "Club" time; and
- Available to all BASSE students who voluntarily elect to participate.

Major categories of Co-Curricular Activities:

- Performing Arts
- Academic Teams and Clubs
- Visual Arts

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- Academic Societies and Competitions, such as National Honor Society, Mock Trial, National Ocean Sciences Bowl, Neuroscience for Kids Competitions, etc.
- Foreign Languages Organizations, such as American Sign Language Club, Spanish Honor Society, Student Diplomacy Corps, etc.
- Writing and Media

Though each student will be able to self-select their club, students must have a club in which they can participate and learn during club time.

Additionally, BASSE will offer a series of programming geared towards connecting our school with the broader community. The Proximate Academy series would allow for various interested facilitators such as BASSE faculty and staff, students, parents, community members, and community partners, to educate on topics that align to our mission and the development of our students as community leaders. This series may occur during the flexible “Club” block or during the evenings and has a wide range of audiences, that always include students, depending on the topic. Potential Proximate Academy options are as follows:

- Self-Care
- Service-Learning
- Family Advisory
- Diversity, Equity, and Inclusion
- Social Justice
- Racial Literacy
- Musical Intelligences
- Community Resilience
- Trauma Informed Care

Potential Funding Sources

Activity Boosters Club: Parents of students involved in extracurricular and co-curricular activities may work together to help plan and organize banquets, provide awards and honors to students, and donate their funds to purchase equipment or supplies beyond the school budget. Revenue may also be generated through various fundraising events.

McCarthy Dressman Education Foundation: Up to \$10,000 per year for a maximum of three years for "in-class and extracurricular programs that improve student learning" and programs "that foster understanding, deepen students' knowledge, and provide opportunities to expand awareness of the world around them.

The Delaware Division of the Arts: Offers various grants for Delaware Pre-K through 12 public, charter, private, and parochial schools that offer arts activities and programming.

2. Describe the school's programs or strategies to address student mental, emotional, and social development and health.

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The school programs or strategies to address student mental, emotional, and social development and health will be to use specific research-based instructional programs, such as the guidelines from the DDOE to develop policies and procedures for handling aspects of mental health for students. The school will have its own school wellness program for those students needing mental health counselors, therapists, and social workers. The school will use a climate survey tool to include students, staff, parents, and the community to annually establish the services needed.

A few of the programs and strategies are outlined below:

- In direct alignment with the Collaborative for Academic, Social, and Emotional Learning (CASEL, 2021), BASSE believes all students and adults as self-aware, caring, responsible, engaged and lifelong learners who work together to achieve their goals and create a more inclusive, just world. Social emotional learning (SEL) will guide BASSE's process where all students will acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and makes responsible and caring decisions. SEL advances educational equity and excellence through authentic school-family-community partnerships to establish learning environments and experiences that feature trusting and collaborative relationships, rigorous and meaningful curriculum and instruction, and ongoing evaluation. SEL can help address various forms of inequity and empower students and adults to co-create thriving schools and contribute to safe, healthy, and just communities.
- As indicated by Edutopia (Woerkom, 2018), BASSE considers restorative healing circles as an effective way of building a community where students feel connected and develop collaborate ownership and accountability of the classroom. This kind of connectedness creates an environment where authentic engagement and meaningful learning can happen. Students may bring their cultural values into the circle creating a mutual dynamic in the classroom. Circle typically start with an opening practice with mindfulness to create an intentional and balanced space. The opening is followed by a "check in" with each of the members of the circle. When first establishing the circle, the group may co-create shared guidelines and discuss personal and shared values. This process provides the foundation for a rich and meaningful dialogue followed by a check out and closing. If the circle is a response to harm or conflict, a discussion of what happened, and the impact of the situation will be conducted. Ultimately, a dialogue of how to resolve the conflict or how to make the situation right (or as right as possible) is a gift to all involved. Simply by sitting in a restorative circle in the classroom, students learn valuable social and emotional skills such as patience, empathy, active-listening and impulse control which are all aligned with major tenets of social emotional learning. Restorative healing circles will be implemented in our Advisory block as well as in classrooms and flex blocks as needed.

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- Empirical evidence conveyed by mindfulschools.org (2021) states mindfulness practice can help decrease stress and anxiety, and strengthen resilience and emotional regulation, for both educators and students. The underlying factors of stress, and toxic stress, are found deep in the nervous system, students and staff need tools that go beyond the philosophical mind to that specific conceptual system. To transform typical responses and build internal resilience, BASSE will develop space to regularly practice skills when students and educators are not in reactive mode. BASSE will encourage different aspects of mindfulness practices in the classrooms and daily functioning. BASSE believes the positive consequences of mindfulness can take students and educators beyond the space of managing symptoms to a place where they are developing underlying human resilience that support their overall healthy development and functioning. Research indicates mindfulness practice can enhance attention, increase social interactions, and strengthen compassion. BASSE's goal is to provide emotionally supportive learning environments that can provide students and educators ways to soothe their nervous systems, focus their attention, manage their emotions, and inspire open and curious minds. In these mindful educational environments, a new generation of students will be nurtured and equipped to lead a thriving world.
- Expressive therapeutic strategies such as art, dance, music, and yoga will also be offered for students based on need and desires as appropriate. These expressive opportunities in schools can effectively respond to the diverse and ever-changing needs of students. Students benefit from expressive interventions by restoring healthy functioning and provide emotional coping and cognitive development. Expressive resources offer a best practice opportunity to address challenges associated with behavioral dysregulation and internalized stress. The symbolic process allows students a vehicle to express feelings and a way to resolve psychological conflicts, traumatic experiences that are often too emotionally loaded for verbal communication. When internal deficits are explored, there are typical deeper issues being observed in the school environment. Students are often left with silently struggling with trauma, anxiety, depression, social difficulties associated with low esteem and educational challenges. Expressive therapeutic strategies help students organize the chaotic unresolved underlying realities.

Additionally, teachers will use BASSE's Multi-Tiered System of Supports to monitor all of our students' social-emotional development. Following the steps of this process, they will develop individual behavior intervention plans for students who may need them. Additional strategies to help our students build their advocacy around their social-emotional development and support a positive school culture include providing explicit definitions of offensive language, establishing links to self-esteem and language, teaching about emotion regulation, teaching alternative ways to express anger, sharing feelings with others through restorative practices and circles, role-playing strong emotions, providing actionable feedback, using journaling for self-expression, redirecting attention and creating incentives through and with Positive Behavioral Interventions and Support. BASSE will partner with local mental health organizations such as Delaware Guidance Services, Children & Families First, First State Community Action Agency, and Milestones Consultants to provide students and families with mental health

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services, trauma treatment and wraparound services based on their needs as identified through the MTSS process.

3. If applicable, describe any other student-focused activities and programs that are integral to your educational and student-development plans.

In year 4, BASSE will offer Driver's Education to eligible grade 10 students, dependent on their birthday, during student synthesis days or club time. In each subsequent year, BASSE will continue to offer Driver's Education to all eligible students during student synthesis days or club time. BASSE will either partner with Sussex Academy to offer Driver's Education or contract services to provide Driver's Education, based on eligibility. Please see our intent to partner with Sussex Academy [here](#).

4. *For schools offering summer school.* Describe the extra- or co-curricular activities or programming the school will offer, how often they will occur, and how they will be funded. Describe the program(s) to be offered. Identify how many students are expected to attend summer school and how will they be selected for participation. Identify how many hours and weeks of summer school will you provide, and how will it be funded. Explain how the school will provide Extended School Year services (ESY) for eligible students with disabilities.

Youth Leadership Lab: BASSE will host a summer youth leadership development camp in partnership with other community organizations. Students from across Sussex County (not just BASSE students) will have an opportunity to participate in a program where they develop their capacity as leaders and design innovative solutions for problems they identify. This program is intended to run annually during the summer for both BASSE students and students throughout the county. Future funding for this program will be sourced through a strategic partnership with SummerCollab, a line item in the annual BASSE budget, and grants from local funders in Delaware.

Summer Intensive: All BASSE students will participate in a summer intensive program prior to their junior year, during which they will be connected with community partners to work in their fields of choice. Students will spend the summer immersed in real-world, hands-on learning experiences that bring them proximate to each field's challenges and opportunities. This is an academic course for rising-juniors at BASSE, and as such, it will be supported by a line item in the annual BASSE budget.

Students who require ESY services, as determined by their IEP, will be provided those services. BASSE will work with the family to ensure the child has access to an appropriate educational setting and program during the summer months. Depending on the student's needs, the necessary programming may or may not take place at BASSE.

At this time, outside of the programs listed above, BASSE does not intend to provide summer school.

Special Populations and At-Risk Students [14 Del. C. § 512(4)-(7)]

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1. At-Risk Students

- a. Identify the special populations and at-risk groups that the school expects to serve, whether through deliberate targeting or otherwise.

An at-risk, rather, an at-promise student is one who requires temporary or ongoing intervention to succeed academically and who is less likely to transition successfully into adulthood and achieve economic self-sufficiency. BASSE will be recruiting students from the whole of Sussex County and will likely engage students who respond to the school's unique components, including the curricular focus on interdisciplinary, community, and service-based learning, and the school climate focus on diversity, equity, and inclusion. While not exclusively recruiting at-promise students, to the extent that students from lower economic communities and/or global-majority communities in the county choose to attend BASSE, there will likely be a disproportionate number of at-promise students (Glenn, T., 2000, Trend in Demography of Childhood Poverty and Disability).

- b. Describe how the school will implement Response to Intervention procedures, including a plan for how data will be collected, progress will be monitored, and instructional decisions made related to student performance in accordance with 14 DE Admin. Code § 925.12.0.

Response to Intervention procedures (RTI) involves a progressively intensive three-tiered approach to intervention following the initial implementation and assessment of a learning accommodation. Using a dynamic data set including but not limited to: the students' DeSSA, school attendance and suspension records, grades, teacher evaluation, and input from any applicable student support team, minimally, a quarterly assessment of student improvement in response to learning accommodations will be made to determine appropriate RTI procedures. BASSE's classroom teachers are the point people for providing/coordinating implementation and monitoring of RTI procedures. The Student Support Team (persons directly involved in the student's education process, including parents, students, representatives from external support services, and representatives from the IEP team, if appropriate) completes regular assessments and makes recommendations for RTI procedures.

To enhance the RTI process, BASSE will also implement Multi-Tiered Systems of Support (MTSS) to reach students outside of academic concerns alone. By embedding the RTI process in the MTSS process, all students, not just those deemed "at-promise," will receive services to support them academically, behaviorally, and socially-emotionally. The MTSS process will also support the school in analyzing its policies, practices, and programs to ensure that all student needs are being met, especially those at-promise.

BASSE will implement the Multi-Tiered Systems of Support (MTSS) Framework to assess at-promise students' comfort and success at BASSE. The MTSS process focuses on multiple levels of support for all students, not just those identified as disabled. BASSE's at-promise students, and all students, will receive services to support them academically, behaviorally, and socially-emotionally. The MTSS process will also support the school in analyzing its policies, practices, and programs to ensure that all student needs are met, especially those identified as at-promise.

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Students in Tier 1 will receive instruction guided by research-based pedagogical techniques and strategies, BASSE's Positive Behavioral Interventions and Supports program, access to socially and emotionally supportive curriculum and supports (through Delaware Guidance Services), and a Personalized Learning Plan. If students are not achieving mastery and success receiving Tier 1 supports alone, they will be moved into Tier 2. In Tier 2, students will receive targeted support and interventions in a small-group or individually, depending on the intervention and support needed, with progress monitoring for six weeks. At the end of the six weeks, the supports, interventions, and student progress will be evaluated, and the student will either move back to receiving Tier 1 supports alone, receive another six weeks of Tier 2 support and interventions (that will possibly be adjusted based on the evaluation results), or move into Tier 3. In Tier 3, students will receive even more personalized and targeted instruction. This level of the process also lasts for six weeks, with a similar decision tree as that of Tier 2. The next step for students who are not successful after Tier 3 is a recommendation for more formalized services, such as a recommendation for a special education evaluation."

BASSE plans to use research-based Tier 2 and Tier 3 supports such as Achieve3000, Read180, Math180, and other programs to help support our students in their need areas. Additionally, to support students with social and emotional learning needs in those tiers, we will implement the social emotional learning strategies named in question 2 of the supplemental programming section of 1.3 in addition to other evidence-based strategies appropriate to support student needs.

- c. Describe how the school will organize and use instructional support teams to engage in a problem solving process to ensure the behavioral and academic success of all students in accordance with 14 DE Admin. Code § 923.11.9.

BASSE will use the Student Support Team as the core resource to ensure all students' behavioral and academic success. The Student Support Team will follow a five-step process which includes:

Step 1 – Problem Identification: Problem behaviors, whether academic or behavioral, will be fully defined in observable and measurable terms to include baseline data. A functional behavior analysis or academic analysis may be required to define the difficulties fully.

Step 2 – Establish Goals of Intervention: Academic and/or behavioral goals (expectations) will be fully defined in observable and measurable terms.

Step 3 – Develop Intervention: Academic and/or behavioral difficulties are targeted using research-based interventions and strategies. Procedures are clearly defined, and roles are established (i.e., data collection, handling materials, etc.).

Step 4 – Implement intervention: Intervention is implemented as planned, and adherence to plan is monitored.

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Step 5 – Monitor Progress: Data is analyzed periodically. Progress toward the desired goal is documented. Revisions and modifications to the plan are made as needed.

2. Students with Disabilities

Charter schools are responsible for hiring licensed, certified, and highly qualified special educators as required by 14 *Del. C. Ch. 1* and 14 DE Admin. Code § 900. School personnel must participate in the IEP Process including identifying students who may be eligible for special education services, evaluating students for special education services, developing an Individualized Education Program (IEP), and providing special education supports, services, accommodation, and modifications. Schools must comply with all applicable laws as outlined in the Compliance Certification Statement.

A. Identification

- a. Describe how the school will ensure compliance with Child Find responsibilities. Explain how the school will identify students in need of special education services and the steps required to determine eligibility for special education services and avoid misidentification.

BASSE will be open to students throughout Sussex County and will work in collaboration with the LEAs in the county, generally, to identify students in need of special education services. Once a student is enrolled in BASSE, if they have previously been associated with an LEA in the county, BASSE will seek parental consent to consult with that LEA to secure information related to the students' learning needs. This information will be part of the overall assessment used to determine if the student requires special education services.

While an IEP is required for students with disabilities, at BASSE, all students will have a Personalized Learning Plan (PLP) to assess students' overall progress in school routinely. Data will be collected, maintained, and monitored from multiple sources, including but not limited to: physical and functional data, such as health, hearing, orthopedic, and vision screenings; cognitive and emotional data, such as academic and behavioral school records; and observational reports about the student from parents, teachers, and other appropriate teams of professionals interacting with the student including but not limited to the IEP Team. At least one of the teachers providing an observational report shall have appropriate certification, licensure or registration, and state approval to determine if a child has a disability.

All students will be routinely monitored in terms of progress toward end of year goals and meeting grade-level expectations. When it is determined that a student requires learning interventions beyond the general education process, the interventions will be monitored using the MTSS process before determining that the child should be referred for special education services.

BASSE has a system for identifying and evaluating students who may need special education and related services. Through the Child Find efforts, information is available in the school to share with parents/guardians/parent surrogates, teachers, and outside agencies about how to make a referral if a disability is suspected. The school also has an identified contact person that handles questions and referrals at the school.

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For students enrolled in BASSE who are newly identified for special education services, the referral process is begun by a teacher, state educational agency, physician/health provider, or a parent/guardian/parent surrogate completing a written form. This form will be submitted to the Dean of Academic Excellence for review with the student's academic team (Advisory teacher, College and Career Readiness counselor, and caregiver) and a special educator, who will serve as the IEP team. The school will then schedule an IEP meeting upon receipt of the referral form.

The IEP team members will review:

- Existing assessment data
- Information from the parent/guardian/parent surrogate
- Response to instructions interventions and strategies
- Current classroom-based assessments
- Observations by teachers
- Relevant health/medical information
- Other relevant data

Permission for assessment in the areas identified by the team for which additional data is needed will be secured. Once permission is granted, the team will ensure that a student suspected of having a disability shall be assessed in all areas related to the suspected disability. A variety of assessment tools and strategies shall be used to gather sufficient relevant functional, cognitive, developmental, behavioral, and physical information, academic information, and information provided by the parent/guardian/parent surrogate to enable the IEP team to determine:

- If the student is a student with a disability;
- The student's educational needs;
- The content of a student's IEP, including information related to enabling the student to be involved in and progress in the general education curriculum;
- Each special education and related service needed by the student, regardless of whether the need is linked to the student's disability.

A single procedure or assessment may not be used as the sole criterion for determining if a student is a student with a disability and an appropriate educational program for a student. An educational assessment and at least one other assessment will be completed by personnel from different disciplines. Data will be obtained in all areas identified for assessment by the team. The team will then determine an appropriate education program after consideration of all assessment data.

When the IEP team convenes for an evaluation meeting, reports will be available for all assessment procedures administered to a student in each area of suspected disability. Each assessment report must be written, dated, and signed by the examiner who conducted the assessment. One of the required components of each assessment report is a description of the student's performance in each area of suspected disability. Also included in the report is relevant information, instructional implications of the student's participation in the general

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education curriculum, and a description of the extent to which assessment procedures were not conducted under standard conditions. Assessment reports and a copy of the “Delaware Procedural Safeguards: Parent and Child Rights in Special Education” will be sent to the parent/guardian/parent surrogate at least five days before the Assessment Review meeting.

If the IEP team decides that sufficient information has been collected and that no additional assessments are needed, then the student’s parent/guardian/parent surrogate will receive written notice of the IEP team’s decision not to conduct an evaluation. If the parent/guardian/parent surrogate disagrees, they will be informed of their right to appeal the decision.

- b. Describe the multi-tiers of evidenced-based academic and behavioral interventions and supports that will be provided prior to identification.

As stated earlier, BASSE embraces a multi-tiered system of academic and behavioral supports (MTSS) for students. This system includes universal screening, data-based decision making, performance feedback, and progress monitoring.

Tier 1 supports, for both academics and behavior, are the foundation for the school’s framework. This tier includes the core instruction and basic interventions provided to all students; all students are receiving core classroom instruction: services delivered in a general education setting by a general education teacher. Tier 1 includes instruction guided by research-based pedagogical techniques and strategies, BASSE’s Positive Behavioral Interventions and Supports program, access to socially and emotionally supportive curriculum and supports (through Delaware Guidance Services) each student’s BASSE Personalized Learning Plan. The majority of students should be able to access success by participating in Tier 1.

Tier 2 is considered heightened support and provides increased services and remediation for both academics and behavior as needed. This is accomplished by using small groups or tutoring support for those students not demonstrating success either academically or behaviorally in Tier 1. Intensive progress monitoring is utilized to inform the effectiveness of supports to provide rapid response and intentional instructional decisions. Tier 2 supports are in addition to regularly scheduled core instruction. Students receive interventions, delivered primarily in a general education setting by general education teachers, administered in small groups at a minimum of 90 minutes a week in no less than two sessions per week, for a period of six weeks during which progress is monitored weekly. If at the end of the first six week period the student has still not made the required progress, the student’s academic team (Advisory teacher, College and Career Readiness counselor, caregiver, and the Dean of Academic Excellence) will evaluate the administration of the interventions to determine if the student should proceed to Tier 3 or continue for an additional six weeks in Tier 2.

Tier 3 is considered intensive support and provides individualized or targeted services to students who have not met success in Tier 2. Again, intensive progress monitoring is the method for evaluating student progress. In Tier 3, in addition to regularly scheduled core instruction, students receive individualized interventions by staff with training appropriate to

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the interventions, in smaller groups than in Tier 2, for 150 minutes per week, in no less than four separate sessions per week for a period of six weeks during which progress is monitored weekly. If insufficient progress has been made at the end of six weeks, the student is referred for a special education program. Additionally, if measurable progress has been made but not enough progress to meet learning goals, another six week round of interventions can be initiated, at the end of which a determination will be made about referring the student for a special education program.

- c. Describe the IEP team who will be determining eligibility including required roles.

IEP team members include, at a minimum, the following:

- The student,
- The parent/guardian/parent surrogate of the student,
- The student's Advisory teacher,
- A current general education teacher,
- A special education teacher,
- A representative of BASSE who is qualified to provide or supervise the provision of services for the student, knowledgeable about those services, knowledgeable of the general education curriculum, and can commit agency resources to support the student, and
- An individual who can interpret the implications of evaluation results.

Additionally, the team may include other individuals, at the discretion of the parent/guardian/parent surrogate or the IEP team, who have knowledge or special expertise regarding the student, including:

- The student's College and Career Counselor
- Related service personnel
- A trusted community partner, such as a Delaware Guidance counselor

When the purpose of the IEP team meeting is to consider transition services, the IEP team will invite a representative of an appropriate transition services provider. If the student does not attend the meeting, the school will take other steps to ensure that the student's preferences and interests are considered.

B. Program Plan

- a. Describe the school's plan for ensuring compliance with state and federal statutes and regulations related to the identification, evaluation, and education of students with disabilities. Include a description of the school's specific action steps to ensure compliance with the Individuals with Disabilities Education Act (IDEA). Specify the programs, strategies, and supports you will provide for students with basic, intensive, and complex needs.

BASSE will include the seven-step process: pre-referral, referral, identification, eligibility, development, implementation, evaluation, and review. The specific action plan will include lesson plans, applied behavior analysis, behavior management, social skills, inclusion, and an

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individual education plan. The student will receive feedback, continuous progress monitoring, clarity of objectives, and rephrasing the lesson and relevant instructions within the action plan. This process will be aligned with the RTI & MTSS model for Tier 1 instructional and behavioral supports and Tier 2 interventions in the appropriate areas of need.

- b. Describe how the school will provide a continuum of educational placements for students with disabilities. Include a description of the instructional strategies and supports that will be implemented to ensure placement and meaningful progress in the least restrictive environment. In addition, describe how students who require a more restrictive setting will be served within the school in accordance with 14 DE Admin. Code § 925.27.0.

Students, especially those with disabilities, will have access to the curriculum, in the Least Restrictive Environment, through the following:

- Individualized Education Plan: the IEP will ensure that students are taught in an inclusive environment, being able to access all of the content being taught, with the appropriate modifications and/or accommodations. Teachers will be aware of the IEP, in detail, through training that will occur during professional development prior to the school year as well as during the school year. Follow-up training will also occur during one-on-one coaching sessions with the Dean of Academic Excellence, through grade level common planning with the Content Leaders, and through planning with the Special Education Teachers and Special Education Coordinator.
- Dual-certified teachers: The ability to hire teachers who are both certified in their content area as well as Special Education will help BASSE ensure that all students are learning in their LRE, regardless of their IEP or if they have a disability. The awareness and knowledge that certified Special Educators bring to a building and specifically to their content assists daily to confirm that material is being taught in a way that is accessible for all students.
- Personalized Learning Plans: these plans will ensure that all students, regardless of if they have an IEP or not, will also have access to the content in an environment that directly correlates to their learning style as well as their academic strengths and areas of growth. The PLP will ensure that all staff who work for BASSE will know and understand how each of our students learn, as individuals, which will ensure a higher rate of success for our students as they move through each grade level.
- Social Emotional Learning: BASSE plans to employ Social Emotional Learning Curriculum throughout all grade-levels. This will happen by way of the curriculum we use, through service-learning projects, school assemblies, our student support team, as well as the Dean of Community Partnerships who will ensure that those organizations partnered with our school will engage in conversations with our students that lend to social emotional learning.

Students will spend at least 80% of their time in the general education setting with peers of the same age without disabilities. They will be provided services including, but not exclusively,

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direct instruction, a co-teacher, a paraprofessional, an interpreter, educational aids, and appropriate modifications or accommodations.

Students who need a more restrictive setting may be in a class with a small group of students who will receive instruction or support based on their needs. Students who need to receive services outside of the classroom for half of the school day or more will be placed in a self-contained classroom unique to their needs.

BASSE will ensure that, to the maximum extent appropriate, students with disabilities are educated with students who are not disabled. Special classes or other removal of students with disabilities from the general educational environment will occur only when the nature or severity of the disability is such that education in general classes cannot be achieved satisfactorily with supplementary aids and services.

The school will ensure that the IEP team makes the most appropriate educational decisions for a student with a disability; the IEP team determines the least restrictive environment (LRE), and it is decided at least annually based on the student's IEP. In selecting the LRE, the IEP team will consider the potential harmful effect on the student or the quality of services that the student needs. A student with a disability may not be removed from the opportunity to be educated with age-appropriate peers in a general education classroom solely because of needed modifications in the general education curriculum.

BASSE will make sure to provide the appropriate accommodations and modifications for our students with disability during their service-learning activities. These accommodations and modifications will be documented both in the IEP and personalized learning plans.

- c. Describe how the school will ensure that students with disabilities have access and make meaningful progress in the general education curriculum and Common Core State Standards.

The school will ensure that students with disabilities are making meaningful progress by ensuring that all the students have access to rigorous academic content standards, as well as services designed to meet the students' needs through their IEP goals and objectives.

If the IEP team determines that a student with a disability needs a particular device or service, including intervention, accommodations, or other program modifications, to receive a free and public education (FAPE), it will be provided to the student by BASSE.

- d. Describe how the school will provide multi-tiers of academic and behavioral supports for students with disabilities.

The school will use RTI, MTSS, and Data-Based Individualized Intensive Interventions. This process will validate approaches for identifying and supporting students with persistent learning and behavior problems. The models will help teams in assessing the need for specialized instruction.

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Students with disabilities will receive special education and related services per their IEP, but this will not prevent them from benefiting from the school's RTI and MTSS support.

- e. Explain how the school will ensure parent participation in the IEP process in accordance with 14 DE Admin. Code § 900.925.22.

The Bryan Allen Stevenson School of Excellence shall take steps to ensure that the parent/guardian/parent surrogate of the student with a disability is present or is afforded an opportunity to attend and participate in the IEP team's meetings. The school will schedule IEP team meetings, and to the extent possible, to accommodate the parent's schedule. The parent/guardian/parent surrogate of a student with a disability will be provided with written notice in advance of the meeting.

Reasonable notice will be at least ten days in advance of the meeting unless an expedited meeting is being conducted to address disciplinary issues or there is the need to meet other urgent needs of the student to ensure the provision of FAPE.

Efforts to obtain the participation of the parent/guardian/parent surrogate include scheduling the IEP meeting at a mutually agreed on time and place and indicating, as part of the written notice:

- The purpose, time, date, and location of the meeting,
- Who will be in attendance, and
- That the parent/guardian/parent surrogates may invite other individuals to attend and participate as a member of an IEP team

For a student with a disability who is fourteen-years-old, the written notice shall indicate that the purpose of the meeting will be the consideration of post-secondary goals and transition services for the student.

If neither parent/guardian/parent surrogate can attend, the school will use other methods to ensure that the parent/guardian/parent surrogate participation, including individual or conference telephone calls. If needed, the school will take whatever action is necessary to ensure that the parent/guardian/parent surrogate understands the proceedings at the meeting, including arranging for an interpreter for a parent/guardian/parent surrogate with deafness or whose native language is other than English. If meetings cannot be held in person, parents will be invited to participate using technology, such as Zoom, to join the meeting from their phones or other electronic devices to ensure participation. Additionally, in an attempt to involve parents more extensively in their children's education, IEP team members will be in regular communication with parents, providing information about their child's progress, and soliciting feedback from the parents about their child's progress outside of the regularly scheduled IEP meetings.

- f. Describe how the school will ensure that IEP accommodations are provided for students with disabilities on the Delaware System of Student Assessment (DeSSA) and on the Alternate Assessment.

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For students with disabilities who have been formally identified as needing special education services, BASSE will complete the appropriate DeSSA Accessibility Form, which should reflect supports and accommodations for instruction and classroom assessments already articulated in the students' IEP.

Additionally, the IEP team will evaluate the student to ensure they meet the DeSSA-Alt Participation Guidelines criteria. DeSSA-Alt accommodations fall into three categories, including:

- 1) Supports provided in KITE client via Access Profile;
- 2) Supports requiring additional tools or materials;
- 3) Supports provided outside the system

Teachers will attend professional development on how to administer the Alternate Assessment to students with disabilities. The accommodations listed in the student's IEP must be provided to assist the student. The assessments that the student will take will be outlined in the IEP.

- g. Describe how the school will ensure that IEP services, supports, and accommodations are implemented by all staff working with students with disabilities

The special education, general education teachers, the case manager, and administrator under ESSA and IDEA are responsible for following the student's IEP goals and objectives. The student's Case Manager and Advisory teacher will be in constant contact to ensure the student receives continuity of services. The BASSE team will also conduct an annual audit of the IEP files.

- h. For students with disabilities who are age 14 or older, or who are entering the eighth or a higher grade, explain how the school will address transition planning/provision of transition services.

The Bryan Allen Stevenson School of Excellence will formally begin the transition process for students who have IEPs during the school year in which the student is fourteen. A meeting will be held with the student, their Case Manager, and their Advisory teacher will discuss what the student is interested in for the future. This information will be shared at the transition meeting, and a plan will be developed to help the student become an independent young adult. The transition plan is developed in conjunction with the IEP, the student's PLP and is reviewed annually. The IEP team will include a statement of needed transition services in the IEP along with appropriate measurable postsecondary goals based upon a variety of formal and informal age-appropriate transition assessments related to training, education, and employment. Transition services activities will be developed that address each student's needs based upon their postsecondary goals.

C. Monitoring and Accountability

- a. Describe how the school will regularly evaluate and monitor the progress and success of students with disabilities to ensure the attainment of each student's goals set forth in the IEP

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and to ensure mastery of the Common Core Standards. Include a description of how the school will address students not making progress on IEP goals or toward mastery

The school will regularly monitor and evaluate student progress by using curriculum-based tests and state assessments. Clear communication will be provided regarding each student's progress to goal through rubrics and standard mastery assessments. The teachers will also develop meaningful experiences for students to demonstrate their understanding through practical application and practice. Students will regularly reflect on their work and projects.

- b. Describe how the school will ensure that required participants, including parents, will attend IEP meetings.

The Bryan Allen Stevenson School of Excellence shall take steps to ensure that the parent/guardian/parent surrogate of the student with a disability is present or is afforded an opportunity to attend and participate in the IEP team's meetings. The school will schedule IEP team meetings, and to the extent possible, to accommodate the parent's schedule. The parent/guardian/parent surrogate of a student with a disability will be provided with written notice in advance of the meeting.

Reasonable notice will be at least ten days in advance of the meeting unless an expedited meeting is being conducted to address disciplinary issues or there is the need to meet other urgent needs of the student to ensure the provision of FAPE.

Efforts to obtain the participation of the parent/guardian/parent surrogate include scheduling the IEP meeting at a mutually agreed on time and place and indicating, as part of the written notice, the purpose, time, date and location of the meeting, who will be in attendance, and that the parent/guardian/parent surrogates may invite other individuals to attend and participate as a member of an IEP team.

For a student with a disability who is fourteen-years-old, the written notice shall also indicate that one purpose of the meeting will be the consideration of post-secondary goals and transition services for the student.

If neither parent/guardian/parent surrogate can attend, the school will use other methods to ensure that the parent/guardian/parent surrogate participation, including individual or conference telephone calls. If needed, the school will take whatever action is necessary to ensure that the parent/guardian/parent surrogate understands the proceedings at the meeting, including arranging for an interpreter for a parent/guardian/parent surrogate with deafness or whose native language is other than English. If meetings cannot be held in person, parents will be invited to participate using technology, such as Zoom, to join the meeting from their phones or other electronic devices to ensure participation. Additionally, in an attempt to involve parents more extensively in their children's education, IEP team members will be in regular communication with parents, providing information about their child's progress, and soliciting feedback from the parents about their child's progress outside of the regularly scheduled IEP meetings.

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All teachers who are required to attend the IEP team meeting will receive a substitute for the time of the meeting. If necessary, outside staff, such as school psychologists or other professionals, will be informed in a timely manner so that they can also attend the meetings.

- c. Describe the strategies that will be used when parents do not respond to school staff attempting to schedule IEP meetings, or when parents cannot or do not attend IEP meetings

As stated above, BASSE will make every appropriate accommodation to ensure that a parent will attend their student's IEP meeting, including, but not limited to, holding a teleconference or Zoom meeting or rescheduling the meeting for a time more appropriate for the parent. The student's Case Manager, Advisory teacher, the Special Education Coordinator and the Dean of Academic Excellence will attempt to contact the parent. If the parent cannot attend the meeting even after the school has attempted to accommodate them, and they give the school permission, BASSE will hold the meeting without the parent.

If the parent cannot be reached, BASSE will conduct a home visit, if possible. The goal will be to have a conversation with the parent to ensure that they see themselves as a valued member of their student's school team. If necessary, BASSE will bring an interpreter to help support the communication process.

- d. Describe how the school will ensure participation of general education in the IEP meeting. For students who turn 14 or enter the 8th grade during the IEP year and who are participating in a career and technical education program, describe how the school will ensure that a CTE teacher/career technical teacher coordinator attends the IEP meeting.

The school will send out a prior written notice to the general education teachers necessary to attend the IEP meeting. BASSE will provide those teachers with a substitute to cover their classes for the duration of the meeting.

- e. Describe the school's system of accountability to ensure compliance with IDEA, provision of special education services and procedural safeguards, along with a process to monitor student records and staff practices for regulatory compliance across the school.

The most senior special educator, or other appropriate staff, will attend and conduct professional development on record keeping and compliance, goal setting, statements of service, supplemental aids and modifications, benchmarks data, and annual goals for all educators in the building. Though the special education tasks will be designated to those employees with that expertise, every teacher is responsible for providing high quality and compliant services to our students with disabilities. Time will be scheduled in the workday for case managers to work on and complete student paperwork. All drafts will be reviewed by an additional teacher on the student's academic team before the information goes out to parents. Case managers will create forms to help teachers in filling out required documents consistently and with quality data. All files will be audited by a case manager and the Dean of Academic Excellence to ensure quality and compliance with IDEA.

D. Staffing and Professional Development

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- a. Describe how the school will employ qualified special education staff, including, but not limited to, certified and highly-qualified special education teachers, and related service providers (including but not limited to Occupational Therapist, Physical Therapist, Speech/Language Pathologist, and School Psychologist). Include a list of the staff positions and a description of the duties for each position.

At least one of the teachers on each grade-level teaching team will be a certified and highly qualified special education teacher. If there is only one certified special education teacher, they will serve as the case manager for that grade-level. They will complete data collection with the assistance of the student's Advisory teacher and other staff members who work closely with the student. They will write the student's IEP and monitor their progress to goal(s). They will also participate in the annual audit of the IEP-related student records alongside the Special Education Coordinator. If there is more than one qualified teacher, the teachers will split case management duties for the grade-level.

BASSE will hire a Special Education Coordinator to monitor and support the provision of special education services. This Coordinator will be a highly qualified teacher and educational professional who has extensive experience in providing special education services and IDEA.

Additionally, if deemed necessary by the student body population, BASSE will contract and partner with other school districts to provide related services to any students eligible for them.

- The school will hire these staff members in the same process as other staff hires (a committee including board members, the school leader, a student representative, etc.)
 - Use guidelines and recommendations from local community advocacy groups
 - Complete the hiring with relevant community partners (for instance Delaware Guidance Services)
- b. Describe how the school will ensure that all staff (including but not limited to administrators, special education teachers, regular education teachers, guidance counselors, and support staff) are adequately trained and properly implementing state and federal law related to the identification, evaluation, and education of students with disabilities.

All faculty and staff will receive annual professional development, at a minimum, to ensure their understanding of IDEA and that all students are treated equitably in all the steps of the IEP process. Additionally, the Staff Handbook will detail and clearly communicate the procedures regarding the delivery of special education and related services at BASSE.

3. English Language Learners

Charter schools are responsible for the identification of English language learners, the provision of English language services, and the annual assessment of English language proficiency as required by 14 DE Admin. Code 920. Additionally, charter schools are responsible for hiring certified English as a Second Language (ESL) and/or bilingual educators to provide services to English language learners. Paraprofessionals and tutors may serve English language learners only under the supervision of a certified ESL or bilingual teacher. In addition, ESL/bilingual school personnel must participate in the IEP

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Process of students who are dually identified for both Special Education and English language learners (SWD/ELL).

- a. Explain how the school will identify English language learner students in need of English language services, including the steps required to screen and assess the English language proficiency level and the timeline for completion.

At the point of enrollment, and no later than 25 days after enrollment, students and their families will be assessed for EL skills through the completion of the district/charter Home Language Survey, the administration of the ACCESS diagnostic screener for ELLs assessment in speaking, listening, reading and writing. As required by the Department of Education, the school will establish an ELL Plan Committee, which will monitor all ELLs based on each student's initial assessment and subsequent, regular classroom observations, classwork, and the results of an annual assessment of English proficiency. This committee will be made of the Dean of Academic Excellence, an ESOL certified teacher, a general education teacher, and a special education teacher. With this data for each student, the ELL Plan Committee will determine the accommodation(s) each ELL needs for daily instruction and testing situations during the school year. Determinations of the ELL Plan Committee for accommodation(s) will be offered regularly and will NOT be provided only for testing. Initial and ongoing ELL Accommodations Documentation (DeSSA) will be signed by school personnel and provided to the parent for approval along with the parent's approval of any plans developed for their student by the ELL Plan Committee. The Home Language Survey results and ELL Accommodations Documentation will be maintained for each school year in BASSE's student records.

- b. Explain how the school will schedule the contact hours for instruction based upon the English language learner's proficiency level.

Based on the ELL's proficiency level (1-6) as determined by screening processes, contact hours for supported instruction will be scheduled to support learning in all subject matter areas. Supported instruction will occur concurrently with regular instruction and be provided by certified EL teachers who collaborate with content teachers to ensure full access to content using either co-teaching or a consultative model. The number of contact hours for instruction will be regularly assessed and adjusted based on students developing English language proficiency.

- c. Describe the program model(s) the school will use to deliver the English language services to students.

Overall, the school will follow the principles of the English for Speakers of Other Languages (ESOL) program. Students will receive language support from a certified EL teacher. ESOL curriculum materials will be developed to complement the Delaware Common Core state standards. Additionally, following the screening and assessment process, a Delaware English Learner Program will be chosen by the school for each student receiving English Learner Language Services (for example, Dual Language Immersion, ESL Program, Blended Language Immersion, Newcomer Program in either full service, push-in, or pull-out formats).

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Determinations will be made for appropriate contact hours, ranging from one to three hours daily based on the student's language proficiency.

- d. Describe the minimum English proficiency level scores required for enrollment into the ESL/bilingual program and the minimum exit level criteria to transition out of the program.

The school will follow the Delaware Department of Education standards, which identify any student, having been assessed in all four language domains, who has a composite proficiency level below 5.0, as an ELL for whom an appropriate EL program will be provided. Any student who reaches the minimal exit level criteria to transition out of the program (a composite proficiency of 5.0 or greater on the ACCESS tool) will leave the EL program and be monitored for two academic years.

- e. Describe the school's plan for addressing parent involvement for English language learners, including immigrant students.

The school will address parent involvement for ELLs by building a relational trust system for networking with families. The school will create a welcoming, supportive learning environment for students and their families, and communicate with families using multilingual and multimodal resources. The model will include welcoming parents into the building and classrooms throughout the school year and working with families to access needed community-based resources to support student and family success. EL and general education teachers will be in regular communication with ELL families using whatever the family identifies as the most useful method, including but not limited to email, written notes, text, or phone calls to keep parents apprised of student success. As needed, translators will be available for conferences and school events (Educational Leadership, 2009, p. 34).

- f. Describe how the school will ensure that English language learner students receive instruction and support to access and make meaningful progress in the general education curriculum and Common Core State Standards.

In addition to following the State of Delaware Guidelines and Recommendations for ELLs, the school EL instructors make accommodations and modifications for students that will include supporting students in first-language reading to build solid foundations in reading skills, employing numerous visual aids, teaching essential words directly by engaging students in peer-support learning, engaging students in inquiry-based learning and by using combinations of all the techniques. Additionally, EL and content instructors will regularly consult each other on ELL progress and opportunities to reinforce EL skills and explore ways to overcome obstacles. ELL students will demonstrate success in meeting the general education curriculum and Common Core State Standards.

- g. Describe how the school will ensure that all English language learners, including those dually identified as students with disabilities who are also English language learners, will be assessed annually for English language proficiency.

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All children at the school will have completed the Home Language Survey and the ACCESS diagnostic screener, and any students with identified disabilities will have a current IEP in addition to their PLP. To assess ELLs dually identified as students with disabilities, EL and special education teachers will work collaboratively with parents and a speech/language pathologist, when possible, to ensure that Delaware's English Learner Service Discussion for English Learners with Disabilities form is completed annually. Additionally, there will be a review of how the language instruction program meets the objectives of the IEP. Furthermore, specific assessments for EL proficiency and student disabilities will be regularly completed through the ELL Plan Committee to determine appropriate accommodations for instruction and testing. Regular check-ins with family members, preferably in person, but over the phone if necessary, and with the assistance of a translator if necessary, to assess any impact of either EL proficiency or disabilities on student success in school.

- h. Describe how the school will ensure that English language learners, including those dually identified as students with disabilities who are also English language learners, will be provided services for both programs.

Through the annual completion of the Delaware English Learner Service Discussion for English Learners with Disabilities form, regular IEP reviews, and regular reviews of student language proficiency through the ELL Plan Committee, appropriate determinations will be made about specific services to be provided to students, including but not limited to the appropriate English Learner Program, types of direct and indirect services and support, the number of contact hours, any potential need for additional staff training, and appropriate learning accommodations to be made available. These processes will ensure that IEPs address students with disabilities' language-related needs, ensuring their school success.

4. Gifted Students. Explain how the school will identify and meet the needs of gifted students, including:
 - a. The specific research-based instructional programs, practices, strategies, and opportunities the school will employ or provide to enhance their abilities;
 - b. How the school will provide qualified staffing for gifted students; and
 - c. How the school will assess and monitor the progress and success of gifted students.

The school will meet gifted students' needs by using specific research-based instructional programs, such as Child Find or a children's behavioral checklist to identify gifted and talented students. Strategies and regular opportunities will be employed or provided to enhance the children's abilities. The identification process will be a collaborative process between the student's academic team, a school psychologist, and other professionals and can occur at any point during the student's academic career.

In addition to the testing process, the team will examine the student's grades and other relevant data. Teachers will provide students the opportunities for differentiated instruction during general instruction. The students will also have access to higher-level academic coursework, including taking higher-level IB courses and AP classes through partnerships with other schools. Students may also have the opportunity to complete college-level coursework

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through a partnership with various institutions of higher learning, including Delaware Technical and Community College, Delaware State University, and the University of Delaware.

Additionally, students will be provided with support to develop their talents through club time and internships during their junior and senior years. All teachers will be trained in gifted education, instructional methods, and technology to support the instruction and needs of gifted students. BASSE teachers working with all BASSE students must have high energy, enthusiasm, confidence, and resourcefulness. In alignment with our mission, they must also be open-minded, innovative, accepting of divergent and creative thinking, secure in dealing with intellectual precocity, and willing to pursue and provide training and analysis of students' assessment data. All teachers will monitor the progress of and keep records for our gifted students.

5. Homeless Students. Explain how the school will identify and meet the needs of homeless students. Describe the training that the staff members will receive to meet the needs of homeless students.

The school will identify students experiencing homelessness using the following definitions: Children or youth whose primary nighttime residence is a public or private place used as sleeping accommodation. The principal or any person serving in the role of student's services will investigate each case for validation of the homeless status and work with the school and family as soon as possible to assist, determine, and go through the registration process and other needs of the student and family as determined that may require school support. Training to educators will be provided by agencies, such as the DDOE and our partner agencies, such as Jounce Partners and Delaware Guidance Services and other local social workers skilled in this area.

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Student Recruitment and Enrollment [14 Del. C. § 512(6) and (8) and 14 DE Admin. Code 275.4.4.2]

1. Describe your plan to recruit students in your pre-opening year, including the strategies, activities, events, responsible parties and benchmarks and timelines that will demonstrate suitable progress over time. (**Note!** Be sure to reference [https://www.schoolchoicede.org/.](https://www.schoolchoicede.org/))

BASSE's plan to recruit students in our pre-opening year is as follows:

The BASSE team will reach out to the entire Sussex County community to create an awareness of this unique charter school. These groups include, but are not limited to all community groups and organizations, homeowner's associations, education sites specifically targeting middle school students, ads and articles in local newspapers and magazines in English, Spanish and Haitian Creole. To encourage interest from parents and students, we will post information on our website and social media. Additionally, we will blog, email, create posters and flyers to be hung in public gathering places, such as libraries, hospitals, clinics, gyms, churches, supermarkets, and host online Zoom webinars and information sessions. BASSE will utilize its staff, Board of Directors and Advisory Board and other volunteers, partners, donors, and previously recruited parents to market the school. Once opened, BASSE will utilize its student population as well for marketing. We hope to disseminate to future parents and students the uniqueness of BASSE by highlighting its focus on service learning, our use of the rigorous International Baccalaureate curriculum for all, and building connections between our school model and student voice and interests.

The recruiting team will recruit students through BASSE fundraisers and community events, such as backpack drives, events at community centers, and open houses, strategically held throughout the recruiting process. This will enable prospective families and interested parties to experience and explore our school.

Due to the Coronavirus pandemic, it will be difficult for BASSE to host in-person events until guidelines and public health recommendations allow for traditional in-person events to be held. In Sussex County, reliable access to the internet and technology is difficult for many families that we would like to recruit. Therefore, BASSE will still attempt to host some in-person events. For instance, in summer 2020, BASSE partnered with local community organizations, such as First State Community Action Agency (a non-profit organization focused on supporting low-income families) to provide backpacks to students prior to the 2020-2021 school year at a socially distanced event where we could provide families with information about BASSE and provide a public service. Additionally, BASSE plans to run targeted programs, such as a summer book club, to engage with students prior to opening.

Proposed Recruitment Timeline*:

Jun. 2022 - Aug. 2022: Identify recruitment coordinator and committee. Develop a strategic marketing campaign, and schedule recruitment events (i.e., open houses, parent webinars, tabling at local community events).

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Aug. 2022: Proof and finalize application and marketing materials, including all necessary translations. Submit a copy of the application to the authorizer for approval. Sign up for the Common Online Charter School Application. Publicize upcoming recruitment events on social media and with strategic community partners.

Sept. 2022 – Jan. 2023: Hold several Open Houses and Parent Webinars, at least once a month. Some of these may be held virtual via Zoom or in small groups, depending on the Covid-19 restrictions. Run ads, radio announcements, in the calendar of the local newspapers, and/or post flyers in the community and advertise on social media. Attend community partners' events and public events to increase awareness and recruit students.

Nov. 2022: Post application and materials online. Disseminate application and material to partner organizations.

Jan. 2023: January 12th application deadline.

Mar. 2023 – Jun. 2023: Implement an under-enrollment recruitment plan if numbers are lower than needed. This will include a more rigorous round of recruitment events.

*This timeline is subject to change depending on the school choice process dates as posted on schoolchoicede.org.

2. Explain the plan for student recruitment and marketing that will provide equal access to any family interested in the new school. Specifically describe the plan for outreach to families in poverty; academically low-achieving students; students with disabilities; linguistically diverse families and other youth at risk of academic failure. The response should include the following:
 - a. A brief description of the recruitment strategies that the school will employ to attract each of the students described above to the school; and
 - b. A brief explanation of the efforts, resources, structures, or programs that the school will take to retain these students and how the school will monitor the efficacy of such efforts, including disaggregation of student performance data for each subgroup. Identify your target re-enrollment rate for each year.

BASSE intentionally designed our recruitment and enrollment strategies to be inclusive of all student groups listed. To bolster our effectiveness of reaching these groups, we will partner specifically with community organizations such as churches, homeless shelters, and non-profit organizations that focus on serving people from these populations. Furthermore, to reiterate a point from above, due to the Coronavirus pandemic, it will be difficult for BASSE to host in-person events until guidelines and public health recommendations allow for traditional in-person events to be held. However, we will strive to host some in-person events, like our backpack event, held in places accessible to these communities in a safe and socially distanced way. We understand that families with students in the populations listed above may often have difficulty accessing the internet or reliable technology.

In addition to the recruitment strategies described above, BASSE intends to host parent workshops (with interpreters) where we will help to educate parents who are interested in

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enrolling their child at BASSE but are unfamiliar with the charter school/school choice process in Delaware. A brief description of some of the topics we would cover is as follows:

Parent Workshops

- We will distribute copies of the DDOE's "Frequently Asked Questions about Delaware Charter Schools/Parent Guide to Delaware Charter Schools" to all parents seeking to enroll their children as well as to parents of enrolled students. We will seek translations of these documents to provide to families whose home language is not English.
- We will explain that preferences for student admissions may be given to:
 - a. Students residing within a 5-mile radius of the BASSE
 - b. Students residing within the regular school district in which BASSE is located
 - c. Students who have a specific interest in BASSE's teaching methods, philosophy, or educational focus;
- We will explain the lottery and waiting list processes
- We will explain the application and how to apply

In regards to student retention, BASSE will focus first on building relationships with our students' families to make sure that they understand that they and their students are valuable members of the BASSE community. BASSE will track the progress of our students from underserved populations, making sure that we provide the necessary resources to help those students and families be successful.

3. In **Attachment 8 (Parent Support Survey)**, provide evidence of demand for the proposed school among prospective parents/guardians. (**Note!** The Department is looking for evidence that your proposed school is wanted by the local community, and that enough pupils would come to your school to make it financially viable. This evidence takes the form of a survey that parents sign expressing support for the school. Specifically, you should aim to show that you have **support from parents for at least as many pupils as the number of seats in your school in its first two years of opening**. This is a minimum and your application will be rated more strongly if the school is significantly oversubscribed.)
4. Describe the ongoing student recruitment work that you will do once your school has opened. Identify the ways in which it will be different than your pre-opening year in terms of the strategies, activities, events, persons responsible and benchmarks.

To recruit new students once BASSE has opened its doors, we will organize the following events:

- Happy parents are our absolute best source of advertising. Anyone with a student currently attending the school and willing to vouch for it will form a core piece of our marketing engine. We will send out quarterly emails or take-home newsletters asking parents to offer their recommendation in written form, tell their friends about the school, and speak at informational meetings.
- We will set up twice a year meetings for prospective parents and students, in-person get-togethers to transform prospects into students. We will invite parents to see the school and speak with staff and current students.

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- We will hold family events on weekends for current and prospective students, such as picnics in different towns of Sussex County that will be open to families in the local communities. We will include families that are already enrolled to answer questions about the program.
 - We will hold community chats in local libraries and the school in the early evening and Saturdays and have the current students present about BASSE and show projects they have explored.
 - We will hold an art show, science fair, or project show in a central place in Sussex County where the community can view the students' work to make more BASSE visible.
 - We will develop marketing materials, such as bumper stickers, posters, and literature and place them in libraries and local shops updated once the school is opened and operating.
 - We will hold virtual webinars through Zoom or Google Meet, and advertise through the BASSE social media and physical flyers, highlighting positive and successful moments at BASSE.
 - We will hold job fairs, college fairs, and other events that are open to the community.
 - We will conduct regular surveys of parents to collect data on their satisfaction. These surveys will be sent home with students (translated as needed) and made available on the school website (where the translations will be available as well).
5. Provide, as **Attachment 9**, the school's Enrollment Policy and Withdrawal Policy, which must include the following:
- a. Any admission requirements, including an explanation of the purpose of any pre-admission activities for students or parents;
 - b. Any admission preferences in accordance with 14 *Del. C.* § 506(b) and how they will be used, including how the school will identify Founding Group members and how the preference to children of the school's Founding Group members will be used, if applicable;
 - c. Establish a timeline for its application and admissions processes identical to any such timeline set forth in 14 *Del. C.* Ch. 4 for the operation of a public school choice program. Provide an approximate date for the lottery and describe the procedures for conducting a fair lottery process;
 - d. Policies and procedures for student waiting lists, withdrawals, re-enrollment, and transfers.
 - e. A timeline and plan for student recruitment and enrollment;
 - f. Plans to maintain on file a written statement, signed by the parent or guardian of each enrolled child, that acknowledges that the child will attend the charter school for at least one complete school year pursuant to 14 *Del. C.* § 506(c)(3).
6. Provide, as **Attachment 10**, the school's Remote Learning Plan (See attached guidance, p. 48).

School Culture [14 *Del. C.* § 512(6)-(7) and 14 *Del. C.* §4112D]

1. Describe the culture or ethos of the proposed school and how this culture or ethos will promote a positive academic environment and reinforce student intellectual and social development.

The central ethos of BASSE's culture is framed in Bryan Stevenson's quote, "[e]ach of us is more than the worst thing we've ever done." BASSE believes deeply in the brilliance and resilience of

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all of our future students. We see education and community understanding as essential to our students' growth and development, Delaware's next generation of leaders. It is the role of school, education, and educators to believe in the ability of every student; BASSE believes every student can and will succeed.

BASSE's culture is student-driven. BASSE believes student and community voices are critical to promoting the academic, social, and intellectual development required to ensure bold student leadership and college and career readiness. First, BASSE will take a trauma-informed approach to our school's cultural model. As a new school, BASSE will create a trauma-informed school culture where staff and students feel supported and have equitable access to the resources needed to be successful. BASSE's students and staff will internalize the vision of Gov. Carney's Executive Order 24 and prioritize a trauma-informed approach with parent engagement, discipline policies, and our approach to multi-tiered student support.

Delaware's Trauma Blueprint highlights the state's transition from trauma awareness to trauma-informed; BASSE will provide training for all staff and students to support a culturally responsive trauma-informed culture to ensure BASSE is always in pursuit of being a trauma-informed school. BASSE will set annual goals to ensure the school's progression along the trauma continuum, from trauma-aware to trauma-sensitive, to trauma-sensitive, and finally, trauma-informed. This school culture will de-center the notion of "what's wrong with you?" and center framing of "what happened to you?" to ensure students and families have the support and resources needed for success.

Additionally, BASSE will prioritize student wellbeing and healing through social-emotional learning by embedding a wellness wheel (see attached) into students' personalized learning plans. At multiple points in the school year, students and staff will review and update their wellness wheel as part of their personalized learning plan to ensure our students' social-emotional well-being.

BASSE recognizes that true healing and restoration is steeped in an understanding of self and self and others. History is a critical component of students' self-exploration and understanding. Therefore, BASSE will use the Historical Literacy Framework in our curriculum to support student learning.

2. Explain the systems, practices, and traditions that the School Leader and staff will implement to foster this culture for students, teachers, administrators, and parents, starting from the first day of school. (**Note!** You will be asked to describe your discipline policy in the next section).

Our vision is to foster critically conscious individuals who are self-empowered, community-minded leaders who advocate for change. To actualize this vision, starting on day one, it starts with a deep belief in the ability of all children, including children from low-income backgrounds, children of color, and children who are linguistically diverse, to excel academically and the ability of schools. Our school's leadership and staff must hold extremely high expectations for student success and school performance. This will require an openness to, and

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desire for, frequent feedback and commitment to improving practice starting from day one. BASSE staff will have an intense desire to improve and grow professionally.

At BASSE, five core values guide us: (1) To ensure excellence by requiring rigorous and high-quality instruction from teachers and a supportive and challenging learning environment for students; (2) To foster equity by creating access to local resources and global opportunities; (3) To embrace our community by building bridges between our students, their families, and the community at large; (4) To inspire hope by facilitating spaces where students see that the potential of our community is exponential; and (5) To elevate the voices of our students by providing them with a platform to address the current state of our community and plant the seeds for its future.

Our school leader will be trained, through Jounce Partners, with the philosophy that (1) Teaching quality is the most important driver of student learning; (2) Teaching quality is not fixed – teachers can get better, and with effective coaching, they can get better fast; and (3) School Leaders' primary goal should be to increase teaching quality in their schools rapidly. We believe school leadership is critical to the school's long-term success, and our school leader will inspire our growing staff and student body through a structured approach to student and teacher leadership.

Our staff will have a strong background in lesson design, unit planning, lesson execution, content knowledge, and data analysis skills as a classroom teacher, which will be evidenced by significant student achievement gains. Our school leadership will focus its direction and support for staff and students focused on these five core competencies: (1) Instructional Leadership; (2) People Management; (3) Culture Leadership; (4) Operations/Governance; and (5) Personal Leadership. Prioritizing these five elements will foster a supportive, responsive, and inclusive culture for staff, students, and leadership from day one.

3. Describe the key elements of the school's bullying prevention and anti-hazing policies. Explain how the school will develop this culture and use scientifically researched-based practices for students, educators, administrators, and parents starting from the first day of school. Resources to ensure compliance with state requirements are available at:
<https://www.stopbullying.gov/resources/laws/delaware>

Hate has no place in BASSE; in the words of Bryan Stevenson, “[b]ut if we don’t expect more from each other, hope better for one another, and recover from the hurt we experience, we are surely doomed.” BASSE will encourage students to show respect for differences in others, including but not limited to race, gender, and religion, while fostering a school and cyber environment free from all forms of bullying and intimidation, as outlined in the [BASSE DEI Statement](#).

Additionally, since researched-based curricula for secondary education is limited, BASSE will use a combination of [Positive Behavior Intervention and Support \(PBIS\)](#), the culturally responsive classroom and the [framework for including equity in school discipline](#).

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As outlined on the Stopbullying.Gov website, BASSE will engage in the following actions to prevent bullying:

- Provide opportunities for research on how to prevent it and how to respond
- Opportunities for presentations, speech, and role-play
- Whole-school and small group discussions on how to safely report bullying
- Opportunities for students to use creative outlets to express themselves and their needs
- Focus on the importance of peer relationships in school

Additionally, BASSE will conduct training with all staff in multiple formats throughout the year, including but not limited to: staff meetings, one-day training sessions, and modeling.

Reference: <https://www.stopbullying.gov/prevention/at-school>

4. Explain how the school culture will serve and support students with special needs, including students receiving special education services, English Language Learners, homeless and migrant students, and any other students at-risk of academic failure.

BASSE's school culture and environment will always put students first. BASSE strives for a diverse student population, as diversity inspires a richer and more holistic learning environment for all students. BASSE is committed to creating a diverse, equitable, and inclusive environment for all students; please reference BASSE's [DEI Statement](#). This statement serves as the foundation of our approach to inclusive school culture. BASSE staff and students approach learning with an assets-based approach, recognizing that difference is a valuable asset for our students, and we encourage students to embrace their difference.

A trauma-informed approach acknowledges the resilience in all of our students and that resilience is power. The social-emotional wellbeing of our students is our top priority. In conjunction with each student's personalized learning plan, BASSE's wellness wheel will create a support system for students, regardless of their needs, to flourish in the BASSE school environment. Each student will receive personalized attention throughout the year to ensure every student succeeds, meeting their personal and academic goals.

Student Discipline [14 Del. C. §512(6)-(7) and (11), 14 Del. C. § 4112F]

1. What will be the key elements of the school discipline policy, and how will it support the school culture that you describe above? Include plans regarding limitations on seclusion and restraint with respect to all students, including training and reporting requirements in accordance with 14 Del. C. § 4112F and related regulations at 14 DE Admin. Code § 610.

The Bryan Allen Stevenson School of Excellence plans to implement a discipline policy that centers on restorative justice practices to support and promote our school culture. [Restorative justice](#) practices are grounded in "restorative justice," which is a way of looking at wrongdoing that focuses on repairing the injury done to people and their relationships rather than punishing an individual for the wrong they have done. Restorative practices are based on the belief that human beings are happier, more cooperative and productive, and more likely to make positive changes in their behavior when those in positions of authority do things with them, rather than

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to them or for them. The most critical function of restorative practices is restoring and building relationships. Students, staff, faculty, and board members must meet with those they have wronged, explore what happened, and make necessary amends. The restorative practices process can happen in groups as small as three and as large as a whole class.

If physical restraint is necessary due to a physical altercation involving a student, any required restraints to prevent the student from causing harm to themselves or others will be performed in accordance with state code. All staff will be trained on how to properly restrain students minimally, and parents/guardians will be notified of the incident as soon as possible.

Additionally, any of the school leadership team (the Dean of Academic Excellence, the Dean of Community Partnerships, or the Executive Director) will document the incident and notify the DDOE using the proper document.

Seclusion is not a discipline practice aligned to restorative justice practices; therefore, BASSE will not be implementing that discipline practice.

2. How will the discipline policy be practiced in the classroom in order to ensure that students are working on task and focused on learning?

All BASSE faculty and staff will receive training on restorative practices for the classroom and will be expected to incorporate this training into their daily practice. If an issue does arise during class, staff will remind students of the school guidelines. If students take responsibility for any harm or disruption their actions caused, any involved students and staff will positively reinforce the problem's resolution, and the incident will be resolved. If the incident involves a single student, the staff member will seek to handle the issue in a one-to-one session with the student. If the issue involves a group of students or the entire class, the teacher will handle the issue in class using an appropriate method, such as a restorative circle.

3. How will you ensure that minority students and students with disabilities are not disproportionately represented in disciplinary procedures such as suspensions and expulsions? How will you measure or track this data?

To ensure that non-white students, students who identify differently, students who speak multiple languages, and students with disabilities are not disproportionately represented in suspensions and expulsions, we are first implementing restorative justice practices as our discipline philosophy. This should help decrease any incidences of expulsion and suspension as students will be invested in the discipline process.

If a student who is a member of one of the aforementioned groups is fairly recommended for and successfully suspended or expelled, this will be tracked internally with all other disciplinary infractions beyond the classroom. This data will be reviewed quarterly by our school leadership team to assess any disproportionalities. If disproportionalities are discovered, the school team will implement research-based interventions to reduce and ultimately eliminate the disproportional referral of students from the overrepresented groups for suspension and expulsion.

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Ideally, by centering our students' social and emotional health, implementing trauma-informed practices, practicing culturally responsive and relevant instructional practices, and rooting our disciplinary procedures in restorative justice, this type of inequitable treatment of students will be prevented. However, we will not rest on our laurels; we will diligently track and measure this data.

4. Who will be responsible for implementing the school's discipline policy? What position will be responsible for electronically reporting discipline incidents in accordance with state requirements?

Ultimately, the school leadership team will be held accountable for implementing the school discipline policy, though all staff members will be responsible for successful implementation. The Dean of Academic Excellence will be primarily responsible for the electronic reporting of incidents, as they will be most active in the school building from day-to-day. However, the other school leadership team members, i.e., the Executive Director and the Dean of Community Partnerships, may also report these incidents.

5. How will the school ensure that staff are adequately trained and properly implementing state and federal law related to the discipline of students with disabilities? Include a description of the school's specific action steps to ensure compliance with the disciplinary provisions of the Individuals with Disabilities Education Act, Section 504 of the Rehabilitation Act, and Delaware statutes and regulations.

(Note! If approved, you will be required to submit a student Code of Conduct prior to opening in accordance with 14 DE Admin. Code § 600.)

If a situation arises related to a student's disability, the staff will be sure that whatever discipline practice is implemented is aligned to what the student's IEP outlines as the proper behavior intervention. The student's IEP team will design the appropriate restorative procedures for the student in question and how they will be implemented.

When required, reports will be filed with the appropriate agency relating to the DDOE guidelines and state law. The BASSE faculty and staff will receive training in the various aspects of IDEA and Delaware statutes and regulations to ensure that the school follows all aspects of the law. New staff will have a routine introductory training, and once every three years, veteran staff will receive a refresher course updating them on any changes in the law.

Please see our draft outline of our code of conduct [here](#).

Section 1.3 - Education Plan :: Attachment 4 - Course Scope and Sequence

Grades 6–8 Curriculum Plan

Grade 6				
	Module 1: Reading, Writing, and Speaking Grounded in Evidence	Module 2: Researching to Build and Present Knowledge (Science)	Module 3: Analyzing, Interpreting, and Evaluating Text	Module 4: Researching to Write and Present Arguments
Topic	6M1: Greek Mythology	6M2: Critical Problems and Design Solutions	6M3: American Indian Boarding Schools	6M4: Remarkable Accomplishments in Space Science
Standards Assessed	RL: RL.6.1, RL.6.2, RL.6.3, RL.6.4, RL.6.6, RL.6.7, RL.6.9, RL.6.10 RI: RI.6.1, RI.6.2, RI.6.4, RI.6.10 W: W.6.2, W.6.3, W.6.4, W.6.5, W.6.6, W.6.9a, W.6.10 SL: SL.6.1a, SL.6.1b L: L.6.4, L.6.4a, L.6.4c, L.6.4d, L.6.5, L.6.6	RI: RI.6.1, RI.6.2, RI.6.3, RI.6.4, RI.6.5, RI.6.7, RI.6.10 W: W.6.2, W.6.4, W.6.6, W.6.7, W.6.8, W.6.9b, W.6.10 SL: SL.6.1a, SL.6.1b, SL.6.1c, SL.6.2, SL.6.6 L: L.6.4a, L.6.5a, L.6.5c, L.6.6	RL: RL.6.1, RL.6.2, RL.6.3, RL.6.5, RL.6.6, RL.6.10 RI: RI.6.1, RI.6.2, RI.6.4, RI.6.6, RI.6.7, RI.6.10 W: W.6.1, W.6.4, W.6.5, W.6.6, W.6.9a, W.6.10 SL: SL.6.2, SL.6.6 L: L.6.1, L.6.2, L.6.3, L.6.3a, L.6.5a, L.6.5c, L.6.6	RI: RI.6.1, RI.6.3, RI.6.4, RI.6.6, RI.6.8, RI.6.9, RI.6.10 W: W.6.1, W.6.1b, W.6.4, W.6.5, W.6.6, W.6.7, W.6.8, W.6.9b, W.6.10 SL: SL.6.1d, SL.6.3, SL.6.4, SL.6.5, SL.6.6 L: L.6.2, L.6.3, L.6.6
Required Trade Books and Resources ¹	<ul style="list-style-type: none"> • <i>The Lightning Thief</i>, Rick Riordan (680L). ISBN: 9780786838653 • <i>Percy Jackson & The Olympians: The Lightning Thief</i> (DVD), Chris Columbus (director). UPC: 024543668824 	<ul style="list-style-type: none"> • <i>The Boy Who Harnessed the Wind</i> (Young Readers Edition), William Kamkwamba and Bryan Mealer (850L). ISBN: 9780147510426 	<ul style="list-style-type: none"> • <i>Two Roads</i>, Joseph Bruchac (740L). ISBN: 9780735228870 	<ul style="list-style-type: none"> • <i>Hidden Figures</i> (Young Readers' Edition), Margot Lee Shetterly (1120L). ISBN: 9780062662378 • <i>Hidden Figures: The True Story of Four Black Women and the Space Race</i> (Picture Book), Margot Lee Shetterly (980L). ISBN: 9780062742469 (six per classroom)

¹ This plan shows all trade books and resources used in each module. See Second Edition Grades 6–8 Language Arts Curriculum Required Trade Books and Resources Procurement List for specific number of each material needed to purchase (e.g., one per classroom or one per student).

Grades 6–8: Curriculum Plan

Grade 7				
	Module 1: Reading, Writing, and Speaking Grounded in Evidence	Module 2: Researching to Build and Present Knowledge (Science)	Module 3: Analyzing, Interpreting, and Evaluating Text	Module 4: Researching to Write and Present Arguments
Topic	7M1: The Lost Children of Sudan	7M2: Epidemics	7M3: The Harlem Renaissance	7M4: Plastic Pollution
Standards Assessed	RL: RL.7.1, RL.7.2, RL.7.3, RL.7.4, RL.7.6, RL.7.7, RL.7.9, RL.7.10 RI: RI.7.1, RI.7.2 W: W.7.2, W.7.3, W.7.4, W.7.6, W.7.7, W.7.8, W.7.9, W.7.10 SL: SL.7.1a, SL.7.1b, SL.7.1c, SL.7.2 L: L.7.4, L.7.6	RI: RI.7.1, RI.7.2, RI.7.3, RI.7.4, RI.7.5, RI.7.8, RI.7.10 W: W.7.2, W.7.4, W.7.5, W.7.6, W.7.7, W.7.8, W.7.10 SL: SL.7.1, SL.7.4, SL.7.6 L: L.7.1, L.7.2, L.7.3, L.7.4, L.7.6	RL: RL.7.1, RL.7.2, RL.7.3, RL.7.4, RL.7.5, RL.7.6, RL.7.7, RL.7.10 W: W.7.1, W.7.5, W.7.6, W.7.9a, W.7.10 SL: SL.7.4, SL.7.5, SL.7.6 L: L.7.1, L.7.1a, L.7.1b, L.7.4a, L.7.5a, L.7.5c, L.7.6	RI: RI.7.1, RI.7.2, RI.7.4, RI.7.6, RI.7.7, RI.7.9, RI.7.10 W: W.7.1, W.7.5, W.7.6, W.7.9, W.7.9b, W.7.10 SL: SL.7.2, SL.7.3, SL.7.4, SL.7.5, SL.7.6 L: L.7.1, L.7.1c, L.7.2, L.7.4, L.7.5, L.7.5b
Required Trade Books and Resources ¹	<ul style="list-style-type: none"> • <i>A Long Walk to Water</i>, Linda Sue Park (720L). ISBN: 9780547577319 • <i>A Long Walk to Water</i> (Audiobook), Linda Sue Park. ISBN: 9780547532844 • <i>Brothers in Hope: The Story of the Lost Boys of Sudan</i>, Mary Williams (610L). ISBN: 9781584302322 • <i>God Grew Tired of Us</i> (DVD), Christopher Dillon Quinn (director). UPC: 0043396198999 • <i>Nasreen's Secret School: A True Story from Afghanistan</i> (Ebook), Jeanette Winter (AD630L). ISBN: 9781442441217 	<ul style="list-style-type: none"> • <i>Patient Zero</i>, Marilee Peters (1010L). ISBN: 9781554516704 	<ul style="list-style-type: none"> • <i>One Last Word: Wisdom from the Harlem Renaissance</i>, Nikki Grimes (NP). ISBN: 9781619635548 • <i>Shuffle Along</i> (CD), Eubie Blake. UPC: 632433320426 	<ul style="list-style-type: none"> • <i>Trash Vortex: How Plastic Pollution Is Choking the World's Oceans</i>, Danielle Smith-Llera (1120L). ISBN: 9780756557492 • <i>A Plastic Ocean</i> (DVD), Craig Leeson. UPC: 602573215302

¹ This plan shows all trade books and resources used in each module. See Second Edition Grades 6–8 Language Arts Curriculum Required Trade Books and Resources Procurement List for specific number of each material needed to purchase (e.g., one per classroom or one per student).

Grade 8				
	Module 1: Reading, Writing, and Speaking Grounded in Evidence	Module 2: Researching to Build and Present Knowledge (Science)	Module 3: Analyzing, Interpreting, and Evaluating Text	Module 4: Researching to Write and Present Arguments
Topic	8M1: Folklore of Latin America	8M2: Food Choices	8M3: Voices of the Holocaust	8M4: Lessons from Japanese American Internment
Standards Assessed	<p>RL: RL.8.1, RL.8.2, RL.8.3, RL.8.4, RL.8.6, RL.8.9, RL.8.10</p> <p>RI: RI.8.1, RI.8.2, RI.8.4, RI.8.10</p> <p>W: W.8.2, W.8.3, W.8.4, W.8.6, W.8.9a, W.8.10</p> <p>L: L.8.4, L.8.5a, L.8.6</p>	<p>RI: RI.8.1, RI.8.5, RI.8.6, RI.8.7, RI.8.8, RI.8.9, RI.8.10</p> <p>W: W.8.1, W.8.4, W.8.6, W.8.7, W.8.8, W.8.9, W.8.10</p> <p>SL: SL.8.2, SL.8.3, SL.8.4, SL.8.5</p> <p>L: L.8.1, L.8.2, L.8.4a, L.8.4b, L.8.5b, L.8.5c, L.8.6</p>	<p>RL: RL.8.1, RL.8.2, RL.8.3, RL.8.4, RL.8.5, RL.8.10</p> <p>W: W.8.3, W.8.4, W.8.6, W.8.10</p> <p>L: L.8.1, L.8.2, L.8.2a, L.8.2b, L.8.3, L.8.5a</p>	<p>RL: RL.8.1, RL.8.7</p> <p>RI: RI.8.1, RI.8.3, RI.8.4, RI.8.6, RI.8.10</p> <p>W: W.8.1, W.8.4, W.8.5, W.8.6, W.8.9b, W.8.10</p> <p>SL: SL.8.1a, SL.8.1b, SL.8.1c, SL.8.1d, SL.8.5, SL.8.6</p> <p>L: L.8.2c, L.8.4a, L.8.4b, L.8.5a, L.8.5c, L.8.6 (L.8.1 and L.8.3 optional)</p>
Required Trade Books and Resources ¹	<ul style="list-style-type: none"> • <i>Summer of the Mariposas</i>, Guadalupe Garcia McCall (840L). ISBN: 9781620140109 	<ul style="list-style-type: none"> • <i>The Omnivore's Dilemma</i> (Young Readers Edition), Michael Pollan (930L). ISBN: 9781101993835 • <i>Nourish: Short Films: 54 Bite-Sized Videos about the Story of Your Food</i> (DVD), NourishLife. UPC: 850075002290 	<ul style="list-style-type: none"> • <i>Maus I: A Survivor's Tale: My Father Bleeds History</i>, Art Spiegelman (RL NP). ISBN: 9780394747231 	<ul style="list-style-type: none"> • <i>Farewell to Manzanar</i>, Jeanne Wakatsuki Houston and James D. Houston (1040L). ISBN: 9781328742117 • <i>Farewell to Manzanar</i> (DVD), John Korty (director). UPC: 0000000230021

¹ This plan shows all trade books and resources used in each module. See Second Edition Grades 6–8 Language Arts Curriculum Required Trade Books and Resources Procurement List for specific number of each material needed to purchase (e.g., one per classroom or one per student).

GRADES 9-12 Curriculum Map

Grade 9

	Module 9.1 (52 Lessons)	Module 9.2 (50 Lessons)	Module 9.3 (35 Lessons)	Module 9.4 (34 Lessons)
Title	“So you want a double life”: Reading Closely and Writing to Analyze	Working with Evidence and Making Claims: How Do Authors Structure Texts and Develop Ideas?	Building and Communicating Knowledge through Research: The Inquiry and Writing Processes	Understanding and Evaluating Argument: Analyzing Text to Write Arguments
Texts	<p>Unit 1:</p> <ul style="list-style-type: none"> “St. Lucy’s Home for Girls Raised by Wolves,” Karen Russell <p>Unit 2:</p> <ul style="list-style-type: none"> <i>Letters to a Young Poet*</i>, Rainer Maria Rilke <i>Black Swan Green*</i>, David Mitchell <p>Unit 3:</p> <ul style="list-style-type: none"> <i>Romeo and Juliet*</i>, William Shakespeare 	<p>Unit 1:</p> <ul style="list-style-type: none"> “The Tell-Tale Heart,” Edgar Allan Poe <p>Unit 2:</p> <ul style="list-style-type: none"> <i>Oedipus the King</i>, Sophocles <p>Unit 3:</p> <ul style="list-style-type: none"> “True Crime: The Roots of an American Obsession,” Walter Mosley “How Bernard Madoff Did It,” Liaquat Ahamed <i>The Wizard of Lies: Bernie Madoff and the Death of Trust*</i>, Diana Henriques 	<p>Unit 1:</p> <ul style="list-style-type: none"> <i>Animals in Translation: Using the Mysteries of Autism to Decode Animal Behavior*</i>, Temple Grandin and Catherine Johnson <p>Units 2 and 3:</p> <ul style="list-style-type: none"> Additional Model Research Sources 	<p>Unit 1:</p> <ul style="list-style-type: none"> <i>Sugar Changed the World: A story of Magic, Spice, Slavery, Freedom and Science</i>, Marc Aronson and Marina Budhos Supplementary Model Argument Texts

<p>Assessed Standards</p>	<p>CCRA.R.9 RL.9-10.1, 2, 3, 4, 5, 7, 11 RI.9-10.2, 3, 4 W.9-10.2 (a, c, f) SL.9-10.1 (b, c) L.9-10.5 (a)</p>	<p>CCRA.R.6, 9 RL.9-10.2, 3, 4, 5, 11 RI.9-10.2, 5 W.9-10.2 (a-d, f), 5 SL.9-10.1 (a-d) L.9-10.1, 2</p>	<p>RI.9-10.1 (a), 2, 3, 5, 7 W.9-10.2 (a-f), 4, 5, 6, 7, 8, 9 L.9-10.1, 2, 3 (a), 6</p>	<p>CCRA.R.9, RI.9-10.2, 3, 4, 5, 6, 7, 8 W.9-10.1 (a-e), 5 L.9-10.1 (a-b), 2 (a-c), 5</p>
<p>Addressed Standards</p>	<p>SL.9-10.4 L.9-10.4 (a-c)</p>	<p>RI.9-10.7 W.9-10.9 (a, b) SL.9-10.4, 6 L.9-10.4 (a, b), 5 (a, b)</p>	<p>SL.9-10.1 L.9-10.2 (a-c), 4 (a-d)</p>	<p>W.9-10.4, 9 (b) SL.9-10.1 (c-d) L.9-10.3 (a), 4 (a-c), 6</p>
<p>Performance Assessment Prompt</p>	<p>Identify a specific phrase or central idea in paragraphs 4–9 of Rilke’s “Letter Seven.” Analyze how that phrase or central idea relates to one or more central ideas in “St. Lucy’s Home for Girls Raised by Wolves” or <i>Romeo and Juliet</i>.</p>	<p>Identify a central idea shared by one literary text and one informational text. Use specific details to explain how this central idea develops over the course of each text, and compare how the authors’ choices about text structure contribute to the development of this idea.</p>	<p>Create a blog post using information from your research paper and various multimedia components to enhance your research findings. Update or enhance the information from your research paper by linking to other supporting information and displaying the information flexibly and dynamically. Make effective use of available multimedia components, including hyperlinks, images, graphics, animation, charts, graphs, video, and audio clips.</p>	<p>For this assessment you must choose at least four of these texts and write a multi-paragraph argument essay in response to the following prompt: Is local food production an example of ethical consumption? Provide evidence from at least four sources in your response.</p>

* Indicates excerpts

Grade 10

	Module 10.1 (38 Lessons)	Module 10.2 (40 Lessons)	Module 10.3 (43 Lessons)	Module 10.4 (41 Lessons)
Title	Reading Closely and Writing to Analyze: How do Authors Develop Complex Characters and Ideas?	“These are strange times, my dear.”: How do Authors Use Rhetoric and Word Choice to Develop Ideas and Claims?	Researching Multiple Perspectives to Develop a Position	“It is a Tale ... Full of Sound and Fury”: How do authors use craft and structure to develop characters and ideas?
Texts	<p>Unit 1:</p> <ul style="list-style-type: none"> • “The Passionate Shepherd to his Love,” Christopher Marlowe • “The Nymph’s Reply to the Shepherd,” Sir Walter Raleigh • “Raleigh Was Right,” William Carlos Williams <p>Unit 2:</p> <ul style="list-style-type: none"> • “The Palace Thief,” Ethan Canin <p>Unit 3:</p> <ul style="list-style-type: none"> • <i>The Joy Luck Club*</i>, Amy Tan • <i>Friday Night Lights: A Town, a Team, and a Dream*</i>, H.G. Bissinger 	<p>Unit 1:</p> <ul style="list-style-type: none"> • “Letter from Birmingham Jail,” Martin Luther King, Jr. • “In this Blind Alley,” Ahmad Shamlu • “Freedom,” Rabindranath Tagore • “Women,” Alice Walker <p>Unit 2:</p> <ul style="list-style-type: none"> • “A Genetics of Justice,” Julia Alvarez • “Remembering to Never Forget: Dominican Republic’s ‘Parsley Massacre,’” Mark Memmott <p>Unit 3:</p> <ul style="list-style-type: none"> • <i>Universal Declaration on Human Rights</i> • “On the Adoption of the <i>Universal Declaration of Human Rights</i>,” Eleanor Roosevelt • “Address to the United Nations Youth Assembly,” Malala Yousafzai 	<p>Unit 1:</p> <ul style="list-style-type: none"> • <i>The Immortal Life of Henrietta Lacks*</i>, Rebecca Skloot <p>Units 2 and 3:</p> <ul style="list-style-type: none"> • Additional Model Research Sources 	<p>Unit 1:</p> <ul style="list-style-type: none"> • “Death of a Pig,” E.B. White <p>Unit 2:</p> <ul style="list-style-type: none"> • <i>The Tragedy of Macbeth</i>, William Shakespeare <p>Unit 3:</p> <ul style="list-style-type: none"> • <i>The Prince*</i>, Niccolo Machiavelli

<p>Assessed Standards</p>	<p>CCRA.R.6, 9 RL.9-10.2, 3, 4, 5, 9, 11 RI.9-10.2, 3, 6 W.9-10.2 (a, b, d, f), 4, 9 (a, b) SL.9-10.1 (a) L.9-10.1, 2 (c)</p>	<p>RL.9-10.2, 4 RI.9-10.2, 3, 4, 5, 6, 7, 8 W.9-10.2 (a-f), 9 (b) L.9-10.1, 2, 5</p>	<p>RI.9-10.1 (a), 2, 3, 4, 5, 6, 8 W.9-10.1 (a-e), 2 (b, d, e), 4, 5, 7, 9 (b) SL.9-10.4, 5, 6 L.9-10.1, 2, 3 (a), 6</p>	<p>RL.9-10.2, 3, 4, 5, 7 (a), 9, 11 RI.9-10.2, 4, 5, 6 W.9-10.1 (a-e), 2 (a-f), 5, 9 (a, b) SL.9-10.1 (a-e), 4 L.9-10.1 (a, b), 2 (a-c)</p>
<p>Addressed Standards</p>	<p>RL.9-10.1 RI.9-10.1 W.9-10.2 (c) SL.9-10.1 (c-e) L.9-10.1 (a, b), 2 a), 3, 4 (a), 5 (a), 6</p>	<p>RL.9-10.6 RI.9-10.9 W.9-10.5, 9 (a) SL.9-10.1 (a-e) L.9-10.1 (a), 2 (a), 4 (a, b), 5 (a)</p>	<p>SL.9-10.1 (a, c) L.9-10.1 (a), 2 (a-c), 4 (a, c, d) 5 (a)</p>	<p>SL.9-10.6 L.9-10.3 (a), 4 (a-c), 5 (a, b)</p>
<p>Performance Assessment Prompt</p>	<p>Draw upon your analysis of two of the 10.1 texts in order to respond to the following prompt: How do the two narrators’ different points of view impact the development of a common central idea?</p>	<p>Identify a purpose common to King’s “Letter from Birmingham Jail,” Alvarez’s “A Genetics of Justice,” and one of the texts from 10.2.3. Discuss how each of these texts uses at least one of the following to advance that purpose: structure, rhetoric, or impact of specific word choices.</p>	<p>Build on the analysis you did for your research-based argument paper by producing a five-minute podcast. Synthesize your research and offer salient points of the research in an engaging oral presentation that demonstrates command of formal spoken English. Your podcast should detail your central claim, two supporting claims with relevant and sufficient evidence, and one counterclaim with corresponding limitations (rebuttals). Further, your podcast should present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow your line of reasoning.</p>	<p>Select a central idea common to Macbeth and either White’s “Death of a Pig” or Machiavelli’s The Prince. Discuss how each author uses structure, character, word choice, and/or rhetoric to develop this common idea. Explain the nuances in each author’s treatment of the idea.</p>

* Indicates excerpts

Grade 11

	Module 11.1 (42 Lessons)	Module 11.2 (42 Lessons)	Module 11.3 (42 Lessons)	Module 11.4 (42 Lessons)
Title	“O, what a noble mind is here o’erthrown!”: How do authors develop and relate elements of a text?	“There is within and without the sound of conflict”: How do authors use figurative language or rhetoric to advance a point of view or purpose?	Researching Multiple Perspectives to Develop a Position	“This is one story I’ve never told before.”: How do authors use narrative techniques to craft fiction writing?
Texts	<p>Unit 1:</p> <ul style="list-style-type: none"> “My Last Duchess,” Robert Browning <p>Unit 2:</p> <ul style="list-style-type: none"> <i>Hamlet*</i>, William Shakespeare <p>Unit 3:</p> <ul style="list-style-type: none"> <i>A Room of One’s Own*</i>, Virginia Woolf 	<p>Unit 1:</p> <ul style="list-style-type: none"> <i>The Souls of Black Folks*</i>, W.E.B. Du Bois “Atlanta Compromise Speech,” Booker T. Washington <p>Unit 2:</p> <ul style="list-style-type: none"> “An Address by Elizabeth Cady Stanton” “From the House of Yemanja,” Audre Lorde <p>Performance Assessment:</p> <ul style="list-style-type: none"> “How to Write the Great American Indian Novel,” Sherman Alexie 	<p>Unit 1:</p> <ul style="list-style-type: none"> “Hope, Despair and Memory,” Elie Wiesel <p>Units 2 and 3:</p> <ul style="list-style-type: none"> Additional Model Research Sources 	<p>Unit 1:</p> <ul style="list-style-type: none"> <i>The Things they Carried*</i>, Tim O’Brien <i>The Red Convertible: Selected and New Stories*</i>, Louise Erdrich <p>Unit 2:</p> <ul style="list-style-type: none"> <i>The Awakening</i>, Kate Chopin
Assessed Standards	<p>CCRA.R.9</p> <p>RL.11-12.2, 3, 4, 5, 6, 11</p> <p>RI.11-12.2, 3, 6</p> <p>W.11-12.2 (a-f), 9 (a, b)</p> <p>SL.11-12.1 (a-e)</p> <p>L.11-12.1, 2, 5</p>	<p>CCRA.R.8, 9</p> <p>RL.11-12.2, 4</p> <p>RI.11-12.2, 3, 4, 6</p> <p>W.11-12.2 (a-f), 5</p> <p>SL.11-12.1 (a, c)</p> <p>L.11-12.1, 2, 5 (a)</p>	<p>CCRA.R.8</p> <p>RI.11-12.1 (a), 2, 6</p> <p>W.11-12.1 (a-e), 2 (a, b, d, e, f), 4, 5, 7, 8, 9 (b)</p> <p>SL.11-12.1 (d), 3, 4, 5, 6</p> <p>L.11-12.1, 2, 3</p>	<p>RL.11-12.2, 3, 4, 5, 6, 11</p> <p>W.11-12.2 (a-f), 3 (a-e), 4, 5, 9 (a)</p> <p>SL.11-12.1 (a, c, d)</p> <p>L.11-12.1, 2</p>

<p>Addressed Standards</p>	<p>RI.11-12.1, 9 (a) W.11-12.5 L.11-12.4 (a-d), 5 (a, b)</p>	<p>W.11-12.4, 9 (a, b) SL.11-12.3 L.11-12.3 (a), 4 (a, b)</p>	<p>SL.11-12.1 (c) L.11-12.1 (a, b), 2 (a, b) 3 (a), 4 (a-d), 5 (a), 6</p>	<p>W.11-12.6, 7 L.11-12.4 (a, b), 5</p>
<p>Performance Assessment Prompt</p>	<p>Select a central idea common to all three texts. How do the authors develop this idea over the course of each text? How do the texts work together to build your understanding of this central idea?</p>	<p>Develop and present a claim about how Sherman Alexie’s poem “How to Write the Great American Indian Novel” relates to central ideas and/or points of view developed in at least two of the four texts in this module. Support your claim with evidence and reasoning.</p>	<p>Build on the analysis you did for your research-based argument paper by producing a three- to five-minute video presentation. Distill and reorganize your research for a specific audience and offer essential points of the research in an engaging video presentation that demonstrates command of content and uses formal spoken English. Your presentation should make strategic use of the video format to enhance and add interest to your research findings. The presentation should also state your central claim, two supporting claims with relevant and sufficient evidence, and one counterclaim with corresponding limitations. Further, your video should also present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow your line of reasoning.</p>	<p>For this assessment, craft a 1–3 page narrative writing piece in response to the following prompt: Write an original narrative piece that assumes a specific point of view based on the setting of “On the Rainy River,” “The Red Convertible,” or <i>The Awakening</i>. Choose two narrative writing substandards (W.11-12.3.a-e) and develop the criteria of both substandards in your narrative writing piece.</p>

* Indicates excerpts

Grade 12

	Module 12.1 (43 Lessons)	Module 12.2 (41 Lessons)	Module 12.3 (41 Lessons)	Module 12.4 (42 Lessons)
Title	“All of our experiences fuse into our personality. Everything that ever happened to us is an ingredient.”: Reading and Writing Personal Narratives	“I ask for, not at once no government, but <i>at once</i> a better government.”: Exploring Complex Ideas through Craft and Structure	Researching Multiple Perspectives to Develop a Position	“I continually find myself in the ruins/ of new beginnings”: Analyzing the Interaction of Central Ideas and Character Development
Texts	Unit 1: <ul style="list-style-type: none"> <i>The Autobiography of Malcolm X</i>, as told to Alex Haley Unit 2: <ul style="list-style-type: none"> “Yellow Woman and a Beauty of the Spirit,” Leslie Marmon Silko 	Unit 1: <ul style="list-style-type: none"> “Ideas Live On,” Benazir Bhutto “Civil Disobedience,” Henry David Thoreau Unit 2: <ul style="list-style-type: none"> <i>The Tragedy of Julius Caesar</i>, William Shakespeare 	Unit 1: <ul style="list-style-type: none"> <i>Guns, Germs, and Steel*</i>, Jared Diamond Additional Model Research Sources Unit 2: <ul style="list-style-type: none"> Additional Model Research Sources 	Unit 1: <ul style="list-style-type: none"> <i>A Streetcar Named Desire</i>, Tennessee Williams “A Daily Joy to Be Alive,” Jimmy Santiago Baca Unit 2: <ul style="list-style-type: none"> “The Overcoat,” Nikolai Gogol <i>The Namesake</i>, Jhumpa Lahiri
Assessed Standards	RI.11-12.2, 3, 4, 5, 6 W.11-12.2 (a-f), 3 (a-f), 4, 5, 9 (b) SL.11-12.4, 6 L.11-12.1, 2 (a-b), 4 (a-c)	CCRA.R.8, 9 RL.11-12.2, 3, 4, 5, 6, 11 RI.11-12.2, 3, 6 W.11-12.2 (a-f), 9 (a-b) SL.11-12.1 (a-c), 4, 6 L.11-12.1, 2 (a-b), 5 (a)	CCRA.R.8 RI.11-12.1 (a), 3, 6 W.11-12.1 (a-e), 2 (a-f), 4, 5, 7, 8, 9 SL.11-12.1 (d), 4, 5, 6 L.11-12.1, 2, 3	CCRA.R.9 RL.11-12.2, 3, 4, 5, 7, 11 W.11-12.1 (d, e), 2 (a-f), 3 (a-e), 4, 9 (a) SL.11-12.1 (a, c, d) L.11-12.1, 2

<p>Addressed Standards</p>	<p>RI.11-12.1 W.11-12.6 SL.11-12.1 (a-c) L.11-12.3, 5 (a)</p>	<p>CCRA.R.6 SL.11-12.1 (b) L.11-12.4 (a-c), 5 (b)</p>	<p>W.11-12.9 (b) SL.11-12.1 (a, c), 3 L.11-12.1 (b), 2 (a, b), 3 (a), 4 (a, c) 6</p>	<p>L.11-12.4 (a, b), 5 (a), 6</p>
<p>Performance Assessment Prompt</p>	<p>Work in peer groups to practice responding orally to a series of questions that colleges may ask during an interview, and assess your peers on several aspects of their answers including the organization, development, substance, and style of their responses. Also, take your peers’ feedback into account to prepare for the culminating assessment: a fishbowl activity in which students respond orally to one of the questions you have practiced and are assessed on their response.</p>	<p>For this assessment, draw upon your analysis of the three 12.2 texts in order to write a multi-paragraph response to one of the following prompts: Is democracy “the last improvement possible in government” (Thoreau, part 3, par. 19)? What is the role and responsibility of government? Who should have the power to make decisions in a society?</p>	<p>Build on your research and analysis by crafting a single 5–10 minute multimedia narrative that conveys how your research process led you to your findings. Using relevant excerpts from the multimedia journal entries you completed over the course of this module, your final product should depict cohesively the evolution of your research. Your final product should present a cohesive story of the research process that led you to your final central claim, and should therefore include your final central claim, several supporting claims, reasoning, and evidence. The final product should draw clear connections between early research and the final claims, as this project documents that development. Edit, delete, paste together, and add voiceover, interviews, and effects where appropriate in order to achieve this goal.</p>	<p>Choose from one of the two writing assessment options below. Option #1: Narrative + Informative Writing: This is a two-part writing assessment. Part A. Choose a key scene or critical moment from one of the module texts. Rewrite the key scene or critical moment so that the character(s) make a different choice than the one made in the actual text. Choose whichever genre (play or story) best fits the scene. The scene should have a narrative arc and the content should remain consistent with the original texts. Part B. After drafting the narrative, write a commentary on how the narrative choices you made shape or re-shape the character’s identity and explain how your choices impact the original text. Option #2: Argument + Narrative Writing: This is a two-part writing assessment. Part A. Select 1-2 of the module texts and make an evidence-based</p>

				<p>claim about the role of place or culture in creating an identity. Discuss the role of place or culture in creating an identity using textual evidence for support.</p> <p>Part B. Write a 1-2 page personal narrative about the influence of place or culture on your identity. Ground your narrative in a quote from one of the module texts or an experience of one of the characters.</p>
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* Indicates excerpts

Section 1.3 - Education Plan :: Attachment 4 - Course Scope and Sequence :: English Language Arts

Grades 6–8 Curriculum Plan

Grade 6				
	Module 1: Reading, Writing, and Speaking Grounded in Evidence	Module 2: Researching to Build and Present Knowledge (Science)	Module 3: Analyzing, Interpreting, and Evaluating Text	Module 4: Researching to Write and Present Arguments
Topic	6M1: Greek Mythology	6M2: Critical Problems and Design Solutions	6M3: American Indian Boarding Schools	6M4: Remarkable Accomplishments in Space Science
Standards Assessed	RL: RL.6.1, RL.6.2, RL.6.3, RL.6.4, RL.6.6, RL.6.7, RL.6.9, RL.6.10 RI: RI.6.1, RI.6.2, RI.6.4, RI.6.10 W: W.6.2, W.6.3, W.6.4, W.6.5, W.6.6, W.6.9a, W.6.10 SL: SL.6.1a, SL.6.1b L: L.6.4, L.6.4a, L.6.4c, L.6.4d, L.6.5, L.6.6	RI: RI.6.1, RI.6.2, RI.6.3, RI.6.4, RI.6.5, RI.6.7, RI.6.10 W: W.6.2, W.6.4, W.6.6, W.6.7, W.6.8, W.6.9b, W.6.10 SL: SL.6.1a, SL.6.1b, SL.6.1c, SL.6.2, SL.6.6 L: L.6.4a, L.6.5a, L.6.5c, L.6.6	RL: RL.6.1, RL.6.2, RL.6.3, RL.6.5, RL.6.6, RL.6.10 RI: RI.6.1, RI.6.2, RI.6.4, RI.6.6, RI.6.7, RI.6.10 W: W.6.1, W.6.4, W.6.5, W.6.6, W.6.9a, W.6.10 SL: SL.6.2, SL.6.6 L: L.6.1, L.6.2, L.6.3, L.6.3a, L.6.5a, L.6.5c, L.6.6	RI: RI.6.1, RI.6.3, RI.6.4, RI.6.6, RI.6.8, RI.6.9, RI.6.10 W: W.6.1, W.6.1b, W.6.4, W.6.5, W.6.6, W.6.7, W.6.8, W.6.9b, W.6.10 SL: SL.6.1d, SL.6.3, SL.6.4, SL.6.5, SL.6.6 L: L.6.2, L.6.3, L.6.6
Required Trade Books and Resources ¹	<ul style="list-style-type: none"> <i>The Lightning Thief</i>, Rick Riordan (680L). ISBN: 9780786838653 <i>Percy Jackson & The Olympians: The Lightning Thief</i> (DVD), Chris Columbus (director). UPC: 024543668824 	<ul style="list-style-type: none"> <i>The Boy Who Harnessed the Wind</i> (Young Readers Edition), William Kamkwamba and Bryan Mealer (850L). ISBN: 9780147510426 	<ul style="list-style-type: none"> <i>Two Roads</i>, Joseph Bruchac (740L). ISBN: 9780735228870 	<ul style="list-style-type: none"> <i>Hidden Figures</i> (Young Readers' Edition), Margot Lee Shetterly (1120L). ISBN: 9780062662378 <i>Hidden Figures: The True Story of Four Black Women and the Space Race</i> (Picture Book), Margot Lee Shetterly (980L). ISBN: 9780062742469 (six per classroom)

¹ This plan shows all trade books and resources used in each module. See Second Edition Grades 6–8 Language Arts Curriculum Required Trade Books and Resources Procurement List for specific number of each material needed to purchase (e.g., one per classroom or one per student).

Grades 6–8: Curriculum Plan

Grade 7				
	Module 1: Reading, Writing, and Speaking Grounded in Evidence	Module 2: Researching to Build and Present Knowledge (Science)	Module 3: Analyzing, Interpreting, and Evaluating Text	Module 4: Researching to Write and Present Arguments
Topic	7M1: The Lost Children of Sudan	7M2: Epidemics	7M3: The Harlem Renaissance	7M4: Plastic Pollution
Standards Assessed	RL: RL.7.1, RL.7.2, RL.7.3, RL.7.4, RL.7.6, RL.7.7, RL.7.9, RL.7.10 RI: RI.7.1, RI.7.2 W: W.7.2, W.7.3, W.7.4, W.7.6, W.7.7, W.7.8, W.7.9, W.7.10 SL: SL.7.1a, SL.7.1b, SL.7.1c, SL.7.2 L: L.7.4, L.7.6	RI: RI.7.1, RI.7.2, RI.7.3, RI.7.4, RI.7.5, RI.7.8, RI.7.10 W: W.7.2, W.7.4, W.7.5, W.7.6, W.7.7, W.7.8, W.7.10 SL: SL.7.1, SL.7.4, SL.7.6 L: L.7.1, L.7.2, L.7.3, L.7.4, L.7.6	RL: RL.7.1, RL.7.2, RL.7.3, RL.7.4, RL.7.5, RL.7.6, RL.7.7, RL.7.10 W: W.7.1, W.7.5, W.7.6, W.7.9a, W.7.10 SL: SL.7.4, SL.7.5, SL.7.6 L: L.7.1, L.7.1a, L.7.1b, L.7.4a, L.7.5a, L.7.5c, L.7.6	RI: RI.7.1, RI.7.2, RI.7.4, RI.7.6, RI.7.7, RI.7.9, RI.7.10 W: W.7.1, W.7.5, W.7.6, W.7.9, W.7.9b, W.7.10 SL: SL.7.2, SL.7.3, SL.7.4, SL.7.5, SL.7.6 L: L.7.1, L.7.1c, L.7.2, L.7.4, L.7.5, L.7.5b
Required Trade Books and Resources ¹	<ul style="list-style-type: none"> • <i>A Long Walk to Water</i>, Linda Sue Park (720L). ISBN: 9780547577319 • <i>A Long Walk to Water</i> (Audiobook), Linda Sue Park. ISBN: 9780547532844 • <i>Brothers in Hope: The Story of the Lost Boys of Sudan</i>, Mary Williams (610L). ISBN: 9781584302322 • <i>God Grew Tired of Us</i> (DVD), Christopher Dillon Quinn (director). UPC: 0043396198999 • <i>Nasreen's Secret School: A True Story from Afghanistan</i> (Ebook), Jeanette Winter (AD630L). ISBN: 9781442441217 	<ul style="list-style-type: none"> • <i>Patient Zero</i>, Marilee Peters (1010L). ISBN: 9781554516704 	<ul style="list-style-type: none"> • <i>One Last Word: Wisdom from the Harlem Renaissance</i>, Nikki Grimes (NP). ISBN: 9781619635548 • <i>Shuffle Along</i> (CD), Eubie Blake. UPC: 632433320426 	<ul style="list-style-type: none"> • <i>Trash Vortex: How Plastic Pollution Is Choking the World's Oceans</i>, Danielle Smith-Llera (1120L). ISBN: 9780756557492 • <i>A Plastic Ocean</i> (DVD), Craig Leeson. UPC: 602573215302

¹ This plan shows all trade books and resources used in each module. See Second Edition Grades 6–8 Language Arts Curriculum Required Trade Books and Resources Procurement List for specific number of each material needed to purchase (e.g., one per classroom or one per student).

Grade 8				
	Module 1: Reading, Writing, and Speaking Grounded in Evidence	Module 2: Researching to Build and Present Knowledge (Science)	Module 3: Analyzing, Interpreting, and Evaluating Text	Module 4: Researching to Write and Present Arguments
Topic	8M1: Folklore of Latin America	8M2: Food Choices	8M3: Voices of the Holocaust	8M4: Lessons from Japanese American Internment
Standards Assessed	RL: RL.8.1, RL.8.2, RL.8.3, RL.8.4, RL.8.6, RL.8.9, RL.8.10 RI: RI.8.1, RI.8.2, RI.8.4, RI.8.10 W: W.8.2, W.8.3, W.8.4, W.8.6, W.8.9a, W.8.10 L: L.8.4, L.8.5a, L.8.6	RI: RI.8.1, RI.8.5, RI.8.6, RI.8.7, RI.8.8, RI.8.9, RI.8.10 W: W.8.1, W.8.4, W.8.6, W.8.7, W.8.8, W.8.9, W.8.10 SL: SL.8.2, SL.8.3, SL.8.4, SL.8.5 L: L.8.1, L.8.2, L.8.4a, L.8.4b, L.8.5b, L.8.5c, L.8.6	RL: RL.8.1, RL.8.2, RL.8.3, RL.8.4, RL.8.5, RL.8.10 W: W.8.3, W.8.4, W.8.6, W.8.10 L: L.8.1, L.8.2, L.8.2a, L.8.2b, L.8.3, L.8.5a	RL: RL.8.1, RL.8.7 RI: RI.8.1, RI.8.3, RI.8.4, RI.8.6, RI.8.10 W: W.8.1, W.8.4, W.8.5, W.8.6, W.8.9b, W.8.10 SL: SL.8.1a, SL.8.1b, SL.8.1c, SL.8.1d, SL.8.5, SL.8.6 L: L.8.2c, L.8.4a, L.8.4b, L.8.5a, L.8.5c, L.8.6 (L.8.1 and L.8.3 optional)
Required Trade Books and Resources ¹	<ul style="list-style-type: none"> • <i>Summer of the Mariposas</i>, Guadalupe Garcia McCall (840L). ISBN: 9781620140109 	<ul style="list-style-type: none"> • <i>The Omnivore's Dilemma</i> (Young Readers Edition), Michael Pollan (930L). ISBN: 9781101993835 • <i>Nourish: Short Films: 54 Bite-Sized Videos about the Story of Your Food</i> (DVD), NourishLife. UPC: 850075002290 	<ul style="list-style-type: none"> • <i>Maus I: A Survivor's Tale: My Father Bleeds History</i>, Art Spiegelman (RL NP). ISBN: 9780394747231 	<ul style="list-style-type: none"> • <i>Farewell to Manzanar</i>, Jeanne Wakatsuki Houston and James D. Houston (1040L). ISBN: 9781328742117 • <i>Farewell to Manzanar</i> (DVD), John Korty (director). UPC: 0000000230021

¹ This plan shows all trade books and resources used in each module. See Second Edition Grades 6–8 Language Arts Curriculum Required Trade Books and Resources Procurement List for specific number of each material needed to purchase (e.g., one per classroom or one per student).

GRADES 9-12 Curriculum Map

Grade 9

	Module 9.1 (52 Lessons)	Module 9.2 (50 Lessons)	Module 9.3 (35 Lessons)	Module 9.4 (34 Lessons)
Title	“So you want a double life”: Reading Closely and Writing to Analyze	Working with Evidence and Making Claims: How Do Authors Structure Texts and Develop Ideas?	Building and Communicating Knowledge through Research: The Inquiry and Writing Processes	Understanding and Evaluating Argument: Analyzing Text to Write Arguments
Texts	<p>Unit 1:</p> <ul style="list-style-type: none"> “St. Lucy’s Home for Girls Raised by Wolves,” Karen Russell <p>Unit 2:</p> <ul style="list-style-type: none"> <i>Letters to a Young Poet*</i>, Rainer Maria Rilke <i>Black Swan Green*</i>, David Mitchell <p>Unit 3:</p> <ul style="list-style-type: none"> <i>Romeo and Juliet*</i>, William Shakespeare 	<p>Unit 1:</p> <ul style="list-style-type: none"> “The Tell-Tale Heart,” Edgar Allan Poe <p>Unit 2:</p> <ul style="list-style-type: none"> <i>Oedipus the King</i>, Sophocles <p>Unit 3:</p> <ul style="list-style-type: none"> “True Crime: The Roots of an American Obsession,” Walter Mosley “How Bernard Madoff Did It,” Liaquat Ahamed <i>The Wizard of Lies: Bernie Madoff and the Death of Trust*</i>, Diana Henriques 	<p>Unit 1:</p> <ul style="list-style-type: none"> <i>Animals in Translation: Using the Mysteries of Autism to Decode Animal Behavior*</i>, Temple Grandin and Catherine Johnson <p>Units 2 and 3:</p> <ul style="list-style-type: none"> Additional Model Research Sources 	<p>Unit 1:</p> <ul style="list-style-type: none"> <i>Sugar Changed the World: A story of Magic, Spice, Slavery, Freedom and Science</i>, Marc Aronson and Marina Budhos Supplementary Model Argument Texts

<p>Assessed Standards</p>	<p>CCRA.R.9 RL.9-10.1, 2, 3, 4, 5, 7, 11 RI.9-10.2, 3, 4 W.9-10.2 (a, c, f) SL.9-10.1 (b, c) L.9-10.5 (a)</p>	<p>CCRA.R.6, 9 RL.9-10.2, 3, 4, 5, 11 RI.9-10.2, 5 W.9-10.2 (a-d, f), 5 SL.9-10.1 (a-d) L.9-10.1, 2</p>	<p>RI.9-10.1 (a), 2, 3, 5, 7 W.9-10.2 (a-f), 4, 5, 6, 7, 8, 9 L.9-10.1, 2, 3 (a), 6</p>	<p>CCRA.R.9, RI.9-10.2, 3, 4, 5, 6, 7, 8 W.9-10.1 (a-e), 5 L.9-10.1 (a-b), 2 (a-c), 5</p>
<p>Addressed Standards</p>	<p>SL.9-10.4 L.9-10.4 (a-c)</p>	<p>RI.9-10.7 W.9-10.9 (a, b) SL.9-10.4, 6 L.9-10.4 (a, b), 5 (a, b)</p>	<p>SL.9-10.1 L.9-10.2 (a-c), 4 (a-d)</p>	<p>W.9-10.4, 9 (b) SL.9-10.1 (c-d) L.9-10.3 (a), 4 (a-c), 6</p>
<p>Performance Assessment Prompt</p>	<p>Identify a specific phrase or central idea in paragraphs 4–9 of Rilke’s “Letter Seven.” Analyze how that phrase or central idea relates to one or more central ideas in “St. Lucy’s Home for Girls Raised by Wolves” or <i>Romeo and Juliet</i>.</p>	<p>Identify a central idea shared by one literary text and one informational text. Use specific details to explain how this central idea develops over the course of each text, and compare how the authors’ choices about text structure contribute to the development of this idea.</p>	<p>Create a blog post using information from your research paper and various multimedia components to enhance your research findings. Update or enhance the information from your research paper by linking to other supporting information and displaying the information flexibly and dynamically. Make effective use of available multimedia components, including hyperlinks, images, graphics, animation, charts, graphs, video, and audio clips.</p>	<p>For this assessment you must choose at least four of these texts and write a multi-paragraph argument essay in response to the following prompt: Is local food production an example of ethical consumption? Provide evidence from at least four sources in your response.</p>

* Indicates excerpts

Grade 10

	Module 10.1 (38 Lessons)	Module 10.2 (40 Lessons)	Module 10.3 (43 Lessons)	Module 10.4 (41 Lessons)
Title	Reading Closely and Writing to Analyze: How do Authors Develop Complex Characters and Ideas?	“These are strange times, my dear.”: How do Authors Use Rhetoric and Word Choice to Develop Ideas and Claims?	Researching Multiple Perspectives to Develop a Position	“It is a Tale ... Full of Sound and Fury”: How do authors use craft and structure to develop characters and ideas?
Texts	<p>Unit 1:</p> <ul style="list-style-type: none"> • “The Passionate Shepherd to his Love,” Christopher Marlowe • “The Nymph’s Reply to the Shepherd,” Sir Walter Raleigh • “Raleigh Was Right,” William Carlos Williams <p>Unit 2:</p> <ul style="list-style-type: none"> • “The Palace Thief,” Ethan Canin <p>Unit 3:</p> <ul style="list-style-type: none"> • <i>The Joy Luck Club*</i>, Amy Tan • <i>Friday Night Lights: A Town, a Team, and a Dream*</i>, H.G. Bissinger 	<p>Unit 1:</p> <ul style="list-style-type: none"> • “Letter from Birmingham Jail,” Martin Luther King, Jr. • “In this Blind Alley,” Ahmad Shamlu • “Freedom,” Rabindranath Tagore • “Women,” Alice Walker <p>Unit 2:</p> <ul style="list-style-type: none"> • “A Genetics of Justice,” Julia Alvarez • “Remembering to Never Forget: Dominican Republic’s ‘Parsley Massacre,’” Mark Memmott <p>Unit 3:</p> <ul style="list-style-type: none"> • <i>Universal Declaration on Human Rights</i> • “On the Adoption of the <i>Universal Declaration of Human Rights</i>,” Eleanor Roosevelt • “Address to the United Nations Youth Assembly,” Malala Yousafzai 	<p>Unit 1:</p> <ul style="list-style-type: none"> • <i>The Immortal Life of Henrietta Lacks*</i>, Rebecca Skloot <p>Units 2 and 3:</p> <ul style="list-style-type: none"> • Additional Model Research Sources 	<p>Unit 1:</p> <ul style="list-style-type: none"> • “Death of a Pig,” E.B. White <p>Unit 2:</p> <ul style="list-style-type: none"> • <i>The Tragedy of Macbeth</i>, William Shakespeare <p>Unit 3:</p> <ul style="list-style-type: none"> • <i>The Prince*</i>, Niccolo Machiavelli

<p>Assessed Standards</p>	<p>CCRA.R.6, 9 RL.9-10.2, 3, 4, 5, 9, 11 RI.9-10.2, 3, 6 W.9-10.2 (a, b, d, f), 4, 9 (a, b) SL.9-10.1 (a) L.9-10.1, 2 (c)</p>	<p>RL.9-10.2, 4 RI.9-10.2, 3, 4, 5, 6, 7, 8 W.9-10.2 (a-f), 9 (b) L.9-10.1, 2, 5</p>	<p>RI.9-10.1 (a), 2, 3, 4, 5, 6, 8 W.9-10.1 (a-e), 2 (b, d, e), 4, 5, 7, 9 (b) SL.9-10.4, 5, 6 L.9-10.1, 2, 3 (a), 6</p>	<p>RL.9-10.2, 3, 4, 5, 7 (a), 9, 11 RI.9-10.2, 4, 5, 6 W.9-10.1 (a-e), 2 (a-f), 5, 9 (a, b) SL.9-10.1 (a-e), 4 L.9-10.1 (a, b), 2 (a-c)</p>
<p>Addressed Standards</p>	<p>RL.9-10.1 RI.9-10.1 W.9-10.2 (c) SL.9-10.1 (c-e) L.9-10.1 (a, b), 2 a), 3, 4 (a), 5 (a), 6</p>	<p>RL.9-10.6 RI.9-10.9 W.9-10.5, 9 (a) SL.9-10.1 (a-e) L.9-10.1 (a), 2 (a), 4 (a, b), 5 (a)</p>	<p>SL.9-10.1 (a, c) L.9-10.1 (a), 2 (a-c), 4 (a, c, d) 5 (a)</p>	<p>SL.9-10.6 L.9-10.3 (a), 4 (a-c), 5 (a, b)</p>
<p>Performance Assessment Prompt</p>	<p>Draw upon your analysis of two of the 10.1 texts in order to respond to the following prompt: How do the two narrators’ different points of view impact the development of a common central idea?</p>	<p>Identify a purpose common to King’s “Letter from Birmingham Jail,” Alvarez’s “A Genetics of Justice,” and one of the texts from 10.2.3. Discuss how each of these texts uses at least one of the following to advance that purpose: structure, rhetoric, or impact of specific word choices.</p>	<p>Build on the analysis you did for your research-based argument paper by producing a five-minute podcast. Synthesize your research and offer salient points of the research in an engaging oral presentation that demonstrates command of formal spoken English. Your podcast should detail your central claim, two supporting claims with relevant and sufficient evidence, and one counterclaim with corresponding limitations (rebuttals). Further, your podcast should present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow your line of reasoning.</p>	<p>Select a central idea common to Macbeth and either White’s “Death of a Pig” or Machiavelli’s The Prince. Discuss how each author uses structure, character, word choice, and/or rhetoric to develop this common idea. Explain the nuances in each author’s treatment of the idea.</p>

* Indicates excerpts

Grade 11

	Module 11.1 (42 Lessons)	Module 11.2 (42 Lessons)	Module 11.3 (42 Lessons)	Module 11.4 (42 Lessons)
Title	“O, what a noble mind is here o’erthrown!”: How do authors develop and relate elements of a text?	“There is within and without the sound of conflict”: How do authors use figurative language or rhetoric to advance a point of view or purpose?	Researching Multiple Perspectives to Develop a Position	“This is one story I’ve never told before.”: How do authors use narrative techniques to craft fiction writing?
Texts	<p>Unit 1:</p> <ul style="list-style-type: none"> • “My Last Duchess,” Robert Browning <p>Unit 2:</p> <ul style="list-style-type: none"> • <i>Hamlet*</i>, William Shakespeare <p>Unit 3:</p> <ul style="list-style-type: none"> • <i>A Room of One’s Own*</i>, Virginia Woolf 	<p>Unit 1:</p> <ul style="list-style-type: none"> • <i>The Souls of Black Folks*</i>, W.E.B. Du Bois • “Atlanta Compromise Speech,” Booker T. Washington <p>Unit 2:</p> <ul style="list-style-type: none"> • “An Address by Elizabeth Cady Stanton” • “From the House of Yemanja,” Audre Lorde <p>Performance Assessment:</p> <ul style="list-style-type: none"> • “How to Write the Great American Indian Novel,” Sherman Alexie 	<p>Unit 1:</p> <ul style="list-style-type: none"> • “Hope, Despair and Memory,” Elie Wiesel <p>Units 2 and 3:</p> <ul style="list-style-type: none"> • Additional Model Research Sources 	<p>Unit 1:</p> <ul style="list-style-type: none"> • <i>The Things they Carried*</i>, Tim O’Brien • <i>The Red Convertible: Selected and New Stories*</i>, Louise Erdrich <p>Unit 2:</p> <ul style="list-style-type: none"> • <i>The Awakening</i>, Kate Chopin
Assessed Standards	<p>CCRA.R.9</p> <p>RL.11-12.2, 3, 4, 5, 6, 11</p> <p>RI.11-12.2, 3, 6</p> <p>W.11-12.2 (a-f), 9 (a, b)</p> <p>SL.11-12.1 (a-e)</p> <p>L.11-12.1, 2, 5</p>	<p>CCRA.R.8, 9</p> <p>RL.11-12.2, 4</p> <p>RI.11-12.2, 3, 4, 6</p> <p>W.11-12.2 (a-f), 5</p> <p>SL.11-12.1 (a, c)</p> <p>L.11-12.1, 2, 5 (a)</p>	<p>CCRA.R.8</p> <p>RI.11-12.1 (a), 2, 6</p> <p>W.11-12.1 (a-e), 2 (a, b, d, e, f), 4, 5, 7, 8, 9 (b)</p> <p>SL.11-12.1 (d), 3, 4, 5, 6</p> <p>L.11-12.1, 2, 3</p>	<p>RL.11-12.2, 3, 4, 5, 6, 11</p> <p>W.11-12.2 (a-f), 3 (a-e), 4, 5, 9 (a)</p> <p>SL.11-12.1 (a, c, d)</p> <p>L.11-12.1, 2</p>

<p>Addressed Standards</p>	<p>RI.11-12.1, 9 (a) W.11-12.5 L.11-12.4 (a-d), 5 (a, b)</p>	<p>W.11-12.4, 9 (a, b) SL.11-12.3 L.11-12.3 (a), 4 (a, b)</p>	<p>SL.11-12.1 (c) L.11-12.1 (a, b), 2 (a, b) 3 (a), 4 (a-d), 5 (a), 6</p>	<p>W.11-12.6, 7 L.11-12.4 (a, b), 5</p>
<p>Performance Assessment Prompt</p>	<p>Select a central idea common to all three texts. How do the authors develop this idea over the course of each text? How do the texts work together to build your understanding of this central idea?</p>	<p>Develop and present a claim about how Sherman Alexie’s poem “How to Write the Great American Indian Novel” relates to central ideas and/or points of view developed in at least two of the four texts in this module. Support your claim with evidence and reasoning.</p>	<p>Build on the analysis you did for your research-based argument paper by producing a three- to five-minute video presentation. Distill and reorganize your research for a specific audience and offer essential points of the research in an engaging video presentation that demonstrates command of content and uses formal spoken English. Your presentation should make strategic use of the video format to enhance and add interest to your research findings. The presentation should also state your central claim, two supporting claims with relevant and sufficient evidence, and one counterclaim with corresponding limitations. Further, your video should also present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow your line of reasoning.</p>	<p>For this assessment, craft a 1–3 page narrative writing piece in response to the following prompt: Write an original narrative piece that assumes a specific point of view based on the setting of “On the Rainy River,” “The Red Convertible,” or <i>The Awakening</i>. Choose two narrative writing substandards (W.11-12.3.a-e) and develop the criteria of both substandards in your narrative writing piece.</p>

* Indicates excerpts

Grade 12

	Module 12.1 (43 Lessons)	Module 12.2 (41 Lessons)	Module 12.3 (41 Lessons)	Module 12.4 (42 Lessons)
Title	“All of our experiences fuse into our personality. Everything that ever happened to us is an ingredient.”: Reading and Writing Personal Narratives	“I ask for, not at once no government, but <i>at once</i> a better government.”: Exploring Complex Ideas through Craft and Structure	Researching Multiple Perspectives to Develop a Position	“I continually find myself in the ruins/ of new beginnings”: Analyzing the Interaction of Central Ideas and Character Development
Texts	<p>Unit 1:</p> <ul style="list-style-type: none"> <i>The Autobiography of Malcolm X</i>, as told to Alex Haley <p>Unit 2:</p> <ul style="list-style-type: none"> “Yellow Woman and a Beauty of the Spirit,” Leslie Marmon Silko 	<p>Unit 1:</p> <ul style="list-style-type: none"> “Ideas Live On,” Benazir Bhutto “Civil Disobedience,” Henry David Thoreau <p>Unit 2:</p> <ul style="list-style-type: none"> <i>The Tragedy of Julius Caesar</i>, William Shakespeare 	<p>Unit 1:</p> <ul style="list-style-type: none"> <i>Guns, Germs, and Steel*</i>, Jared Diamond Additional Model Research Sources <p>Unit 2:</p> <ul style="list-style-type: none"> Additional Model Research Sources 	<p>Unit 1:</p> <p><i>A Streetcar Named Desire</i>, Tennessee Williams</p> <p>“A Daily Joy to Be Alive,” Jimmy Santiago Baca</p> <p>Unit 2:</p> <p>“The Overcoat,” Nikolai Gogol</p> <p><i>The Namesake</i>, Jhumpa Lahiri</p>
Assessed Standards	<p>RI.11-12.2, 3, 4, 5, 6</p> <p>W.11-12.2 (a-f), 3 (a-f), 4, 5, 9 (b)</p> <p>SL.11-12.4, 6</p> <p>L.11-12.1, 2 (a-b), 4 (a-c)</p>	<p>CCRA.R.8, 9</p> <p>RL.11-12.2, 3, 4, 5, 6, 11</p> <p>RI.11-12.2, 3, 6</p> <p>W.11-12.2 (a-f), 9 (a-b)</p> <p>SL.11-12.1 (a-c), 4, 6</p> <p>L.11-12.1, 2 (a-b), 5 (a)</p>	<p>CCRA.R.8</p> <p>RI.11-12.1 (a), 3, 6</p> <p>W.11-12.1 (a-e), 2 (a-f), 4, 5, 7, 8, 9</p> <p>SL.11-12.1 (d), 4, 5, 6</p> <p>L.11-12.1, 2, 3</p>	<p>CCRA.R.9</p> <p>RL.11-12.2, 3, 4, 5, 7, 11</p> <p>W.11-12.1 (d, e), 2 (a-f), 3 (a-e), 4, 9 (a)</p> <p>SL.11-12.1 (a, c, d)</p> <p>L.11-12.1, 2</p>

<p>Addressed Standards</p>	<p>RI.11-12.1 W.11-12.6 SL.11-12.1 (a-c) L.11-12.3, 5 (a)</p>	<p>CCRA.R.6 SL.11-12.1 (b) L.11-12.4 (a-c), 5 (b)</p>	<p>W.11-12.9 (b) SL.11-12.1 (a, c), 3 L.11-12.1 (b), 2 (a, b), 3 (a), 4 (a, c) 6</p>	<p>L.11-12.4 (a, b), 5 (a), 6</p>
<p>Performance Assessment Prompt</p>	<p>Work in peer groups to practice responding orally to a series of questions that colleges may ask during an interview, and assess your peers on several aspects of their answers including the organization, development, substance, and style of their responses. Also, take your peers’ feedback into account to prepare for the culminating assessment: a fishbowl activity in which students respond orally to one of the questions you have practiced and are assessed on their response.</p>	<p>For this assessment, draw upon your analysis of the three 12.2 texts in order to write a multi-paragraph response to one of the following prompts: Is democracy “the last improvement possible in government” (Thoreau, part 3, par. 19)? What is the role and responsibility of government? Who should have the power to make decisions in a society?</p>	<p>Build on your research and analysis by crafting a single 5–10 minute multimedia narrative that conveys how your research process led you to your findings. Using relevant excerpts from the multimedia journal entries you completed over the course of this module, your final product should depict cohesively the evolution of your research. Your final product should present a cohesive story of the research process that led you to your final central claim, and should therefore include your final central claim, several supporting claims, reasoning, and evidence. The final product should draw clear connections between early research and the final claims, as this project documents that development. Edit, delete, paste together, and add voiceover, interviews, and effects where appropriate in order to achieve this goal.</p>	<p>Choose from one of the two writing assessment options below. Option #1: Narrative + Informative Writing: This is a two-part writing assessment. Part A. Choose a key scene or critical moment from one of the module texts. Rewrite the key scene or critical moment so that the character(s) make a different choice than the one made in the actual text. Choose whichever genre (play or story) best fits the scene. The scene should have a narrative arc and the content should remain consistent with the original texts. Part B. After drafting the narrative, write a commentary on how the narrative choices you made shape or re-shape the character’s identity and explain how your choices impact the original text. Option #2: Argument + Narrative Writing: This is a two-part writing assessment. Part A. Select 1-2 of the module texts and make an evidence-based</p>

				<p>claim about the role of place or culture in creating an identity. Discuss the role of place or culture in creating an identity using textual evidence for support.</p> <p>Part B. Write a 1-2 page personal narrative about the influence of place or culture on your identity. Ground your narrative in a quote from one of the module texts or an experience of one of the characters.</p>
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* Indicates excerpts

**Section 1.3 - Education Plan :: Attachment 4 - Course Scope and
Sequence :: Mathematics**



A Story of Ratios: A Curriculum Overview for Grades 6-8

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Introduction

This document provides an overview of the academic year for Grades 6 through 8, beginning with a curriculum map and followed by detailed grade level descriptions.

The curriculum map is a chart that shows, at a glance, the sequence of modules comprising each grade of the Grades 6 through 8 curriculums. The map also indicates the approximate number of instructional days designated for each module of each grade. The date approximations are based on an academic calendar beginning on 9/6/12 and ending on 6/26/13 with a testing date approximately mid-late April. Details that elaborate on the curriculum map are found in the grade-level descriptions.

Each grade-level description begins with a list of the five to seven modules that comprise the instruction of that grade. That introductory component is followed by three sections: the Summary of Year, the Rationale for Module Sequence, and the alignment chart with the grade-level standards.

The “Summary of Year” portion of each grade level includes four pieces of information:

- The critical instructional areas for the grade, as described in the Common Core Learning Standards¹ (CCLS)
- The Key Areas of Focus² for the grade
- The Required Fluencies for the grade
- The CCLS Major Emphasis Clusters³ for the grade

The “Rationale for Module Sequence” portion of each grade level provides a brief description of the instructional focus of each module for that grade and explains the developmental sequence of the mathematics.

The alignment chart for each grade lists the CCLS that are addressed in each module of the grade. Note that when a cluster is referred to without a footnote, it is taught in its entirety. There are also times when footnotes are relevant to particular standards within a cluster. All standards for each grade have been carefully included in the module sequence. Some standards are deliberately included in more than one module, so that a strong foundation can be built over time. Note that the standards identified on the Pre-Post Standards⁴ document as those which should be taught after the state test in April, have been intentionally aligned with the final modules of those grades.

¹ EngageNY: http://www.p12.nysed.gov/ciai/common_core_standards/pdfdocs/nysp12cclsmath.pdf

² Achievethecore: http://www.achievethecore.org/downloads/E0702_Description_of_the_Common_Core_Shifts.pdf

³ EngageNY: <http://engageny.org/sites/default/files/resource/attachments/nys-math-emphases-k-hs.pdf>

⁴ NYSED: <http://www.p12.nysed.gov/assessment/ei/2013/draft-math-ccls-13.pdf>

	Grade 6	Grade 7	Grade 8	
20 days	M1: Ratios and Unit Rates (35 days)	M1: Ratios and Proportional Relationships (30 days)	M1: Integer Exponents and the Scientific Notation (20 days)	20 days
20 days			M2: Rational Numbers (30 days)	M2: The Concept of Congruence (25 days)
20 days	M2: Arithmetic Operations Including Dividing by a Fraction (25 days)	M3: Expressions and Equations (35 days)		M3: Similarity (25 days)
20 days	M3: Rational Numbers (25 days)		M4: Linear Equations (40 days)	M4: Linear Equations (40 days)
20 days	M4: Expressions and Equations (45 days)	M4: Percent and Proportional Relationships (25 days)		
20 days		M5: Area, Surface Area, and Volume Problems (25 days)	M5: Statistics and Probability (25 days)	M6: Linear Functions (20 days)
20 days	M6: Statistics (25 days)			M6: Geometry (35 days)
20 days				

Approx. test date for Grades 6-8

Key:	Number	Geometry	Ratios and Proportions	Expressions and Equations	Statistics and Probability	Functions
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Sequence of Grade 6 Modules Aligned with the Standards

Module 1: Ratios and Unit Rates

Module 2: Arithmetic Operations Including Dividing by a Fraction

Module 3: Rational Numbers

Module 4: Expressions and Equations

Module 5: Area, Surface Area, and Volume Problems

Module 6: Statistics

Summary of Year

Sixth grade mathematics is about (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking.

Key Areas of Focus for Grade 6: Ratios and proportional reasoning; early expressions and equations

Required Fluency:

6.NS.2	Multi-digit division
6.NS.3	Multi-digit decimal operations

CCLS Major Emphasis Clusters

Ratios and Proportional Relationships

- Understand ratio concepts and use ratio reasoning to solve problems.

The Number System

- Apply and extend previous understandings of multiplication and division to divide fractions by fractions.
- Apply and extend previous understandings of numbers to the system of rational numbers.

Expressions and Equations

- Apply and extend previous understandings of arithmetic to algebraic expressions.
- Reason about and solve one-variable equations and inequalities.
- Represent and analyze quantitative relationships between dependent and independent variables.

Rationale for Module Sequence in Grade 6

In Module 1, students build on their prior work in measurement and in multiplication and division as they study the concepts and language of ratios and unit rates. They use proportional reasoning to solve problems. In particular, students solve ratio and rate using tape diagrams, tables of equivalent ratios, double number line diagrams, and equations. They plot pairs of values generated from a ratio or rate on the first quadrant of the coordinate plane.

Students expand their understanding of the number system and build their fluency in arithmetic operations in Module 2. Students learned in Grade 5 to divide whole numbers by unit fractions and unit fractions by whole numbers. Now, they apply and extend their understanding of multiplication and division to divide fractions by fractions. The meaning of this operation is connected to real-world problems as students are asked to create and solve fraction division word problems. Students continue (from Fifth Grade) to build fluency with adding, subtracting, multiplying, and dividing multi-digit decimal numbers using the standard algorithms.

Major themes of Module 3 are to understand rational numbers as points on the number line and to extend previous understandings of numbers to the system of rational numbers, which now include negative numbers. Students extend coordinate axes to represent points in the plane with negative number coordinates and, as part of doing so, see that negative numbers can represent quantities in real-world contexts. They use the number line to order numbers and to understand the absolute value of a number. They begin to solve real-world and mathematical problems by graphing points in all four quadrants, a concept that continues throughout to be used into high school and beyond.

With their sense of number expanded to include negative numbers, in Module 4 students begin formal study of algebraic expressions and equations. Students learn equivalent expressions by continuously relating algebraic expressions back to arithmetic and the properties of arithmetic (commutative, associative, and distributive). They write, interpret, and use expressions and equations as they reason about and solve one-variable equations and inequalities and analyze quantitative relationships between two variables.

Module 5 is an opportunity to practice the material learned in Module 4 in the context of geometry; students apply their newly acquired capabilities with expressions and equations to solve for unknowns in area, surface area, and volume problems. They find the area of triangles and other two-dimensional figures and use the formulas to find the volumes of right rectangular prisms with fractional edge lengths. Students use negative numbers in coordinates as they draw lines and polygons in the coordinate plane. They also find the lengths of sides of figures, joining points with the same first coordinate or the same second coordinate and apply these techniques to solve real-world and mathematical problems.

In Module 6, students develop an understanding of statistical variability and apply that understanding as they summarize, describe, and display distributions. In particular, careful attention is given to measures of center and variability.

Alignment Chart

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 6 Modules ⁵
<p>Module 1: Ratios and Unit Rates (35 days)</p>	<p>Understand ratio concepts and use ratio reasoning to solve problems.</p> <p>6.RP.1 Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. <i>For example, “The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak.” “For every vote candidate A received, candidate C received nearly three votes.”</i></p> <p>6.RP.2 Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. <i>For example, “This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3/4$ cup of flour for each cup of sugar.” “We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger.”⁶</i></p> <p>6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.</p> <ol style="list-style-type: none"> Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios. Solve unit rate problems including those involving unit pricing and constant speed. <i>For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?</i> Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means $30/100$ times the quantity); solve problems involving finding the whole, given a part and the percent. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

⁵ When a cluster is referred to in this chart without a footnote, the cluster is taught in its entirety.

⁶ Expectations for unit rates in this grade are limited to non-complex fractions.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 6 Modules ⁵
<p>Module 2: Arithmetic Operations Including Dividing by a Fraction (25 days)</p>	<p>Apply and extend previous understandings of multiplication and division to divide fractions by fractions.</p> <p>6.NS.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. <i>For example, create a story context for $(2/3) \div (3/4)$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(2/3) \div (3/4) = 8/9$ because $3/4$ of $8/9$ is $2/3$. (In general, $(a/b) \div (c/d) = ad/bc$.) How much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $3/4$-cup servings are in $2/3$ of a cup of yogurt? How wide is a rectangular strip of land with length $3/4$ mi and area $1/2$ square mi?</i></p> <p>Compute fluently with multi-digit numbers and find common factors and multiples.</p> <p>6.NS.2 Fluently divide multi-digit numbers using the standard algorithm.⁷</p> <p>6.NS.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.⁸</p> <p>6.NS.4 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. <i>For example, express $36 + 8$ as $4(9 + 2)$.</i></p>
<p>Module 3: Rational Numbers (25 days)</p>	<p>Apply and extend previous understandings of numbers to the system of rational numbers.</p> <p>6.NS.5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.</p> <p>6.NS.6 Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane</p>

⁷ This fluency standard begins in this module and is practiced throughout the remainder of the year.

⁸ This fluency standard begins in this module and is practiced throughout the remainder of the year.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 6 Modules ⁵
	<p>with negative number coordinates.</p> <ul style="list-style-type: none"> a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., $-(-3) = 3$, and that 0 is its own opposite. b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes. c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane. <p>6.NS.7 Understand ordering and absolute value of rational numbers.</p> <ul style="list-style-type: none"> a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. <i>For example, interpret $-3 > -7$ as a statement that -3 is located to the right of -7 on a number line oriented from left to right.</i> b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. <i>For example, write $-3^{\circ}\text{C} > -7^{\circ}\text{C}$ to express the fact that -3°C is warmer than -7°C.</i> c. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. <i>For example, for an account balance of -30 dollars, write $-30 = 30$ to describe the size of the debt in dollars.</i> d. Distinguish comparisons of absolute value from statements about order. <i>For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.</i> <p>6.NS.8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.</p>

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 6 Modules ⁵
<p>Module 4: Expressions and Equations (45 days)</p>	<p>Apply and extend previous understandings of arithmetic to algebraic expressions.⁹</p> <p>6.EE.1 Write and evaluate numerical expressions involving whole-number exponents.</p> <p>6.EE.2 Write, read, and evaluate expressions in which letters stand for numbers.</p> <ol style="list-style-type: none"> Write expressions that record operations with numbers and with letters standing for numbers. <i>For example, express the calculation “Subtract y from 5” as $5 - y$.</i> Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. <i>For example, describe the expression $2(8 + 7)$ as a product of two factors; view $(8 + 7)$ as both a single entity and a sum of two terms.</i> Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). <i>For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$.</i> <p>6.EE.3 Apply the properties of operations to generate equivalent expressions. <i>For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$.</i></p> <p>6.EE.4 Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). <i>For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for.</i></p>

⁹ 6.EE.2c is also taught in Module 4 in the context of geometry.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 6 Modules ⁵
	<p>Reason about and solve one-variable equations and inequalities.¹⁰</p> <p>6.EE.5 Understand solving an equation or inequality as a process of answering a question: Which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.</p> <p>6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.</p> <p>6.EE.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q, and x are all nonnegative rational numbers.</p> <p>6.EE.8 Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.</p> <p>Represent and analyze quantitative relationships between dependent and independent variables.</p> <p>6.EE.9 Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. <i>For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.</i></p>
<p>Module 5: Area, Surface Area, and Volume Problems (25 days)</p>	<p>Apply and extend previous understandings of arithmetic to algebraic expressions.¹¹</p> <p>6.EE.2 Write, read, and evaluate expressions in which letters stand for numbers.</p> <p>c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those</p>

¹⁰ Except for 6.EE.8, this cluster is also taught in Module 4 in the context of geometry.

¹¹ This standard, taught in Module 4, is practiced in this module in the context of geometry.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 6 Modules ⁵
	<p>involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). <i>For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$.</i></p> <p>Reason about and solve one-variable equations and inequalities.¹²</p> <p>6.EE.5 Understand solving an equation or inequality as a process of answering a question: Which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.</p> <p>6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.</p> <p>6.EE.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q, and x are all nonnegative rational numbers.</p> <p>Solve real-world and mathematical problems involving area, surface area, and volume.</p> <p>6.G.1 Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.</p> <p>6.G.2 Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = lwh$ and $V = bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.</p> <p>6.G.3 Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.</p>

¹² These standards, taught in Module 4, are practiced in this module in the context of geometry.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 6 Modules ⁵
	<p>6.G.4 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.</p>
<p>Module 6: Statistics (25 days)</p>	<p>Develop understanding of statistical variability.</p> <p>6.SP.1 Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. <i>For example, “How old am I?” is not a statistical question, but “How old are the students in my school?” is a statistical question because one anticipates variability in students’ ages.</i></p> <p>6.SP.2 Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.</p> <p>6.SP.3 Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.</p> <p>Summarize and describe distributions.</p> <p>6.SP.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.</p> <p>6.SP.5 Summarize numerical data sets in relation to their context, such as by:</p> <ol style="list-style-type: none"> Reporting the number of observations. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

Sequence of Grade 7 Modules Aligned with the Standards

Module 1: Ratios and Proportional Relationships

Module 2: Rational Numbers

Module 3: Expressions and Equations

Module 4: Percent and Proportional Relationships

Module 5: Statistics and Probability

Module 6: Geometry

Summary of Year

Seventh grade mathematics is about (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

Key Areas of Focus for Grade 7: Ratios and proportional reasoning; arithmetic of rational numbers

Rationale for Module Sequence in Grade 7

In Module 1, students build on their Grade 6 experiences with ratios, unit rates, and fraction division to analyze proportional relationships. They decide whether two quantities are in a proportional relationship, identify constants of proportionality, and represent the relationship by equations. These skills are then applied to real-world problems including scale drawings.

Students continue to build an understanding of the number line in Module 2 from their work in Grade 6. They learn to add, subtract, multiply, and divide rational numbers. Module 2 includes rational numbers as they appear in expressions and equations—work that is continued in Module 3.

CCLS Major Emphasis Clusters

Ratios and Proportional Relationships

- Analyze proportional relationships and use them to solve real-world and mathematical problems.

The Number System

- Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

Expressions and Equations

- Use properties of operations to generate equivalent expressions.
- Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

Module 3 consolidates and expands students' previous work with generating equivalent expressions and solving equations. Students solve real-life and mathematical problems using numerical and algebraic expressions and equations. Their work with expressions and equations is applied to finding unknown angles and problems involving area, volume, and surface area.

Module 4 parallels Module 1's coverage of ratio and proportion, but this time with a concentration on percent. Problems in this module include simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, and percent error. Additionally, this module includes percent problems about populations, which prepare students for probability models about populations covered in the next module.

In Module 5, students learn to draw inferences about populations based on random samples. Through the study of chance processes, students learn to develop, use and evaluate probability models.

The year concludes with students drawing and constructing geometrical figures in Module 6. They also revisit unknown angle, area, volume, and surface area problems, which now include problems involving percentages of areas or volumes.

Alignment Chart

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules ¹³
Module 1: Ratios and Proportional Relationships (30 days)	Analyze proportional relationships and use them to solve real-world and mathematical problems.¹⁴ <p>7.RP.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. <i>For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction $\frac{1/2}{1/4}$ miles per hour, equivalently 2 miles per hour.</i></p> <p>7.RP.2 Recognize and represent proportional relationships between quantities.</p> <p>a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.</p>

¹³ When a cluster is referred to in this chart without a footnote, the cluster is taught in its entirety.

¹⁴ Percent and proportional relationships are covered in Module 4.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules ¹³
	<p>b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.</p> <p>c. Represent proportional relationships by equations. <i>For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as $t = pn$.</i></p> <p>d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points $(0, 0)$ and $(1, r)$ where r is the unit rate.</p> <p>7.RP.3 Use proportional relationships to solve multistep ratio and percent problems. <i>Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.</i></p> <p>Solve real-life and mathematical problems using numerical and algebraic expressions and equations.¹⁵</p> <p>7.EE.4¹⁶ Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.</p> <p>a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. <i>For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?</i></p> <p>Draw, construct, and describe geometrical figures and describe the relationships between them.¹⁷</p> <p>7.G.1 Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.</p>

¹⁵ The balance of this cluster is taught in Modules 2, 3, and 4.

¹⁶ In this module, the equations are derived from ratio problems. 7.EE.4a is returned to in Module 2 and Module 3.

¹⁷ 7.G.1 is also covered in Module 4. The balance of this cluster is taught in Module 6.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules ¹³
<p>Module 2: Rational Numbers (30 days)</p>	<p>Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.</p> <p>7.NS.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.</p> <ol style="list-style-type: none"> Describe situations in which opposite quantities combine to make 0. <i>For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.</i> Understand $p + q$ as the number located a distance q from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts. Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts. Apply properties of operations as strategies to add and subtract rational numbers. <p>7.NS.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.</p> <ol style="list-style-type: none"> Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then $-(p/q) = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real-world contexts. Apply properties of operations as strategies to multiply and divide rational numbers.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules ¹³
	<p>d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.</p> <p>7.NS.3 Solve real-world and mathematical problems involving the four operations with rational numbers.¹⁸</p> <p>Use properties of operations to generate equivalent expressions.¹⁹</p> <p>7.EE.2²⁰ Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. <i>For example, $a + 0.05a = 1.05a$ means that “increase by 5%” is the same as “multiply by 1.05.”</i></p> <p>Solve real-life and mathematical problems using numerical and algebraic expressions and equations.²¹</p> <p>7.EE.4²² Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.</p> <p>a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. <i>For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?</i></p>
<p>Module 3: Expressions and Equations (35 days)</p>	<p>Use properties of operations to generate equivalent expressions.</p> <p>7.EE.1 Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.</p>

¹⁸ Computations with rational numbers extend the rules for manipulating fractions to complex fractions.

¹⁹ The balance of this cluster is taught in Module 3.

²⁰ In this module, this standard is applied to expressions with rational numbers in them.

²¹ The balance of this cluster is taught in Module 3.

²² In this module the equations include negative rational numbers.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules ¹³
	<p>7.EE.2 Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. <i>For example, $a + 0.05a = 1.05a$ means that “increase by 5%” is the same as “multiply by 1.05.”</i></p> <p>Solve real-life and mathematical problems using numerical and algebraic expressions and equations.</p> <p>7.EE.3²³ Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. <i>For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.</i></p> <p>7.EE.4 Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.</p> <ol style="list-style-type: none"> Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. <i>For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?</i> Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. <i>For example: As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for</i>

²³ Problems in this module take on any form but percent, which is included in Module 4.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules ¹³
	<p style="text-align: center;"><i>the number of sales you need to make, and describe the solutions.</i></p> <p>Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.²⁴</p> <p>7.G.4 Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.</p> <p>7.G.5 Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.</p> <p>7.G.6 Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.</p>
<p>Module 4: Percent and Proportional Relationships²⁵ (25 days)</p>	<p>Analyze proportional relationships and use them to solve real-world and mathematical problems.</p> <p>7.RP.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. <i>For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction $\frac{1/2}{1/4}$ miles per hour, equivalently 2 miles per hour.</i></p> <p>7.RP.2 Recognize and represent proportional relationships between quantities.</p> <ol style="list-style-type: none"> Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. Represent proportional relationships by equations. <i>For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as $t = pn$.</i>

²⁴ Emphasis of 7.G.5 and 7.G.6 in this module is on solving equations. The standards are returned to in Module 6.

²⁵ The emphasis in this module is on percent.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules ¹³
	<p>d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points $(0, 0)$ and $(1, r)$ where r is the unit rate.</p> <p>7.RP.3 Use proportional relationships to solve multistep ratio and percent problems. <i>Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.</i></p> <p>Solve real-life and mathematical problems using numerical and algebraic expressions and equations.²⁶</p> <p>7.EE.3 Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. <i>For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.</i></p> <p>Draw, construct, and describe geometrical figures and describe the relationships between them.²⁷</p> <p>7.G.1 Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.</p>
<p>Module 5: Statistics and Probability (25 days)</p>	<p>Use random sampling to draw inferences about a population.</p> <p>7.SP.1 Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.</p>

²⁶ 7.EE.3 is introduced in Module 3. The balance of this cluster was taught in the first three modules.

²⁷ 7.G.1 is introduced in Module 1. The balance of this cluster is taught in Module 6.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules ¹³
	<p>7.SP.2 Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. <i>For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.</i></p> <p>Draw informal comparative inferences about two populations.</p> <p>7.SP.3 Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. <i>For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.</i></p> <p>7.SP.4 Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. <i>For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.</i></p> <p>Investigate chance processes and develop, use, and evaluate probability models.</p> <p>7.SP.5 Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.</p> <p>7.SP.6 Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. <i>For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.</i></p>

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules ¹³
	<p>7.SP.7 Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.</p> <ul style="list-style-type: none"> a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. <i>For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.</i> b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. <i>For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?</i> <p>7.SP.8 Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.</p> <ul style="list-style-type: none"> a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs. b. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., “rolling double sixes”), identify the outcomes in the sample space which compose the event. c. Design and use a simulation to generate frequencies for compound events. <i>For example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?</i>

Module 6:
Geometry
(35 days)

Draw, construct, and describe geometrical figures and describe the relationships between them.²⁸

7.G.2 Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.

7.G.3 Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.

Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.²⁹

7.G.5 Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.

7.G.6 Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

²⁸ The balance of this cluster is taught in Modules 1 and 4.

²⁹ 7.G.4 is taught in Module 3; 7.G.5 and 7.G.6 are introduced in Module 3.

Sequence of Grade 8 Modules Aligned with the Standards

Module 1: Integer Exponents and Scientific Notation

Module 2: The Concept of Congruence

Module 3: Similarity

Module 4: Linear Equations

Module 5: Examples of Functions from Geometry

Module 6: Linear Functions

Module 7: Introduction to Irrational Numbers Using Geometry

Summary of Year

Eighth grade mathematics is about (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.

Key Areas of Focus for Grade 8: Linear algebra

Rationale for Module Sequence in Grade 8

This year begins with students extending the properties of exponents to integer exponents in Module 1. They use the number line model to support their understanding of the rational numbers and the number system. The number system is revisited at the end of the year (in Module 7) to develop the *real* number line through a detailed study of irrational numbers.

CCLS Major Emphasis Clusters

Expressions and Equations

- Work with radicals and integer exponents.
- Understand the connections between proportional relationships, lines, and linear equations.
- Analyze and solve linear equations and pairs of simultaneous linear equations.

Functions

- Define, evaluate, and compare functions.

Geometry

- Understand congruence and similarity using physical models, transparencies, or geometry software.
- Understand and apply the Pythagorean Theorem.

In Module 2, students study congruence by experimenting with rotations, reflections, and translations of geometrical figures. Their study of congruence culminates with an introduction to the Pythagorean Theorem in which the teacher guides students through the “square-within-a-square” proof of the theorem. Students practice the theorem in real-world applications and mathematical problems throughout the year. (In Module 7, students learn to prove the Pythagorean Theorem on their own and are assessed on that knowledge in that module.)

The experimental study of rotations, reflections, and translations in Module 2 prepares students for the more complex work of understanding the effects of dilations on geometrical figures in their study of similarity in Module 3. They use similar triangles to solve unknown angle, side length and area problems. Module 3 concludes with revisiting a proof of the Pythagorean Theorem from the perspective of similar triangles.

In Module 4, students use similar triangles learned in Module 3 to explain why the slope of a line is well-defined. Students learn the connection between proportional relationships, lines, and linear equations as they develop ways to represent a line by different equations ($y = mx + b$, $y - y_1 = m(x - x_1)$, etc.). They analyze and solve linear equations and pairs of simultaneous linear equations. The equation of a line provides a natural transition into the idea of a function explored in the next two modules.

Students are introduced to functions in the context of linear equations and area/volume formulas in Module 5. They define, evaluate, and compare functions using equations of lines as a source of linear functions and area and volume formulas as a source of non-linear functions.

In Module 6, students return to linear functions in the context of statistics and probability as bivariate data provides support in the use of linear functions.

By Module 7 students have been using the Pythagorean Theorem for several months. They are sufficiently prepared to learn and explain a proof of the theorem on their own. The Pythagorean Theorem is also used to motivate a discussion of irrational square roots (irrational cube roots are introduced via volume of a sphere). Thus, as the year began with looking at the number system, so it concludes with students understanding irrational numbers and ways to represent them (radicals, non-repeating decimal expansions) on the real number line.

Alignment Chart

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 8 Modules ³⁰
<p>Module 1: Integer Exponents and Scientific Notation (20 days)</p>	<p>Work with radicals and integer exponents.³¹</p> <p>8.EE.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions. <i>For example, $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$.</i></p> <p>8.EE.3 Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. <i>For example, estimate the population of the United States as 3×10^8 and the population of the world as 7×10^9, and determine that the world population is more than 20 times larger.</i></p> <p>8.EE.4 Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.</p>
<p>Module 2: The Concept of Congruence (25 days)</p>	<p>Understand congruence and similarity using physical models, transparencies, or geometry software.³²</p> <p>8.G.1 Verify experimentally the properties of rotations, reflections, and translations:</p> <ol style="list-style-type: none"> Lines are taken to lines, and line segments to line segments of the same length. Angles are taken to angles of the same measure. Parallel lines are taken to parallel lines. <p>8.G.2 Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.</p>

³⁰ When a cluster is referred to in this chart without a footnote, the cluster is taught in its entirety.

³¹ 8.EE.2 is covered in Module 7.

³² 8.G.3, 8.G.4, and the balance of 8.G.5 are taught in Module 3.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 8 Modules ³⁰
	<p>8.G.5³³ Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. <i>For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.</i></p> <p>Understand and apply the Pythagorean Theorem.³⁴</p> <p>8.G.6³⁵ Explain a proof of the Pythagorean Theorem and its converse.</p> <p>8.G.7³⁶ Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.</p>
<p>Module 3: Similarity (25 days)</p>	<p>Understand congruence and similarity using physical models, transparencies, or geometry software.³⁷</p> <p>8.G.3 Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.</p> <p>8.G.4 Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.</p> <p>8.G.5 Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. <i>For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.</i></p>

³³ Congruence is addressed in this Module. The balance of this standard (similarity) is taught in Module 3.

³⁴ 8.G.6 and 8.G.7 are also taught in Module 3. The balance of 8.G.6 and 8.G.7 are covered in Module 7, along with standard 8.G.8.

³⁵ Pythagorean is proved in this module guided by teacher (square within a square proof). Students are not responsible for explaining a proof until Module 7.

³⁶ This standard is started in this module and practiced during the year. No solutions that involve irrational numbers are introduced until Module 7.

³⁷ The balance of this cluster is taught in Module 1.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 8 Modules ³⁰
	<p>Understand and apply the Pythagorean Theorem.³⁸</p> <p>8.G.6³⁹ Explain a proof of the Pythagorean Theorem and its converse.</p> <p>8.G.7⁴⁰ Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.</p>
<p>Module 4: Linear Equations (40 days)</p>	<p>Understand the connections between proportional relationships, lines, and linear equations.</p> <p>8.EE.5 Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. <i>For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.</i></p> <p>8.EE.6 Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b.</p> <p>Analyze and solve linear equations and pairs of simultaneous linear equations.</p> <p>8.EE.7 Solve linear equations in one variable.</p> <ol style="list-style-type: none"> Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers). Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.

³⁸ 8.G.6 and 8.G.7 are also taught in Module 2. The balance of standards 8.G.6 and 8.G.7 are covered in Module 7, along with standard 8.G.8.

³⁹ Pythagorean is proved in this module guided by teacher (proof using similar triangles). Students are not responsible for explaining a proof until Module 7.

⁴⁰ This standard is started in this module and practiced during the year. No solutions that involve irrational numbers are introduced until Module 7.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 8 Modules ³⁰
	<p>8.EE.8 Analyze and solve pairs of simultaneous linear equations.</p> <ul style="list-style-type: none"> a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously. b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. <i>For example, $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because $3x + 2y$ cannot simultaneously be 5 and 6.</i> c. Solve real-world and mathematical problems leading to two linear equations in two variables. <i>For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.</i>
<p>Module 5: Examples of Functions from Geometry (15 days)</p>	<p>Define, evaluate, and compare functions.⁴¹</p> <ul style="list-style-type: none"> 8.F.1 Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.⁴² 8.F.2 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). <i>For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.</i> 8.F.3 Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. <i>For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.</i>

⁴¹ Linear and non-linear functions are compared in this module using linear equations and area/volume formulas as examples.

⁴² Function notation is not required in Grade 8.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 8 Modules ³⁰
	<p>Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.</p> <p>8.G.9⁴³ Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.</p>
<p>Module 6: Linear Functions (20 days)</p>	<p>Use functions to model relationships between quantities.</p> <p>8.F.4 Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.</p> <p>8.F.5 Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.</p> <p>Investigate patterns of association in bivariate data.⁴⁴</p> <p>8.SP.1 Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.</p> <p>8.SP.2 Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.</p> <p>8.SP.3 Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. <i>For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.</i></p>

⁴³ Solutions that introduce irrational numbers are not introduced until Module 7.

⁴⁴ 8.SP standards are used as applications to the work done with 8.F standards.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 8 Modules ³⁰
	<p>8.SP.4 Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. <i>For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?</i></p>
<p>Module 7: Introduction to Irrational Numbers Using Geometry (35 days)</p>	<p>Know that there are numbers that are not rational, and approximate them by rational numbers.</p> <p>8.NS.1 Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.</p> <p>8.NS.2 Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., π^2). <i>For example, by truncating the decimal expansion of $\sqrt{2}$, show that $\sqrt{2}$ is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.</i></p> <p>Work with radicals and integer exponents.⁴⁵</p> <p>8.EE.2 Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational.</p> <p>Understand and apply the Pythagorean Theorem.</p> <p>8.G.6 Explain a proof of the Pythagorean Theorem and its converse.</p> <p>8.G.7 Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.</p>

⁴⁵ The balance of this cluster is taught in Module 1.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 8 Modules ³⁰
	<p>8.G.8 Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.</p> <p>Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.</p> <p>8.G.9 Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.⁴⁶</p>

⁴⁶ Solutions that introduce irrational numbers are allowed in this module.



A Story of Functions: A Curriculum Overview for Grades 9-12

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Introduction

The Common Core Learning Standards (CCLS) define progressions of learning that develop the major content of school mathematics over grades Pre-K through 12. When those standards are further connected to each other within a grade and throughout a sequence of lessons, a coherent story emerges of mathematics as an elegant subject in which the collective body of knowledge results from reasoning from a cohesive set of principles. The word *story* in the title *A Story of Functions* is meant to capture this notion of coherence as students study functions and model with them.

This document provides an overview of the academic year for Grades 9 through 12, beginning with a curriculum map and followed by detailed grade level descriptions. Courses for Algebra I, Geometry, and Algebra II were designed in accordance with PARCC Model Content Frameworks for High School Mathematics.¹ The courses outlined in this document were informed by, but are not identical to, Appendix A of the Common Core State Standards.² A Precalculus course is provided as a fourth course.

Each course description begins with a list of the modules that comprise the instruction of the course. The list is followed by five sections of information:

- Summary of Year, which describes the focus of the course³
- Recommended Fluencies for the course, as stated in the PARCC Model Content Frameworks for High School Mathematics (Note that this information is not available for Precalculus.)
- CCLS Major Emphasis Clusters for the course, as stated in the PARCC Model Content Frameworks for High School Mathematics (Note that this information is not available for Precalculus.)
- Rationale for the Module Sequence of the course
- Alignment Chart of the course standards

¹ http://www.parcconline.org/sites/parcc/files/PARCCMCFMathematicsNovember2012V3_FINAL.pdf

² http://www.corestandards.org/assets/CCSSI_Mathematics_Appendix_A.pdf

³ Text in the summary paragraphs and Rationale for Module Sequencing for Algebra I, Geometry, and Algebra II were informed by, but are not identical to, Appendix A of the Common Core State Standards.

Key for reading this document:

- (★) According to the CCLS, “Modeling is best interpreted not as a collection of isolated topics but rather in relation to other standards. Making mathematical models is a Standard for Mathematical Practice, and specific modeling standards appear throughout the high school standards indicated by a star symbol (★).” Opportunities for modeling are woven throughout all four courses and are also indicated by (★) in this document.
- (+) The CCLS notes, “Standards beginning with the (+) symbol form a starting point for fourth year courses in Precalculus and in Probability and Statistics.” A few key (+) standards are included in the Geometry and Algebra II courses to provide coherence to the curriculum. They can be used to effectively extend a topic (e.g., G-GMD.2 as an extension of G-GMD.1) or to introduce a theme/concept that will be fully covered in the Precalculus course. **Note: None of the (+) standard in the Geometry or Algebra II course will be assessed on the Regents Exam in those courses.** All (+) standards are in the Precalculus course where they are assessed.

Timeline

The curriculum map on the next page shows the approximate number of instructional days designated for each module of each grade. The number of instructional days and dates will vary due to different school calendars, school holidays, snow days, and especially student needs.

To accommodate the January and June Regents Exam periods, the modules are based 150 instructional days instead of 180. The remaining 30 days takes into consideration 15 days of test administration and at least 10 days for review. **Note: For the first administration of the Regents Exams, there will be less than 150 instructional days because the Regents Exams are given early (impacting Algebra I and Geometry in the 2013–2014 school year and all courses in the 2014–2015 school year).**

Curriculum Map

	Grade 9 -- Algebra I	Grade 10 -- Geometry	Grade 11 -- Algebra II	Grade 12 -- Precalculus	
20 days	M1: Relationships Between Quantities and Reasoning with Equations and Their Graphs (40 days)	M1: Congruence, Proof, and Constructions (45 days)	M1: Polynomial, Rational, and Radical Relationships (45 days)	M1: Complex Numbers and Transformations (40 days)	20 days
20 days					20 days
20 days	M2: Descriptive Statistics (25 days)	M2: Similarity, Proof, and Trigonometry (45 days)	M2: Trigonometric Functions (20 days)	M2: Vectors and Matrices (40 days)	20 days
20 days	M3: Linear and Exponential Functions		M3: Functions (45 days)		20 days
20 days	State Examinations (35 days)	State Examinations	State Examinations	State Examinations	20 days
	20 days	M3: Extending to Three Dimensions (10 days)	M4: Connecting Algebra and Geometry through Coordinates (25 days)	M3: Rational and Exponential Functions (25 days)	20 days
M4: Polynomial and Quadratic Expressions, Equations and Functions (30 days)		M4: Trigonometry (20 days)		20 days	
20 days	M5: A Synthesis of Modeling with Equations and Functions (20 days)	M5: Circles with and Without Coordinates (25 days)	M4: Inferences and Conclusions from Data (40 days)	M5: Probability and Statistics (25 days)	20 days
20 days					20 days
20 days	Review and Examinations	Review and Examinations	Review and Examinations	Review and Examinations	20 days

Key:	Number and Quantity and Modeling	Geometry and Modeling	Algebra and Modeling	Statistics and Probability and Modeling	Functions and Modeling
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Standards for Mathematical Practice

The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- MP.1 Make sense of problems and persevere in solving them.** Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, “Does this make sense?” They can understand the approaches of others so solving complex problems and identify correspondences between different approaches.
- MP.2 Reason abstractly and quantitatively.** Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to *decontextualize*—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents, and the ability to *contextualize*—to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects (exemplified in Topic D).
- MP.3 Construct viable arguments and critique the reasoning of others.** Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the argument (exemplified in Topics A and E).

- MP.4 Model with mathematics.** Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students, who can apply what they know, are comfortable making assumptions and approximations to simplify a complicated situation and realize that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using tools, such as diagrams, two-way tables, graphs, flowcharts, and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.
- MP.5 Use appropriate tools strategically.** Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.
- MP.6 Attend to precision.** Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently and express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school, they have learned to examine claims and make explicit use of definitions (exemplified in Topics C and F).
- MP.7 Look for and make use of structure.** Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well-remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y (exemplified in Topic B).

MP.8 **Look for and express regularity in repeated reasoning.** Mathematically proficient students notice if calculations are repeated and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results (exemplified in Topic G).

Sequence of Algebra I Modules Aligned with the Standards

Module 1: Relationships Between Quantities and Reasoning with Equations and Their Graphs

Module 2: Descriptive Statistics

Module 3: Linear and Exponential Functions

Module 4: Polynomial and Quadratic Expressions, Equations and Functions

Module 5: A Synthesis of Modeling with Equations and Functions

Summary of Year

The fundamental purpose of this course is to formalize and extend the mathematics that students learned in the middle grades. Because it is built on the middle grades standards, this is a more ambitious version of Algebra I than has generally been offered. The modules deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend, and students engage in methods for analyzing, solving, and using quadratic functions. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Recommended Fluencies for Algebra I

- Solving characteristic problems involving the analytic geometry of lines, including, writing the equation of a line given a point and a slope.
- Adding, subtracting and multiplying polynomials.
- Transforming expressions and chunking (seeing the parts of an expression as a single object) as used in factoring, completing the square, and other algebraic calculations.

CCLS Major Emphasis Clusters

Seeing Structure in Expressions

- Interpret the structure of expressions

Arithmetic with Polynomials and Rational Expressions

- Perform arithmetic operations on polynomials

Creating Equations

- Create equations that describe numbers or relationships

Reasoning with Equations and Inequalities

- Understand solving equations as a process of reasoning and explain the reasoning
- Solve equations and inequalities in one variable
- Represent and solve equations and inequalities graphically

Interpreting Functions

- Understand the concept of a function and use function notation
- Interpret functions that arise in applications in terms of the context

Interpreting Categorical and Quantitative Data

- Interpret linear models

Rationale for Module Sequence in Algebra I

Module 1: By the end of eighth grade, students have learned to solve linear equations in one variable and have applied graphical and algebraic methods to analyze and solve systems of linear equations in two variables. Now, students analyze and explain precisely the process of solving an equation. Students, through reasoning, develop fluency writing, interpreting, and translating between various forms of linear equations and inequalities and make conjectures about the form that a linear equation might take in a solution to a problem. They reason abstractly and quantitatively by choosing and interpreting units in the context of creating equations in two variables to represent relationships between quantities. They master the solution of linear equations and apply related solution techniques and the properties of exponents to the creation and solution of simple exponential equations. They learn the terminology specific to polynomials and understand that polynomials form a system analogous to the integers.

Module 2: This module builds upon students' prior experiences with data, providing students with more formal means of assessing how a model fits data. Students display and interpret graphical representations of data, and if appropriate, choose regression techniques when building a model that approximates a linear relationship between quantities. They analyze their knowledge of the context of a situation to justify their choice of a linear model. With linear models, they plot and analyze residuals to informally assess the goodness of fit.

Module 3: In earlier grades, students defined, evaluated, and compared functions in modeling relationships between quantities. In this module, students learn function notation and develop the concepts of domain and range. They explore many examples of functions, including sequences; they interpret functions given graphically, numerically, symbolically, and verbally, translate between representations, and understand the limitations of various representations. Students build on their understanding of integer exponents to consider exponential functions with integer domains. They compare and contrast linear and exponential functions, looking for structure in each and distinguishing between additive and multiplicative change. Students explore systems of equations and inequalities, and they find and interpret their solutions. They interpret arithmetic sequences as linear functions and geometric sequences as exponential functions. In building models of relationships between two quantities, students analyze the key features of a graph or table of a function.

Module 4: In this module, students build on their knowledge from Module 3. Students strengthen their ability to discern structure in polynomial expressions. They create and solve equations involving quadratic and cubic expressions. In this module's modeling applications, students reason abstractly and quantitatively in interpreting parts of an expression that represent a quantity in terms of its context; they also learn to make sense of problems and persevere in solving them by choosing or producing equivalent forms of an expression (e.g., completing the square in a quadratic expression to reveal a maximum value). Students consider quadratic functions, comparing the key characteristics of quadratic functions to those of linear and exponential functions. They learn through repeated reasoning to anticipate the graph of a quadratic function by interpreting the structure

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

of various forms of quadratic expressions. In particular, they identify the real solutions of a quadratic equation as the zeros of a related quadratic function.

Module 5: In this module, students expand their experience with functions to include more specialized functions—linear, exponential, quadratic, square, and cube root, and those that are piecewise-defined, including absolute value and step. Students select from among these functions to model phenomena using the modeling cycle (see page 61 of the CCLS).

Alignment Chart

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra I Modules
<p>Module 1: Relationships Between Quantities and Reasoning with Equations and Their Graphs (40 days)</p>	<p>Reason quantitatively and use units to solve problems.</p> <p>N-Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.</p> <p>N-Q.2⁴ Define appropriate quantities for the purpose of descriptive modeling.</p> <p>N-Q.3⁵ Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p>Interpret the structure of expressions</p> <p>A-SSE.1 Interpret expressions that represent a quantity in terms of its context.[*]</p> <ol style="list-style-type: none"> Interpret parts of an expression, such as terms, factors, and coefficients.⁶ Interpret complicated expressions by viewing one or more of their parts as a single entity.

⁴ This standard will be assessed in Algebra I by ensuring that some modeling tasks (involving Algebra I content or securely held content from Grades 6-8) require the student to create a quantity of interest in the situation being described.

⁵ The greatest precision for a result is only at the level of the least precise data point (e.g., if units are tenths and hundredths, then the appropriate level of precision is tenths). Calculation of relative error is not included in this standard (in preparation for Regents Exams).

⁶ The “such as” listed are not the only parts of an expression students are expected to know; others include, but are not limited to, degree of a polynomial, leading coefficient, constant term, and the standard form of a polynomial (descending exponents) (in preparation for Regents Exams).

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra I Modules
	<p style="text-align: center;"><i>For example, interpret $P(1+r)^n$ as the product of P and a factor not depending on P.</i></p> <p>A-SSE.2⁷ Use the structure of an expression to identify ways to rewrite it. <i>For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.</i></p> <p>Perform arithmetic operations on polynomials</p> <p>A-APR.1 Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.</p> <p>Create equations that describe numbers or relationships</p> <p>A-CED.1⁸ Create equations and inequalities in one variable and use them to solve problems. <i>Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*</i></p> <p>A-CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.*</p> <p>A-CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. <i>For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.*</i></p> <p>A-CED.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. <i>For example, rearrange Ohm’s law $V = IR$ to highlight resistance R.*</i></p>

⁷ In Algebra I, tasks are limited to numerical expressions and polynomial expressions in one variable. Examples: Recognize $53^2 - 47^2$ as a difference of squares and see an opportunity to rewrite it in the easier-to-evaluate form $(53 - 47)(53 + 47)$. See an opportunity to rewrite $a^2 + 9a + 14$ as $(a + 7)(a + 2)$. This does not include factoring by grouping and factoring the sum and difference of cubes (in preparation for Regents Exams).

⁸ In Algebra I, tasks are limited to linear, quadratic, or exponential equations with integer exponents.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra I Modules
	<p>Understand solving equations as a process of reasoning and explain the reasoning</p> <p>A-REI.1 Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.</p> <p>Solve equations and inequalities in one variable</p> <p>A-REI.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.</p> <p>Solve systems of equations</p> <p>A-REI.5 Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.</p> <p>A-REI.6⁹ Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.</p> <p>Represent and solve equations and inequalities graphically</p> <p>A-REI.10 Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).</p> <p>A-REI.12 Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.</p>
<p>Module 2: Descriptive Statistics (25 days)</p>	<p>Summarize, represent, and interpret data on a single count or measurement variable</p> <p>S-ID.1 Represent data with plots on the real number line (dot plots, histograms, and box plots).[*]</p> <p>S-ID.2 Use statistics appropriate to the shape of the data distribution to compare center (median,</p>

⁹ Tasks have a real-world context. In Algebra I, tasks have hallmarks of modeling as a mathematical practice (less defined tasks, more of the modeling cycle, etc.).

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra I Modules
	<p>mean) and spread (interquartile range, standard deviation) of two or more different data sets.*</p> <p>S-ID.3 Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).*</p> <p>Summarize, represent, and interpret data on two categorical and quantitative variables</p> <p>S-ID.5 Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.*</p> <p>S-ID.6 Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.*</p> <ol style="list-style-type: none"> Fit a function to the data; use functions fitted to data to solve problems in the context of the data. <i>Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.</i>¹⁰ Informally assess the fit of a function by plotting and analyzing residuals.¹¹ Fit a linear function for a scatter plot that suggests a linear association.¹² <p>Interpret linear models</p> <p>S-ID.7 Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.*</p> <p>S-ID.8 Compute (using technology) and interpret the correlation coefficient of a linear fit.*</p> <p>S-ID.9 Distinguish between correlation and causation.*</p>

¹⁰ Tasks have a real-world context. In Algebra I, exponential functions are limited to those with domains in the integers. Includes the use of the regression capabilities of the calculator (in preparation for Regents Exams).

¹¹ Includes creating residual plots using the capabilities of the calculator (not manually) (in preparation for Regents Exams).

¹² Both correlation coefficient and residuals will be addressed in this standard (in preparation for Regents Exams).

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra I Modules
<p>Module 3: Linear and Exponential Functions (35 days)</p>	<p>Write expressions in equivalent forms to solve problems</p> <p>A-SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.*</p> <p>c. Use the properties of exponents to transform expressions for exponential functions. <i>For example the expression 1.15^t can be rewritten as $(1.15^{1/12})^{12t} \approx 1.012^{12t}$ to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.¹³</i></p> <p>Create equations that describe numbers or relationships</p> <p>A-CED.1¹⁴ Create equations and inequalities in one variable and use them to solve problems. <i>Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*</i></p> <p>Represent and solve equations and inequalities graphically</p> <p>A-REI.11¹⁵ Explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. <i>Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.*</i></p> <p>Understand the concept of a function and use function notation</p> <p>F-IF.1 Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x. The</p>

¹³ Tasks have a real-world context. As described in the standard, there is an interplay between the mathematical structure of the expression and the structure of the situation such that choosing and producing an equivalent form of the expression reveals something about the situation. In Algebra I, tasks are limited to exponential expressions with integer exponents.

¹⁴ In Algebra I, tasks are limited to linear, quadratic, or exponential equations with integer exponents.

¹⁵ In Algebra I, tasks that assess conceptual understanding of the indicated concept may involve any of the function types mentioned in the standard except exponential and logarithmic functions. Finding the solutions approximately is limited to cases where $f(x)$ and $g(x)$ are polynomial functions.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra I Modules
	<p>graph of f is the graph of the equation $y = f(x)$.</p> <p>F-IF.2 Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.</p> <p>F-IF.3¹⁶ Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. <i>For example, the Fibonacci sequence is defined recursively by $f(0) = f(1) = 1$, $f(n+1) = f(n) + f(n-1)$ for $n \geq 1$.</i></p> <p>Interpret functions that arise in applications in terms of the context</p> <p>F-IF.4¹⁷ For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. <i>Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*</i></p> <p>F-IF.5 Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. <i>For example, if the function $h(n)$ gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.*</i></p> <p>F-IF.6¹⁸ Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.*</p> <p>Analyze functions using different representations</p> <p>F-IF.7 Graph functions expressed symbolically and show key features of the graph, by hand in simple</p>

¹⁶ This standard is part of the Major Content in Algebra I and will be assessed accordingly.

¹⁷ Tasks have a real-world context. In Algebra I, tasks are limited to linear functions, quadratic functions, square root functions, cube root functions, piecewise-defined functions (including step functions and absolute value functions), and exponential functions with domains in the integers. The focus in this module is on linear and exponential functions.

¹⁸ Tasks have a real-world context. In Algebra I, tasks are limited to linear functions, quadratic functions, square root functions, cube root functions, piecewise-defined functions (including step functions and absolute value functions), and exponential functions with domains in the integers. The focus in this module is on linear and exponential functions.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra I Modules
	<p>cases and using technology for more complicated cases.*</p> <p>a. Graph linear and quadratic functions and show intercepts, maxima, and minima.</p> <p>F-IF.9¹⁹ Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). <i>For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.</i></p> <p>Build a function that models a relationship between two quantities</p> <p>F-BF.1²⁰ Write a function that describes a relationship between two quantities.*</p> <p>a. Determine an explicit expression, a recursive process, or steps for calculation from a context.</p> <p>Build new functions from existing functions</p> <p>F-BF.3²¹ Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. <i>Include recognizing even and odd functions from their graphs and algebraic expressions for them.</i></p> <p>Construct and compare linear, quadratic, and exponential models and solve problems</p> <p>F-LE.1 Distinguish between situations that can be modeled with linear functions and with exponential functions.*</p> <p>a. Prove that linear functions grow by equal differences over equal intervals, and that</p>

¹⁹ In Algebra I, tasks are limited to linear functions, quadratic functions, square root functions, cube root functions, piecewise-defined functions (including step functions and absolute value functions), and exponential functions with domains in the integers. The focus in this module is on linear and exponential functions.

²⁰ Tasks have a real-world context. In Algebra I, tasks are limited to linear functions, quadratic functions, and exponential functions with domains in the integers.

²¹ In Algebra I, identifying the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x+k)$ for specific values of k (both positive and negative) is limited to linear and quadratic functions. Experimenting with cases and illustrating an explanation of the effects on the graph using technology is limited to linear functions, quadratic functions, square root functions, cube root functions, piecewise-defined functions (including step functions and absolute value functions), and exponential functions with domains in the integers. Tasks do not involve recognizing even and odd functions. The focus in this module is on linear and exponential functions.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra I Modules
	<p>exponential functions grow by equal factors over equal intervals.</p> <p>b. Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.</p> <p>c. Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.</p> <p>F-LE.2²² Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).*</p> <p>F-LE.3 Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.*</p> <p>Interpret expressions for functions in terms of the situation they model</p> <p>F-LE.5²³ Interpret the parameters in a linear or exponential function in terms of a context.*</p>
<p>Module 4: Polynomial and Quadratic Expressions, Equations and Functions (30 days)</p>	<p>Use properties of rational and irrational numbers.</p> <p>N-RN.3 Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.</p> <p>Interpret the structure of expressions</p> <p>A-SSE.1 Interpret expressions that represent a quantity in terms of its context.*</p> <p>a. Interpret parts of an expression, such as terms, factors, and coefficients.²⁴</p>

²² In Algebra I, tasks are limited to constructing linear and exponential functions in simple context (not multi-step).

²³ Tasks have a real-world context. In Algebra I, exponential functions are limited to those with domains in the integers.

²⁴ The “such as” listed are not the only parts of an expression students are expected to know; others include, but are not limited to, degree of a polynomial, leading coefficient, constant term, and the standard form of a polynomial (descending exponents) (in preparation for Regents Exams).

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra I Modules
	<p>b. Interpret complicated expressions by viewing one or more of their parts as a single entity. For example, interpret $P(1+r)^n$ as the product of P and a factor not depending on P.</p> <p>A-SSE.2²⁵ Use the structure of an expression to identify ways to rewrite it. For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.</p> <p>Write expressions in equivalent forms to solve problems</p> <p>A-SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.*</p> <p>a. Factor a quadratic expression to reveal the zeros of the function it defines.²⁶</p> <p>b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.</p> <p>Perform arithmetic operations on polynomials</p> <p>A-APR.1 Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.</p> <p>Understand the relationship between zeros and factors of polynomials</p> <p>A-APR.3²⁷ Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.</p>

²⁵ In Algebra I, tasks are limited to numerical expressions and polynomial expressions in one variable. Examples: Recognize $53^2 - 47^2$ as a difference of squares and see an opportunity to rewrite it in the easier-to-evaluate form $(53 - 47)(53 + 47)$. See an opportunity to rewrite $a^2 + 9a + 14$ as $(a + 7)(a + 2)$. This does not include factoring by grouping and factoring the sum and difference of cubes (in preparation for Regents Exams).

²⁶ Includes trinomials with leading coefficients other than 1 (in preparation for Regents Exams).

²⁷ In Algebra I, tasks are limited to quadratic and cubic polynomials in which linear and quadratic factors are available. For example, find the zeros of $(x - 2)(x^2 - 9)$.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra I Modules
	<p>Create equations that describe numbers or relationships</p> <p>A-CED.1²⁸ Create equations and inequalities in one variable and use them to solve problems. <i>Include equations arising from linear and quadratic functions, and simple rational and exponential functions.</i>[*]</p> <p>A-CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.[*]</p> <p>Solve equations and inequalities in one variable</p> <p>A-REI.4²⁹ Solve quadratic equations in one variable.</p> <ol style="list-style-type: none"> Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form. Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b.³⁰ <p>Represent and solve equations and inequalities graphically</p> <p>A-REI.11³¹ Explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute</p>

²⁸ In Algebra I, tasks are limited to linear, quadratic, or exponential equations with integer exponents.

²⁹ Solutions may include simplifying radicals (in preparation for Regents Exams).

³⁰ Tasks do not require students to write solutions for quadratic equations that have roots with nonzero imaginary parts. However, tasks can require the student to recognize cases in which a quadratic equation has no real solutions.

³¹ In Algebra I, tasks that assess conceptual understanding of the indicated concept may involve any of the function types mentioned in the standard except exponential and logarithmic functions. Finding the solutions approximately is limited to cases where $f(x)$ and $g(x)$ are polynomial functions.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra I Modules
	<p>value, exponential, and logarithmic functions.*</p> <p>Interpret functions that arise in applications in terms of the context</p> <p>F-IF.4³² For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. <i>Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*</i></p> <p>F-IF.5 Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. <i>For example, if the function $h(n)$ gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.*</i></p> <p>F-IF.6³³ Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.*</p> <p>Analyze functions using different representations</p> <p>F-IF.7 Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.*</p> <ol style="list-style-type: none"> Graph linear and quadratic functions and show intercepts, maxima, and minima. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.

³² Tasks have a real-world context. In Algebra I, tasks are limited to linear functions, quadratic functions, square root functions, cube root functions, piecewise-defined functions (including step functions and absolute value functions), and exponential functions with domains in the integers. The focus in this module is on linear and exponential functions.

³³ Tasks have a real-world context. In Algebra I, tasks are limited to linear functions, quadratic functions, square root functions, cube root functions, piecewise-defined functions (including step functions and absolute value functions), and exponential functions with domains in the integers. The focus in this module is on linear and exponential functions.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra I Modules
	<p>F-IF.8 Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.</p> <p>a. Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.</p> <p>F-IF.9³⁴ Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). <i>For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.</i></p> <p>Build new functions from existing functions</p> <p>F-BF.3³⁵ Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. <i>Include recognizing even and odd functions from their graphs and algebraic expressions for them.</i></p>

³⁴ In Algebra I, tasks are limited to linear functions, quadratic functions, square root functions, cube root functions, piecewise-defined functions (including step functions and absolute value functions), and exponential functions with domains in the integers.

³⁵ In Algebra I, identifying the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x+k)$ for specific values of k (both positive and negative) is limited to linear and quadratic functions. Experimenting with cases and illustrating an explanation of the effects on the graph using technology is limited to linear functions, quadratic functions, square root functions, cube root functions, piecewise-defined functions (including step functions and absolute value functions), and exponential functions with domains in the integers. Tasks do not involve recognizing even and odd functions.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra I Modules
<p>Module 5: A Synthesis of Modeling with Equations and Functions (20 days)</p>	<p>Reason quantitatively and use units to solve problems.</p> <p>N-Q.3³⁶ Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p>Create equations that describe numbers or relationships</p> <p>A-CED.1³⁷ Create equations and inequalities in one variable and use them to solve problems. <i>Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*</i></p> <p>A-CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.*</p> <p>Interpret functions that arise in applications in terms of the context</p> <p>F-IF.4³⁸ For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. <i>Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*</i></p> <p>F-IF.5 Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. <i>For example, if the function $h(n)$ gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate</i></p>

³⁶ The greatest precision for a result is only at the level of the least precise data point (e.g., if units are tenths and hundredths, then the appropriate level of precision is tenths). Calculation of relative error is not included in this standard (in preparation for Regents Exams).

³⁷ In Algebra I, tasks are limited to linear, quadratic, or exponential equations with integer exponents.

³⁸ Tasks have a real-world context. In Algebra I, tasks are limited to linear functions, quadratic functions, square root functions, cube root functions, piecewise-defined functions (including step functions and absolute value functions), and exponential functions with domains in the integers.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra I Modules
	<p><i>domain for the function.</i>[*]</p> <p>F-IF.6³⁹ Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.[*]</p> <p>Build a function that models a relationship between two quantities</p> <p>F-BF.1⁴⁰ Write a function that describes a relationship between two quantities.[*]</p> <p>a. Determine an explicit expression, a recursive process, or steps for calculation from a context.</p> <p>Construct and compare linear, quadratic, and exponential models and solve problems</p> <p>F-LE.1 Distinguish between situations that can be modeled with linear functions and with exponential functions.[*]</p> <p>b. Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.</p> <p>c. Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.</p> <p>F-LE.2⁴¹ Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).[*]</p>

³⁹ Tasks have a real-world context. In Algebra I, tasks are limited to linear functions, quadratic functions, square root functions, cube root functions, piecewise-defined functions (including step functions and absolute value functions), and exponential functions with domains in the integers.

⁴⁰ Tasks have a real-world context. In Algebra I, tasks are limited to linear functions, quadratic functions, and exponential functions with domains in the integers.

⁴¹ In Algebra I, tasks are limited to constructing linear and exponential functions in simple context (not multi-step).

Sequence of Geometry Modules Aligned with the Standards

Module 1: Congruence, Proof, and Constructions

Module 2: Similarity, Proof, and Trigonometry

Module 3: Extending to Three Dimensions

Module 4: Connecting Algebra and Geometry through Coordinates

Module 5: Circles with and Without Coordinates

Summary of Year

The fundamental purpose of the course in Geometry is to formalize and extend students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Important differences exist between this Geometry course and the historical approach taken in Geometry classes. For example, transformations are emphasized early in this course. Close attention should be paid to the introductory content for the Geometry conceptual category found in the high school CCSS. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Recommended Fluencies for Geometry

- Triangle congruence and similarity criteria.
- Using coordinates to establish geometric results.
- Calculating length and angle measures.
- Using geometric representations as a modeling tool.
- Using construction tools, physical and computational to draft models of geometric phenomenon.

CCLS Major Emphasis Clusters

Congruence

- Understand congruence in terms of rigid motions
- Prove geometric theorems

Similarity, Right Triangles, and Trigonometry

- Understand similarity in terms of similarity transformations
- Prove theorems using similarity
- Define trigonometric ratios and solve problems involving right triangles

Expressing Geometric Properties with Equations

- Use coordinates to prove simple geometric theorems algebraically

Modeling with Geometry

- Apply geometric concepts in modeling situations

Rationale for Module Sequence in Geometry

Module 1: In previous grades, students were asked to draw triangles based on given measurements. They also have prior experience with rigid motions—translations, reflections, and rotations—and have strategically applied a rigid motion to informally show that two triangles are congruent. In this module, students establish triangle congruence criteria, based on analyses of rigid motions and formal constructions. They build upon this familiar foundation of triangle congruence to develop formal proof techniques. Students make conjectures and construct viable arguments to prove theorems—using a variety of formats—and solve problems about triangles, quadrilaterals, and other polygons. They construct figures by manipulating appropriate geometric tools (compass, ruler, protractor, etc.) and justify why their written instructions produce the desired figure.

Module 2: Students apply their earlier experience with dilations and proportional reasoning to build a formal understanding of similarity. They identify criteria for similarity of triangles, make sense of and persevere in solving similarity problems, and apply similarity to right triangles to prove the Pythagorean Theorem. Students attend to precision in showing that trigonometric ratios are well defined, and apply trigonometric ratios to find missing measures of general (not necessarily right) triangles. Students model and make sense out of indirect measurement problems and geometry problems that involve ratios or rates.

Module 3: Students' experience with two-dimensional and three-dimensional objects is extended to include informal explanations of circumference, area and volume formulas. Additionally, students apply their knowledge of two-dimensional shapes to consider the shapes of cross-sections and the result of rotating a two-dimensional object about a line. They reason abstractly and quantitatively to model problems using volume formulas.

Module 4: Building on their work with the Pythagorean Theorem in 8th grade to find distances, students analyze geometric relationships in the context of a rectangular coordinate system, including properties of special triangles and quadrilaterals and slopes of parallel and perpendicular lines, relating back to work done in the first module. Students attend to precision as they connect the geometric and algebraic definitions of parabola. They solve design problems by representing figures in the coordinate plane, and in doing so, they leverage their knowledge from synthetic geometry by combining it with the solving power of algebra inherent in analytic geometry.

Module 5: In this module, students prove and apply basic theorems about circles, such as: a tangent line is perpendicular to a radius theorem, the inscribed angle theorem, and theorems about chords, secants, and tangents dealing with segment lengths and angle measures. They study relationships among segments on chords, secants, and tangents as an application of similarity. In the Cartesian coordinate system, students explain the correspondence between the definition of a circle and the equation of a circle written in terms of the distance formula, its radius, and coordinates of its center. Given an equation of a circle, they draw the graph in the coordinate plane and apply techniques for solving quadratic equations. Students visualize, with the aid of appropriate software tools, changes to a three-dimensional model by exploring the consequences of varying parameters in the model.

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Alignment Chart

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Geometry Modules
<p>Module 1: Congruence, Proof, and Constructions (45 days)</p>	<p>Experiment with transformations in the plane</p> <ul style="list-style-type: none"> G-CO.1 Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc. G-CO.2 Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch). G-CO.3⁴² Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself. G-CO.4 Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments. G-CO.5 Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another. <p>Understand congruence in terms of rigid motions</p> <ul style="list-style-type: none"> G-CO.6 Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent. G-CO.7 Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.

⁴²Trapezoid is defined as “A quadrilateral with at least one pair of parallel sides” (in preparation for Regents Exams).

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Geometry Modules
	<p>G-CO.8 Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.</p> <p>Prove geometric theorems</p> <p>G-CO.9 Prove theorems about lines and angles. <i>Theorems include⁴³: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment’s endpoints.</i></p> <p>G-CO.10 Prove theorems about triangles. <i>Theorems include⁴⁴: measures of interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.</i></p> <p>G-CO.11 Prove theorems about parallelograms. <i>Theorems include⁴⁵: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.</i></p> <p>Make geometric constructions</p> <p>G-CO.12⁴⁶ Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). <i>Copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.</i></p> <p>G-CO.13 Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.</p>

⁴³ Theorems include but are not limited to the listed theorems. Example: Theorems that involve complementary or supplementary angles (in preparation for Regents Exams).

⁴⁴ Theorems include but are not limited to the listed theorems. Example: An exterior angle of a triangle is equal to the sum of the two interior opposite angles of the triangle (in preparation for Regents Exams).

⁴⁵ Theorems include but are not limited to the listed theorems. Example: A rhombus is a parallelogram with perpendicular diagonals (in preparation for Regents Exams).

⁴⁶ The constructions include, but are not limited to, the listed constructions (in preparation for Regents Exams).

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Geometry Modules
<p>Module 2: Similarity, Proof, and Trigonometry (45 days)</p>	<p>Understand similarity in terms of similarity transformations</p> <p>G-SRT.1 Verify experimentally the properties of dilations given by a center and a scale factor:</p> <ol style="list-style-type: none"> A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged. The dilation of a line segment is longer or shorter in the ratio given by the scale factor. <p>G-SRT.2 Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.</p> <p>G-SRT.3 Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.</p> <p>Prove theorems involving similarity</p> <p>G-SRT.4 Prove theorems about triangles. <i>Theorems include⁴⁷: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity.</i></p> <p>G-SRT.5 Use congruence and similarity criteria⁴⁸ for triangles to solve problems and to prove relationships in geometric figures.</p> <p>Define trigonometric ratios and solve problems involving right triangles</p> <p>G-SRT.6 Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.</p>

⁴⁷ Theorems include, but are not limited to, the listed theorems. Example: the length of the altitude drawn from the vertex of the right angle of a right triangle to its hypotenuse is the geometric mean between the lengths of the two segments of the hypotenuse (in preparation for Regents Exams).

⁴⁸ ASA, SAS, SSS, AAS, and Hypotenuse-Leg theorems are valid criteria for triangle congruence. AA, SAS, and SSS are valid criteria for triangle similarity (in preparation for Regents Exams).

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Geometry Modules
	<p>G-SRT.7 Explain and use the relationship between the sine and cosine of complementary angles.</p> <p>G-SRT.8 Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.*</p> <p>Apply geometric concepts in modeling situations</p> <p>G-MG.1 Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).*</p> <p>G-MG.2 Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).*</p> <p>G-MG.3 Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).*</p>
<p>Module 3: Extending to Three Dimensions (10 days)</p>	<p>Explain volume formulas and use them to solve problems⁴⁹</p> <p>G-GMD.1 Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. <i>Use dissection arguments, Cavalieri’s principle, and informal limit arguments.</i></p> <p>G-GMD.3 Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.*</p> <p>Visualize relationships between two-dimensional and three-dimensional objects</p> <p>G-GMD.4 Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.</p> <p>Apply geometric concepts in modeling situations</p> <p>G-MG.1 Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a</p>

⁴⁹ The (+) standard on the volume of the sphere is an extension of G-GMD.1. It is explained by the teacher in this grade and used by students in G-GMD.3. Note: Students are not assessed on proving the volume of a sphere formula until Precalculus.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Geometry Modules
	tree trunk or a human torso as a cylinder).*
<p>Module 4: Connecting Algebra and Geometry through Coordinates (25 days)</p>	<p>Use coordinates to prove simple geometric theorems algebraically</p> <p>G-GPE.4 Use coordinates to prove simple geometric theorems algebraically. <i>For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle; prove or disprove that the point $(1, \sqrt{3})$ lies on the circle centered at the origin and containing the point $(0, 2)$.</i></p> <p>G-GPE.5 Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).</p> <p>G-GPE.6 Find the point on a directed line segment between two given points that partitions the segment in a given ratio.</p> <p>G-GPE.7 Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.*</p>
<p>Module 5: Circles with and Without Coordinates (25 days)</p>	<p>Understand and apply theorems about circles</p> <p>G-C.1 Prove that all circles are similar.</p> <p>G-C.2 Identify and describe relationships among inscribed angles, radii, and chords. <i>Include⁵⁰ the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.</i></p> <p>G-C.3 Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.</p> <p>Find arc lengths and areas of sectors of circles</p>

⁵⁰ Relationships include but are not limited to the listed relationships. Example: angles involving tangents and secants (in preparation for Regents Exams).

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Geometry Modules
	<p>G-C.5 Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector</p> <p>Translate between the geometric description and the equation for a conic section</p> <p>G-GPE.1 Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.</p> <p>Use coordinates to prove simple geometric theorems algebraically</p> <p>G-GPE.4 Use coordinates to prove simple geometric theorems algebraically. <i>For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle; prove or disprove that the point $(1, \sqrt{3})$ lies on the circle centered at the origin and containing the point $(0, 2)$.</i></p> <p>Apply geometric concepts in modeling situations</p> <p>G-MG.1 Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).*</p>

Extensions to the Geometry Course

The (+) standards below are included in the Geometry course to provide coherence to the curriculum. They can be used to effectively extend a topic or to introduce a theme/concept that will be fully covered in the Precalculus course. *Note: None of the (+) standard below will be assessed on the Regents Exam or PARRC Assessments until Precalculus.*

<p>Module 2. These standards can be taught as applications of similar triangles and the definitions of the trigonometric ratios.</p>	<p>Apply trigonometry to general triangles</p> <p>G-SRT.9 (+) Derive the formula $A = 1/2 ab \sin(C)$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side.</p> <p>G-SRT.10 (+) Prove the Laws of Sines and Cosines and use them to solve problems.</p>
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	<p>G-SRT.11 (+) Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).</p>
<p>Module 3. This standard on the volume of the sphere is an extension of G-GMD.1. In this course, it is explained by the teacher and used by students in G-GMD.3.</p>	<p>Explain volume formulas and use them to solve problems</p> <p>G-GMD.2 (+) Give an informal argument using Cavalieri’s principle for the formulas for the volume of a sphere and other solid figures.</p>
<p>Module 5. This standard is an immediate extension of G-C.2 and can be given as a homework assignment (with an appropriate hint).</p>	<p>Understand and apply theorems about circles</p> <p>G-C.4 (+) Construct a tangent line from a point outside a given circle to the circle.</p>

Sequence of Algebra II Modules Aligned with the Standards

Module 1: Polynomial, Rational, and Radical Relationships

Module 2: Trigonometric Functions

Module 3: Functions

Module 4: Inferences and Conclusions from Data

Summary of Year

Building on their work with linear, quadratic, and exponential functions, students extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Recommended Fluencies for Algebra II

- Divide polynomials with remainder by inspection in simple cases.
- See structure in expressions and use this structure to rewrite expressions (e.g., factoring, grouping).
- Translate between recursive definitions and closed forms for problems involving sequences and series.

CCLS Major Emphasis Clusters

The Real Number System

- Extend the properties of exponents to rational exponents

Seeing Structure in Expressions

- Interpret the structure of expressions
- Write expressions in equivalent forms to solve problems

Arithmetic with Polynomials and Rational Expressions

- Understand the relationship between zeros and factors of polynomials

Reasoning with Equations and Inequalities

- Understand solving equations as a process of reasoning and explain the reasoning
- Represent and solve equations and inequalities graphically

Interpreting Functions

- Interpret functions that arise in applications in terms of the context

Building Functions

- Build a function that models a relationship between two quantities

Making Inferences and Justifying Conclusions

- Make inferences and justify conclusions from sample surveys, experiments and observational studies

Rationale for Module Sequence in Algebra II

Module 1: In this module, students draw on analogies between polynomial arithmetic and base-ten computation, focusing on properties of operations, particularly the distributive property. Students connect the structure inherent in multi-digit whole number multiplication with multiplication of polynomials and similarly connect division of polynomials with long division of integers. Students identify zeros of polynomials, including complex zeros of quadratic polynomials. Through regularity in repeated reasoning, they make connections between zeros of polynomials and solutions of polynomial equations. Students analyze the key features of a graph or table of a polynomial function and relate those features back to the two quantities in the problem that the function is modeling. A theme of this module is that the arithmetic of rational expressions is governed by the same rules as the arithmetic of rational numbers.

Module 2: Building on their previous work with functions, and on their work with trigonometric ratios and circles in Geometry, students extend trigonometric functions to all (or most) real numbers. To reinforce their understanding of these functions, students begin building fluency with the values of sine, cosine, and tangent at $\pi/6$, $\pi/4$, $\pi/3$, $\pi/2$, etc. Students make sense of periodic phenomena as they model with trigonometric functions.

Module 3: In this module, students synthesize and generalize what they have learned about a variety of function families. They extend their work with exponential functions to include solving exponential equations with logarithms. They explore (with appropriate tools) the effects of transformations on graphs of diverse functions, including functions arising in an application. They notice, by looking for general methods in repeated calculations, that the transformations on a graph always have the same effect regardless of the type of the underlying function. These observations lead to students to conjecture and construct general principles about how the graph of a function changes after applying a function transformation to that function. Students identify appropriate types of functions to model a situation, they adjust parameters to improve the model, and they compare models by analyzing appropriateness of fit and making judgments about the domain over which a model is a good fit. The description of modeling as, “*the process of choosing and using mathematics and statistics to analyze empirical situations, to understand them better, and to make decisions,*” is at the heart of this module. In particular, through repeated opportunities in working through the modeling cycle (see page 61 of the CCLS), students acquire the insight that the same mathematical or statistical structure can sometimes model seemingly different situations.

Module 4: In this module, students see how the visual displays and summary statistics they learned in earlier grades relate to different types of data and to probability distributions. They identify different ways of collecting data, including sample surveys, experiments, and simulations, and the role that randomness and careful design play in the conclusions that can be drawn. Students create theoretical and experimental probability models following the modeling cycle (see page 61 of CCLS). They compute and interpret probabilities from those models for compound events, attending to mutually exclusive events, independent events, and conditional probability.

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Alignment Chart

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra II Modules
<p>Module 1: Polynomial, Rational, and Radical Relationships (45 days)</p>	<p>Reason quantitatively and use units to solve problems.</p> <p>N-Q.2⁵¹ Define appropriate quantities for the purpose of descriptive modeling.</p> <p>Perform arithmetic operations with complex numbers.</p> <p>N-CN.1 Know there is a complex number i such that $i^2 = -1$, and every complex number has the form $a + bi$ with a and b real.</p> <p>N-CN.2 Use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers.</p> <p>Use complex numbers in polynomial identities and equations.</p> <p>N-CN.7 Solve quadratic equations with real coefficients that have complex solutions.</p> <p>Interpret the structure of expressions</p> <p>A-SSE.2⁵² Use the structure of an expression to identify ways to rewrite it. <i>For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.</i></p> <p>Understand the relationship between zeros and factors of polynomials</p> <p>A-APR.2⁵³ Know and apply the Remainder Theorem: For a polynomial $p(x)$ and a number a, the remainder on division by $x - a$ is $p(a)$, so $p(a) = 0$ if and only if $(x - a)$ is a factor of $p(x)$.</p>

⁵¹ This standard will be assessed in Algebra II by ensuring that some modeling tasks (involving Algebra II content or securely held content from previous grades and courses) require the student to create a quantity of interest in the situation being described (i.e., this is not provided in the task). For example, in a situation involving periodic phenomena, the student might autonomously decide that amplitude is a key variable in a situation, and then choose to work with peak amplitude.

⁵² In Algebra II, tasks are limited to polynomial, rational, or exponential expressions. Examples: see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$. In the equation $x^2 + 2x + 1 + y^2 = 9$, see an opportunity to rewrite the first three terms as $(x+1)^2$, thus recognizing the equation of a circle with radius 3 and center $(-1, 0)$. See $(x^2 + 4)/(x^2 + 3)$ as $((x^2 + 3) + 1)/(x^2 + 3)$, thus recognizing an opportunity to write it as $1 + 1/(x^2 + 3)$. Includes the sum or difference of cubes (in one variable), and factoring by grouping.

⁵³ Include problems that involve interpreting the Remainder Theorem from graphs and in problems that require long division.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra II Modules
	<p>A-APR.3⁵⁴ Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.</p> <p>Use polynomial identities to solve problems</p> <p>A-APR.4 Prove⁵⁵ polynomial identities and use them to describe numerical relationships. For example, the polynomial identity $(x^2 + y^2)^2 = (x^2 - y^2)^2 + (2xy)^2$ can be used to generate Pythagorean triples.</p> <p>Rewrite rational expressions</p> <p>A-APR.6⁵⁶ Rewrite simple rational expressions in different forms; write $a(x)/b(x)$ in the form $q(x) + r(x)/b(x)$, where $a(x)$, $b(x)$, $q(x)$, and $r(x)$ are polynomials with the degree of $r(x)$ less than the degree of $b(x)$, using inspection, long division, or, for the more complicated examples, a computer algebra system.</p> <p>Understand solving equations as a process of reasoning and explain the reasoning</p> <p>A-REI.1⁵⁷ Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.</p> <p>A-REI.2 Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.</p> <p>Solve equations and inequalities in one variable</p> <p>A-REI.4⁵⁸ Solve quadratic equations in one variable.</p>

⁵⁴ In Algebra II, tasks include quadratic, cubic, and quartic polynomials and polynomials for which factors are not provided. For example, find the zeros of $(x^2 - 1)(x^2 + 1)$.

⁵⁵ Prove *and apply* (in preparation for Regents Exams).

⁵⁶ Include rewriting rational expressions that are in the form of a complex fraction.

⁵⁷ In Algebra II, tasks are limited to simple rational or radical equations.

⁵⁸ In Algebra II, in the case of equations having roots with nonzero imaginary parts, students write the solutions as $a \pm bi$, where a and b are real numbers.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra II Modules
	<p>b. Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b.</p> <p>Solve systems of equations</p> <p>A-REI.6⁵⁹ Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.</p> <p>A-REI.7 Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. <i>For example, find the points of intersection between the line $y = -3x$ and the circle $x^2 + y^2 = 3$.</i></p> <p>Analyze functions using different representations</p> <p>F-IF-7 Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.*</p> <p>c. Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior.</p> <p>Translate between the geometric description and the equation for a conic section</p> <p>G-GPE.2 Derive the equation of a parabola given a focus and directrix.</p>
<p>Module 2: Trigonometric Functions (20 days)</p>	<p>Extend the domain of trigonometric functions using the unit circle</p> <p>F-TF.1 Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.</p>

⁵⁹ In Algebra II, tasks are limited to 3×3 systems.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra II Modules
	<p>F-TF.2⁶⁰ Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.</p> <p>Model periodic phenomena with trigonometric functions</p> <p>F-TF.5⁶¹ Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.*</p> <p>Prove and apply trigonometric identities</p> <p>F-TF.8 Prove the Pythagorean identity $\sin^2(\theta) + \cos^2(\theta) = 1$ and use it to find $\sin(\theta)$, $\cos(\theta)$, or $\tan(\theta)$ given $\sin(\theta)$, $\cos(\theta)$, or $\tan(\theta)$ and the quadrant of the angle.</p> <p>Summarize, represent, and interpret data on two categorical and quantitative variables</p> <p>S-ID.6⁶² Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.*</p> <p>a. Fit a function to the data; use functions fitted to data to solve problems in the context of the data. <i>Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.</i></p>
<p>Module 3: Functions (45 days)</p>	<p>Extend the properties of exponents to rational exponents.</p> <p>N-RN.1 Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. <i>For example, we define $5^{1/3}$ to be the cube root of 5 because we want $(5^{1/3})^3 = 5^{(1/3)3}$ to hold, so $(5^{1/3})^3$ must equal 5.</i></p>

⁶⁰ Also extend trigonometric functions to their reciprocal functions.

⁶¹ Including specified phase shift.

⁶² Tasks have a real-world context. In Algebra II, tasks include exponential functions with domains not in the integers and trigonometric functions.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra II Modules
	<p>N-RN.2⁶³ Rewrite expressions involving radicals and rational exponents using the properties of exponents.</p> <p>Reason quantitatively and use units to solve problems.</p> <p>N-Q.2⁶⁴ Define appropriate quantities for the purpose of descriptive modeling.</p> <p>Write expressions in equivalent forms to solve problems</p> <p>A-SSE.3⁶⁵ Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.*</p> <p>c. Use the properties of exponents to transform expressions for exponential functions. <i>For example the expression 1.15^t can be rewritten as $(1.15^{1/12})^{12t} \approx 1.012^{12t}$ to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.</i></p> <p>A-SSE.4⁶⁶ Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. <i>For example, calculate mortgage payments.*</i></p> <p>Create equations that describe numbers or relationships</p> <p>A-CED.1⁶⁷ Create equations and inequalities in one variable and use them to solve problems. <i>Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*</i></p>

⁶³ Including expressions where either base or exponent may contain variables.

⁶⁴ This standard will be assessed in Algebra II by ensuring that some modeling tasks (involving Algebra II content or securely held content from previous grades and courses) require the student to create a quantity of interest in the situation being described (i.e., this is not provided in the task). For example, in a situation involving periodic phenomena, the student might autonomously decide that amplitude is a key variable in a situation, and then choose to work with peak amplitude.

⁶⁵ Tasks have a real-world context. As described in the standard, there is an interplay between the mathematical structure of the expression and the structure of the situation, such that choosing and producing an equivalent form of the expression reveals something about the situation. In Algebra II, tasks include exponential expressions with rational or real exponents.

⁶⁶ This standard includes using the summation notation symbol.

⁶⁷ Tasks have a real-world context. In Algebra II, tasks include exponential equations with rational or real exponents, rational functions, and absolute value functions.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra II Modules
	<p>Represent and solve equations and inequalities graphically</p> <p>A-REI.11⁶⁸ Explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.*</p> <p>Understand the concept of a function and use function notation</p> <p>F-IF.3⁶⁹ Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. <i>For example, the Fibonacci sequence is defined recursively by $f(0) = f(1) = 1$, $f(n+1) = f(n) + f(n-1)$ for $n \geq 1$.</i></p> <p>Interpret functions that arise in applications in terms of the context</p> <p>F-IF.4⁷⁰ For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. <i>Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*</i></p> <p>F-IF.6⁷¹ Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.*</p> <p>Analyze functions using different representations</p> <p>F-IF.7 Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.*</p>

⁶⁸ In Algebra II, tasks may involve any of the function types mentioned in the standard.

⁶⁹ This standard is Supporting Content in Algebra II. This standard should support the Major Content in F-BF.2 for coherence.

⁷⁰ Tasks have a real-world context. In Algebra II, tasks may involve polynomial, exponential, logarithmic, and trigonometric functions.

⁷¹ Tasks have a real-world context. In Algebra II, tasks may involve polynomial, exponential, logarithmic, and trigonometric functions.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra II Modules
	<p>e. Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.</p> <p>F-IF.8⁷² Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.</p> <p>b. Use the properties of exponents to interpret expressions for exponential functions. <i>For example, identify percent rate of change in functions such as $y = (1.02)^t$, $y = (0.97)^t$, $y = (1.01)^{12t}$, $y = (1.2)^{t/10}$, and classify them as representing exponential growth or decay.</i></p> <p>F-IF.9⁷³ Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). <i>For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.</i></p> <p>Build a function that models a relationship between two quantities</p> <p>F-BF.1 Write a function that describes a relationship between two quantities.*</p> <p>a. Determine an explicit expression, a recursive process, or steps for calculation from a context.⁷⁴</p> <p>b. Combine standard function types using arithmetic operations. <i>For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.</i>⁷⁵</p> <p>F-BF.2 Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.*</p>

⁷² Tasks include knowing and applying $A = Pe^{rt}$ and $A = P\left(1 + \frac{r}{n}\right)^{nt}$.

⁷³ In Algebra II, tasks may involve polynomial, exponential, logarithmic, and trigonometric functions.

⁷⁴ Tasks have a real-world context. In Algebra II, tasks may involve linear functions, quadratic functions, and exponential functions.

⁷⁵ Combining functions also includes composition of functions.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra II Modules
	<p>Build new functions from existing functions</p> <p>F-BF.3⁷⁶ Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. <i>Include recognizing even and odd functions from their graphs and algebraic expressions for them.</i></p> <p>F-BF.4 Find inverse functions.</p> <p>a. Solve an equation of the form $f(x) = c$ for a simple function f that has an inverse and write an expression for the inverse. <i>For example, $f(x) = 2x^3$ or $f(x) = (x+1)/(x-1)$ for $x \neq 1$.</i></p> <p>Construct and compare linear, quadratic, and exponential models and solve problems</p> <p>F-LE.2⁷⁷ Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).[*]</p> <p>F-LE.4⁷⁸ For exponential models, express as a logarithm the solution to $ab^{ct} = d$ where a, c, and d are numbers and the base b is 2, 10, or e; evaluate the logarithm using technology.[*]</p> <p>Interpret expressions for functions in terms of the situation they model</p> <p>F-LE.5⁷⁹ Interpret the parameters in a linear or exponential function in terms of a context.[*]</p>
<p>Module 4: Inferences and Conclusions from Data</p>	<p>Summarize, represent, and interpret data on a single count or measurement variable</p> <p>S-ID.4 Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure</p>

⁷⁶ In Algebra II, tasks may involve polynomial, exponential, logarithmic, and trigonometric functions. Tasks may involve recognizing even and odd functions.

⁷⁷ In Algebra II, tasks will include solving multi-step problems by constructing linear and exponential functions.

⁷⁸ Students learn terminology that logarithm without a base specified is base 10 and that natural logarithm always refers to base e .

⁷⁹ Tasks have a real-world context. In Algebra II, tasks include exponential functions with domains not in the integers.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra II Modules
(40 days)	<p>is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.*</p> <p>Understand and evaluate random processes underlying statistical experiments</p> <p>S-IC.1 Understand statistics as a process for making inferences about population parameters based on a random sample from that population.*</p> <p>S-IC.2 Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. <i>For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?*</i></p> <p>Make inferences and justify conclusions from sample surveys, experiments, and observational studies</p> <p>S-IC.3 Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.*</p> <p>S-IC.4 Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.*</p> <p>S-IC.5 Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.*</p> <p>S-IC.6 Evaluate reports based on data.*</p> <p>Understand independence and conditional probability and use them to interpret data</p> <p>S-CP.1 Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions intersections, or complements of other events (“or,” “and,” “not”).*</p> <p>S-CP.2 Understand that two events <i>A</i> and <i>B</i> are independent if the probability of <i>A</i> and <i>B</i> occurring together is the product of their probabilities, and use this characterization to determine if they are independent.*</p> <p>S-CP.3 Understand the conditional probability of <i>A</i> given <i>B</i> as $P(A \text{ and } B)/P(B)$, and interpret</p>

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Algebra II Modules
	<p>independence of A and B as saying that the conditional probability of A given B is the same as the probability of A, and the conditional probability of B given A is the same as the probability of B.[*]</p> <p>S-CP.4 Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities. <i>For example, collect data from a random sample of students in your school on their favorite subject among math, science, and English. Estimate the probability that a randomly selected student from your school will favor science given that the student is in tenth grade. Do the same for other subjects and compare the results.</i>[*]</p> <p>S-CP.5 Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. <i>For example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.</i>[*]</p> <p>Use the rules of probability to compute probabilities of compound events in a uniform probability model</p> <p>S-CP.6 Find the conditional probability of A given B as the fraction of B's outcomes that also belong to A, and interpret the answer in terms of the model.[*]</p> <p>S-CP.7 Apply the Addition Rule, $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$, and interpret the answer in terms of the model.[*]</p>

Extensions to the Algebra II Course

The (+) standards below are included in the Algebra II course to provide coherence to the curriculum. They can be used to effectively extend a topic or to introduce a theme/concept that will be fully covered in the Precalculus course. *Note: None of the (+) standard below will be assessed on the Regents Exam or PARRC Assessments until Precalculus.*

<p>Module 1. Students will be working with zeros of polynomials in this module, which offers teachers an opportunity to introduce Standard N-CN.9.</p> <p>A major theme of the module is A-APR.7. Teachers should continually remind students of the connections between rational expressions and rational numbers as students add, subtract, multiply and divide rational expressions.</p>	<p>Use complex numbers in polynomial identities and equations.</p> <p>N-CN.8 (+) Extend polynomial identities to the complex numbers. <i>For example, rewrite $x^2 + 4$ as $(x + 2i)(x - 2i)$.</i></p> <p>N-CN.9 (+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials.</p> <p>Rewrite rational expressions</p> <p>A-APR.7 (+) Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.</p>
<p>Module 2. In F-TF.3, students begin fluency exercises with trigonometric ratios of the special angles.</p> <p>Teachers present proofs of formulas in F-TF.9. Students use the formulas in Algebra II; they prove the formulas in Precalculus.</p>	<p>Extend the domain of trigonometric functions using the unit circle</p> <p>F-TF.3 (+) Use special triangles to determine geometrically the values of sine, cosine, tangent for $\pi/3$, $\pi/4$ and $\pi/6$, and use the unit circle to express the values of sine, cosine, and tangent for $\pi-x$, $\pi+x$, and $2\pi-x$ in terms of their values for x, where x is any real number.</p> <p>Prove and apply trigonometric identities</p> <p>F-TF.9 (+) Prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems.</p>

Sequence of Precalculus Modules Aligned with the Standards

Module 1: Complex Numbers and Transformations

Module 2: Vectors and Matrices

Module 3: Rational and Exponential Functions

Module 4: Trigonometry

Module 5: Probability and Statistics

Summary of Year

Extending their understanding of complex numbers to points in the complex plane, students come to understand that multiplying a given set of points by a complex number amounts to rotating and dilating those points in the complex plane about zero. Matrices are studied as tools for performing rotations and reflections of the coordinate plane, as well as for solving systems of linear equations. Inverse functions are explored as students study the relationship between exponential and logarithmic functions and restrict the domain of the trigonometric functions to allow for their inverses. The year concludes with a capstone module on modeling with probability and statistics. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Rationale for Module Sequence in Precalculus

In Algebra II, students extended their understanding of number to include complex numbers as they studied polynomials with complex zeros. In Module 1, students graph complex numbers in the complex plane and translate between rectangular and polar forms of complex numbers. In particular, through repeated reasoning, they come to realize that multiplying a given set of points by a complex number amounts to rotating and dilating those points in the complex plane around the point zero. Thinking of a complex number, $a + bi$, once again as a point (a,b) in the coordinate plane, students investigate how multiplying by a complex number can be thought of as a map from the coordinate plane to itself. That study, in turn, leads to matrix notation and a natural definition for multiplying a vector by a matrix:

$$(a + bi)(c + di) = (ac - bd) + (ad + bc)i \text{ is equivalent to } \begin{pmatrix} a & -b \\ b & a \end{pmatrix} \begin{pmatrix} c \\ d \end{pmatrix} = \begin{pmatrix} ac - bd \\ ad + bc \end{pmatrix}$$

Thus, students discern structure in the operations with matrices and vectors by comparing them to arithmetic with complex numbers.

Students began the study of transformations in Grade 8, and precisely defined rigid motions in the plane in terms of angles, circles, perpendicular lines, parallel lines, and segments in Geometry. In this module, students precisely define rotations, reflections and dilations in the coordinate plane using 2×2 matrices (and translations by vector addition). These well-defined definitions of transformations of the coordinate plane shed light on how geometry software and video games efficiently perform rigid motion calculations.

In the first module, students viewed matrices as tools for performing rotations and reflections of the coordinate plane. In Module 2, they move beyond this viewpoint to study matrices and vectors as objects in their own right. Students interpret the properties and operations of matrices to learn multiple ways to solve problems with them, including solving systems of linear equations. They construct viable arguments using matrices to once again derive equations for conic sections, this time by translating and rotating the locus of points into a “standard” position using matrix operations. (For example, applying rigid motions to move the directrix of a parabola to one of the coordinate axes.)

Students study rational and exponential functions in Module 3. They graph rational functions by extending what they learned about graphing polynomial functions. Students, through repeatedly exploiting the relationship between exponential and logarithmic functions, learn the meaning of inverse functions. Additionally, students learn to explicitly build composite functions to model relationships between two quantities. In particular, they analyze the composite of two functions in describing the relationship of three or more quantities in modeling activities in this module.

In Module 4, students visualize graphs of trigonometric functions with the aid of appropriate software and interpret how a family of graphs defined by varying a parameter in a given function changes based upon that parameter. They analyze symmetry and periodicity of trigonometric functions. They extend their knowledge of inverse functions to trigonometric functions by restricting domains to create the inverses, and apply inverse functions to

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

solve trigonometric equations that arise in modeling contexts. Students also construct viable arguments to prove the Law of Sines, Law of Cosines, and the addition and subtraction formulas for the trigonometric functions.

This course concludes with Module 5, a capstone module on modeling with probability and statistics in which students consolidate their study of statistics as they analyze decisions and strategies using newly refined skills in calculating expected values.

Alignment Chart

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Precalculus Modules
<p>Module 1: Complex Numbers and Transformations (40 days)</p>	<p>Perform arithmetic operations with complex numbers.</p> <p>N-CN.3 (+) Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers.</p> <p>Represent complex numbers and their operations on the complex plane.</p> <p>N-CN.4 (+) Represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers), and explain why the rectangular and polar forms of a given complex number represent the same number.</p> <p>N-CN.5 (+) Represent addition, subtraction, multiplication, and conjugation of complex numbers geometrically on the complex plane; use properties of this representation for computation. <i>For example, $(-1 + \sqrt{3}i)^3 = 8$ because $(-1 + \sqrt{3}i)$ has modulus 2 and argument 120°.</i></p> <p>N-CN.6 (+) Calculate the distance between numbers in the complex plane as the modulus of the difference, and the midpoint of a segment as the average of the numbers at its endpoints.</p> <p>Perform operations on matrices and use matrices in applications.</p> <p>N-VM.10⁸⁰ (+) Understand that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square</p>

⁸⁰ N.VM and G.CO standards are included in the context of defining transformations of the plane rigorously using complex numbers and 2×2 matrices and linking rotations and reflections to multiplication by complex number and/or by 2×2 matrices to show how geometry software and video games work.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Precalculus Modules
	<p>matrix is nonzero if and only if the matrix has a multiplicative inverse.</p> <p>N-VM.11 (+) Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors.</p> <p>N-VM.12 (+) Work with 2 x 2 matrices as transformations of the plane, and interpret the absolute value of the determinant in terms of area.</p> <p>Experiment with transformations in the plane</p> <p>G-CO.2 Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch).</p> <p>G-CO.4 Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.</p> <p>G-CO.5 Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.</p>
<p>Module 2: Vectors and Matrices (40 days)</p>	<p>Represent and model with vector quantities.</p> <p>N-VM.1 (+) Recognize vector quantities as having both magnitude and direction. Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes (e.g., \mathbf{v}, \mathbf{v}, \mathbf{v}, v).</p> <p>N-VM.2 (+) Find the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point.</p> <p>N-VM.3 (+) Solve problems involving velocity and other quantities that can be represented by vectors.</p>

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Precalculus Modules
	<p>Perform operations on vectors.</p> <p>N-VM.4 (+) Add and subtract vectors.</p> <ol style="list-style-type: none"> Add vectors end-to-end, component-wise, and by the parallelogram rule. Understand that the magnitude of a sum of two vectors is typically not the sum of the magnitudes. Given two vectors in magnitude and direction form, determine the magnitude and direction of their sum. Understand vector subtraction $\mathbf{v} - \mathbf{w}$ as $\mathbf{v} + (-\mathbf{w})$, where $-\mathbf{w}$ is the additive inverse of \mathbf{w}, with the same magnitude as \mathbf{w} and pointing in the opposite direction. Represent vector subtraction graphically by connecting the tips in the appropriate order, and perform vector subtraction component-wise. <p>N-VM.5 (+) Multiply a vector by a scalar.</p> <ol style="list-style-type: none"> Represent scalar multiplication graphically by scaling vectors and possibly reversing their direction; perform scalar multiplication component-wise, e.g., as $c(v_x, v_y) = (cv_x, cv_y)$. Compute the magnitude of a scalar multiple $c\mathbf{v}$ using $\ c\mathbf{v}\ = c \mathbf{v}$. Compute the direction of $c\mathbf{v}$ knowing that when $c \mathbf{v} \neq 0$, the direction of $c\mathbf{v}$ is either along \mathbf{v} for $(c > 0)$ or against \mathbf{v} (for $c < 0$). <p>Perform operations on matrices and use matrices in applications.</p> <p>N-VM.6 (+) Use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network.</p> <p>N-VM.7 (+) Multiply matrices by scalars to produce new matrices, e.g., as when all of the payoffs in a game are doubled.</p> <p>N-VM.8 (+) Add, subtract, and multiply matrices of appropriate dimensions.</p> <p>N-VM.9 (+) Understand that, unlike multiplication of numbers, matrix multiplication for square matrices</p>

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Precalculus Modules
	<p>is not a commutative operation, but still satisfies the associative and distributive properties.</p> <p>N-VM.10 (+) Understand that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse.</p> <p>N-VM.11 (+) Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors.</p> <p>N-VM.12 (+) Work with 2 x 2 matrices as transformations of the plane, and interpret the absolute value of the determinant in terms of area.</p> <p>Solve systems of equations</p> <p>A-REI.8 (+) Represent a system of linear equations as a single matrix equation in a vector variable.</p> <p>A-REI.9 (+) Find the inverse of a matrix if it exists and use it to solve systems of linear equations (using technology for matrices of dimension 3 x 3 or greater).</p> <p>Translate between the geometric description and the equation for a conic section</p> <p>G-GPE.1 Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.</p> <p>G-GPE.2 Derive the equation of a parabola given a focus and directrix.</p> <p>G-GPE.3 (+) Derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant.</p>
<p>Module 3: Rational and Exponential Functions (25 days)</p>	<p>Use complex numbers in polynomial identities and equations.</p> <p>N-CN.8 (+) Extend polynomial identities to the complex numbers. <i>For example, rewrite $x^2 + 4$ as $(x + 2i)(x - 2i)$.</i></p> <p>N-CN.9 (+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials.</p>

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Precalculus Modules
	<p>Use polynomial identities to solve problems</p> <p>A-APR.5 (+) Know and apply the Binomial Theorem for the expansion of $(x + y)^n$ in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined for example by Pascal’s Triangle.⁸¹</p> <p>Rewrite rational expressions</p> <p>A-APR.7 (+) Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.</p> <p>Analyze functions using different representations</p> <p>F-IF.7 Graph functions expressed symbolically and show key features of the graph by hand in simple cases and using technology for more complicated cases.*</p> <p>d. (+) Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior.</p> <p>F-IF.9⁸² Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). <i>For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.</i></p> <p>Build a function that models a relationship between two quantities</p> <p>F-BF.1 Write a function that describes a relationship between two quantities.*</p> <p>c. (+) Compose functions. <i>For example, if $T(y)$ is the temperature in the atmosphere as a function of height, and $h(t)$ is the height of a weather balloon as a function of time, then $T(h(t))$ is the temperature at the location of the weather balloon as a function of time.</i></p>

⁸¹ The Binomial Theorem can be proved by mathematical induction or by a combinatorial argument.

⁸² This standard is to be applied to rational functions.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Precalculus Modules
	<p>Build new functions from existing functions</p> <p>F-BF.4 Find inverse functions.</p> <ul style="list-style-type: none"> b. (+) Verify by composition that one function is the inverse of another. c. (+) Read values of an inverse function from a graph or a table, given that the function has an inverse. d. (+) Produce an invertible function from a non-invertible function by restricting the domain. <p>F-BF.5 (+) Understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents.</p> <p>Explain volume formulas and use them to solve problems</p> <p>G-GMD.2 (+) Give an informal argument using Cavalieri’s principle for the formulas for the volume of a sphere and other solid figures.</p>
<p>Module 4: Trigonometry (20 days)</p>	<p>Extend the domain of trigonometric functions using the unit circle</p> <p>F-TF.3 (+) Use special triangles to determine geometrically the values of sine, cosine, tangent for $\pi/3$, $\pi/4$ and $\pi/6$, and use the unit circle to express the values of sine, cosine, and tangent for $\pi-x$, $\pi+x$, and $2\pi-x$ in terms of their values for x, where x is any real number.</p> <p>F-TF.4 (+) Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions.</p> <p>Model periodic phenomena with trigonometric functions</p> <p>F-TF.6 (+) Understand that restricting a trigonometric function to a domain on which it is always increasing or always decreasing allows its inverse to be constructed.</p> <p>F-TF.7 (+) Use inverse functions to solve trigonometric equations that arise in modeling contexts; evaluate the solutions using technology, and interpret them in terms of the context.*</p>

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Precalculus Modules
	<p>Prove and apply trigonometric identities</p> <p>F-TF.9⁸³ (+) Prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems.</p> <p>Apply trigonometry to general triangles</p> <p>G-SRT.9 (+) Derive the formula $A = 1/2 ab \sin(C)$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side.</p> <p>G-SRT.10 (+) Prove the Laws of Sines and Cosines and use them to solve problems.</p> <p>G-SRT.11 (+) Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).</p> <p>Understand and apply theorems about circles</p> <p>G-C.4 (+) Construct a tangent line from a point outside a given circle to the circle.</p>
<p>Module 5: Probability and Statistics (25 days)</p>	<p>Use the rules of probability to compute probabilities of compound events in a uniform probability model</p> <p>S-CP.8 (+) Apply the general Multiplication Rule in a uniform probability model, $P(A \text{ and } B) = P(A)P(B A) = P(B)P(A B)$, and interpret the answer in terms of the model.*</p> <p>S-CP.9 (+) Use permutations and combinations to compute probabilities of compound events and solve problems.*</p> <p>Calculate expected values and use them to solve problems</p> <p>S-MD.1 (+) Define a random variable for a quantity of interest by assigning a numerical value to each event in a sample space; graph the corresponding probability distribution using the same graphical displays as for data distributions.*</p>

⁸³ Students are now responsible for proofs of angle addition and subtraction formulas.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Precalculus Modules
	<p>S-MD.2 (+) Calculate the expected value of a random variable; interpret it as the mean of the probability distribution.*</p> <p>S-MD.3 (+) Develop a probability distribution for a random variable defined for a sample space in which theoretical probabilities can be calculated; find the expected value. <i>For example, find the theoretical probability distribution for the number of correct answers obtained by guessing on all five questions of a multiple-choice test where each question has four choices, and find the expected grade under various grading schemes.*</i></p> <p>S-MD.4 (+) Develop a probability distribution for a random variable defined for a sample space in which probabilities are assigned empirically; find the expected value. <i>For example, find a current data distribution on the number of TV sets per household in the United States, and calculate the expected number of sets per household. How many TV sets would you expect to find in 100 randomly selected households?*</i></p> <p>Use probability to evaluate outcomes of decisions</p> <p>S-MD.5 (+) Weigh the possible outcomes of a decision by assigning probabilities to payoff values and finding expected values.*</p> <ol style="list-style-type: none"> Find the expected payoff for a game of chance. <i>For example, find the expected winnings from a state lottery ticket or a game at a fast-food restaurant.</i> Evaluate and compare strategies on the basis of expected values. <i>For example, compare a high-deductible versus a low-deductible automobile insurance policy using various, but reasonable, chances of having a minor or a major accident.</i> <p>S-MD.6 (+) Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator).*</p> <p>S-MD.7 (+) Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game).*</p>

Adjustments to Eureka Math HS RE: EdReports

According to the latest EdReports for Eureka Math High School (2013-2014), Eureka Math meets the expectation of “Gateway 1: Focus & Coherence”, with a score of 15. For “Gateway 2: Rigor & Mathematical Practices”, Eureka Math scored a 12, which is categorized as “partially meets expectations.” For “Gateway 3: Usability”, Eureka Math is not scored.

The following is taken directly from the EdReport for Eureka Math, High School:

Indicator 2E

The materials support the intentional development of overarching, mathematical practices (MPs 1 and 6), in connection to the high school content standards, as required by the mathematical practice standards.

Indicator Rating Details

The materials reviewed for this series partially meet the expectations for supporting the intentional development of overarching mathematical practices (MPs 1 and 6), in connection to the high school content standards, as required by the MPs. The materials do engage students in MP1 and MP6 throughout the materials, and there are not any instances where these two MPs are treated separately from the content standards. Overall, however, there are instances when the materials do not sufficiently support the intentional development of MP1 and MP6 by not accurately attending to the intent of these two MPs and by not fully supporting the instructional implementation of the MPs.

BASSE’s Response

BASSE plans to supplement Eureka Math with videos, additional math exercises and problem solving, and a skill called Intellectual Preparation (Intellectual Prep or IP). Through the practice of IP (which will occur at the independent-level, grade-level, and content-level) teachers will think through, with Content Leaders, and the Dean of Academic Excellence, not only what skills the students need to know and be able to exhibit for each task or objective, but also how to prepare a lesson through its weaknesses, including but not limited to understanding what the end goal is and how each part of the lesson fits together, what activities to work through to get students there, where to scaffold and how to have students show their work.

During IP, teachers will walk through each lesson, working backwards to understand what students need to know at the end of the lesson while working to fill in the gaps of the lesson. Because no curriculum is perfect and every student is different, there will always be gaps that educators need to identify to ensure proper learning of the material being taught.

BASSE will supplement the lessons exemplified below with additional practice or instructional videos and through the use of IP while preparing the lesson, all gaps will be addressed.

The following are examples that do not meet the intent of MP1 and MP6 or are not connected to content:

- Throughout the series, portions of lessons cite MP1, but often what is labeled is a place where students are asked to solve a problem but have been given a prescribed formula or steps to solve the problem in a previous example. The directions will even tell the teacher/student to use the steps already given.
 - An example is **Geometry module 2, topic A, lesson 3, Example 1**. Use of the following [video](#) will assist the teacher in teaching the material, with different content. The following [practice](#) will give the teacher additional material to have the students show their knowledge of the skill being taught. The video coupled with the additional practice will ensure MP1 is met. The context changes very little, and the main difference in the problems are numbers.
- For MP1, in **Algebra II module 3 lesson 9 on page 132** of the teacher's edition, students are asked to figure out why social security numbers are 9 digits and how many digits long do phone numbers need to be to meet demand. In the previous example, students are shown how to use logarithms to figure out how many digits for ID numbers of a certain length. While the context changed, the work needed to be done is exactly the same just with larger numbers.
 - Use of the following videos, both the [advanced practice video](#) and the [properties of logarithms video](#) will assist the teacher in teaching the material, with different content.
- For MP6, in **Algebra I module 2, topic D, lesson 16**, students work with residual graphs. However, the materials walk students through the graph and do not require them to attend to precision. Although the materials themselves attend to precision, there is no work for the students to develop this Standard for Mathematical Practice.
 - The following [practice](#) will give the teacher additional material to have the students show their knowledge of the skill being taught.

The following are ways in which the materials do not fully support the instructional implementation of the MP1 and MP6 and how BASSE will raise the rigor:

- **At the lesson level**, MPs are identified in three ways in the teacher materials across the series: in Lesson Notes, within the lesson itself, and with a blue box in the margin of the lesson. Across the series, the MPs are usually identified with a blue box in the margin of the lesson, and when the blue box is used, there is little description or guidance as to how the identified portion of the lesson exemplifies the noted MP. Examples of blue MP boxes include the following:
 - For MP1, the blue box found on **page 54 of Algebra I module 4 lesson 4 states**, “This question is open-ended with multiple correct answers. Students may question how to begin and should persevere in solving.” There is no other guidance for teachers on integrating MP1 or description of how the question exemplifies MP1.
 - **To raise the rigor:** MP1 is exemplified here by way of students understanding that their way of solving the problem may not be the way that was taught in this particular lesson or the way other students may solve the problem, however, solving the problem correctly, showing your work, and being able to explain how you solved the problem, with proof, is the way in which MP1 is exemplified here.
 - For MP1, the blue box found on **page 219 of Algebra II module 1 lesson 20** is drawn around four questions that teachers can ask students during a whole-class problem, but there is no guidance for teachers on when to ask the questions or if all or only some of the questions should be asked.
 - **To raise the rigor:** Guidance for asking the questions, understanding that they are meant to scaffold, is to ask the questions in the order that they are written, with the goal being for the students to fit polynomial functions to data values by the end of the lesson [during the problem set, students will have to, at minimum, understand that there are infinite polynomials that pass through a given point as well as having to verify their work].
 - For MP6, the blue box on **page 377 of Geometry module 2 lesson 24** states, “Ask students to summarize the steps of the proof in writing or with a partner.” There is no other guidance for teachers on integrating MP6 or description of how the proof exemplifies MP6.

precise with both their numbers when graphing and the actual plotting of the numbers when graphing.

References:

<https://www.edreports.org/reports/overview/eureka-math-2013-2014>

Section 1.3 - Education Plan :: Attachment 4 - Course Scope and Sequence :: Science Coalition Acknowledgement

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.4: Science MOA Acknowledgement

The Bryan Allen Stevenson School of Excellence fully intends to join the Science Coalition.

In Year 0 and upon approval of this charter application, The Board of the Bryan Allen Stevenson School of Excellence and school leadership team will sign the Memorandum of Agreement to join the Science Coalition and pay the necessary fees.

Please see how we plan to address the NGSS in high school below.

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Science Scope and Sequence with respect to the NGSS High School Overview:

Physical Science 9th Grade	Life Science 10th Grade (Full sequence provided within the Science Coalition framework)	Earth and Space Sciences 11th/12th Grade
<p>Matter and its Interactions</p> <p>HS.PS: How can one explain the structure and properties of matter? HS.ESS: How do people reconstruct and date events in Earth's Planetary history? HS.ESS: How do people reconstruct and date events in Earth's Planetary history?</p>	<p>From Molecules to Organisms: Structures and Processes</p> <p>HS-LS1-1: Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells. HS-LS1-2: Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. HS-LS1-3: Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis. HS-LS1-4: Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complexing organisms. HS-LS1-5: Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy. HS-LS1-6: Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules. HS-LS1-7: Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in the new compounds are formed resulting in a net transfer of energy. HS-LS2-1: Use mathematical and/or computational representations to support explanations of factors that affect carrying capacity of ecosystems at different scales. HS-LS2-2: Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.</p>	<p>Earth's Place in the Universe</p> <p>HS-ESS3-1: Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity. HS-ESS3-2: Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios. HS-ESS3-3: Create a computational simulation to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity. HS-ESS3-4: Evaluate or refine a technological solution that reduces impacts of human activities on natural environments. HS-ESS3-5: Analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change and associated future impacts to Earth systems. HS-ESS3-6: Use a computational representation to illustrate the relationships among Earth Systems and how those relationships are being modified due to human activity. HS-ESS1-1: Develop a model based on evidence to illustrate the life span of the sun and the role of nuclear fusion in the sun's core to release energy in the form of radiation. HS-ESS1-4: Use mathematical or computational representations to predict the motion of orbiting objects in the solar system. ****PS4-2: Evaluate questions about the advantages of using digital transmission and storage of information ****LS2-8: Evaluate evidence for the role of group</p>

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 Section 3 - Attachment 4.4: Science MOA Acknowledgement

		behavior on individual and species' chances to survive and reproduce.
<p>Motion and Stability: Forces and Interactions</p> <p>HS.PS: How do substances combine or change to make new substances? How does one characterize and explain these reactions and make predictions about them?</p> <p>HS.ESS: How do people reconstruct and date events in Earth's Planetary history?</p>	<p>Ecosystems: Interactions, Energy, and Dynamics</p> <p>HS-LS2-3: Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.</p> <p>HS-LS2-4: Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.</p> <p>HS-LS2-5: Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere.</p> <p>HS-LS2-6: Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.</p> <p>HS-LS2-7: Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.</p> <p>HS-LS2-8: Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p> <p>HS-ESS2-6: Develop a quantitative model to describe the cycling of carbon among the hydrosphere, atmosphere, geosphere, and biosphere.</p> <p>HS-ESS2-7: Construct an argument based on evidence about the simultaneous co-evolution of Earth's systems and life on Earth.</p>	<p>Earth's Systems</p> <p>HS-PS1-6: Refine the design of a chemical system by specifying a change in conditions that would produce increased amounts of products at equilibrium.</p> <p>HS-PS1-5: Apply scientific principles and evidence to provide an explanation about the effects of changing the temperature or concentration of the reacting particles on the rate at which a reaction occurs.</p> <p>HS-PS3-1: Create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known. (A,i,ii,iii,iv-revisit from 9th) (2A,B; 3A, B)*</p> <p>HS-PS2-1: Analyze data to support the claim that Newton's second law of motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration.</p> <p>HS-PS2-2: Use mathematical representations to support the claim that the total momentum of a system of objects is conserved when there is no net force on the system.</p> <p>HS-PS2-4: Use mathematical representations of Newton's Law of Gravitation and Coulomb's Law to describe and predict the gravitational and electrostatic forces between objects.</p> <p>HS-PS2-6: Communicate scientific and technical information about why the molecular-level structure is important in the functioning of designed materials</p> <p>HS-PS4-3: Evaluate the claims, evidence, and reasoning behind the idea that electromagnetic radiation can be described either by a wave model or a particle model, and that for some situations one model is more useful than the other.</p> <p>HS-PS4-4: Evaluate the validity and</p>

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		<p>reliability of claims in published materials of the effects that different frequencies of electromagnetic radiation have when absorbed by matter.</p> <p>HS-PS4-5: Communicate technical information about how some technological devices use the principles of wave behavior and wave interactions with matter to transmit and capture information and energy.</p> <p>PS1-4: Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends on the changes in total bond energy.</p> <p>PS1-8: Develop models to illustrate the changes in the composition of the nucleus of the atom and the energy released during the processes of fission, fusion, and radioactive decay.</p>
<p>Energy</p> <p>HS.PS: How is energy transferred and conserved? How are waves used to transferred energy and send and store information? HS.ESS: How do people reconstruct and date events in Earth's Planetary history?</p>	<p>Heredity: Inheritance and Variation of Traits</p> <p>HS-LS3-1: Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.</p> <p>HS-LS3-2: Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.</p> <p>HS-LS3-3: Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.</p> <p>HS-LS4-1: Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.</p> <p>HS-LS4-2: Construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase the number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to</p>	<p>Earth and Human Activity</p> <p>HS-ETS1-1: analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.</p> <p>HS-ETS1-2: Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.</p> <p>HS-ETS1-3: Evaluate a solution to a complex real-world problem based on prioritized criteria and tradeoffs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.</p>

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	<p>survive and reproduce in the environment. HS-LS4-3: Apply concepts of statistics and probability to support explanations that organisms with an advantageous heritable trait tend to increase in proportion to organisms lacking this trait. HS-LS4-4: Construct an explanation based on evidence for how natural selection leads to adaptation of populations. HSLS4-6: Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity. HS-LS4-5: Evaluate the evidence supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species. HS-PS1-4 Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy. (Ai, Aii, Aiii)* HS-PS1-7: Use mathematical representations to support the claim that atoms, and therefore mass, are conserved during a chemical reaction.(need to look at evidence statements closer) HS-PS3-1: Create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known.</p>	
<p>Waves and their Applications in Technologies for Information Transfer</p> <p>HS-ETS1-1: analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants. HS-ETS1-2: Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering. HS-ETS1-3: Evaluate a solution to a complex real-world problem based</p>	<p>Biological Evolution: Unity and Diversity</p> <p>HS-ETS1-1: analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants. HS-ETS1-2: Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering. HS-ETS1-3: Evaluate a solution to a complex real-world problem based on prioritized criteria and tradeoffs that account for a range of constraints,</p>	

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on prioritized criteria and tradeoffs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.	including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.	
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Section 1.3 - Education Plan :: Attachment 4 - Course Scope and Sequence :: Social Studies Coalition Acknowledgement

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.3: Social Studies MOU Acknowledgement

The Bryan Allen Stevenson School of Excellence fully intends to join the Social Studies Coalition.

In Year 0 and upon approval of this charter application, The Board of the Bryan Allen Stevenson School of Excellence and school leadership team will sign the Memorandum of Understanding to join the Social Studies Coalition and pay the necessary fees.

**Section 1.3 - Education Plan :: Attachment 4 - Course Scope and
Sequence :: Health**

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.5 - Health Scope and Sequence

<p>Course Title: Health Grade(s): 6th-8th</p>	
<p>Course Content: This course will help students meet the Delaware Health Education Standards and to prepare them to make healthy decisions as adults. This comprehensive K-12 health education program focuses on the essential concepts and skills students need to know and practice to adopt healthy behaviors.*</p> <p>6th graders will receive 35 hours and 7th and 8th graders will receive 38 hours (respectively) of instruction in the appropriate areas.</p>	
<p>Unit 1: Emotional and Mental Health</p>	<p>Unit Content:</p> <p>This unit covers the following topics:</p> <ul style="list-style-type: none"> ● Dimensions of Health ● Exploring Emotional Health ● Optimism & Positive Self-Talk ● Understanding Stress ● Stress-Management Techniques ● Expressing Emotions in Healthy Ways ● Skills for Effective Communication ● Building Healthy Relationships ● Ending Relationships ● Coping with Loss & Grief ● Social Media & Emotional Health ● Managing Anger ● Skills for Conflict Resolution ● Goal Setting for Emotional Health, Understanding Mental Health Disorders ● Preventing Suicide ● Getting Help for Mental Health Issues

*Based on the [etr HealthSmart Middle School Program](#) and FEMA Fire Safety Curriculum

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The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.5 - Health Scope and Sequence

<p style="text-align: center;">Unit 2: Drug and Alcohol Education and Prevention</p>	<p>Unit Content:</p> <p>This covers the following topics:</p> <ul style="list-style-type: none"> ● Teens & Drugs: What's the Truth?; ● Alcohol: What's the Truth?; ● Vaping & Other Tobacco Products: What's the Truth?; ● Marijuana: What's the Truth?; Medicines: What's the Truth?; ● Experimentation & Addiction: What's the Truth?; ● Opioids: What's the Truth? ● Consequences of Drug Use: How Bad Could It Be? ● Influences on My Choices About Drugs ● Self-Talk for Being Drug-Free ● My Peers & Their Feelings About Drugs ● Family, School & Community Rules About Drugs ● Tobacco Companies: Are They Targeting Youth? ● Counter-Advertisements ● Peer Pressure: Ways to Say NO ● Roleplay Practice: Resisting Drug Pressure ● Drug-Free Pledges: Support for Myself & Others
<p style="text-align: center;">Unit 3: Abstinence, Puberty & Personal Health</p>	<p>Unit Content:</p> <p>This unit covers the following topics:</p> <ul style="list-style-type: none"> ● Staying Healthy for a Lifetime ● Keeping My Body Healthy ● Protecting My Body from Disease ● Talking About Sexuality ● The Reproductive System: A Body with a Vagina ● The Reproductive System: A Body with a Penis; Puberty

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Section 3 - Attachment 4.5 - Health Scope and Sequence

	<ul style="list-style-type: none"> ● The Menstrual Cycle & Pregnancy ● Taking Care of Sexual Health ● Feelings & Relationships ● Benefits of Abstinence ● Influences on Abstinence ● Peer Power for Abstinence ● Resisting Sexual Pressure ● Roleplay Practice: Saying NO to Sexual Pressure ● Protecting My Future
<p>Unit 3: HIV, STI, & Decision Making</p>	<p>Unit Content:</p> <p>This unit covers the following topics:</p> <ul style="list-style-type: none"> ● Understanding Sexual Health ● Sexual Identity & Sexual Stereotyping ● What Is Affirmative Consent? ● Healthy Romantic Relationships ● Reproduction & Teen Pregnancy ● STI Facts ● HIV Facts ● STI & Responsible Actions ● Making Sexual Health Decisions
<p>Unit 4: Nutrition & Physical Activity</p>	<p>Unit Content:</p> <p>This unit covers the following topics:</p> <ul style="list-style-type: none"> ● What are Nutrients? ● What Should I Eat & How Much? ● Assessing My Eating Habits

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Section 3 - Attachment 4.5 - Health Scope and Sequence

	<ul style="list-style-type: none"> ● Reading a Food Label ● Eating Breakfast Every Day ● Healthy Snacking ● Eating Healthy at Fast-Food Restaurants ● Keeping Food Safe to Eat ● What Influences My Food Choices? ● Resisting Pressure to Eat Less-Healthy Foods ● Body Image Basics ● Dieting Dangers & Healthy Ways to Manage Weight ● Eating Disorders ● Assessing My Physical Activity ● Staying Safe While Getting Fit ● My Healthy Eating & Physical Activity Goal ● Tracking My Progress
<p style="text-align: center;">Unit 5: Interpersonal Violence Prevention</p>	<p>Unit Content:</p> <p>This unit covers the following topics:</p> <ul style="list-style-type: none"> ● Understanding Risks & Unintentional Injury ● Avoiding Motor Vehicle Injuries ● Safety Rules to Prevent Common Injuries ● Safety Gear & Me ● Resisting Dares ● Making Safe Decisions ● Preparing for School Emergencies ● Understanding Violence ● Understanding Bullying ● Taking a Stand Against Bullying ● Hazing: A Different Kind of Bullying ● Our Code of Conduct

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The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.5 - Health Scope and Sequence

	<ul style="list-style-type: none"> ● Feelings & Fights ● Skills to Resolve Conflict ● Conflict Resolution Roleplays
<p>Unit 6: Fire Safety Education</p>	<p>Unit Content:</p> <p>This unit covers the following topics:</p> <p>Understand and respond appropriately to home fire dangers by correctly describing and/or behaviorally responding to fire safety messages.</p> <p>Students will understand:</p> <ul style="list-style-type: none"> ● Fire prevention ● Burn/injury prevention ● Fire escape planning

<p>Course Title: Health Grade(s): 9th-12th</p>
<p>Course Content: This course will help students meet the Delaware Health Education Standards and to prepare them to make healthy decisions as adults. This comprehensive K-12 health education program focuses on the essential concepts and skills students need to know and practice to adopt healthy behaviors.**</p>

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The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.5 - Health Scope and Sequence

<p>Unit 1: Personal & Sexual Health</p>	<p>Unit Content:</p> <p>This unit covers the following topics:</p> <ul style="list-style-type: none">- Living a Healthy Life Preventing Infectious Disease- Preventing Chronic Disease Getting Appropriate Health Care- Researching Health Habits- Setting a Goal to Improve My Personal Health- Understanding Sexuality- Review of the Reproductive Systems- Taking Care of Your Sexual Health- Abstinence: What's in It for Me?- Influences on Sexual Choices- Countering Media Pressure- Setting Limits to Support Abstinence- Making Decisions to Support Abstinence- Resisting Sexual Pressure- Saying NO to Sexual Activity. <p>Days in Unit: 16</p>
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Section 3.4.5-6

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.5 - Health Scope and Sequence

<p>Unit 2: Emotional & Mental Health</p>	<p>Unit Content:</p> <p>This unit covers the following topics:</p> <ul style="list-style-type: none">- Dimensions of Health- Exploring Emotional Health- Optimism & Positive Self-Talk- Understanding Stress- Stress-Management Techniques- Expressing Emotions in Healthy Ways- Skills for Effective Communication- Building Healthy Relationships- Ending Relationships- Coping with Loss & Grief; Social Media & Emotional Health- Managing Anger- Skills for Conflict Resolution- Goal Setting for Emotional Health, Understanding Mental Health Disorders- Preventing Suicide- Getting Help for Mental Health Issues <p>Days in Unit: 17</p>
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The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.5 - Health Scope and Sequence

<p>Unit 3: HIV, STI & Pregnancy</p>	<p>Unit Content:</p> <p>This covers the following topics:</p> <ul style="list-style-type: none">- What Do You Know About Sexuality?- Respecting Sexual Differences- Understanding Sexual Risks & Responsibilities- Understanding Affirmative Consent- Avoiding Pregnancy- STIs: The Facts- HIV: The Facts- Influences on Sexual Choices- Assessing & Avoiding STI Risks- Getting Tested for HIV, Other STIs & Pregnancy- Using Condoms- Saying NO to Unsafe Sex- My Commitment to Protect Myself- Advocating to Keep Friends Safe & Healthy. <p>Days in Unit: 15</p>
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Section 3.4.5-8

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.5 - Health Scope and Sequence

<p>Unit 4: Nutrition & Physical Activity</p>	<p>Unit Content:</p> <p>This unit covers the following topics:</p> <ul style="list-style-type: none">- Nutrition & Health- Guidelines for Healthy Eating- What's on MyPlate?- Reading Food Labels- Eating Healthy at Fast-Food Restaurants- Guidelines for Physical Activity- Physical Activity & Health- Staying Safe During Physical Activity- Finding Accurate Information- Setting Healthy Eating & Physical Activity Goals- Tracking My Progress- Analyzing Influences on Eating & Physical Activity- Influences on Body Image- Managing Weight in Healthy Ways- Disordered Eating & Compulsive Exercising- Food Safety at Home & Work. <p>Days in Unit: 16</p>
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*Based on the [etr HealthSmart Middle School Program](#) and FEMA Fire Safety Curriculum

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Section 3.4.5-9

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.5 - Health Scope and Sequence

<p>Unit 5: Tobacco, Alcohol & Other Drug Prevention</p>	<p>Unit Content:</p> <p>This unit covers the following topics:</p> <ul style="list-style-type: none">- Teens & Drug Use- Drug Addiction- Prescription & Over-the-Counter Drugs: Get the Facts- Opioids: Get the Facts- Vaping and Other Tobacco Products: Get the Facts- The Benefits of Quitting Tobacco Use- Alcohol: Get the Facts- Marijuana: Get the Facts- Drugs & the Law- Getting Help for Drug Problems- Analyzing Influences on Tobacco, Alcohol & Other Drug Use- Countering Media Influences- Making Decisions About Drugs- Saying NO to Drugs- Resisting Drug Pressures- Advocating for Being Drug Free <p>Days in Unit: 16</p>
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The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.5 - Health Scope and Sequence

<p>Unit 6: Violence & Injury Prevention</p>	<p>Unit Content:</p> <p>This unit covers the following topics:</p> <ul style="list-style-type: none">- Understanding Injury & Risk- Preventing Motor Vehicle Injuries- Preventing Common Injuries- Responding to Emergencies- Making Decisions to Reduce Risk- Assessing Safety Hazards- Advocating for Safety- The Consequences of Violence- Factors That Contribute to Violence- Understanding Bullying and Cyberbullying- Preventing Bullying; Preventing Hazing- Preventing Hate Violence- Preventing Sexual Harassment- Preventing Dating Violence- Preventing Suicide- Understanding Sexual Exploitation- Understanding Sexual Abuse- Protecting Yourself <p>Days in Unit: 19</p>
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*Based on the [etr HealthSmart Middle School Program](#) and FEMA Fire Safety Curriculum

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**Section 1.3 - Education Plan :: Attachment 4 - Course Scope and
Sequence :: Physical Education**

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.6 - Physical Education Scope and Sequence

<p>Course Title: Physical Education Grade(s): 6th-8th</p>	
<p>Course Content: This course will help students meet the Delaware Physical Education Standards and to prepare them to participate in healthy physical activity as adults and become “Fit for Life.”</p>	
<p>Standards Addressed:</p> <p><i>Standard 1: Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities</i></p> <p><i>Standard 2: Demonstrates an understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities</i></p> <p><i>Standard 3: Participates regularly in physical activity</i></p> <p><i>Standard 4: Achieves and maintains a personal health-enhancing level of physical fitness</i></p> <p><i>Standard 5: Exhibits responsible personal and social behavior that respects self and others in physical activity settings</i></p> <p><i>Standard 6: Creates opportunities for health, enjoyment, challenge, self-expression, and/or social interaction through physical activity</i></p>	
<p>Focus Area 1: Community Building</p>	<p>Focus Area Content:</p> <p>Community building in physical education promotes a growth mindset, a safe classroom environment, and an inclusive classroom culture. Intentional learning experiences are designed to include open-ended tasks, challenges, and problem-solving scenarios to deliberately practice the social-emotional learning competencies as defined by Collaborative for Academic, Social, and Emotional Learning (CASEL): relationship skills, responsible decision making, self-awareness, self-management, and social awareness.</p>

*Based on the Delaware Model Grade Cluster Expectations and [We Teach NYC’s Physical Education Scope & Sequence](#)
Section 3.4.6-1

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.6 - Physical Education Scope and Sequence

	<p>BASSE students will evaluate how the Community Building focus area’s skills will impact their college, career, and life plans after graduation. Mastery of the skills and concepts practiced in this focus area will help students explore how to value their peers and develop skills necessary for positive collaboration inside and outside of PE.</p> <p>At the end of receiving instruction in this focus area, students will know:</p> <p><i>Movement Concepts, Strategies, and Tactics</i></p> <ul style="list-style-type: none">• Movement concepts applied in community-building and problem-solving activities• Strategies for working with others <p><i>Social-Emotional Learning</i></p> <ul style="list-style-type: none">• Relationship skills• Responsible decision making• Self-awareness• Self-management• Social awareness <p><i>Health and Fitness</i></p> <ul style="list-style-type: none">• Health-related fitness components (body composition)• Stress management
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*Based on the Delaware Model Grade Cluster Expectations and [We Teach NYC’s Physical Education Scope & Sequence](#)
Section 3.4.6-2

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.6 - Physical Education Scope and Sequence

Focus Area 2: Individual Performance	Focus Area Content: The Individual Performance focus area incorporates lifetime activities and outdoor pursuits. Students have the opportunity to apply fitness principles and movement concepts and skills to individually challenging physical activities. BASSE students will learn, refine, and apply the concepts and skills taught in this focus area to various activities. Through goal setting, planning, and assessment, students will have the opportunity to improve their fitness levels and the knowledge to access local resources to maintain a healthy, active lifestyle. At the end of receiving instruction in this focus area, students will know: <i>Movement Concepts, Strategies, and Tactics</i> <ul style="list-style-type: none">• Appropriate techniques for basic skills applied in individual performance activities• Strategies and tactics applied in individual performance activities• Critical elements of a practice task applied in individual performance activities <i>Health and Fitness</i> <ul style="list-style-type: none">• Goal setting• Self-assessment• Benefits of moderate-to-vigorous physical activity (MVPA)• FITT(E) principle <i>Social-Emotional Learning</i> <ul style="list-style-type: none">• Self-management• Self-awareness
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*Based on the Delaware Model Grade Cluster Expectations and [We Teach NYC's Physical Education Scope & Sequence](#)

Section 3.4.6-3

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.6 - Physical Education Scope and Sequence

	<ul style="list-style-type: none"> • Responsible decision making <p><i>Resource Management</i></p> <ul style="list-style-type: none"> • Use of technology • Safety • Opportunities to participate in physical activity outside of school • Equipment maintenance <p><i>Assessment and Planning</i></p> <ul style="list-style-type: none"> • Safety considerations for engaging in physical activity • Personal fitness planning and goal setting • Factors that affect physical activity preferences
<p>Focus Area 3: Rhythms and Dance</p>	<p>Focus Area Content:</p> <p>The Rhythms and Dance focus area provides learning experiences in which students can celebrate their diversity and their creative, rhythmic contributions to the world of dance. This focus area emphasizes creativity, self-expression, and aesthetics. The skills and concepts emphasized in this focus area allow participants to engage in health-enhancing physical activity while exploring self-awareness, cultural identities, and social interaction. Successful participation also promotes students’ ability to access local resources and plan for engaging in rhythmic or dance activities through college and/or career.</p> <p>At the end of receiving instruction in this focus area, students will know:</p> <p><i>Movement Concepts, Strategies, and Tactics</i></p>

*Based on the Delaware Model Grade Cluster Expectations and [We Teach NYC’s Physical Education Scope & Sequence](#)
Section 3.4.6-4

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.6 - Physical Education Scope and Sequence

	<ul style="list-style-type: none">• Movement patterns for various rhythmic activities• Dynamic and static balance• Body alignment and posture <p><i>Social-Emotional Learning</i></p> <ul style="list-style-type: none">• Social awareness• Self-awareness• Relationship skills <p><i>Health and Fitness</i></p> <ul style="list-style-type: none">• Health-related fitness components (cardiovascular fitness)• Skill-related fitness components (coordination, reaction time, balance, agility)• Borg Rating of Perceived Exertion (RPE) related to tempo of rhythm or form of dance <p><i>Assessment and Planning</i></p> <ul style="list-style-type: none">• Choreography• Personal fitness planning and goal setting
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*Based on the Delaware Model Grade Cluster Expectations and [We Teach NYC's Physical Education Scope & Sequence](#)
Section 3.4.6-5

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.6 - Physical Education Scope and Sequence

Focus Area 4: Sports and Games	Focus Area Content: In high school, students continue to refine advanced motor skills and movement patterns applied to net and wall games and target games. Invasion games allow students to apply transferable physical skills as well as develop relationship skills and social awareness that can foster peer-to-peer interactions. Field and striking activities allow students to apply tactics and strategies, demonstrate fundamental motor skills, cooperate with and encourage classmates, demonstrate inclusive behaviors, and engage in physical activity for enjoyment and self-expression. Through improved knowledge, confidence, and motivation to use community and local resources, students will be able to apply the skills learned in all game types outside of PE. Students also explore how to access local resources and plan for engaging in all game types through college and/or career. At the end of receiving instruction in this focus area, students will know: <i>Movement Concepts, Strategies, and Tactics</i> <ul style="list-style-type: none">• Transferable movement concepts as applied to a variety of field and striking games• Strategies and tactics applied in field and striking games• Critical elements of motor skills performed in field and striking games <i>Social-Emotional Learning</i> <ul style="list-style-type: none">• Self-awareness• Self-management• Relationship skills <i>Health and Fitness</i> <ul style="list-style-type: none">• Health-related fitness components (muscular endurance)
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*Based on the Delaware Model Grade Cluster Expectations and [We Teach NYC's Physical Education Scope & Sequence](#)
Section 3.4.6-6

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.6 - Physical Education Scope and Sequence

	<ul style="list-style-type: none"> • Skill-related fitness components (coordination) • Injury prevention <p><i>Resource Management</i></p> <ul style="list-style-type: none"> • Access community resources • Use technology tools to support an active lifestyle <p><i>Assessment and Planning</i></p> <ul style="list-style-type: none"> • Analysis and development of skill • Personal fitness planning and goal setting
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<p>Course Title: Physical Education Grade(s): 9th-12th</p>
<p>Course Content: This course will help students meet the Delaware Physical Education Standards and to prepare them to participate in healthy physical activity as adults and become “Fit for Life.”</p>
<p>Standards Addressed:</p> <p><i>Standard 1: Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities</i></p> <p><i>Standard 2: Demonstrates an understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities</i></p>

*Based on the Delaware Model Grade Cluster Expectations and [We Teach NYC’s Physical Education Scope & Sequence](#)
 Section 3.4.6-7

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.6 - Physical Education Scope and Sequence

Standard 3: Participates regularly in physical activity

Standard 4: Achieves and maintains a personal health-enhancing level of physical fitness

Standard 5: Exhibits responsible personal and social behavior that respects self and others in physical activity settings

Standard 6: Creates opportunities for health, enjoyment, challenge, self-expression, and/or social interaction through physical activity

<p>Focus Area 1: Community Building</p>	<p>Focus Area Content:</p> <p>Community building in physical education promotes a growth mindset, a safe classroom environment, and an inclusive classroom culture. Intentional learning experiences are designed to include open-ended tasks, challenges, and problem-solving scenarios to deliberately practice the social-emotional learning competencies as defined by Collaborative for Academic, Social, and Emotional Learning (CASEL): relationship skills, responsible decision making, self-awareness, self-management, and social awareness.</p> <p>BASSE students will evaluate how the Community Building focus area’s skills will impact their college, career, and life plans after graduation. Mastery of the skills and concepts practiced in this focus area will help students explore how to value their peers and develop skills necessary for positive collaboration inside and outside of PE.</p> <p>At the end of receiving instruction in this focus area, students will know:</p> <p><i>Movement Concepts, Strategies, and Tactics</i></p> <ul style="list-style-type: none"> • Activity-specific motor skills and movement concepts • Problem-solving strategies and tactics <p><i>Social-Emotional Learning</i></p> <ul style="list-style-type: none"> • Relationship skills
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*Based on the Delaware Model Grade Cluster Expectations and [We Teach NYC’s Physical Education Scope & Sequence](#)
 Section 3.4.6-8

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.6 - Physical Education Scope and Sequence

	<ul style="list-style-type: none">• Responsible decision making• Self-awareness• Self-management• Social awareness <p><i>Health and Fitness</i></p> <ul style="list-style-type: none">• Stress management• Decision making• Health- and skill-related fitness components <p><i>Resource Management</i></p> <ul style="list-style-type: none">• Access community resources• Career opportunities in health, PE, and wellness-related fields <p><i>Assessment and Planning</i></p> <ul style="list-style-type: none">• Personal fitness planning and goal setting• Communication strategies in relation to activity outcomes
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*Based on the Delaware Model Grade Cluster Expectations and [We Teach NYC's Physical Education Scope & Sequence](#)
Section 3.4.6-9

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.6 - Physical Education Scope and Sequence

Focus Area 2: Individual Performance	Focus Area Content: The Individual Performance focus area incorporates lifetime activities and outdoor pursuits. Students have the opportunity to apply fitness principles and movement concepts and skills to individually challenging physical activities. BASSE students will learn, refine, and apply the concepts and skills taught in this focus area to various activities. Through goal setting, planning, and assessment, students will have the opportunity to improve their fitness levels and the knowledge to access local resources to maintain a healthy, active lifestyle. At the end of receiving instruction in this focus area, students will know: <i>Movement Concepts, Strategies, and Tactics</i> <ul style="list-style-type: none">• Activity-specific movement skills and concepts• Applied strategies and tactics <i>Health and Fitness</i> <ul style="list-style-type: none">• Health- and fitness-related fitness components• Stress management <i>Social-Emotional Learning</i> <ul style="list-style-type: none">• Self-management• Self-awareness• Responsible decision making <i>Resource Management</i> <ul style="list-style-type: none">• Use of technology
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*Based on the Delaware Model Grade Cluster Expectations and [We Teach NYC’s Physical Education Scope & Sequence](#)
Section 3.4.6-10

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.6 - Physical Education Scope and Sequence

	<ul style="list-style-type: none"> • Safety • Opportunities to participate in physical activity outside of school • Equipment maintenance • Career opportunities in health, PE, and wellness-related fields <p><i>Assessment and Planning</i></p> <ul style="list-style-type: none"> • Safety considerations for engaging in physical activity • Personal fitness planning and goal setting • Factors that affect physical activity preferences
<p>Focus Area 3: Rhythms and Dance</p>	<p>Focus Area Content:</p> <p>The Rhythms and Dance focus area provides learning experiences in which students can celebrate their diversity and their creative, rhythmic contributions to the world of dance. This focus area emphasizes creativity, self-expression, and aesthetics. The skills and concepts emphasized in this focus area allow participants to engage in health-enhancing physical activity while exploring self-awareness, cultural identities, and social interaction. Successful participation also promotes students’ ability to access local resources and plan for engaging in rhythmic or dance activities through college and/or career.</p> <p>At the end of receiving instruction in this focus area, students will know:</p> <p><i>Movement Concepts, Strategies, and Tactics</i></p> <ul style="list-style-type: none"> • Activity-specific movement skills and movement concepts • Choreography

*Based on the Delaware Model Grade Cluster Expectations and [We Teach NYC’s Physical Education Scope & Sequence](#)
Section 3.4.6-11

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.6 - Physical Education Scope and Sequence

	<p><i>Social-Emotional Learning</i></p> <ul style="list-style-type: none">• Social awareness• Self-awareness <p><i>Health and Fitness</i></p> <ul style="list-style-type: none">• Health- and skill-related fitness components• Safety Resource Management• Access community resources• Career opportunities in health, PE, and wellness-related fields <p><i>Assessment and Planning</i></p> <ul style="list-style-type: none">• Choreography• Personal fitness planning and goal setting
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*Based on the Delaware Model Grade Cluster Expectations and [We Teach NYC's Physical Education Scope & Sequence](#)
Section 3.4.6-12

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.6 - Physical Education Scope and Sequence

Focus Area 4: Sports and Games	Focus Area Content: In high school, students continue to refine advanced motor skills and movement patterns applied to net and wall games and target games. Invasion games allow students to apply transferable physical skills as well as develop relationship skills and social awareness that can foster peer-to-peer interactions. Field and striking activities allow students to apply tactics and strategies, demonstrate fundamental motor skills, cooperate with and encourage classmates, demonstrate inclusive behaviors, and engage in physical activity for enjoyment and self-expression. Through improved knowledge, confidence, and motivation to use community and local resources, students will be able to apply the skills learned in all game types outside of PE. Students also explore how to access local resources and plan for engaging in all game types through college and/or career. At the end of receiving instruction in this focus area, students will know: <i>Motor Skills, Movement Concepts, Strategies, and Tactics</i> <ul style="list-style-type: none">• Activity-specific motor skills and movement concepts• Strategies and tactics to apply in-game situations• Advanced strategies and tactics in-game situations <i>Social-Emotional Learning</i> <ul style="list-style-type: none">• Relationship skills• Responsible decision making• Self-awareness• Social awareness• Self-management
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*Based on the Delaware Model Grade Cluster Expectations and [We Teach NYC's Physical Education Scope & Sequence](#)
Section 3.4.6-13

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.6 - Physical Education Scope and Sequence

	<p><i>Health and Fitness</i></p> <ul style="list-style-type: none">• Health- and skill-related fitness components• Health benefits of a physically active lifestyle <p><i>Resource Management</i></p> <ul style="list-style-type: none">• Access community resources• Use technology tools to support an active lifestyle• Career opportunities in health, PE, and wellness-related fields <p><i>Assessment and Planning</i></p> <ul style="list-style-type: none">• Analysis and development of skill• Personal fitness planning and goal setting
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*Based on the Delaware Model Grade Cluster Expectations and [We Teach NYC's Physical Education Scope & Sequence](#)
Section 3.4.6-14

Section 1.3 - Education Plan :: Attachment 4 - Course Scope and Sequence :: Visual and Performing Arts

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.7 - Visual and Performing Arts Scope and Sequence

Course Title: Visual & Performing Arts Grade(s): 6th-8th	
Course Content: This course will help students meet the Delaware Visual and Performing Arts Standards (the National Arts Standards) and to prepare them to seek achievement in music, theatre, and visual arts.	
Focus Area 1: Visual Arts	Focus Area Content: Students will complete coursework that will require them to demonstrate their understanding of key concepts in the visual arts. Students will be assessed in their ability to meet the state standards through assessments aligned to the standards following the learning goals listed below. Instructors should use the state’s Model Cornerstone Assessments in designing their summative assessments that measure their students’ ability to meet the requirements of the arts standards for their individual proficiency level. By the end of coursework in this focus area, students should be able to successfully demonstrate their ability to meet the appropriate grade-level standards below.

Based on the Delaware Core Arts Standards

*Based on the American International School of Johannesburg Visual Arts Curriculum in addition to the DE Core Arts Standards

**Based on the San Francisco Unified School District Theatre & Music Curriculum in addition to the DE Core Arts Standards

Section 3.4.7-1

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.7 - Visual and Performing Arts Scope and Sequence

	<p style="text-align: center;">Creating</p> <p><i>Anchor Standard 1: Generate and conceptualize artistic ideas and work</i></p>	<p style="text-align: center;">Presenting</p> <p><i>Anchor Standard 4: Select, analyze, and interpret artistic work for presentation.</i></p>	<p style="text-align: center;">Responding</p> <p><i>Anchor Standard 7: Perceive and analyze artistic work</i></p> <p><i>6th Grade</i></p>	<p style="text-align: center;">Connecting</p> <p><i>Anchor Standard 10: Synthesize and relate knowledge and personal experiences to make art.</i></p>

Based on the Delaware Core Arts Standards

*Based on the American International School of Johannesburg Visual Arts Curriculum in addition to the DE Core Arts Standards

**Based on the San Francisco Unified School District Theatre & Music Curriculum in addition to the DE Core Arts Standards

Section 3.4.7-2

The Bryan Allen Stevenson School of Excellence

Section 3 - Attachment 4.7 - Visual and Performing Arts Scope and Sequence

	<p><i>6th Grade Proficient</i> VA:Cr1.1.6a Combine concepts collaboratively to generate innovative ideas for creating art. VA:Cr 1.2.6a Formulate an artistic investigation of personally relevant content for creating art.</p> <p><i>7th Grade Proficient</i> VA:Cr1.1.7a Apply methods to overcome creative blocks. VA:Cr1.2.7a Develop criteria to guide making a work of art or design to meet an identified goal.</p> <p><i>8th Grade Proficient</i> VA:Cr1.1.8a Document early stages of the creative process visually and/or verbally in traditional or new media. VA:Cr1.2.8a Collaboratively shape an</p>	<p><i>6th Grade Proficient</i> VA:Pr4.1.6a Analyze similarities and differences associated with preserving and presenting two dimensional, three dimensional, and digital artwork.</p> <p><i>7th Grade Proficient</i> VA:Pr4.1.7a Compare and contrast how technologies have changed the way artwork is preserved, presented, and experienced.</p> <p><i>8th Grade Proficient</i> VA:Pr4.1.8a Develop and apply criteria for evaluating a collection of artwork for presentation</p> <p>Anchor Standard 5: <i>Develop and refine artistic techniques and work for presentation.</i></p> <p><i>6th Grade</i> VA:Pr5.1.6a</p>	<p>VA:Re.7.1.6a Identify and interpret works of art or design that reveal how people live around the world and what they value. VA:Re.7.2.6a Analyze ways that visual components and cultural associations suggested by images influence ideas, emotions, and actions.</p> <p><i>7th Grade</i> VA:Re.7.1.7a Explain how the method of display, the location, and the experience of an artwork influence how it is perceived and valued. VA:Re.7.2.7a Analyze multiple ways that images influence specific audiences.</p> <p><i>8th Grade</i> VA:Re.7.1.8a Explain how a person's aesthetic choices are influenced by culture and environment and impact</p>	<p><i>6th Grade</i> VA:Cn10.1.6a Generate a collection of ideas reflecting current interests and concerns that could be investigated in artmaking.</p> <p><i>7th Grade</i> VA:Cn10.1.7a</p> <p><i>8th Grade</i> VA:Cn10.1.8a Make art collaboratively to reflect on and reinforce positive aspects of group identity.</p> <p>Anchor Standard 11: <i>Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding</i></p> <p><i>6th Grade</i> VA:Cn11.1.6a Analyze how art reflects changing times, traditions, resources, and cultural</p>
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Based on the Delaware Core Arts Standards

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The Bryan Allen Stevenson School of Excellence

Section 3 - Attachment 4.7 - Visual and Performing Arts Scope and Sequence

	<p>artistic investigation of an aspect of present day life using a contemporary practice of art and design.</p> <p>Anchor Standard 2: <i>Organize and develop artistic ideas and work.</i></p> <p><i>6th Grade Proficient</i> <i>VA:Cr2.1.6a</i> Demonstrate openness in trying new ideas, materials, methods, and approaches in making works of art and design. <i>VA:Cr2.2.6a</i> Explain environmental implications of conservation, care, and clean-up of art materials, tools, and equipment <i>VA:Cr2.3.6a</i> Design or redesign objects, places, or systems that meet the identified needs of diverse users.</p> <p><i>7th Grade Proficient</i> <i>VA:Cr2.1.7a</i></p>	<p>Individually or collaboratively, develop a visual plan for displaying works of art, analyzing exhibit space, the needs of the viewer, and the layout of the exhibit.</p> <p><i>7th Grade</i> <i>VA:Pr5.1.7a</i> Based on criteria, analyze and evaluate methods for preparing and presenting art.</p> <p><i>8th Grade</i> <i>VA:Pr5.1.8a</i> Collaboratively prepare and present selected theme based artwork for display, and formulate exhibition narratives for the viewer.</p> <p>Anchor Standard 6: <i>Convey meaning through the presentation of artistic work.</i></p> <p><i>6th Grade</i></p>	<p>the visual image that one conveys to others. <i>VA:Re.7.2.8a</i> Compare and contrast contexts and media in which viewers encounter images that influence ideas, emotions, and actions.</p> <p>Anchor Standard 8: <i>Interpret intent and meaning in artistic work.</i></p> <p><i>6th Grade</i> <i>VA:Re8.1.6a</i> Interpret art by distinguishing between relevant and non-relevant contextual information and analyzing subject matter, characteristics of form and structure, and use of media to identify ideas and mood conveyed.</p> <p><i>7th Grade</i> <i>VA:Re8.1.7a</i> Interpret art by analyzing artmaking approaches, the</p>	<p>uses.</p> <p><i>7th Grade</i> <i>VA:Cn11.1.7a</i> Analyze how response to art is influenced by understanding the time and place in which it was created, the available resources, and cultural uses</p> <p><i>8th Grade</i> <i>VA:Cn11.1.8a</i> Distinguish different ways art is used to represent, establish, reinforce, and reflect group identity.</p>
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Section 3.4.7-4

The Bryan Allen Stevenson School of Excellence

Section 3 - Attachment 4.7 - Visual and Performing Arts Scope and Sequence

	<p>Demonstrate persistence in developing skills with various materials, methods, and approaches in creating works of art or design. <i>VA:Cr2.2.7a</i></p> <p>Demonstrate awareness of ethical responsibility to oneself and others when posting and sharing images and other materials through the Internet, social media, and other communication formats. <i>VA:Cr2.3.7a</i></p> <p>Apply visual organizational strategies to design and produce a work of art, design, or media that clearly communicates information or ideas.</p> <p><i>8th Grade Proficient</i> <i>VA:Cr2.1.8a</i></p> <p>Demonstrate willingness to experiment, innovate, and take risks to pursue ideas, forms, and meanings that emerge in the process of</p>	<p><i>VA:Pr6.1.6a</i> Assess, explain, and provide evidence of how museums or other venues reflect history and values of a community</p> <p><i>7th Grade</i> <i>VA:Pr6.1.7a</i> Compare and contrast viewing and experiencing collections and exhibitions in different venues</p> <p><i>8th Grade</i> <i>VA:Pr6.1.8a</i> Analyze why and how an exhibition or collection may influence ideas, beliefs, and experiences.</p>	<p>characteristics of form and structure, relevant contextual information, subject matter, and use of media to identify ideas and mood conveyed.</p> <p><i>8th Grade</i> <i>VA:Re8.1.8a</i> Interpret art by analyzing how the interaction of subject matter, characteristics of form and structure, use of media, artmaking approaches, and relevant contextual information contributes to understanding messages or ideas and mood conveyed.</p> <p><i>Anchor Standard 9:</i> <i>Apply criteria to evaluate artistic work.</i></p> <p><i>6th Grade</i> <i>VA:Re9.1.6a</i> Develop and apply relevant criteria to evaluate a work of art.</p>	
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Section 3.4.7-5

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.7 - Visual and Performing Arts Scope and Sequence

	<p>artmaking or designing. <i>VA:Cr2.2.8a</i> Demonstrate awareness of practices, issues, and ethics of appropriation, fair use, copyright, open source, and creative commons as they apply to creating works of art and design. <i>VA:Cr2.3.8a</i> Select, organize, and design images and words to make visually clear and compelling presentations.</p> <p><i>Anchor Standard 3:</i> <i>Refine and complete artistic work.</i></p> <p><i>6th Grade Proficient</i> <i>VA:Cr3.1.6a</i> Reflect on whether personal artwork conveys the intended meaning and revise accordingly.</p> <p><i>7th Grade Proficient</i> <i>VA:Cr3.1.7a</i> Reflect on and explain</p>		<p><i>7th Grade</i> <i>VA:Re9.1.7a</i> Compare and explain the difference between an evaluation of an artwork based on personal criteria and an evaluation of an artwork based on a set of established criteria.</p> <p><i>8th Grade</i> <i>VA:Re9.1.8a</i> Create a convincing and logical argument to support an evaluation of art.</p>	
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Section 3.4.7-6

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.7 - Visual and Performing Arts Scope and Sequence

	<p>important information about personal artwork in an artist statement or another format.</p> <p><i>8th Grade Proficient</i> <i>VA:Cr3.1.IIIa</i> Apply relevant criteria to examine, reflect on, and plan revisions for a work of art or design in progress.</p>			
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Section 3.4.7-7

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.7 - Visual and Performing Arts Scope and Sequence

<p>Focus Area 2:</p> <p>Theatre**</p>	<p>Focus Area Content:</p> <p>Students will complete coursework that will require them to demonstrate their understanding of key concepts in theatre. Students will be assessed in their ability to meet the state standards through assessments aligned to the standards following the learning goals listed below.</p> <p>Instructors should use the state’s Model Cornerstone Assessments in designing their summative assessments that measure their students’ ability to meet the requirements of the arts standards for their individual proficiency level.</p> <p>By the end of coursework in this focus area, students should be able to successfully demonstrate their ability to meet the appropriate grade-level standards below.</p>
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Section 3.4.7-8

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 4.7 - Visual and Performing Arts Scope and Sequence

Creating	Performing	Responding	Connecting
<p>Anchor Standard 1: <i>Generate and conceptualize artistic ideas and work</i></p> <p><i>6th Grade</i> <i>TH:Cr1.1.6.</i> a. Identify possible solutions to staging challenges in a drama/theatre work. b. Identify solutions to design challenges in a drama/theatre work. c. Explore a scripted or improvised character by imagining the given circumstances in a drama/</p> <p><i>7th Grade</i> <i>TH:Cr1.1.7.</i> a. Investigate multiple perspectives and solutions to staging challenges in a drama/theatre work. b. Explain and present solutions to design challenges in a drama/</p>	<p>Anchor Standard 4: <i>Select, analyze, and interpret artistic work for presentation.</i></p> <p><i>6th Grade</i> <i>TH:Pr4.1.6.</i> a. Identify the essential events in a story or script that make up the dramatic structure in a drama/theatre work. b. Experiment with various physical choices to communicate character in a drama/theatre work.</p> <p><i>7th Grade</i> <i>TH:Pr4.1.7.</i> a. Consider various staging choices to enhance the story in a drama/theatre work. b. Use various character objectives in a drama/theatre work.</p> <p><i>8th Grade</i></p>	<p>Anchor Standard 7: <i>Perceive and analyze artistic work</i></p> <p><i>6th Grade</i> <i>TH: Re7.1.6.</i> a. Describe and record personal reactions to artistic choices in a drama/theatre work.</p> <p><i>7th Grade</i> <i>TH: Re7.1.7.</i> a. Compare recorded personal and peer reactions to artistic choices in a drama/ theatre work.</p> <p><i>8th Grade</i> <i>TH: Re7.1.-8</i> a. Apply criteria to the evaluation of artistic choices in a drama/theatre work.</p> <p>Anchor Standard 8: <i>Interpret intent and meaning in artistic work.</i></p>	<p>Anchor Standard 10: <i>Synthesize and relate knowledge and personal experiences to make art.</i></p> <p><i>6th Grade</i> <i>TH:Cn10.1.6.</i> a. Explain how the actions and motivations of characters in a drama/theatre work impact perspectives of a community or culture.</p> <p><i>7th Grade</i> <i>TH:Cn10.1.7.</i> a. Incorporate multiple perspectives and diverse community ideas in a drama/theatre work.</p> <p><i>8th Grade</i> <i>TH:Cn10.1.8.</i> a. Examine a community issue through multiple perspectives in a drama/theatre work.</p>

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	<p>theatre work. c. Envision and describe a scripted or improvised character's inner thoughts and objectives in a drama/theatre work.</p> <p><i>8th Grade</i> <i>TH:Cr1.1.8.</i></p> <p>a. Imagine and explore multiple perspectives and solutions to staging problems in a drama/theatre work. b. Imagine and explore solutions to design challenges of a performance space in a drama/theatre work. c. Develop a scripted or improvised character by articulating the character's inner thoughts, objectives, and motivations in a drama/theatre work.</p> <p>Anchor Standard 2: <i>Organize and develop artistic ideas and work.</i></p>	<p><i>TH:Pr4.1.8</i></p> <p>a. Explore different pacing to better communicate the story in a drama/theatre work. b. Use various character objectives and tactics in a drama/theatre work to overcome an obstacle.</p> <p>Anchor Standard 5: <i>Develop and refine artistic techniques and work for presentation.</i></p> <p><i>6th Grade</i> <i>TH:Pr5.1.6.</i></p> <p>a. Recognize how acting exercises and techniques can be applied to a drama/theatre work. b. Articulate how technical elements are integrated into a drama/ theatre work.</p> <p><i>7th Grade</i> <i>TH:Pr5.1.7.</i></p> <p>a. Participate in a variety of acting exercises and techniques that can be</p>	<p><i>6th Grade</i> <i>TH:Re8.1.6.</i></p> <p>a. Explain how artists make choices based on personal experience in a drama/theatre work. b. Identify cultural perspectives that may influence the evaluation of a drama/theatre work. c. Identify personal aesthetics, preferences, and beliefs through participation in or observation of drama/theatre work.</p> <p><i>7th Grade</i> <i>TH:Re8.1.7.</i></p> <p>a. Identify the artistic choices made based on personal experience in a drama/theatre work. b. Describe how cultural perspectives can influence the evaluation of drama/theatre work. c. Interpret how the use of personal aesthetics,</p>	<p>Anchor Standard 11: <i>Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding</i></p> <p><i>6th Grade</i> <i>TH:Cn11.1.6</i></p> <p>a. Identify universal themes or common social issues and express them through a drama/theatre work.</p> <p><i>TH:Cn11.2.6.</i></p> <p>a. Research and analyze two different versions of the same drama/theatre story to determine differences and similarities in the visual and aural world of each story. b. Investigate the time period and place of a drama/theatre work to better understand performance and design choices.</p> <p><i>7th Grade</i></p>
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	<p><i>6th Grade</i> <i>TH:Cr2-6.</i> a. Use critical analysis to improve, refine, and evolve original ideas and artistic choices in a devised or scripted drama/theatre work. b. Contribute ideas and accept and incorporate the ideas of others in preparing or devising drama/theatre work.</p> <p><i>7th Grade</i> <i>TH:Cr2-7.</i> a. Examine and justify original ideas and artistic choices in a drama/theatre work based on critical analysis, background knowledge, and historical and cultural context. b. Demonstrate mutual respect for self and others and their roles in preparing or devising drama/theatre work.</p> <p><i>8th Grade</i></p>	<p>applied in a rehearsal or drama/theatre performance. b. Choose a variety of technical elements that can be applied to a design in a drama/theatre work.</p> <p><i>8th Grade</i> <i>TH:Pr5.1.8.</i> a. Use a variety of acting techniques to increase skills in a rehearsal or drama/theatre performance. b. Use a variety of technical elements to create a design for a rehearsal or drama/theatre production.</p> <p>Anchor Standard 6: <i>Convey meaning through the presentation of artistic work.</i></p> <p><i>6th Grade</i> <i>TH:Pr6.1.6.</i> a. Adapt a drama/theatre work and present it</p>	<p>preferences, and beliefs can be used to discuss drama/theatre work.</p> <p><i>8th Grade</i> <i>TH:Re8.1.8.</i> a. Recognize and share artistic choices when participating in or observing a drama/theatre work. b. Analyze how cultural perspectives influence the evaluation of a drama/theatre work. c. Apply personal aesthetics, preferences, and beliefs to evaluate a drama/theatre work.</p> <p>Anchor Standard 9: <i>Apply criteria to evaluate artistic work.</i></p> <p><i>6th Grade</i> <i>TH:Re9.1.6.</i> a. Use supporting evidence and criteria to evaluate drama/theatre work. b. Apply the production</p>	<p><i>TH:Cn11.1.7.</i> a. Incorporate music, dance, art, and/or media to strengthen the meaning and conflict in a drama/theatre work with a particular cultural, global, or historic context.</p> <p><i>TH:Cn11.2.7.</i> a. Research and discuss how a playwright might have intended a drama/theatre work to be produced. b. Examine artifacts from a time period and geographic location to better understand performance and design choices in a drama/theatre work.</p> <p><i>8th Grade</i> <i>TH:Cn11.1.8.</i> a. Use different forms of drama/theatre work to examine contemporary social, cultural, or global issues.</p>
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	<p><i>TH:Cr2-8.</i> a. Articulate and apply critical analysis, background knowledge, research, and historical and cultural context to the development of original ideas for a drama/theatre work. b. Share leadership and responsibilities to develop collaborative goals when preparing or devising drama/theatre work.</p> <p>Anchor Standard 3: : <i>Refine and complete artistic work.</i></p> <p><i>6th Grade</i> <i>TH:Cr3.1.6.</i> a. Articulate and examine choices to refine a devised or scripted drama/theatre work. b. Identify effective physical and vocal traits of characters in an improvised or scripted drama/theatre work.</p>	<p>informally for an audience.</p> <p><i>7th Grade</i> <i>TH:Pr6.1.7.</i> a. Participate in rehearsals for a drama/theatre work that will be shared with an audience.</p> <p><i>8th Grade</i> <i>TH:Pr6.1.8.</i> a. Perform a rehearsed drama/theatre work for an audience.</p>	<p>elements used in a drama/theatre work to assess aesthetic choices. c. Identify a specific audience or purpose for a drama/theatre work.</p> <p><i>7th Grade</i> <i>TH:Re9.1.7.</i> a. Explain preferences, using supporting evidence and criteria to evaluate drama/theatre work. b. Consider the aesthetics of the production elements in a drama/theatre work. c. Identify how the intended purpose of a drama/theatre work appeals to a specific audience</p> <p><i>8th Grade</i> <i>TH:Re9.1.8.</i> a. Respond to a drama/theatre work using supporting evidence, personal aesthetics, and artistic criteria. b. Apply the production elements used in a</p>	<p><i>TH:Cn11.2.8.</i> a. Research the story elements of a staged drama/theatre work and compare them to another production of the same work. b. Identify and use artifacts from a time period and place to develop performance and design choices in a drama/theatre work.</p>
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	<p>c. Explore a planned technical design during the rehearsal process for a devised or scripted drama/theatre work.</p> <p><i>7th Grade</i> <i>TH:Cr3.1.7.</i></p> <p>a. Demonstrate focus and concentration in the rehearsal process to analyze and refine choices in a devised or scripted drama/theatre work.</p> <p>b. Develop effective physical and vocal traits of characters in an improvised or scripted drama/theatre work</p> <p>c. Consider multiple planned technical design elements during the rehearsal process for a devised or scripted drama/theatre work.</p> <p><i>8th Grade</i> <i>TH:Cr3.1.8.</i></p> <p>a. Refine, transform, and</p> <p>ra. Use repetition and</p>		<p>drama/theatre work to assess aesthetic choices.</p> <p>c. Assess the impact of a drama/theatre work on a specific audience.</p>	
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	<p>analysis in order to revise devised or scripted drama/theatre work.</p> <p>b. Refine effective physical, vocal, and physiological traits of characters in an improvised or scripted drama/ theatre work.</p> <p>c. Implement and refine a planned technical design using simple technology during the rehearsal process for devised or scripted drama/ theatre work.</p>			
<p>Focus Area 3:</p> <p>Music</p>	<p>Focus Area Content:</p> <p>Students will complete coursework that will require them to demonstrate their understanding of key concepts in music. Students will be assessed in their ability to meet the state standards through assessments aligned to the standards following the learning goals listed below.</p> <p>Instructors should use the state’s Model Cornerstone Assessments in designing their summative assessments that measure their students’ ability to meet the requirements of the arts standards for their individual proficiency level.</p> <p>By the end of coursework in this focus area, students should be able to successfully demonstrate their ability to meet the appropriate grade-level standards below.</p>			

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Creating	Performing	Responding	Connecting
<p>Anchor Standard 1: <i>Generate and conceptualize artistic ideas and work</i></p> <p><i>6th Grade</i> MU:Cr1.1.6 Generate simple rhythmic, melodic, and harmonic phrases within AB and ABA forms that convey expressive intent.</p> <p><i>7th Grade</i> MU:Cr1.1.7 Generate rhythmic, melodic, and harmonic phrases and variations over harmonic accompaniments within AB, ABA, or theme and variation forms that convey expressive intent.</p> <p><i>8th Grade</i> MU:Cr1.1.8 Generate rhythmic, melodic and harmonic</p>	<p>Anchor Standard 4: <i>Select, analyze, and interpret artistic work for presentation</i></p> <p><i>6th Grade</i> MU:Pr4.1.6 a Apply teacher provided criteria for selecting music to perform for a specific purpose and/or context, and explain why each was chosen.</p> <p>MU:Pr4.2.6 a Explain how understanding the structure and the elements of music are used in music selected for performance. b When analyzing selected music, read and identify by name or function standard symbols for rhythm, pitch, articulation, and dynamics. c Identify how cultural and historical context inform performances.</p>	<p>Anchor Standard 7: <i>Perceive and analyze artistic work</i></p> <p><i>6th Grade</i> MU:Re7.1.6. Select or choose music to listen to and explain the connections to specific interests or experiences for a specific purpose.</p> <p>MU:Re7.2.6. a Describe how the elements of music and expressive qualities relate to the structure of the pieces. b Identify the context of music from a variety of genres, cultures, and historical periods.</p> <p><i>7th Grade</i> MU:Re7.1.7 Select or choose contrasting music to listen to and compare the</p>	<p>Anchor Standard 10: <i>Synthesize and relate knowledge and personal experiences to make art.</i></p> <p><i>6th Grade</i> MU:Cn10.0.6 Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. (MU:Cr2.1.6a, MU:Cr3.2.6a, MU:Pr4.1.6a, MU:Pr4.3.6a and MU:Re7.1.6a are embedded)</p> <p><i>7th Grade</i> MU:Cn10.0.7 Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. (MU:Cr2.1.7a,</p>

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	<p>phrases and harmonic accompaniments within expanded forms (including introductions, transitions, and codas) that convey expressive intent.</p> <p>Anchor Standard 2: <i>Organize and develop artistic ideas and work.</i></p> <p><i>6th Grade</i> MU:Cr2.1.6 a Select, organize, construct, and document personal musical ideas for arrangements and compositions within AB or ABA form that demonstrate an effective beginning, middle, and ending, and convey expressive intent. b Use standard and/or iconic notation and/or audio/ video recording to document personal simple rhythmic phrases, melodic phrases, and two chord harmonic musical ideas.</p>	<p>MU:Pr4.3.6 a Perform a selected piece of music demonstrating how their interpretations of the elements of music and the expressive qualities (such as dynamics, tempo, timbre, articulation/style, and phrasing) convey intent.</p> <p><i>7th Grade</i> MU:Pr4.1.7 Apply collaboratively developed criteria for selecting music of contrasting styles for a program with a specific purpose and/or context and, after discussion, identify expressive qualities, technical challenges, and reasons for choices.</p> <p>MU:Pr4.2.7 a Explain and demonstrate the structure of contrasting pieces of music selected</p>	<p>connections to specific interests or experiences for a specific purpose.</p> <p>MU:Re7.2.7. a Classify and explain how the elements of music and expressive qualities relate to the structure of contrasting pieces. b Identify and compare the context of music from a variety of genres, cultures, and historical periods.</p> <p><i>8th Grade</i> MU:Re7.1.8. Select programs of music (such as a CD mix or live performances) and demonstrate the connections to an interest or experience for a specific purpose.</p> <p>MU:Re7.2.8 a Compare how the elements of music and expressive qualities relate to the structure within</p>	<p>MU:Cr3.2.7a, MU:Pr4.1.7a, MU:Pr4.3.7a and MU:Re7.1.7a are embedded)</p> <p><i>8th Grade</i> MU:Cn10.0.8 Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. (MU:Cr2.1.8a, MU:Cr3.2.8a, MU:Pr4.1.8a, MU:Pr4.3.8a and MU:Re7.1.8a are embedded)</p> <p>Anchor Standard 11: <i>Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding</i></p> <p><i>6th Grade</i> MU:Cn11.0.6 Demonstrate understanding of</p>
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<p><i>7th Grade</i> <i>MU:Cr2.1.7</i> a Select, organize, develop and document personal musical ideas for arrangements, songs, and compositions within AB, ABA, or theme and variation forms that demonstrate unity and variety and convey expressive intent. b Use standard and/or iconic notation and/or audio/ video recording to document personal simple rhythmic phrases, melodic phrases, and harmonic sequences.</p> <p><i>8th Grade</i> <i>MU:Cr2.1.8.</i> a Select, organize, and document personal musical ideas for arrangements, songs, and compositions within expanded forms that demonstrate tension and release , unity and variety, balance, and convey</p>	<p>for performance and how elements of music are used. b When analyzing selected music, read and identify by name or function standard symbols for rhythm, pitch articulation, dynamics, tempo , and form . c Identify how cultural and historical context inform performances and result in different music interpretations</p> <p><i>MU:Pr4.3.7</i> a Perform contrasting pieces of music demonstrating their interpretations of the elements of music and expressive qualities (such as dynamics, tempo, timbre, articulation/style, and phrasing) convey intent.</p> <p><i>8th Grade</i> <i>MU:Pr4.1.8</i> a Apply personally</p>	<p>programs of music. b Identify and compare the context of programs of music from a variety of genres, cultures, and historical periods.</p> <p><i>Anchor Standard 8:</i> <i>Interpret intent and meaning in artistic work.</i></p> <p><i>6th Grade</i> <i>MU:Re8.1.6</i> Describe a personal interpretation of how creators' and performers' application of the elements of music and expressive qualities, within genres and cultural and historical context, convey expressive intent</p> <p><i>7th Grade</i> <i>MU:Re8.1.7</i> Describe a personal interpretation of contrasting works and explain how creators' and performers' application of the elements</p>	<p>relationships between music and the other arts, other disciplines, varied contexts, and daily life.<i>(MU:Cr 1.1.6a, MU:Pr4.2.6c, MU:Pr6.1.6b, MU:Re7.2.6b, and MU:Re9.1.6a are embedded)</i></p> <p><i>7th Grade</i> <i>MU:Cn11.0.7</i> Demonstrate understanding of relationships between music and the other arts, other disciplines, varied contexts, and daily life.<i>(MU:Cr 1.1.7a, MU:Pr4.2.7c, MU:Pr6.1.7b, MU:Re7.2.7b, and MU:Re9.1.7a are embedded)</i></p> <p><i>8th Grade</i> <i>MU:Cn11.0.8</i> Demonstrate understanding of relationships between music and the other arts,</p>
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	<p>expressive intent. b Use standard and/or iconic notation and/or audio/ video recording to document personal rhythmic phrases, melodic phrases, and harmonic sequences.</p> <p>Anchor Standard 3: <i>Refine and complete artistic work</i></p> <p><i>6th Grade</i> <i>MU:Cr3.1.6</i> a Evaluate their own work, applying teacher-provided criteria such as application of selected elements of music, and use of sound sources. b Describe the rationale for making revisions to the music based on evaluation criteria and feedback from their teacher.</p> <p><i>MU:Cr3.2.6</i> a Present the final version of their documented</p>	<p>developed criteria for selecting music of contrasting styles for a program with a specific purpose and/or context, and explain expressive qualities, technical challenges, and reasons for choices.</p> <p><i>MU:Pr4.2.8</i> a Compare the structure of contrasting pieces of music selected for performance, explaining how the elements of music are used in each. b When analyzing selected music, sightread in treble or bass clef simple rhythmic, melodic, and/or harmonic notation. c Identify how cultural and historical context inform performances and result in different musical effects.</p> <p><i>MU:Pr4.3.8</i> Perform contrasting pieces of music , demonstrating</p>	<p>of music and expressive qualities, within genres, cultures, and historical periods, convey expressive intent</p> <p><i>8th Grade</i> <i>MU:Re8.1.8</i> Support personal interpretation of contrasting programs of music and explain how creators or performers apply the elements of music and expressive qualities, within genres, cultures, and historical periods to convey expressive intent.</p> <p>Anchor Standard 9: <i>Apply criteria to evaluate artistic work.</i></p> <p><i>6th Grade</i> <i>MU:Re9.1.6</i> Apply teacher provided criteria to evaluate musical works or performances.</p> <p><i>7th Grade</i></p>	<p>other disciplines, varied contexts, and daily life.(<i>MU:Cr 1.1.8a, MU:Pr4.2.8c, MU:Pr6.1.8b, MU:Re7.2.8b, and MU:Re9.1.8a are embedded</i>)</p>
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	<p>personal composition or arrangement, using craftsmanship and originality to demonstrate an effective beginning, middle, and ending, and convey expressive intent</p> <p><i>7th Grade</i> <i>MU:Cr3.1.7</i> a Evaluate their own work, applying selected criteria such as appropriate application of elements of music including style , form , and use of sound sources. b Describe the rationale for making revisions to the music based on evaluation criteria and feedback from others (teacher and peers).</p> <p><i>MU:Cr3.2.7</i> a Present the final version of their documented personal composition, song, or arrangement, using craftsmanship and originality to demonstrate</p>	<p>as well as explaining how the music's intent is conveyed by their interpretations of the elements of music and expressive qualities (such as dynamics, tempo, timbre, articulation/style, and phrasing).</p> <p>Anchor Standard 5: <i>Develop and refine artistic techniques and work for presentation.</i></p> <p><i>6th Grade</i> <i>MU:Pr5.1.6.</i> a Identify and apply teacher-provided criteria (such as correct interpretation of notation, technical accuracy, originality, and interest) to rehearse, refine, and determine when a piece is ready to perform.</p> <p><i>7th Grade</i> <i>MU:Pr5.1.7</i> a Identify and apply</p>	<p><i>MU:Re9.1.7</i> Select from teacher-provided criteria to evaluate musical works or performances.</p> <p><i>8th Grade</i> <i>MU:Re9.1.8</i> Apply appropriate personally developed criteria to evaluate musical works or performances</p>	
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	<p>unity and variety, and convey expressive intent.</p> <p><i>8th Grade</i> <i>MU:Cr3.1.8</i> a Evaluate their own work by selecting and applying criteria including appropriate application of compositional techniques, style, form, and use of sound sources. b Describe the rationale for refining works by explaining the choices, based on evaluation criteria.</p> <p><i>MU:Cr3.2.8</i> a Present the final version of their documented personal composition, song, or arrangement, using craftsmanship and originality to demonstrate the application of compositional techniques for creating unity and variety, tension and release, and balance to</p>	<p>collaboratively developed criteria (such as demonstrating correct interpretation of notation, technical skill of performer, originality, emotional impact, and interest) to rehearse, refine, and determine when the music is ready to perform.</p> <p><i>8th Grade</i> <i>MU:Pr5.1.8.</i> Identify and apply personally developed criteria (such as demonstrating correct interpretation of notation, technical skill of performer, originality, emotional impact, variety, and interest) to rehearse, refine, and determine when the music is ready to perform.</p> <p><i>Anchor Standard 6:</i> <i>Convey meaning through the presentation of artistic work.</i></p>		
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	<p>convey expressive intent.</p>	<p><i>6th Grade</i> <i>MU:Pr6.1.6</i> a. Perform the music with technical accuracy to convey the creator’s intent. b Demonstrate performance decorum (such as stage presence, attire, and behavior) and audience etiquette appropriate for venue and purpose.</p> <p><i>7th Grade</i> <i>MU:Pr6.1.7</i> a Perform the music with technical accuracy and stylistic expression to convey the creator’s intent. b Demonstrate performance decorum (such as stage presence, attire, and behavior) and audience etiquette appropriate for venue, purpose, and context .</p> <p><i>8th Grade</i> <i>MU:Pr6.1.8</i></p>		
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		<p>a Perform the music with technical accuracy, stylistic expression, and culturally authentic practices in music to convey the creator's intent.</p> <p>b Demonstrate performance decorum (such as stage presence, attire, and behavior) and audience etiquette appropriate for venue, purpose, context, and style</p>		
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Course Title: Visual & Performing Arts Grade(s): 9th-12th	
Course Content: This course will help students meet the Delaware Visual and Performing Arts Standards (the National Arts Standards) and to prepare them to seek achievement in music, theatre, and visual arts.	
Focus Area 1: Visual Arts*	Focus Area Content: Students will complete coursework that will require them to demonstrate their understanding of key concepts in the visual arts. Students will be assessed in their ability to meet the state standards through assessments aligned to the standards following the learning goals listed below. Instructors should use the state’s Model Cornerstone Assessments in designing their summative assessments that measure their students’ ability to meet the requirements of the arts standards for their individual proficiency level. By the end of coursework in this focus area, students should be able to: <ul style="list-style-type: none">● Use the creative cycle to plan, organize and problem solve problems during the process of creation.● Use sketches, observational drawings and experiments in their journals as a means to problem solve and plan for creation of works of art.● Demonstrate an understanding of the elements and principles in art, as the building blocks to create and analyze art, in a variety of media.● Experiment with visual information in a variety of ways such as elaboration, enlargement, and simplification in relation to the elements of art and principles of design.

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	<ul style="list-style-type: none">● Create artworks using various techniques, technology, media and processes.● Investigate and experiment with new media and techniques and explore their characteristics and application within art history.● Purposefully select tools, techniques, technology and new media to effectively communicate ideas in art and create or transform an art work.● Investigate properties, commonalities, and differences of various media and techniques.● Practice responsible and safe use of tools, equipment and materials.● Identify and apply personal connections in their artworks.● Identify content, symbolism, function and meaning in imagery and applying to their artworks.● Identify the roles of artists in mass media, such as television, product packaging, and advertising in relation to the culture within which it is embedded.● Communicate contexts, symbols, imagery and function and make connections with their own creations.● Investigate and/or create works of art within a context that references artists in various cultures, times, and places.● Compare and contrast ways art has been used as a means of communication throughout history.● Analyze differences in media used in major works by recognized artists from various cultures.● Discuss the purpose of art from major time periods and cultures from prehistoric times to the present.● Demonstrate ability to explore and apply conceptual ideas in their artwork and use art as a means to
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<p>communicate a message, an emotion or an idea, which is personally relevant.</p> <ul style="list-style-type: none"> ● Research, explore and create a piece of art integrated with social, emotional, and/or service-learning. ● Evaluate the influences of historical, political, economic, social, cultural and religious factors upon the development of selected artworks. ● Use art specific vocabulary and terminology to describe, analyze and communicate ideas about existing art works. ● Reflect and evaluate on their own work to identify areas for improvement and solve challenging problems in the creative process. ● Develop the use of appropriate terminology and language when observing and critiquing the work of others and their own. ● Demonstrate the ability to reflect, evaluate and compare their work critically. They can describe and critique their creative process and development and make changes accordingly. 			
Creating	Presenting	Responding	Connecting
<p><i>Anchor Standard 1:</i> <i>Generate and conceptualize artistic ideas and work</i></p> <p><i>HS Proficient</i> <i>VA:Cr1.1.1a</i> Use multiple approaches to begin creative endeavors.</p>	<p><i>Anchor Standard 4:</i> <i>Select, analyze, and interpret artistic work for presentation.</i></p> <p><i>HS Proficient</i> <i>VA:Pr4.1.1a</i> Analyze, select, and curate artifacts and/or artworks for</p>	<p><i>Anchor Standard 7:</i> <i>Perceive and analyze artistic work</i></p> <p><i>HS Proficient</i> <i>VA:Re.7.1.1a</i> Hypothesize ways in which art influences perception and understanding of</p>	<p><i>Anchor Standard 10:</i> <i>Synthesize and relate knowledge and personal experiences to make art.</i></p> <p><i>HS Proficient</i> <i>VA:Cn10.1.1a</i> Document the process of developing ideas from</p>

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	<p><i>VA:Cr1.2.1a</i> Shape an artistic investigation of an aspect of present day life using a contemporary practice of art or design.</p> <p><i>HS Accomplished VA:Cr1.1.1a</i> Individually or collaboratively formulate new creative problems based on a student's existing artwork.</p> <p><i>VA:Cr1.2.1a</i> Choose from a range of materials and methods of traditional and contemporary artistic practices to plan works of art and design.</p> <p><i>HS Advanced VA:Cr1.1.1a</i> Visualize and hypothesize to generate plans for ideas and directions for creating art and design that can affect social change</p> <p><i>VA:Cr1.2.1a</i></p>	<p>presentation and preservation.</p> <p><i>HS Accomplished VA:Pr4.1.1a</i> Analyze, select, and critique personal artwork for a collection or portfolio presentation.</p> <p><i>HS Advanced VA:Pr4.1.1a</i> Critique, justify, and present choices in the process of analyzing, selecting, curating, and presenting artwork for a specific exhibit or event.</p> <p>Anchor Standard 5: <i>Develop and refine artistic techniques and work for presentation.</i></p> <p><i>HS Proficient VA:Pr5.1.1a</i> Analyze and evaluate the reasons and ways an exhibition is presented.</p>	<p>human experiences.</p> <p><i>VA:Re.7.2.1a</i> Analyze how one's understanding of the world is affected by experiencing visual imagery.</p> <p><i>HS Accomplished VA:Re.7.1.1a</i> Recognize and describe personal aesthetic and empathetic responses to the natural world and constructed environments.</p> <p><i>VA:Re.7.2.1a</i> Evaluate the effectiveness of an image or images to influence ideas, feelings, and behaviors of specific audiences.</p> <p><i>HS Advanced VA:Re.7.1.1a</i> Analyze how responses to art develop over time based on knowledge of and experience with art and life.</p> <p><i>VA:Re.7.2.1a</i> Determine the</p>	<p>early stages to fully elaborated ideas.</p> <p><i>HS Accomplished VA:Cn10.1.1a</i> Utilize inquiry methods of observation, research, and experimentation to explore unfamiliar subjects through artmaking.</p> <p><i>HS Advanced VA:Cn10.1.1a</i> Synthesize knowledge of social, cultural, historical, and personal life with art-making approaches to create meaningful works of art or design.</p> <p>Anchor Standard 11: <i>Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding</i></p> <p><i>HS Proficient VA:Cn11.1.1a</i> Describe how knowledge</p>
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	<p>Choose from a range of materials and methods of traditional and contemporary artistic practices, following or breaking established conventions, to plan the making of multiple works of art and design based on a theme, idea, or concept.</p> <p>Anchor Standard 2: <i>Organize and develop artistic ideas and work.</i></p> <p><i>HS Proficient</i> <i>VA:Cr2.1.1a</i> Engage in making a work of art or design without having a preconceived plan. <i>VA:Cr2.2.1a</i> Explain how traditional and nontraditional materials may impact human health and the environment and demonstrate safe handling of materials, tools, and equipment. <i>VA:Cr2.3.1a</i></p>	<p><i>HS Accomplished</i> <i>VA:Pr5.1.11a</i> Evaluate, select, and apply methods or processes appropriate to display artwork in a specific place.</p> <p><i>HS Advanced</i> <i>VA:Pr5.1.111a</i> Investigate, compare, and contrast methods for preserving and protecting art.</p> <p>Anchor Standard 6: <i>Convey meaning through the presentation of artistic work.</i></p> <p><i>HS Proficient</i> <i>VA:Pr6.1.1a</i> Analyze and describe the impact that an exhibition or collection has on personal awareness of social, cultural, or political beliefs and understandings.</p> <p><i>HS Accomplished</i> <i>VA:Pr6.1.11a</i></p>	<p>commonalities within a group of artists or visual images attributed to a particular type of art, timeframe, or culture.</p> <p>Anchor Standard 8: <i>Interpret intent and meaning in artistic work.</i></p> <p><i>HS Proficient</i> <i>VA:Re8.1.1a</i> Interpret an artwork or collection of works, supported by relevant and sufficient evidence found in the work and its various contexts.</p> <p><i>HS Accomplished</i> <i>VA:Re8.1.11a</i> Identify types of contextual information useful in the process of constructing interpretations of an artwork or collection of works.</p> <p><i>HS Advanced</i> <i>VA:Re8.1.111a</i></p>	<p>of culture, traditions, and history may influence personal responses to art.</p> <p><i>HS Accomplished</i> <i>VA:Cn11.1.11a</i> Compare uses of art in a variety of societal, cultural, and historical contexts and make connections to uses of art in contemporary and local contexts.</p> <p><i>HS Advanced</i> <i>VA:Cn11.1.111a</i> Appraise the impact of an artist or a group of artists on the beliefs, values, and behaviors of a society.</p>
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	<p>Collaboratively develop a proposal for an installation, artwork, or space design that transforms the perception and experience of a particular place.</p> <p><i>HS Accomplished</i> VA:Cr2.1.IIa Through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge in a chosen art form. VA:Cr2.2.IIa Demonstrate awareness of ethical implications of making and distributing creative work. VA:Cr2.3.IIa Redesign an object, system, place, or design in response to contemporary issues.</p> <p><i>HS Advanced</i> VA:Cr2.1.IIIa Experiment, plan, and make multiple works of art and design that explore a</p>	<p>Make, explain, and justify connections between artists or artwork and social, cultural, and political history.</p> <p><i>HS Advanced</i> VA:Pr6.1.IIIa Curate a collection of objects, artifacts, or artwork to impact the viewer’s understanding of social, cultural, and/or political experiences.</p>	<p>Analyze differing interpretations of an artwork or collection of works in order to select and defend a plausible critical analysis.</p> <p>Anchor Standard 9: <i>Apply criteria to evaluate artistic work.</i></p> <p><i>HS Proficient</i> VA:Re9.1.Ia Establish relevant criteria in order to evaluate a work of art or collection of works.</p> <p><i>HS Accomplished</i> VA:Re9.1.IIa Determine the relevance of criteria used by others to evaluate a work of art or collection of works.</p> <p><i>HS Advanced</i> VA:Re9.1.IIIa Construct evaluations of a work of art or collection of works based on differing sets of criteria.</p>	
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	<p>personally meaningful theme, idea, or concept. <i>VA:Cr2.2.IIIa</i> Demonstrate understanding of the importance of balancing freedom and responsibility in the use of images, materials, tools, and equipment in the creation and circulation of creative work.</p> <p><i>VA:Cr2.3.IIIa</i> Demonstrate in works of art or design how visual and material culture defines, shapes, enhances, inhibits, and/or empowers people's lives.</p> <p><i>Anchor Standard 3:</i> <i>Refine and complete artistic work.</i></p> <p><i>HS Proficient</i> <i>VA:Cr3.1.Ia</i> Apply relevant criteria from traditional and contemporary cultural contexts to examine, reflect</p>			
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	<p>on, and plan revisions for works of art and design in progress.</p> <p><i>HS Accomplished</i> <i>VA:Cr3.1.IIa</i> Engage in constructive critique with peers, then reflect on, reengage, revise, and refine works of art and design in response to personal artistic vision.</p> <p><i>HS Advanced</i> <i>VA:Cr3.1.IIIa</i> Reflect on, reengage, revise, and refine works of art or design considering relevant traditional and contemporary criteria as well as personal artistic vision.</p>			
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<p>Focus Area 2:</p> <p>Theatre**</p>	<p>Focus Area Content:</p> <p>Students will complete coursework that will require them to demonstrate their understanding of key concepts in theatre. Students will be assessed in their ability to meet the state standards through assessments aligned to the standards following the learning goals listed below.</p> <p>Instructors should use the state’s Model Cornerstone Assessments in designing their summative assessments that measure their students’ ability to meet the requirements of the arts standards for their individual proficiency level.</p> <p>By the end of coursework in this focus area, students should be able to:</p> <ul style="list-style-type: none">● Use the vocabulary of theatre, such as acting values, style, genre, design, and theme, to describe theatrical experiences.● Document observations and perceptions of production elements, noting mood, pacing, and use of space through class discussion and reflective writing.● Make acting choices, using script analysis, character research, reflection, and revision through the rehearsal process.● Write dialogues and scenes, applying basic dramatic structure: exposition, complication, conflict, crises, climax, and resolution.● Design, produce, or perform scenes or plays from a variety of theatrical periods and styles, including Shakespearean and contemporary realism.● Identify and compare how film, theatre, television, and electronic media productions influence values and behaviors.● Describe the ways in which playwrights reflect and influence their culture in such works as Raisin in the Sun,
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	<p>Antigone, and the Mahabharata.</p> <ul style="list-style-type: none">● Identify key figures, works, and trends in world theatrical history from various cultures and time periods.● Compare a traditional interpretation of a play with a nontraditional interpretation and defend the merits of the different interpretations.● Report on how a specific actor used drama to convey meaning in his or her performances.● Describe how skills acquired in theatre may be applied to other content areas and careers.● Manage time, prioritize responsibilities, and meet completion deadlines for a production as specified by group leaders, team members, or directors.● Demonstrate an understanding of the professional standards of the actor, director, scriptwriter, and technical artist, such as the requirements for union membership.
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Creating	Performing	Responding	Connecting
<p>Anchor Standard 1: <i>Generate and conceptualize artistic ideas and work</i></p> <p><i>HS Proficient</i> <i>TH:Cr1.1.I.</i> a. Apply basic research to construct ideas about the visual composition of a drama/theatre work. b. Explore the impact of technology on design choices in a drama/theatre work. c. Use script analysis to generate ideas about a character that is believable and authentic in a drama/theatre work.</p> <p><i>HS Accomplished</i> <i>TH:Cr1.1.II.</i> a. Investigate historical and cultural conventions and their impact on the visual composition of a drama/theatre work.</p>	<p>Anchor Standard 4: <i>Select, analyze, and interpret artistic work for presentation.</i></p> <p><i>HS Proficient</i> <i>TH:Pr4.1.I.</i> a. Examine how character relationships assist in telling the story of a drama/theatre work. b. Shape character choices using given circumstances in a drama/theatre work.</p> <p><i>HS Accomplished</i> <i>TH:Pr4.1.II.</i> a. Discover how unique choices shape believable and sustainable drama/theatre work. b. Identify essential text information, research from various sources, and the director’s concept that influence character choices in a drama/theatre work.</p>	<p>Anchor Standard 7: <i>Perceive and analyze artistic work</i></p> <p><i>HS Proficient</i> <i>TH: Re7.1.I.</i> a. Respond to what is seen, felt, and heard in a drama/theatre work to develop criteria for artistic choices.</p> <p><i>HS Accomplished</i> <i>TH: Re7.1.II.</i> a. Demonstrate an understanding of multiple interpretations of artistic criteria and how each might be used to influence future artistic choices of a drama/theatre work.</p> <p><i>HS Advanced</i> <i>TH: Re7.1.-III.</i> a. Use historical and cultural context to structure and justify personal responses to a</p>	<p>Anchor Standard 10: <i>Synthesize and relate knowledge and personal experiences to make art.</i></p> <p><i>HS Proficient</i> <i>TH:Cn10.1.I.</i> a. Investigate how cultural perspectives, community ideas and personal beliefs impact a drama/theatre work.</p> <p><i>HS Accomplished</i> <i>TH:Cn10.1.II.</i> a. Choose and interpret a drama/theatre work to reflect or question personal beliefs.</p> <p><i>HS Advanced</i> <i>TH:Cn10.1.III.</i> a. Collaborate on a drama/theatre work that examines a critical global issue using multiple personal, community, and cultural perspectives.</p>

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	<p>b. Understand and apply technology to design solutions for a drama/theatre work. c. Use personal experiences and knowledge to develop a character that is believable and authentic in a drama/theatre work.</p> <p><i>HS Advanced TH:Cr1.1.III.</i></p> <p>a. Synthesize knowledge from a variety of dramatic forms, theatrical conventions, and technologies to create the visual composition of a drama/ theatre work. b. Create a complete design for a drama/theatre work that incorporates all elements of technology. c. Integrate cultural and historical contexts with personal experiences to create a character that is believable and authentic, in a drama/theatre work.</p>	<p><i>HS Advanced TH:Pr4.1.III</i></p> <p>a. Apply reliable research of directors’ styles to form unique choices for a directorial concept in a drama/theatre work. b. Apply a variety of researched acting techniques as an approach to character choices in a drama/theatre work.</p> <p>Anchor Standard 5: <i>Develop and refine artistic techniques and work for presentation.</i></p> <p><i>HS Proficient TH:Pr5.1.I.</i></p> <p>a. Practice various acting techniques to expand skills in a rehearsal or drama/theatre performance. b. Use researched technical elements to increase the impact of design for a drama/theatre production.</p>	<p>drama/theatre work.</p> <p>Anchor Standard 8: <i>Interpret intent and meaning in artistic work.</i></p> <p><i>HS Proficient TH:Re8.1.I.</i></p> <p>a. Analyze and compare artistic choices developed from personal experiences in multiple drama/theatre works. b. Identify and compare cultural perspectives and contexts that may influence the evaluation of a drama/theatre work. c. Justify personal aesthetics, preferences, and beliefs through participation in and observation of a drama/theatre work.</p> <p><i>HS Accomplished TH:Re8.1.II.</i></p> <p>a. Develop detailed supporting evidence and criteria to reinforce artistic</p>	<p>Anchor Standard 11: <i>Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding</i></p> <p><i>HS Proficient TH:Cn11.1.I.</i></p> <p>a. Explore how cultural, global, and historic belief systems affect creative choices in a drama/theatre work.</p> <p><i>TH:Cn11.2.I.</i></p> <p>a. Research how other theatre artists apply creative processes to tell stories in a devised or scripted drama/theatre work, using theatre research methods.</p> <p>b. Use basic theatre research methods to better understand the social and cultural background of a drama/theatre work.</p>
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	<p>Anchor Standard 2: <i>Organize and develop artistic ideas and work.</i></p> <p><i>HS Proficient</i> <i>TH:Cr2-I.</i></p> <p>a. Explore the function of history and culture in the development of a dramatic concept through a critical analysis of original ideas in a drama/theatre work. b. Investigate the collaborative nature of the actor, director, playwright, and designers and explore their interdependent roles in a drama/theatre work.</p> <p><i>HS Accomplished</i> <i>TH:Cr2-II.</i></p> <p>a. Refine a dramatic concept to demonstrate a critical understanding of historical and cultural influences of original ideas applied to a drama/theatre work. b. Cooperate as a creative</p>	<p><i>HS Accomplished</i> <i>TH:Pr5.1.II.</i></p> <p>a. Refine a range of acting skills to build a believable and sustainable drama/theatre performance. b. Apply technical elements and research to create a design that communicates the concept of a drama/theatre production.</p> <p><i>HS Advanced</i> <i>TH:Pr5.1.III.</i></p> <p>a. Use and justify a collection of acting exercises from reliable resources to prepare a believable and sustainable performance. b. Explain and justify the selection of technical elements used to build a design that communicates the concept of a drama/theatre production.</p> <p>Anchor Standard 6:</p>	<p>choices, when participating in or observing a drama/theatre work. b. Apply concepts from a drama/theatre work for personal realization about cultural perspectives and understanding. c. Debate and distinguish multiple aesthetics, preferences, and beliefs through participation in and observation of drama/theatre work.</p> <p><i>HS Advanced</i> <i>TH:Re8.1.III.</i></p> <p>a. Use detailed supporting evidence and appropriate criteria to revise personal work and interpret the work of others when participating in or observing a drama/ theatre work. b. Use new understandings of cultures and contexts to shape personal responses to drama/theatre work. c. Support and explain</p>	<p><i>HS Accomplished</i> <i>TH:Cn11.1.II.</i></p> <p>a. Integrate conventions and knowledge from different art forms and other disciplines to develop a cross-cultural drama/theatre work.</p> <p><i>TH:Cn11.2.II.</i></p> <p>a. Formulate creative choices for a devised or scripted drama/theatre work based on theatre research about the selected topic. b. Explore how personal beliefs and biases can affect the interpretation of research data applied in drama/theatre work.</p> <p><i>HS Advanced</i> <i>TH:Cn11.1.III.</i></p> <p>a. Develop a drama/theatre work that identifies and questions cultural, global, and historic belief systems.</p>
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	<p>team to make interpretive choices for a drama/theatre work.</p> <p><i>HS Advanced</i> <i>TH:Cr2-III.</i></p> <p>a. Develop and synthesize original ideas in a drama/theatre work utilizing critical analysis, historical and cultural context, research, and western or nonwestern theatre traditions.</p> <p>b. Collaborate as a creative team to discover artistic solutions and make interpretive choices in a devised or scripted drama/theatre work.</p> <p>Anchor Standard 3: : <i>Refine and complete artistic work.</i></p> <p><i>HS Proficient</i> <i>TH:Cr3.1.I.</i></p> <p>a. Practice and revise a devised or scripted drama/theatre work using</p>	<p><i>Convey meaning through the presentation of artistic work.</i></p> <p><i>HS Proficient</i> <i>TH:Pr6.1.I.</i></p> <p>a. Perform a scripted drama/theatre work for a specific audience.</p> <p><i>HS Accomplished</i> <i>TH:Pr6.1.II.</i></p> <p>a. Present a drama/theatre work using creative processes that shape the production for a specific audience.</p> <p><i>HS Advanced</i> <i>TH:Pr6.1.III.</i></p> <p>a. Present a drama/theatre production for a specific audience that employs research and analysis grounded in the creative perspectives of the playwright, director, designer, and dramaturg.</p>	<p>aesthetics, preferences, and beliefs to create a context for critical research that informs artistic decisions in a drama/theatre work.</p> <p>Anchor Standard 9: : <i>Apply criteria to evaluate artistic work.</i></p> <p><i>HS Proficient</i> <i>TH:Re9.1.I.</i></p> <p>a. Examine a drama/theatre work using supporting evidence and criteria, while considering art forms, history, culture, and other disciplines.</p> <p>b. Consider the aesthetics of the production elements in a drama/theatre work.</p> <p>c. Formulate a deeper understanding and appreciation of a drama/theatre work by considering its specific purpose or intended audience.</p>	<p><i>TH:Cn11.2.III.</i></p> <p>a. Justify the creative choices made in a devised or scripted drama/theatre work, based on a critical interpretation of specific data from theatre research.</p> <p>b. Present and support an opinion about the social, cultural, and historical understandings of a drama/theatre work, based on critical research.</p>
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	<p>theatrical staging conventions.</p> <p>b. Explore physical, vocal and physiological choices to develop a performance that is believable, authentic, and relevant to a drama/theatre work.</p> <p>c. Refine technical design choices to support the story and emotional impact of a devised or scripted drama/ theatre work.</p> <p><i>HS Accomplished TH:Cr3.1.II.</i></p> <p>a. Use the rehearsal process to analyze the dramatic concept and technical design elements of a devised or scripted drama/theatre work.</p> <p>b. Use research and script analysis to revise physical, vocal, and physiological choices impacting the believability and relevance of a drama/ theatre work.</p> <p>c. Re-imagine and revise technical design choices</p>		<p><i>HS Accomplished TH:Re9.1.II.</i></p> <p>a. Analyze and assess a drama/theatre work by connecting it to art forms, history, culture, and other disciplines using supporting evidence and criteria.</p> <p>b. Construct meaning in a drama/theatre work, considering personal aesthetics and knowledge of production elements while respecting others' interpretations.</p> <p>c. Verify how a drama/theatre work communicates for a specific purpose and audience.</p> <p><i>HS Advanced TH:Re9.1.III.</i></p> <p>a. Research and synthesize cultural and historical information related to a drama/theatre work to support or evaluate artistic choices.</p>	
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	<p>during the course of a rehearsal process to enhance the story and emotional impact of a devised or scripted drama/theatre work.</p> <p><i>HS Advanced</i> <i>TH:Cr3.1.III.</i></p> <p>a. Refine, transform, and re-imagine a devised or scripted drama/theatre work using the rehearsal process to invent or re-imagine style, genre, form, and conventions.</p> <p>b. Synthesize ideas from research, script analysis, and context to create a performance that is believable, authentic, and relevant in a drama/theatre work.</p> <p>c. Apply a high level of technical proficiencies to the rehearsal process to support the story and emotional impact of a devised or scripted drama/theatre work.</p>		<p>b. Analyze and evaluate varied aesthetic interpretations of production elements for the same drama/theatre work.</p> <p>c. Compare and debate the connection between a drama/theatre work and contemporary issues that may impact audiences.</p>	
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<p>Focus Area 3:</p> <p>Music**</p>	<p>Focus Area Content:</p> <p>Students will complete coursework that will require them to demonstrate their understanding of key concepts in music. Students will be assessed in their ability to meet the state standards through assessments aligned to the standards following the learning goals listed below.</p> <p>Instructors should use the state’s Model Cornerstone Assessments in designing their summative assessments that measure their students’ ability to meet the requirements of the arts standards for their individual proficiency level.</p> <p>Additionally for music there are other strands of standards that are determined by the type of music being studied. We are outlining the harmonizing instruments standards here.</p> <p>By the end of coursework in this focus area, students should be able to:</p> <ul style="list-style-type: none">● Read an instrumental or vocal score of up to four staves and explain how the elements of music are used.● Transcribe simple songs when presented aurally into melodic and rhythmic notation● Sight-read music accurately and expressively● Analyze and describe the use of musical elements and expressive devices (e.g., articulation, dynamic markings) in aural examples in a varied repertoire of music representing diverse genres, styles, and cultures.● Identify and explain a variety of compositional devices and techniques used to provide unity, variety, tension, and release in aural examples.● Analyze the use of form in a varied repertoire of music representing diverse genres, styles, and cultures.● Sing a repertoire of vocal literature representing various genres, styles, and cultures with expression, technical accuracy, tone quality, vowel shape, and articulation written and memorized, by oneself and in
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	<p>ensembles.</p> <p>OR</p> <p>Perform on an instrument a repertoire of instrumental literature representing various genres, styles, and cultures with expression, technical accuracy, tone quality, and articulation, by oneself and in ensembles.</p> <ul style="list-style-type: none">● Sing music written in three or four parts with and without accompaniment.● Sing in small ensembles, with one performer for each part. <p>OR</p> <p>Perform on an instrument in small ensembles, with one performer for each part.</p> <ul style="list-style-type: none">● Compose music, using musical elements for expressive effect.● Compose and arrange music for voices or various acoustic or digital/electronic instruments, using appropriate ranges for traditional sources of sound.● Arrange pieces for voices and instruments other than those for which the pieces were originally written.● Improvise harmonizing parts, using an appropriate style.● Improvise original melodies over given chord progressions.● Identify the sources of musical genres of the United States, trace the evolution of those genres, and cite well-known musicians associated with them.● Explain the various roles that musicians perform, identify representative individuals who have functioned in each role, and explain their activities and achievements.
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	<ul style="list-style-type: none">● Describe the differences between styles in traditional folk genres within the United States.● Perform music from various cultures and time periods.● Classify, by genre or style and historical period or culture, unfamiliar but representative aural examples of music and explain the reasoning for the classification.● Develop specific criteria for making informed critical evaluations of the quality and effectiveness of performances, compositions, arrangements, and improvisations and apply those criteria in personal participation in music.● Evaluate a performance, composition, arrangement, or improvisation by comparing each with an exemplary model.● Explain how people in a particular culture use and respond to specific musical works from that culture.● Describe the means used to create images or evoke feelings and emotions in musical works from various cultures.● Explain how elements, artistic processes, and organizational principles are used in similar and distinctive ways in the various arts.● Analyze the role and function of music in radio, television, and advertising.● Research musical careers in radio, television, and advertising.
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Creating	Performing	Responding	Connecting
<p>Anchor Standard 1: <i>Generate and conceptualize artistic ideas and work</i></p> <p><i>HS Proficient</i> <i>MU:Cr1.1.H.Ia</i> Generate melodic, rhythmic, and harmonic ideas for improvisations, compositions (forms such as theme and variation or 12-bar blues), and three-or-more- chord accompaniments in a variety of patterns (such as arpeggio, country and gallop strumming, fingerpicking patterns).</p> <p><i>HS Accomplished</i> <i>MU:Cr1.1.H.IIa</i> Generate melodic, rhythmic, and harmonic ideas for compositions (forms such as rounded binary or rondo), improvisations, accompaniment patterns in</p>	<p>Anchor Standard 4: <i>Select, analyze, and interpret artistic work for presentation</i></p> <p><i>HS Proficient</i> <i>MU:Pr4.1.H.Ia</i> Explain the criteria used when selecting a varied repertoire of music for individual or small group performances that include melodies, repertoire pieces, improvisations, and chordal accompaniments in a variety of patterns (such as arpeggio, country and gallop strumming, fingerpicking patterns).</p> <p><i>MU:Pr4.2.H.Ia</i> Identify and describe important theoretical and structural characteristics and context (social, cultural, or historical) in a varied repertoire of music that includes melodies,</p>	<p>Anchor Standard 7: <i>Perceive and analyze artistic work</i></p> <p><i>HS Proficient</i> <i>MU:Re7.1.H.Ia</i> Apply criteria to select music for a variety of purposes, justifying choices citing knowledge of the music and the specified purpose and context.</p> <p><i>MU:Re7.2.H.Ia</i> Compare passages in musical selections and explain how the elements of music and context (social, cultural, or historical) inform the response.</p> <p><i>HS Accomplished</i> <i>MU:Re7.1.H.IIa</i> Apply criteria to select music for a variety of purpose, justifying choices citing knowledge of music</p>	<p>Anchor Standard 10: <i>Synthesize and relate knowledge and personal experiences to make art.</i></p> <p><i>HS Proficient</i> <i>MU:Cn10.0.H.Ia</i> Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. <i>(MU:Cr3.2.H.Ia, MU:Pr4.1.H.Ia, and MU:Re7.1.H.Ia are embedded)</i></p> <p><i>HS Accomplished</i> <i>MU:Cn10.0.H.IIa</i> Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. <i>(MU:Cr3.2.H.IIa and MU:Pr4.1.H.IIa are</i></p>

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	<p>a variety of styles, and harmonizations for given melodies.</p> <p><i>HS Advanced</i> <i>MU:Cr1.1.H.IIIa</i> Generate melodic, rhythmic, and harmonic ideas for a collection of compositions (representing a variety of forms and styles), improvisations in several different styles, and stylistically appropriate harmonizations for given melodies.</p> <p>Anchor Standard 2: <i>Organize and develop artistic ideas and work.</i></p> <p><i>HS Proficient</i> <i>MU:Cr2.1.H.Ia</i> Select, develop, and use standard notation and audio/video recording to document melodic, rhythmic, and harmonic ideas for drafts of improvisations,</p>	<p>repertoire pieces, improvisations, and chordal accompaniments in a variety of patterns (such as arpeggio, country and gallop strumming, fingerpicking patterns).</p> <p><i>MU:Pr4.3.H.Ia</i> Describe in interpretations the context (social, cultural, or historical) and expressive intent in a varied repertoire of music selected for performance that includes melodies, repertoire pieces, improvisations, and chordal accompaniments in a variety of patterns (such as arpeggio, country and gallop strumming, finger picking patterns).</p> <p><i>HS Accomplished</i> <i>MU:Pr4.1.H.IIa</i> Develop and apply criteria for selecting a varied repertoire of music for individual and small group</p>	<p>and specified purpose and context.</p> <p><i>MU:Re7.2.H.IIa</i> Explain how the analysis of the structures and context (social, cultural, and historical) of contrasting musical selections inform the response.</p> <p><i>HS Advanced</i> <i>MU:Re7.1.H.IIIa</i> Select, describe, and compare a variety of individual and small group musical programs from varied cultures, genres, and historical periods.</p> <p><i>MU:Re7.2.H.IIIa</i> Demonstrate and justify how the structural characteristics function within a variety of musical selections, and distinguish how context (social, cultural, and historical) and creative decisions inform the response.</p>	<p><i>embedded</i>)</p> <p><i>HS Advanced</i> <i>MU:Cn10.0.H.IIIa</i> Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. <i>(MU:Cr3.2.H.IIIa and MU:Pr4.1.H.IIIa are embedded)</i></p> <p>Anchor Standard 11: <i>Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding</i></p> <p><i>HS Proficient</i> <i>MU:Cn11.0.H.Ia</i> Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. <i>(MU:Pr4.3.H.Ia,</i></p>
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	<p>compositions (forms such as theme and variation or 12-bar blues) , and three-or more- chord accompaniments in a variety of patterns (such as arpeggio, country and gallop strumming, fingerpicking patterns).</p> <p><i>HS Accomplished</i> <i>MU:Cr2.1.H.IIa</i> Select, develop, and use standard notation and audio/video recording to document melodic, rhythmic, and harmonic ideas for drafts of compositions (forms such as rounded binary or rondo), improvisations, accompaniment patterns in a variety of styles, and harmonizations for given melodies.</p> <p><i>HS Advanced</i> <i>MU:Cr2.1.H.IIIa</i> Select, develop, and use standard notation and audio/video recording to document</p>	<p>performances that include melodies, repertoire pieces, improvisations, and chordal accompaniments in a variety of styles.</p> <p><i>MU:Pr4.2.H.IIa</i> Identify and describe important theoretical and structural characteristics and context (social, cultural, and historical) in a varied repertoire of music that includes melodies, repertoire pieces, improvisations, and chordal accompaniments in a variety of styles.</p> <p><i>MU:Pr4.3.H.IIa</i> Explain in interpretations the context (social, cultural, and historical) and expressive intent in a varied repertoire of music selected for performance that includes melodies, repertoire pieces, improvisations, and chordal accompaniments in a</p>	<p><i>Anchor Standard 8:</i> <i>Interpret intent and meaning in artistic work.</i></p> <p><i>HS Proficient</i> <i>MU:Re8.1.H.Ia</i> Explain and support interpretations of the expressive intent and meaning of musical selections, citing as evidence the treatment of the elements of music, context (personal, social, and cultural), and (when appropriate) the setting of the text, and outside sources.</p> <p><i>HS Accomplished</i> <i>MU:Re8.1.H.IIa</i> Explain and support interpretations of the expressive intent and meaning of musical selections, citing as evidence the treatment of the elements of music, context (personal, social, and cultural), and (when</p>	<p><i>MU:Re7.2.H.Ia, and MU:Re9.1.H.Ia are embedded)</i></p> <p><i>HS Accomplished</i> <i>MU:Cn11.0.H.IIa</i> Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. <i>(MU:Pr4.3.H.IIa, MU:Re7.2.H.IIa, and MU:Re9.1.H.IIa are embedded)</i></p> <p><i>HS Advanced</i> <i>MU:Cn11.0.H.IIIa</i> Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. <i>(MU:Pr4.3.H.IIIa, MU:Re7.2.H.IIIa, and MU:Re9.1.H.IIIa are embedded)</i></p>
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	<p>melodic, rhythmic, and harmonic ideas for drafts of compositions (representing a variety of forms and styles), improvisations in several different styles, and stylistically appropriate harmonizations for given melodies.</p> <p>Anchor Standard 3: <i>Refine and complete artistic work</i></p> <p><i>HS Proficient</i> <i>MU:Cr3.1.H.1a</i> Develop and apply criteria to critique, improve, and refine drafts of improvisations, compositions (forms such as theme and variation or 12-bar blues) and three-or more -chord accompaniments in a variety of patterns (such as arpeggio, country and gallop strumming, fingerpicking patterns).</p>	<p>variety of styles.</p> <p><i>HS Advanced</i> <i>MU:Pr4.1.H.11a</i> Develop and apply criteria for selecting a varied repertoire for a program of music for individual and small group performances that include melodies, repertoire pieces, stylistically appropriate accompaniments, and improvisations in a variety of contrasting styles.</p> <p><i>MU:Pr4.2.H.11a</i> Identify and describe important theoretical and structural characteristics and context (social, cultural, and historical) in a varied repertoire of music selected for performance programs that includes melodies, repertoire pieces, stylistically appropriate accompaniments, and improvisations in a variety</p>	<p>appropriate) the setting of the text, and varied researched sources.</p> <p><i>HS Advanced</i> <i>MU:Re8.1.H.11a</i> Establish and justify interpretations of the expressive intent and meaning of musical selections by comparing and synthesizing varied researched sources, including reference to examples from other art forms.</p> <p>Anchor Standard 9: <i>Apply criteria to evaluate artistic work.</i></p> <p><i>HS Proficient</i> <i>MU:Re9.1.H.1a</i> Develop and apply teacher provided and established criteria based on personal preference, analysis, and context (personal, social, and cultural) to evaluate individual and small group musical selections for</p>	
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	<p><i>MU:Cr3.2.H.Ia</i> Perform final versions of improvisations, compositions (forms such as theme and variation or 12-bar blues) , and three-or more -chord accompaniments in a variety of patterns (such as arpeggio, country and gallop strumming, fingerpicking patterns), demonstrating technical skill in applying principles of composition/improvisation and originality in developing and organizing musical ideas.</p> <p><i>HS Accomplished MU:Cr3.1.H.IIa</i> Develop and apply criteria to critique, improve, and refine drafts of compositions (forms such as rounded binary or rondo), improvisations, accompaniment patterns in a variety of styles, and</p>	<p>of contrasting styles.</p> <p><i>MU:Pr4.3.H.IIIa</i> Explain and present interpretations that demonstrate and describe the context (social, cultural, and historical) and an understanding of the creator’s intent in repertoire for varied programs of music that include melodies, repertoire pieces, stylistically appropriate accompaniments, and improvisations in a variety of contrasting styles.</p> <p>Anchor Standard 5: <i>Develop and refine artistic techniques and work for presentation.</i></p> <p><i>HS Proficient MU:Pr5.1.H.Ia</i> Develop and apply criteria to critique individual and small group performances of a varied repertoire of</p>	<p>listening.</p> <p><i>HS Accomplished MU:Re9.1.H.IIa</i> Apply personally-developed and established criteria based on research , personal preference, analysis, interpretation, expressive intent , and musical qualities to evaluate contrasting individual and small group musical selections for listening.</p> <p><i>HS Advanced MU:Re9.1.H.IIIa</i> Develop and justify evaluations of a variety of individual and small group musical selections for listening based on personally developed and established criteria, personal decision making, and knowledge and understanding of context.</p>	
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	<p>harmonizations for given melodies.</p> <p><i>MU:Cr3.2.H.IIa</i> Perform final versions of compositions (forms such as rounded binary or rondo), improvisations, accompaniment patterns in a variety of styles, and harmonizations for given melodies, demonstrating technical skill in applying principles of composition/improvisation and originality in developing and organizing musical ideas.</p> <p><i>HS Advanced</i> <i>MU:Cr3.1.H.IIIa</i> Develop and apply criteria to critique, improve, and refine drafts of compositions (representing a variety of forms and styles) , improvisations in a variety of styles, and stylistically appropriate harmonizations for given</p>	<p>music that includes melodies, repertoire pieces, improvisations, and chordal accompaniments in a variety of patterns (such as arpeggio, country and gallop strumming, fingerpicking patterns), and create rehearsal strategies to address performance challenges and refine the performances.</p> <p><i>HS Accomplished</i> <i>MU:Pr5.1.H.IIa</i> Develop and apply criteria to critique individual and small group performances of a varied repertoire of music that includes melodies, repertoire pieces, improvisations, and chordal accompaniments in a variety of styles, and create rehearsal strategies to address performance challenges and refine the performances.</p> <p><i>HS Advanced</i></p>		
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	<p>melodies.</p> <p><i>MU:Cr3.2.H.IIIa</i> Perform final versions of a collection of compositions (representing a variety of forms and styles), improvisations in several different styles, and stylistically appropriate harmonizations for given melodies, demonstrating technical skill in applying principles of composition/improvisation and originality in developing and organizing musical ideas.</p>	<p><i>MU:Pr5.1.H.IIIa</i> Develop and apply criteria, including feedback from multiple sources , to critique varied programs of music repertoire (melodies, repertoire pieces, stylistically appropriate accompaniments, improvisations in a variety of contrasting styles) selected for individual and small group performance, and create rehearsal strategies to address performance challenges and refine the performances.</p> <p>Anchor Standard 6: <i>Convey meaning through the presentation of artistic work.</i></p> <p><i>HS Proficient</i> <i>MU:Pr6.1.H.Ia</i> Perform with expression and technical accuracy, in individual and small group performance s, a varied</p>		
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		<p>repertoire of music that includes melodies, repertoire pieces, improvisations, and chordal accompaniments in a variety of patterns (such as arpeggio, country and gallop strumming, fingerpicking patterns), demonstrating sensitivity to the audience and an understanding of the context (social, cultural, or historical).</p> <p><i>HS Accomplished</i> <i>MU:Pr6.1.H.IIa</i> Perform with expression and technical accuracy, in individual and small group performances, a varied repertoire of music that includes melodies, repertoire pieces, improvisations, and chordal accompaniments in a variety of styles, demonstrating sensitivity to the audience and an understanding of the</p>		
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		<p>context (social, cultural, and historical).</p> <p><i>HS Advanced</i> <i>MU:Pr6.1.H.IIIa</i> Perform with expression and technical accuracy, in individual and small group performances, a varied repertoire for programs of music that includes melodies, repertoire pieces, stylistically appropriate accompaniments, and improvisations in a variety of contrasting styles, demonstrating sensitivity to the audience and an understanding of the context (social, cultural, and historical).</p>		
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Section 3.4.7-50

**Section 1.3 - Education Plan :: Attachment 4 - Course Scope and
Sequence :: World Languages**

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Section 3 - Attachment 4.8 - World Languages Scope and Sequence

<p>Course Title: World Languages I (Spanish) Grade(s): 9th-12th</p>	
<p>Course Content: This course will help students meet the Delaware World-Readiness Standards for Learning Languages and prepare them to be global citizens. Learners will develop interpersonal, interpretive, and presentational communication skills through meaningful situations, and integration of subject content such as health and physical education, visual arts, music, language arts, mathematics, sciences, and social studies. Students will then internalize culture through experiences with authentic cultural materials and practices in the target language.*</p> <p>Each unit will cover all goal areas (communication, cultures, connections, comparisons, and community) and their aligned standards.</p> <p>By the end of the course, students should gain proficiency at the levels listed below:</p> <ul style="list-style-type: none"> ▶ Interpersonal (Speaking and Listening): Novice-Mid ▶ Interpretive Listening: Novice-High ▶ Presentational Speaking: Novice-High ▶ Interpretive Reading: Novice-Mid ▶ Presentational Writing: Novice-Mid 	
<p>Unit 1: Student's Life</p>	<p>Unit Content:</p> <p>The students will participate in activities related to a student's life. This unit will address the topics of personal life and style with varying levels of depth and breadth. Students will explore a variety of topics spanning from personality to clothing and fashion.</p> <p>By the end of this unit, students should be able to:</p> <p><i>Communication (1.1, 1.2, and 1.3)</i></p> <ul style="list-style-type: none"> ● greet peers

*Based on the Delaware World-Readiness Standards for Learning Languages and the District of Columbia Modern World Languages Scope and Sequence - Level 1, **Level 2,
Section 3.4.8-1

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- introduce self to someone
- answer a few simple questions
- occasionally identify the sound of a character or a word
- occasionally understand isolated words that have been memorized, particularly when accompanied by gestures or pictures
- recognize a few letters or characters
- connect some words, phrases, or characters to their meanings
- recite words and phrases that they have learned
- state the names of familiar people, places, and objects in pictures and posters using words or memorized phrases
- introduce themselves to a group.
- recite short memorized phrases, parts of poems, and rhymes
- copy some characters or letters and words that they see on the wall or board, in a book, or on the computer
- write words and phrases that they have learned
- label familiar people, places, and objects in pictures and posters
- fill out a simple form with some basic personal information

Cultures (2.1, 2.2)

- use appropriate gestures and oral expressions for greetings, leave takings, and common classroom or social interactions.

*Based on the Delaware World-Readiness Standards for Learning Languages and the District of Columbia Modern World Languages Scope and Sequence - Level 1, **Level 2,
Section 3.4.8-2

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	<ul style="list-style-type: none">● identify and observe tangible products of the target culture such as toys, dress, homes, monuments, currency, famous people, and art. <p><i>Connections (3.1, 3.2)</i></p> <ul style="list-style-type: none">● use science knowledge and skills to record daily temperatures and weather in different locations around the world, giving reasons for temperatures based on location and time of year.● view websites of schools in countries where the target language is spoken to identify courses, schedules, and special projects, and compare the information to their school's website. <p><i>Comparisons (4.1, 4.2)</i></p> <ul style="list-style-type: none">● cite and use examples of words that are similar in the language they are learning and their native language and they pose guesses about why languages in general might need to borrow words.● identify cognates between the target language and their native language and cite the patterns that connect them, and they detect false cognates when the context in which they see them suggests a misfit.● compare games, stories, songs, and rhymes from their childhood to those in the target culture.● compare daily routines in their culture and the target culture. <p><i>Communities (5.1, 5.2)</i></p> <ul style="list-style-type: none">● identify professions which require proficiency in another language.● interpret materials and/or use media from the target language and culture for enjoyment.
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*Based on the Delaware World-Readiness Standards for Learning Languages and the District of Columbia Modern World Languages Scope and Sequence - Level 1, **Level 2,
Section 3.4.8-3

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<p>Unit 2: Social Life</p>	<p>Unit Content:</p> <p>Students will participate in activities related to a student’s social life. This unit will address the topics of school, friendships and leisure activities with varying levels of depth and breadth. Students will explore a variety of topics spanning from school calendar to hobbies and talents.</p> <p>By the end of this unit, students should be able to:</p> <p><i>Communication (1.1, 1.2, and 1.3)</i></p> <ul style="list-style-type: none">● greet and leave people in a polite way● introduce self and others● answer a variety of simple questions● make some simple statements in a conversation● understand a few courtesy phrases.● recognize words, phrases, and characters with the help of visuals● present information about themselves and others using words and phrases● express their likes and dislikes using words, phrases, and memorized expressions● present information about familiar items in their immediate environment● write about themselves using learned phrases and memorized expressions● list their daily activities and write lists that help them in their day-to-day life <p><i>Cultures (2.1, 2.2)</i></p> <ul style="list-style-type: none">● create or propose simple cultural triangles connecting practices to associated products and perspectives.
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*Based on the Delaware World-Readiness Standards for Learning Languages and the District of Columbia Modern World Languages Scope and Sequence - Level 1, **Level 2,
Section 3.4.8-4

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	<ul style="list-style-type: none"> ● give simple reasons for the role and importance of products from the target culture. <p><i>Connections (3.1, 3.2)</i></p> <ul style="list-style-type: none"> ● use mathematics skills to convert american dollars to the currencies of countries in the target culture in order to understand prices of items such as clothing, tickets, and restaurant meals. ● interpret the main idea(s) from infographics showing statistics such as numbers of endangered animals, changes in population of cities and countries, and popularity of various sports and leisure activities. <p><i>Comparisons (4.1, 4.2)</i></p> <ul style="list-style-type: none"> ● compare word order in items such as the date and placement of descriptors. ● observe formal and informal forms of language in greetings and leave-takings and try out expressions of politeness in other languages and their own. <p><i>Communities (5.1, 5.2)</i></p> <ul style="list-style-type: none"> ● exchange information about topics of personal interest. ● attend or view via media cultural events and social activities. ● explore the internet to find sites of personal interest where they can use the target language to maintain and increase their communication skills.
<p>Unit 3: Family Life</p>	<p>Unit Content:</p> <p>Students will participate in activities related to a student’s family life. This unit will address the topics of relationships, home life and family event with varying levels of depth and breadth. Students will explore a variety of topics spanning from pets to traditions.</p> <p>By the end of this unit, students should be able to:</p> <p><i>Communication (1.1, 1.2, and 1.3)</i></p>

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- ask some simple questions
- communicate basic information about self and people they know
- communicate some basic information about their everyday lives
- recognize and sometimes understand words and phrases that they have learned for specific purposes
- recognize words, phrases, and characters when they associate them with things they already know
- usually understand short simple messages on familiar topics
- sometimes understand short, simple descriptions with the help of pictures or graphs
- talk about their daily activities using words, phrases, and memorized expressions
- write about themselves using learned phrases and memorized expressions
- list their daily activities and write lists that help them in their day-to-day life

Cultures (2.1, 2.2)

- participate in or simulate age-appropriate cultural activities such as games, birthday celebrations, storytelling, and dramatizations.
- imitate appropriate etiquette from the target culture at mealtime.
- role play simple interactions in stores and restaurants in the target culture.
- listen to and/or read short poems, stories, or plays from the target culture, identifying the author and country of origin.

Connections (3.1, 3.2)

- use mathematics skills to convert weights and measures from the American system to the metric system in order to understand distances, sizes, and quantities of items.

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Section 3.4.8-6

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	<ul style="list-style-type: none">● use knowledge from health and science classes to compare healthy-eating recommendations using food pyramids or the equivalents from countries in the target culture.● identify the main idea(s) of current events reported in the news in the internet from countries where the target language is spoken. <p><i>Comparisons (4.1, 4.2)</i></p> <ul style="list-style-type: none">● inventory idiomatic expressions in both their native language and the language being learned and talk about how idiomatic expressions work in general.● compare celebrations (e.g., birthdays, holidays) in the target cultures to their own.● compare meal time in their culture and the target culture. <p><i>Communities (5.1, 5.2)</i></p> <ul style="list-style-type: none">● do WebQuests and report on a cultural event or a school topic.● listen to music, sing songs, or play musical instruments from the target culture.
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Section 3.4.8-7

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<p>Unit 4: Community Life</p>	<p>Unit Content:</p> <p>Students will participate in activities related to a student’s life in the community. This unit will address the topics of shopping and eating out with varying levels of depth and breadth. Students will explore a variety of topics spanning from types of shops to making reservations.</p> <p>By the end of this unit, students should be able to:</p> <p><i>Communication (1.1, 1.2, and 1.3)</i></p> <ul style="list-style-type: none">● communicate basic information about self and people they know● communicate some basic information about their everyday lives● sometimes understand simple questions or statements on familiar topics.● understand simple information when presented with pictures and graphs.● sometimes understand the main topic of conversations that they overhear.● recognize words, phrases, and characters with the help of visuals● recognize words, phrases, and characters when they associate them with things they already know● present information about their life using phrases and simple sentences● write notes about something they have learned using lists, phrases, and memorized expressions <p><i>Cultures (2.1, 2.2)</i></p> <ul style="list-style-type: none">● create or propose simple cultural triangles connecting practices to associated products and perspectives● role play simple interactions in stores and restaurants in the target culture.● make simple cultural triangles connecting products to associated practices and possible perspectives.
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Section 3.4.8-8

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	<p><i>Connections (3.1, 3.2)</i></p> <ul style="list-style-type: none">● use skills from social studies and english language arts to present short biographical sketches of people from the past and present who have had a positive influence locally and/or globally.● view video clips and identify ways that the people in the target culture protect the environment on a daily basis.● identify the main idea(s) of current events reported in the news in the internet from countries where the target language is spoken. <p><i>Comparisons (4.1, 4.2)</i></p> <ul style="list-style-type: none">● report differences and similarities between the sound and writing systems of their own language and the language being learned.● compare places in a city where the target language is spoken to places in the city where they live. <p><i>Communities (5.1, 5.2)</i></p> <ul style="list-style-type: none">● communicate on a personal level with speakers of the language in person or via email, video chats, instant messaging, and shared video clips.● create imaginary situations to role play interactions that might take place in a community setting● plan real or imaginary travel
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Section 3.4.8-9

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<p>Course Title: World Languages II (Spanish) Grade(s): 9th-12th</p>	
<p>Course Content: This course will help students meet the Delaware World-Readiness Standards for Learning Languages and prepare them to be global citizens. Learners will develop interpersonal, interpretive, and presentational communication skills through meaningful situations, and integration of subject content such as health and physical education, visual arts, music, language arts, mathematics, sciences, and social studies. Students will then internalize culture through experiences with authentic cultural materials and practices in the target language. **</p> <p>Each unit will cover all goal areas (communication, cultures, connections, comparisons, and community) and their aligned standards.</p> <p>By the end of the course, students should gain proficiency at the levels listed below:</p> <ul style="list-style-type: none"> ▶ Interpersonal (Speaking and Listening): Novice-High ▶ Interpretive Listening: Intermediate-Low ▶ Presentational Speaking: Intermediate-Low ▶ Interpretive Reading: Novice-High ▶ Presentational Writing: Novice-High 	
<p>Unit 1: Personal History</p>	<p>Unit Content:</p> <p>The students will participate in activities related to biography, traditions, and memories. This unit will address the topics of daily life, community, and treasured items.</p> <p>By the end of this unit, students should be able to:</p> <p><i>Communication (1.1, 1.2, and 1.3)</i></p> <ul style="list-style-type: none"> ● communicate basic information about self and people they know

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Section 3.4.8-10

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- communicate some basic information about their everyday lives
- exchange some personal information
- sometimes understand the main topic of conversations that they overhear.
- understand the basic purpose of a message
- usually understand short simple messages on familiar topics
- sometimes understand short, simple descriptions with the help of pictures or graphs
- present basic information about a familiar person, place, or thing using phrases and simple sentences
- talk about people, activities, events, and experiences
- express their needs and wants
- write information about their daily life in a letter, blog, discussion board, or email message
- write short notes using phrases and simple sentences

Cultures (2.1, 2.2)

- participate in age-appropriate cultural practices such as games (e.g., role of leader, taking turns), sports, and entertainment (e.g., music, dance, drama).
- identify and analyze cultural products found in literature, news stories, and films from the target culture.

Connections (3.1, 3.2)

- use mathematics skills to convert american dollars to the currencies of countries in the target culture in order to understand prices of items such as clothing, tickets, and restaurant meals.
- access survey results about preferences related to daily life (e.g., music, leisure activities, movies) of people in countries where the target language is spoken and compare the results to preferences of

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Section 3.4.8-11

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	<p>people in their community.</p> <p><i>Comparisons (4.1, 4.2)</i></p> <ul style="list-style-type: none">● identify cognates between the target language and their native language and cite the patterns that connect them, and they detect false cognates when the context in which they see them suggests a misfit.● hypothesize about the similarities of languages based on their awareness of cognates and similar idioms <p><i>Communities (5.1, 5.2)</i></p> <ul style="list-style-type: none">● compare daily routines in their culture and the target culture.● compare and contrast entertainment and leisure options in the target culture and their own.● compare and contrast the role of social networking in the target culture to their own.● discuss their preferences in leisure activities and current events, in written form or orally, with peers.● consult various sources in the target language to obtain information on topics of personal interest.● exchange information around topics of personal interest
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Section 3.4.8-12

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<p>Unit 2: Healthy Living</p>	<p>Unit Content:</p> <p>Students will participate in activities related to wellness and medical care. This unit will address the topics of healthy habits, illness, and injuries. They will explore a variety of topics including nutrition and emergency care.</p> <p>By the end of this unit, students should be able to:</p> <p><i>Communication (1.1, 1.2, and 1.3)</i></p> <ul style="list-style-type: none">● exchange information using texts, graphs, or pictures● ask for and give simple directions● understand the basic purpose of a message● understand messages related to their basic needs● sometimes understand the main idea of published materials● express their needs and wants● present information on plans, instructions, and directions● write short notes using phrases and simple sentences● write about a familiar experience or event using practiced material <p><i>Cultures (2.1, 2.2)</i></p> <ul style="list-style-type: none">● role play culturally appropriate interactions with service personnel (e.g., shopkeepers) in the target culture.● create cultural triangles connecting products to associated practices along with suggested perspectives based on background information.
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Section 3.4.8-13

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	<p><i>Connections (3.1, 3.2)</i></p> <ul style="list-style-type: none"> ● use knowledge from health and science classes to compare healthy-eating recommendations using food pyramids or the equivalents from countries in the target culture. ● evaluate the role and importance of education for all children in countries where the target language is spoken. ● access a current event article or broadcast on the web in the target language and chart how it compares with the same event reported in the United States. <p><i>Comparisons (4.1, 4.2)</i></p> <ul style="list-style-type: none"> ● match groups of people with ways of expressing respect and communicating status differences in their own language and the language they are learning. ● compare and contrast career choices and preparation in the target culture to their own. <p><i>Communities (5.1, 5.2)</i></p> <ul style="list-style-type: none"> ● interact with members of the local community or with contacts made electronically to hear how they use the language in their various fields of work. ● play sports or games from the target culture.
<p>Unit 3: Destinations</p>	<p>Unit Content:</p> <p>Students will participate in activities related to tourism destinations, people and places, and cultures. This unit will address topics spanning from landmarks to cultural groups.</p> <p>By the end of this unit, students should be able to:</p> <p><i>Communication (1.1, 1.2, and 1.3)</i></p> <ul style="list-style-type: none"> ● exchange information using texts, graphs, or pictures

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 Section 3.4.8-14

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- ask for and give simple directions
- make plans with others
- understand messages related to their basic needs
- understand questions and simple statements on everyday topics when learners are part of the conversation
- sometimes understand short, simple descriptions with the help of pictures or graphs
- sometimes understand the main idea of published materials
- understand simple everyday notices in public places on topics that are familiar to them
- express their needs and wants
- present information on plans, instructions, and directions
- write basic information about things they have learned
- ask for information in writing

Cultures (2.1, 2.2)

- imitate appropriate etiquette from the target culture at mealtime.
- list practices observed in a video of a practice from the target culture.
- listen to and/or read short poems, stories, or plays from the target culture, identifying the author and country of origin.
- search for, identify, and investigate the function of products (e.g., sports equipment, household items, tools, foods, clothing) of the target culture studied compared to their function within the learners' homes and communities.

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Section 3.4.8-15

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	<p><i>Connections (3.1, 3.2)</i></p> <ul style="list-style-type: none">● describe and compare key characteristics of countries where the target language is spoken.● use technology to present representative examples of contemporary culture (e.g., music, art, architecture) from countries where the target language is spoken.● compare listings of houses for sale in countries where the target language is spoken in terms of what features are showcased, cost, size, and location. <p><i>Comparisons (4.1, 4.2)</i></p> <ul style="list-style-type: none">● inventory idiomatic expressions in both their native language and the language being learned and talk about how idiomatic expressions work in general.● compare how different time frames are expressed in the target language and their native language and describe the shades of meaning expressed by such differences.● compare and contrast the role and importance of family in the target culture to their own. <p><i>Communities (5.1, 5.2)</i></p> <ul style="list-style-type: none">● write and illustrate stories to present to others.● use various media from the target language and culture for entertainment.● attend or use media to view cultural events and social activities.
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<p>Unit 4:</p> <p>Travel</p>	<p>Unit Content:</p> <p>Students will participate in activities related to planning for travel, tourism, education, and services. This unit will address topics spanning from accommodations to education opportunities abroad.</p> <p>By the end of this unit, students should be able to:</p> <p><i>Communication (1.1, 1.2, and 1.3)</i></p> <ul style="list-style-type: none">● exchange information using texts, graphs, or pictures● ask for and give simple directions● make plans with others● interact with others in everyday situations● have a simple conversation on a number of everyday topics● understand messages related to their basic needs● understand questions and simple statements on everyday topics when learners are part of the conversation● understand basic information in ads, announcements, and other simple recordings● sometimes understand the main idea of published materials● understand simple everyday notices in public places on topics that are familiar to them● understand messages in which the writer tells or asks the learner about topics of personal interest● present information on plans, instructions, and directions
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Section 3.4.8-17

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- express their preferences on topics of interest
- make a presentation on something they have learned or researched
- write basic information about things they have learned
- ask for information in writing
- write information about their daily life in a letter, blog, discussion board, or email message
- write about topics of interest

Cultures (2.1, 2.2)

- identify and analyze cultural products found in literature, news stories, and films from the target culture.
- begin to adjust language and message to acknowledge audiences with different cultural backgrounds.
- engage in conversations with native speakers demonstrating an awareness of how to be culturally respectful.

Connections (3.1, 3.2)

- use science knowledge and skills to record daily temperatures and weather in different locations around the world, giving reasons for temperatures based on location and time of year.
- access a current event article or broadcast on the web in the target language and chart how it compares with the same event reported in the United States.

Comparisons (4.1, 4.2)

- observe formal and informal forms of language in greetings and leave-takings and try out expressions of politeness in other languages and their own.
- compare places in a city where the target language is spoken to places in the city where they live.

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	<ul style="list-style-type: none">● compare and contrast entertainment and leisure options in the target culture and their own. <p><i>Communities (5.1, 5.2)</i></p> <ul style="list-style-type: none">● present information gained from a native speaker about a cultural event or a topic of interest.● listen to music, sing songs, or play musical instruments from the target culture.● explore the internet to find sites of personal interest where they can use the target language to maintain and increase their communication skills.
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Course Title: World Languages III (Spanish)

Grade(s): 9th-12th

Course Content: This course will help students meet the [Delaware World-Readiness Standards for Learning Languages](#) and prepare them to be global citizens. Learners will develop interpersonal, interpretive, and presentational communication skills through meaningful situations, and integration of subject content such as health and physical education, visual arts, music, language arts, mathematics, sciences, and social studies. Students will then internalize culture through experiences with authentic cultural materials and practices in the target language. **

Each unit will cover all goal areas (communication, cultures, connections, comparisons, and community) and their aligned standards.

By the end of the course, students should gain proficiency at the levels listed below:

- ▶ Interpersonal (Speaking and Listening): Intermediate-Low
- ▶ Interpretive Listening: Intermediate-Mid
- ▶ Presentational Speaking: Intermediate-Mid
- ▶ Interpretive Reading: Intermediate-Low
- ▶ Presentational Writing: Intermediate-Low

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Section 3.4.8-20

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<p>Unit 1:</p> <p>Personal Identities</p>	<p>Unit Content:</p> <p>Students will understand how their sense of self changes over time. They will also explore personal identities of their peers in the target culture. They will interpret and/or produce key phrases and academic vocabulary related to the unit. Topics include but not limited to the following: occupations, affiliations, abilities, and attributes.</p> <p>By the end of this unit, students should be able to:</p> <p><i>Communication (1.1, 1.2, and 1.3)</i></p> <ul style="list-style-type: none">● have a simple conversation on a number of everyday topics● ask and answer questions on factual information that is familiar to them● use the language to meet their basic needs in familiar situations● understand basic information in ads, announcements, and other simple recordings● understand the main idea of what they listen to for personal enjoyment● understand messages related to their everyday life● understand messages in which the writer tells or asks the learner about topics of personal interest● make a presentation about their personal and social experiences● write about people, activities, events and experiences● write about topics of interest● write basic instructions on how to make or do something <p><i>Cultures (2.1, 2.2)</i></p>
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Section 3.4.8-21

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- observe, analyze, and exchange information on patterns of behavior typical of their peer group in the culture, such as observing and analyzing how different ways of greeting and leave-taking reflect the relationships between people in the target culture.
- participate in age-appropriate cultural practices such as games (e.g., role of leader, taking turns), sports, and entertainment (e.g., music, dance, drama).
- identify and analyze cultural practices from authentic materials such as videos and news articles.
- experience (read, listen to, observe, perform) expressive products of the target culture (e.g., stories, poetry, music, paintings, dance, drama) and explain the origin and importance of these products in today's culture.

Connections (3.1, 3.2)

- use technology to present representative examples of contemporary culture (e.g., music, art, architecture) from countries where the target language is spoken.
- access survey results about preferences related to daily life (e.g., music, leisure activities, movies) of people in countries where the target language is spoken and compare the results to preferences of people in their community.

Comparisons (4.1, 4.2)

- compare how different time frames are expressed in the target language and their native language and describe the shades of meaning expressed by such differences
- compare and contrast the role and importance of family in the target culture to their own.
- compare and contrast school schedules, course offerings, and attitudes toward school in the target culture to their own.
- compare and contrast career choices and preparation in the target culture to their own.

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Section 3.4.8-22

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	<p><i>Communities (5.1, 5.2)</i></p> <ul style="list-style-type: none">● discuss their preferences in leisure activities and current events, in written form or orally, with peers.● discuss steps to becoming a professional in a field requiring the ability to communicate in the target language.● present information gained from a native speaker about a cultural event or a topic of interest.● discuss their preferences concerning leisure activities and current events, in written form or orally, with peers who speak the language.● interact with members of the local community or with contacts made electronically to hear how they use the language in their various fields of work.● consult various sources in the target language to obtain information on topics of personal interest.● exchange information around topics of personal interest.● explore the internet to find sites of personal interest where they can use the target language to maintain and increase their communication skills.
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<p>Unit 2: Contemporary Living</p>	<p>Unit Content:</p> <p>Students understand how the conveniences of modern life influence the range of abilities. They will explore aspects of their peers’ contemporary life in the target culture. They will interpret and/or produce key phrases and academic vocabulary related to the unit. Topics include but not limited to the following: lifestyle, leisure, and career pathways.</p> <p>By the end of this unit, students should be able to:</p> <p><i>Communication (1.1, 1.2, and 1.3)</i></p> <ul style="list-style-type: none">● have a simple conversation on a number of everyday topics● ask and answer questions on factual information that is familiar to them● use the language to meet their basic needs in familiar situations● understand messages related to their everyday life● identify some information from news media● make a presentation about their personal and social experiences● write about people, activities, events and experiences● write questions to obtain information <p><i>Cultures (2.1, 2.2)</i></p> <ul style="list-style-type: none">● observe, analyze, and exchange information on patterns of behavior typical of their peer group in the culture, such as observing and analyzing how different ways of greeting and leave-taking reflect the relationships between people in the target culture.● participate in age-appropriate cultural practices such as games (e.g., role of leader, taking turns), sports,
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Section 3.4.8-24

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	<p>and entertainment (e.g., music, dance, drama).</p> <ul style="list-style-type: none">● begin to adjust language and message to acknowledge audiences with different cultural backgrounds.● identify and analyze cultural products found in literature, news stories, and films from the target culture.● create cultural triangles connecting products to associated practices along with suggested perspectives based on background information. <p><i>Connections (3.1, 3.2)</i></p> <ul style="list-style-type: none">● describe and compare key characteristics of countries where the target language is spoken.● maintain a blog comparing attitudes and reactions to current events of global importance in countries where the target language is spoken.● access a current event article or broadcast on the web in the target language and chart how it compares with the same event reported in the United States.● view publicity for products sold in countries where the target language is spoken and compare the publicity to the way similar products are marketed in the United States.● compare news articles on front pages of newspapers from countries where the target language is spoken. <p><i>Comparisons (4.1, 4.2)</i></p> <ul style="list-style-type: none">● hypothesize about the similarities of languages based on their awareness of cognates and similar idioms.● match groups of people with ways of expressing respect and communicating status differences in their own language and the language they are learning.● compare how different time frames are expressed in the target language and their native language and
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Section 3.4.8-25

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	<p>describe the shades of meaning expressed by such differences</p> <ul style="list-style-type: none"> ● hypothesize about the relationship between cultural perspectives and expressive products (e.g., music, visual arts, forms of literature) by analyzing selected products from the target culture and their own. ● compare and contrast entertainment and leisure options in the target culture and their own. <p><i>Communities (5.1, 5.2)</i></p> <ul style="list-style-type: none"> ● discuss their preferences in leisure activities and current events, in written form or orally, with peers. ● discuss their preferences concerning leisure activities and current events, in written form or orally, with peers who speak the language. ● consult various sources in the target language to obtain information on topics of personal interest. ● play sports or games from the target culture. ● attend or use media to view cultural events and social activities. ● listen to music, sing songs, or play musical instruments from the target culture. ● explore the internet to find sites of personal interest where they can use the target language to maintain and increase their communication skills.
<p>Unit 3: Innovations</p>	<p>Unit Content:</p> <p>Students understand how imagination leads to innovation. They will interpret common phrases and/or produce academic vocabulary related to the unit. Topics include but not limited to the following: technology boom, social network, mass media, and health sciences.</p> <p>By the end of this unit, students should be able to:</p>

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 Section 3.4.8-26

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	<p><i>Communication (1.1, 1.2, and 1.3)</i></p> <ul style="list-style-type: none">● ask and answer questions on factual information that is familiar to them● understand basic information in ads, announcements, and other simple recordings● identify some simple information needed on forms● identify some information from news media● make a presentation on something they have learned or researched● write about people, activities, events and experiences● prepare materials for a presentation● write basic instructions on how to make or do something <p><i>Cultures (2.1, 2.2)</i></p> <ul style="list-style-type: none">● observe, analyze, and exchange information on patterns of behavior typical of their peer group in the culture, such as observing and analyzing how different ways of greeting and leave-taking reflect the relationships between people in the target culture.● suggest cultural triangles with reasons connecting practices to associated products and perspectives.● create cultural triangles connecting products to associated practices along with suggested perspectives based on background information. <p><i>Connections (3.1, 3.2)</i></p> <ul style="list-style-type: none">● seek out articles or multimedia in the target language on topics being studied in other classes and enter notes on main ideas in a journal.● make oral or written presentations in the target language on topics being studied in other classes.● research how a major figure from history, science, or the arts is described in the target language and
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*Based on the Delaware World-Readiness Standards for Learning Languages and the District of Columbia Modern World Languages Scope and Sequence - Level 1, **Level 2,
Section 3.4.8-27

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	<p>use it to expand what they already know.</p> <p><i>Comparisons (4.1, 4.2)</i></p> <ul style="list-style-type: none"> ● hypothesize about the similarities of languages based on their awareness of cognates and similar idioms. ● compare and contrast the role of social networking in the target culture to their own. <p><i>Communities (5.1, 5.2)</i></p> <ul style="list-style-type: none"> ● present information gained from a native speaker about a cultural event or a topic of interest. ● write and illustrate stories to present to others. ● consult various sources in the target language to obtain information on topics of personal interest. ● exchange information around topics of personal interest.
<p>Unit 4:</p> <p>Collective Responsibility</p>	<p>Unit Content:</p> <p>Students will understand the role they play in collective responsibility. They will interpret common phrases and/or produce academic vocabulary related to the unit. Topics include but not limited to the following: advocacy, sustainable development, and community service.</p> <p>By the end of this unit, students should be able to:</p> <p><i>Communication (1.1, 1.2, and 1.3)</i></p> <ul style="list-style-type: none"> ● ask and answer questions on factual information that is familiar to them ● use the language to meet their basic needs in familiar situations ● start, maintain, and end a conversation on a variety of familiar topics

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- understand messages related to their everyday life
- identify some simple information needed on forms
- identify some information from news media
- make a presentation about common interests and issues and state their viewpoint
- prepare materials for a presentation
- write basic instructions on how to make or do something
- write questions to obtain information

Cultures (2.1, 2.2)

- identify and analyze cultural practices from authentic materials such as videos and news articles.
- engage in conversations with native speakers demonstrating an awareness of how to be culturally respectful.
- use formal and informal forms of address appropriately in rehearsed situations.
- role play culturally appropriate interactions with service personnel (e.g., shopkeepers) in the target culture.
- begin to adjust language and message to acknowledge audiences with different cultural backgrounds.
- experience (read, listen to, observe, perform) expressive products of the target culture (e.g., stories, poetry, music, paintings, dance, drama) and explain the origin and importance of these products in today's culture.

Connections (3.1, 3.2)

- report on and evaluate the effectiveness of efforts to protect the environment in countries where the

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	<p>target language is spoken.</p> <ul style="list-style-type: none">● maintain a blog comparing attitudes and reactions to current events of global importance in countries where the target language is spoken.● evaluate the role and importance of education for all children in countries where the target language is spoken.● research and compare how countries where the target language is spoken deal with environmental issues (such as water shortages).● research how a major figure from history, science, or the arts is described in the target language and use it to expand what they already know.● compare listings of houses for sale in countries where the target language is spoken in terms of what features are showcased, cost, size, and location. <p><i>Comparisons (4.1, 4.2)</i></p> <ul style="list-style-type: none">● match groups of people with ways of expressing respect and communicating status differences in their own language and the language they are learning.● compare and contrast the role of social networking in the target culture to their own.● compare and contrast career choices and preparation in the target culture to their own. <p><i>Communities (5.1, 5.2)</i></p> <ul style="list-style-type: none">● discuss steps to becoming a professional in a field requiring the ability to communicate in the target language.● use their knowledge of the target language to tutor english language learners who speak the target language.● interact with members of the local community or with contacts made electronically to hear how they
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Section 3.4.8-30

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	<p>use the language in their various fields of work.</p> <ul style="list-style-type: none">● participate in language club activities which benefit the school or community.● attend or use media to view cultural events and social activities.● explore the internet to find sites of personal interest where they can use the target language to maintain and increase their communication skills.
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Section 1.3 - Education Plan :: Attachment 5 - Units of instruction



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Grade 6 • Module 1

Ratios and Unit Rates

OVERVIEW

In this module, students are introduced to the concepts of ratio and rate. Their previous experience solving problems involving multiplicative comparisons, such as *Max has three times as many toy cars as Jack*, (**4.OA.A.2**) serves as the conceptual foundation for understanding ratios as a multiplicative comparison of two or more numbers used in quantities or measurements (**6.RP.A.1**). Students develop fluidity in using multiple forms of ratio language and ratio notation. They construct viable arguments and communicate reasoning about ratio equivalence as they solve ratio problems in real-world contexts (**6.RP.A.3**). As the first topic comes to a close, students develop a precise definition of the value of a ratio $a:b$, where $b \neq 0$ as the value $\frac{a}{b}$, applying previous understanding of fraction as division (**5.NF.B.3**). They can then formalize their understanding of equivalent ratios as ratios having the same value.

With the concept of ratio equivalence formally defined, students explore collections of equivalent ratios in real-world contexts in Topic B. They build ratio tables and study their additive and multiplicative structure (**6.RP.A.3a**). Students continue to apply reasoning to solve ratio problems while they explore representations of collections of equivalent ratios and relate those representations to the ratio table (**6.RP.A.3**). Building on their experience with number lines, students represent collections of equivalent ratios with a double number line model. They relate ratio tables to equations using the value of a ratio defined in Topic A. Finally, students expand their experience with the coordinate plane (**5.G.A.1**, **5.G.A.2**) as they represent collections of equivalent ratios by plotting the pairs of values on the coordinate plane. The Mid-Module Assessment follows Topic B.

In Topic C, students build further on their understanding of ratios and the value of a ratio as they come to understand that a ratio of 5 miles to 2 hours corresponds to a rate of 2.5 miles per hour, where the *unit rate* is the numerical part of the rate, 2.5, and *miles per hour* is the newly formed unit of measurement of the rate (**6.RP.A.2**). Students solve unit rate problems involving unit pricing, constant speed, and constant rates of work (**6.RP.A.3b**). They apply their understanding of rates to situations in the real world. Students determine unit prices, use measurement conversions to comparison shop, and decontextualize constant speed and work situations to determine outcomes. Students combine their new understanding of rate to connect and revisit concepts of converting among different-sized standard measurement units (**5.MD.A.1**). They then expand upon this background as they learn to manipulate and transform units when multiplying and dividing quantities (**6.RP.A.3d**). Topic C culminates as students interpret and model real-world scenarios through the use of unit rates and conversions.

In the final topic of the module, students are introduced to percent and find percent of a quantity as a *rate per 100*. Students understand that N percent of a quantity has the same value as $\frac{N}{100}$ of that quantity. Students express a fraction as a percent and find a percent of a quantity in real-world contexts. Students learn to express a ratio using the language of percent and to solve percent problems by selecting from familiar representations, such as tape diagrams and double number lines or a combination of both (**6.RP.A.3c**). The End-of-Module Assessment follows Topic D.

Focus Standards

Understand ratio concepts and use ratio reasoning to solve problems.

- 6.RP.A.1** Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, “The ratio of wings to beaks in the bird house at the zoo was 2: 1, because for every 2 wings there was 1 beak.” “For every vote candidate A received, candidate C received nearly three votes.”*
- 6.RP.A.2** Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. *For example, “This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3/4$ cup of flour for each cup of sugar.” “We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger.”²*
- 6.RP.A.3** Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
- Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
 - Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*
 - Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.
 - Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

Foundational Standards

Use the four operations with whole numbers to solve problems.

- 4.OA.A.2** Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.³

²Expectations for unit rates in this grade are limited to non-complex fractions.

³See Glossary, Table 2.

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

- 5.NF.B.3** Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. *For example, interpret $3/4$ as the result of dividing 3 by 4, noting that $3/4$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $3/4$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?*

Convert like measurement units within a given measurement system.

- 5.MD.A.1** Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

Graph points on the coordinate plane to solve real-world and mathematical problems.

- 5.G.A.1** Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x -axis and x -coordinate, y -axis and y -coordinate).
- 5.G.A.2** Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

Focus Standards for Mathematical Practice

- MP.1** **Make sense of problems and persevere in solving them.** Students make sense of and solve real-world and mathematical ratio, rate, and percent problems using representations, such as tape diagrams, ratio tables, the coordinate plane, and double number line diagrams. They identify and explain the correspondences between the verbal descriptions and their representations and articulate how the representation depicts the relationship of the quantities in the problem. Problems include ratio problems involving the comparison of three quantities, multi-step changing ratio problems, using a given ratio to find associated ratios, and constant rate problems including two or more people or machines working together.
- MP.2** **Reason abstractly and quantitatively.** Students solve problems by analyzing and comparing ratios and unit rates given in tables, equations, and graphs. Students decontextualize a given constant speed situation, representing symbolically the quantities involved with the formula, distance = rate \times time.

- MP.5 Use appropriate tools strategically.** Students become proficient using a variety of representations that are useful in reasoning with rate and ratio problems, such as tape diagrams, double line diagrams, ratio tables, a coordinate plane, and equations. They then use judgment in selecting appropriate tools as they solve ratio and rate problems.
- MP.6 Attend to precision.** Students define and distinguish between ratio, the value of a ratio, a unit rate, a rate unit, and a rate. Students use precise language and symbols to describe ratios and rates. Students learn and apply the precise definition of percent.
- MP.7 Look for and make use of structure.** Students recognize the structure of equivalent ratios in solving word problems using tape diagrams. Students identify the structure of a ratio table and use it to find missing values in the table. Students make use of the structure of division and ratios to model 5 miles/2 hours as a quantity 2.5 mph.

Terminology

New or Recently Introduced Terms

- **Equivalent Ratios** (Two ratios $A:B$ and $C:D$ are *equivalent ratios* if there is a nonzero number c such that $C = cA$ and $D = cB$. For example, two ratios are equivalent if they both have values that are equal.)
- **Measurement of a Quantity** (A *measurement of a quantity* is a representation of that quantity as a multiple of a unit of measurement. The multiple is a number called the *measure* of the quantity. Examples include 3 *inches* or 5 *liters* or 7 *boys* with measures 3, 5, and 7, respectively.)
- **Percent** (One *percent* is the number $\frac{1}{100}$ and is written 1%. Percentages can be used as rates. For example, 30% of a quantity means $\frac{30}{100}$ times the quantity.)
- **Quantity (illustration)** (Examples of a *quantity* include a length, an area, a volume, a mass, a weight, a length of time, or a speed. It is an instance of a type of quantity.)
All quantities of the same type have the properties that (1) two quantities can be compared, (2) two quantities can be combined to get a new quantity of that same type, and (3) there always exists a quantity that is a multiple of any given quantity. These properties help define ways to measure quantities using a standard quantity called a unit of measurement.)
- **Rate (illustration)** (A *rate* is a quantity that describes a ratio relationship between two types of quantities. For example, $1.25 \frac{\text{miles}}{\text{hour}}$ is a rate that describes a ratio relationship between hours and miles: If an object is traveling at a constant $1.25 \frac{\text{miles}}{\text{hour}}$, then after 1 hour it has gone 1.25 miles, after 2 hours it has gone 2.50 miles, after 3 hours it has gone 3.75 miles, and so on. Rates differ from ratios in how they describe ratio relationships—rates are quantities and have the properties of quantities. For example, rates of the same type can be added together to get a new rate, as in $30 \frac{\text{miles}}{\text{hour}} + 20 \frac{\text{miles}}{\text{hour}} = 50 \frac{\text{miles}}{\text{hour}}$, whereas ratios cannot be added together.)

- **Ratio** (A *ratio* is an ordered pair of numbers which are not both zero. A ratio is denoted $A:B$ to indicate the order of the numbers—the number A is first and the number B is second.)
- **Ratio Relationship** (A *ratio relationship* is the set of all ratios that are equivalent ratios. A ratio such as $5:4$ can be used to describe the ratio relationship $\{1:\frac{4}{5}, \frac{5}{4}:1, 5:4, 10:8, 15:12, \dots\}$. Ratio language such as “5 miles for every 4 hours” can also be used to describe a ratio relationship. Ratio relationships are often represented by ratio tables, double number lines diagrams, and by equations and their graphs.)
- **Type of Quantity (illustration)** (Examples of *types of quantities* include lengths, areas, volumes, masses, weights, time, and (later) speeds.)
- **Unit of Measurement** (A *unit of measurement* is a choice of a quantity for a given type of quantity. Examples include 1 cm, 1 m, or 1 in. for lengths, 1 liter or 1 cm^3 for volumes, etc. But the choice could be arbitrary as well, such as the length between the vertical bars: |-----|.)
- **Unit Rate** (When a rate is written as a measurement (i.e., a number times a unit), the *unit rate* is the measure (i.e., the numerical part of the measurement). For example, when the rate of speed of an object is written as the measurement 1.25 mph, the number 1.25 is the unit rate.)
- **Value of a Ratio** (The *value of the ratio* $A:B$ is the quotient $\frac{A}{B}$ as long as B is not zero.)

Familiar Terms and Symbols⁴

- Convert
- Coordinate Plane
- Equation
- Tape Diagram

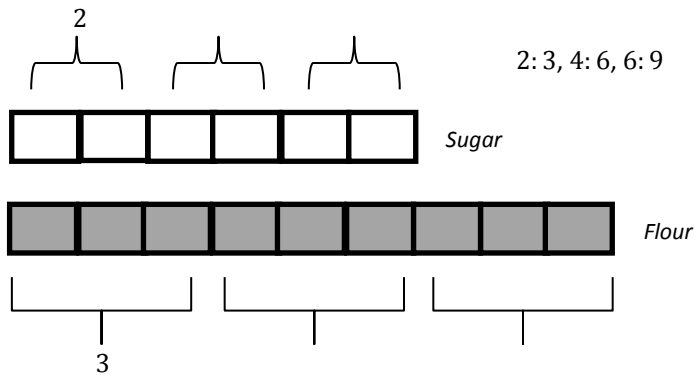
Suggested Tools and Representations

- Tape Diagrams (See example below.)
- Double Number Line Diagrams (See example below.)
- Ratio Tables (See example below.)
- Coordinate Plane (See example below.)

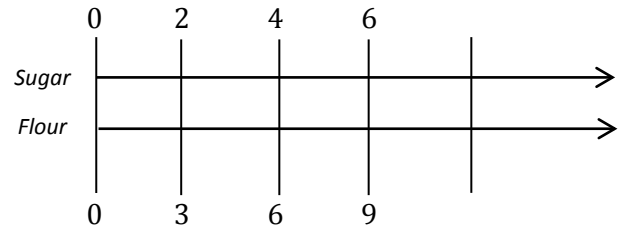
⁴These are terms and symbols students have seen previously.

*Representing Equivalent Ratios for a Cake Recipe
That Uses 2 Cups of Sugar for Every 3 Cups of Flour*

Tape Diagram



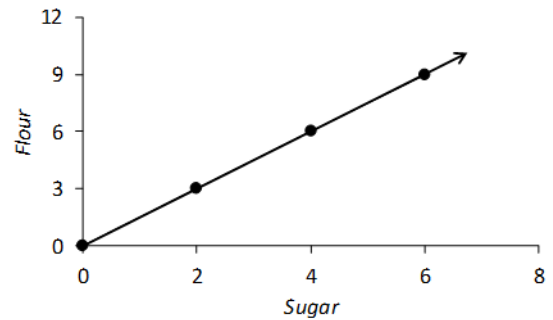
Double Number Line



Ratio Table

Sugar	Flour
2	3
4	6
6	9

Coordinate Plane



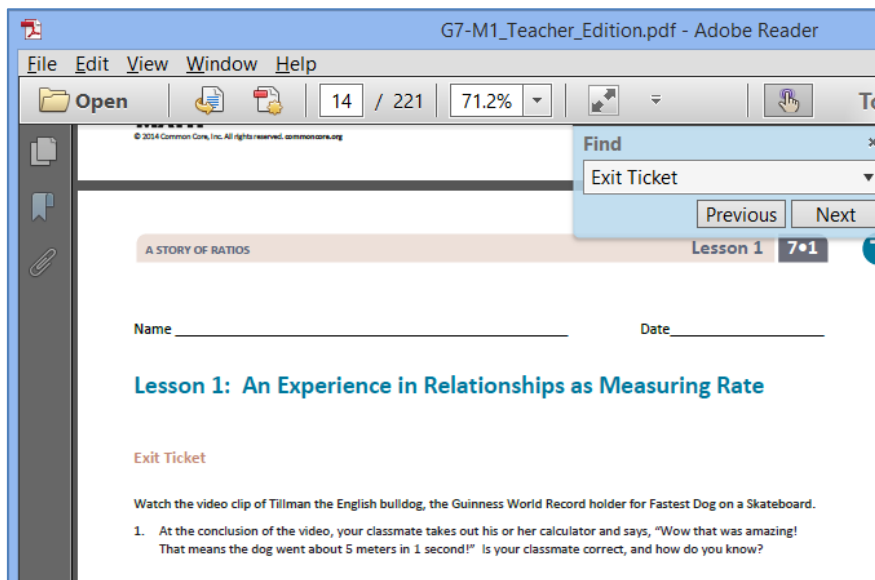
Preparing to Teach a Module

Preparation of lessons will be more effective and efficient if there has been an adequate analysis of the module first. Each module in *A Story of Ratios* can be compared to a chapter in a book. How is the module moving the plot, the mathematics, forward? What new learning is taking place? How are the topics and objectives building on one another? The following is a suggested process for preparing to teach a module.

Step 1: Get a preview of the plot.

- A: Read the Table of Contents. At a high level, what is the plot of the module? How does the story develop across the topics?
- B: Preview the module's Exit Tickets to see the trajectory of the module's mathematics and the nature of the work students are expected to be able to do.

Note: When studying a PDF file, enter "Exit Ticket" into the search feature to navigate from one Exit Ticket to the next.



Step 2: Dig into the details.

- A: Dig into a careful reading of the Module Overview. While reading the narrative, liberally reference the lessons and Topic Overviews to clarify the meaning of the text—the lessons demonstrate the strategies, show how to use the models, clarify vocabulary, and build understanding of concepts.
- B: Having thoroughly investigated the Module Overview, read through the Student Outcomes of each lesson (in order) to further discern the plot of the module. How do the topics flow and tell a coherent story? How do the outcomes move students to new understandings?

Step 3: Summarize the story.

Complete the Mid- and End-of-Module Assessments. Use the strategies and models presented in the module to explain the thinking involved. Again, liberally reference the lessons to anticipate how students who are learning with the curriculum might respond.

Preparing to Teach a Lesson

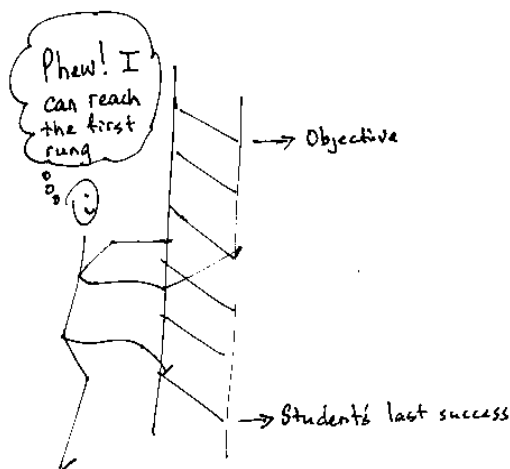
A three-step process is suggested to prepare a lesson. It is understood that at times teachers may need to make adjustments (customizations) to lessons to fit the time constraints and unique needs of their students. The recommended planning process is outlined below. Note: The ladder of Step 2 is a metaphor for the teaching sequence. The sequence can be seen not only at the macro level in the role that this lesson plays in the overall story, but also at the lesson level, where each rung in the ladder represents the next step in understanding or the next skill needed to reach the objective. To reach the objective, or the top of the ladder, all students must be able to access the first rung and each successive rung.

Step 1: Discern the plot.

- A: Briefly review the module’s Table of Contents, recalling the overall story of the module and analyzing the role of this lesson in the module.
- B: Read the Topic Overview related to the lesson, and then review the Student Outcome(s) and Exit Ticket of each lesson in the topic.
- C: Review the assessment following the topic, keeping in mind that assessments can be found midway through the module and at the end of the module.

Step 2: Find the ladder.

- A: Work through the lesson, answering and completing each question, example, exercise, and challenge.
- B: Analyze and write notes on the new complexities or new concepts introduced with each question or problem posed; these notes on the sequence of new complexities and concepts are the rungs of the ladder.
- C: Anticipate where students might struggle, and write a note about the potential cause of the struggle.
- D: Answer the Closing questions, always anticipating how students will respond.



Step 3: Hone the lesson.

Lessons may need to be customized if the class period is not long enough to do all of what is presented and/or if students lack prerequisite skills and understanding to move through the entire lesson in the time allotted. A suggestion for customizing the lesson is to first decide upon and designate each question, example, exercise, or challenge as either “Must Do” or “Could Do.”

- A: Select “Must Do” dialogue, questions, and problems that meet the Student Outcome(s) while still providing a coherent experience for students; reference the ladder. The expectation should be that the majority of the class will be able to complete the “Must Do” portions of the lesson within the allocated time. While choosing the “Must Do” portions of the lesson, keep in mind the need for a balance of dialogue and conceptual questioning, application problems, and abstract problems, and a balance between students using pictorial/graphical representations and abstract representations. Highlight dialogue to be included in the delivery of instruction so that students have a chance to articulate and consolidate understanding as they move through the lesson.

B: “Must Do” portions might also include remedial work as necessary for the whole class, a small group, or individual students. Depending on the anticipated difficulties, the remedial work might take on different forms as suggested in the chart below.

Anticipated Difficulty	“Must Do” Remedial Problem Suggestion
The first problem of the lesson is too challenging.	Write a short sequence of problems on the board that provides a ladder to Problem 1. Direct students to complete those first problems to empower them to begin the lesson.
There is too big of a jump in complexity between two problems.	Provide a problem or set of problems that bridge student understanding from one problem to the next.
Students lack fluency or foundational skills necessary for the lesson.	Before beginning the lesson, do a quick, engaging fluency exercise, such as a Rapid White Board Exchange or Sprint. Before beginning any fluency activity for the first time, assess that students have conceptual understanding of the problems in the set and that they are poised for success with the easiest problem in the set.
More work is needed at the concrete or pictorial level.	Provide manipulatives or the opportunity to draw solution strategies.
More work is needed at the abstract level.	Add a White Board Exchange of abstract problems to be completed toward the end of the lesson.

- C: “Could Do” problems are for students who work with greater fluency and understanding and can, therefore, complete more work within a given time frame.
- D: At times, a particularly complex problem might be designated as a “Challenge!” problem to provide to advanced students. Consider creating the opportunity for students to share their “Challenge!” solutions with the class at a weekly session or on video.
- E: If the lesson is customized, be sure to carefully select Closing questions that reflect such decisions and adjust the Exit Ticket if necessary.

Assessment Summary

Assessment Type	Administered	Format	Standards Addressed
Mid-Module Assessment Task	After Topic B	Constructed response with rubric	6.RP.A.1, 6.RP.A.3 (Stem Only), 6.RP.A.3a
End-of-Module Assessment Task	After Topic D	Constructed response with rubric	6.RP.A.1, 6.RP.A.2, 6.RP.A.3



Topic A

Representing and Reasoning About Ratios

6.RP.A.1, 6.RP.A.3a

Focus Standards:	6.RP.A.1	Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. <i>For example, “The ratio of wings to beaks in the bird house at the zoo was 2: 1, because for every 2 wings there was 1 beak.” “For every vote candidate A received, candidate C received nearly three votes.”</i>
	6.RP.A.3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. <ol style="list-style-type: none"> Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
Instructional Days:	8	
Lessons 1–2:	Ratios (S, E) ¹	
Lessons 3–4:	Equivalent Ratios (P, P)	
Lessons 5–6:	Solving Problems by Finding Equivalent Ratios (P, P)	
Lesson 7:	Associated Ratios and the Value of a Ratio (P)	
Lesson 8:	Equivalent Ratios Defined Through the Value of a Ratio (P)	

In Topic A, students are introduced to the concepts of ratios. Their previous experience solving problems involving multiplicative comparisons, such as *Max has three times as many toy cars as Jack* (**4.OA.A.2**), serves as the conceptual foundation for understanding ratios as a multiplicative comparison of two or more numbers used in quantities or measurements (**6.RP.A.1**). In the first two lessons, students develop fluidity in using multiple forms of ratio language and ratio notation as they read about or watch video clips about ratio relationships and then discuss and model the described relationships. Students are prompted to think of, describe, and model ratio relationships from their own experience. Similarly, Lessons 3 and 4 explore the idea of equivalent ratios. Students read about or watch video clips about situations that call for establishing an equivalent ratio. Students discuss and model the situations to solve simple problems of finding one or more equivalent ratios.

¹Lesson Structure Key: **P**-Problem Set Lesson, **M**-Modeling Cycle Lesson, **E**-Exploration Lesson, **S**-Socratic Lesson

The complexity of problems increases as students are challenged to find values of quantities in a ratio given the total desired quantity or given the difference between the two quantities. *For example, If the ratio of boys to girls in the school is 2:3, find the number of girls if there are 300 more girls than boys.* As the first topic comes to a close, students develop a precise definition of the *value of a ratio* $a:b$, where $b \neq 0$, as the value $\frac{a}{b}$, applying previous understanding of fraction as division (**5.NF.B.3**). Students are then challenged to express their understanding of ratio equivalence using the newly defined term, value of a ratio. They conclude that equivalent ratios are ratios having the same value.



Lesson 1: Ratios

Student Outcomes

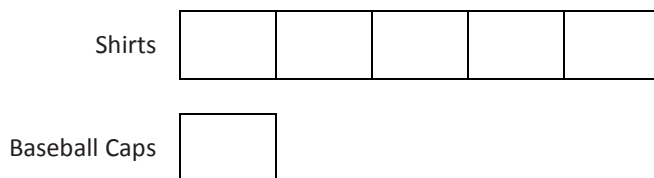
- Students understand that a *ratio* is an ordered pair of numbers which are not both zero. Students understand that a ratio is often used instead of describing the first number as a multiple of the second.
- Students use the precise language and notation of ratios (e.g., 3: 2, 3 to 2). Students understand that the order of the pair of numbers in a ratio matters and that the description of the ratio relationship determines the correct order of the numbers. Students conceive of real-world contextual situations to match a given ratio.

Lesson Notes

The first two lessons of this module develop students' understanding of the term *ratio*. A ratio is always a pair of numbers, such as 2: 3, and never a pair of quantities such as 2 cm: 3 sec. Keeping this straight for students requires teachers to use the term *ratio* correctly and consistently. Students are required to separately keep track of the units in a word problem. We refer to statements about quantities in word problems that define ratios as *ratio language* or *ratio relationship descriptions*. Typical examples of ratio relationship descriptions include 3 cups to 4 cups and 5 miles in 4 hours. The ratios for these ratio relationships are 3: 4 and 5: 4, respectively.

Tape diagrams may be unfamiliar to students. Making a clear connection between multiplicative comparisons and their representation with tape diagrams is essential to student understanding of ratios in this module. Creating and delivering brief opening exercises that demonstrate the use of tape diagrams, as well as providing fluency activities, such as Rapid Whiteboard Exchanges (RWBE), is highly suggested throughout the module. Students bridge their knowledge of multiplicative comparisons to ratio relationships in this lesson and through the rest of the module. An example of a connection between multiplicative comparisons and ratios is as follows:

Cameron has 5 shirts and 1 baseball cap. The multiplicative comparison is Cameron has 5 times as many shirts as he has baseball caps. This can be represented with a tape diagram:



Students are asked to determine the ratio relationship of the number of shirts Cameron has to the number of baseball caps he has. Using the tape diagram above, students see that for every 5 shirts Cameron has, he has 1 baseball cap, or the ratio of the number of shirts Cameron has to the number of baseball caps he has is 5: 1.

Classwork

Example 1 (15 minutes)

Read the example aloud.

Example 1

The coed soccer team has four times as many boys on it as it has girls. We say the ratio of the number of boys to the number of girls on the team is 4: 1. We read this as *four to one*.

- Let's create a table to show how many boys and how many girls could be on the team.

Create a table like the one shown below to show possibilities of the number of boys and girls on the soccer team. Have students copy the table into their student materials.

# of Boys	# of Girls	Total # of Players
4	1	5

- So, we would have four boys and one girl on the team for a total of five players. Is this big enough for a team?
 - Adult teams require 11 players, but youth teams may have fewer. There is no right or wrong answer; just encourage reflection on the question, thereby having students connect their math work back to the context.*
- What are some other ratios that show four times as many boys as girls, or a ratio of boys to girls of 4 to 1?
 - Have students add each ratio to their table.*

# of Boys	# of Girls	Total # of Players
4	1	5
8	2	10
12	3	15

- From the table, we can see that there are four boys for every one girl on the team.

Read the example aloud.

Suppose the ratio of the number of boys to the number of girls on the team is 3: 2.

Create a table like the one shown below to show possibilities of the number of boys and girls on the soccer team. Have students copy the table into their student materials.

# of Boys	# of Girls	Total # of Players
3	2	5



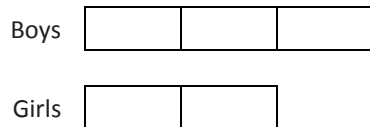
- What are some other team compositions where there are three boys for every two girls on the team?

# of Boys	# of Girls	Total # of Players
3	2	5
6	4	10
9	6	15

- I can't say there are 3 times as many boys as girls. What would my multiplicative value have to be? There are _____ as many boys as girls.

Encourage students to articulate their thoughts, guiding them to say there are $\frac{3}{2}$ as many boys as girls.

- Can you visualize $\frac{3}{2}$ as many boys as girls?
- Can we make a tape diagram (or bar model) that shows that there are $\frac{3}{2}$ as many boys as girls?



- Which description makes the relationship easier to visualize: saying the ratio is 3 to 2 or saying there are 3 halves as many boys as girls?
 - There is no right or wrong answer. Have students explain why they picked their choices.*

Example 2 (8 minutes): Class Ratios

Discussion

Direct students:

- Find the ratio of boys to girls in our class.
- Raise your hand when you know: What is the ratio of boys to girls in our class?
- How can we say this as a multiplicative comparison without using ratios? Raise your hand when you know.

Allow for choral response when all hands are raised.

- Write the ratio of number of boys to number of girls in your student materials under Example 2.
- Compare your answer with your neighbor's answer. Does everyone's ratio look exactly the same?

Allow for discussion of differences in what students wrote. Communicate the following in the discussions:

- It is ok to use either the colon symbol or the word *to* between the two numbers of the ratio.
- The ratio itself does not have units or descriptive words attached.
 - Raise your hand when you know: What is the ratio of number of girls to number of boys in our class?
 - Write the ratio in your student materials under Example 2.
 - Is the ratio of number of girls to number of boys the same as the ratio of number of boys to number of girls?
 - Unless in this case there happens to be an equal number of boys and girls, then no, the ratios are not the same. Indicate that order matters.*



- Is this an interesting multiplicative comparison for this class? Is it worth commenting on in our class? If our class had 15 boys and 5 girls, might it be a more interesting observation?

For the exercise below, choose a way for students to indicate that they identify with the first statement (e.g., standing up or raising a hand). After each pair of statements below, have students create a ratio of the number of students who answered yes to the first statement to the number of students who answered yes to the second statement verbally, in writing, or both. Consider following each pair of statements with a discussion of whether it seems like an interesting ratio to discuss. Or alternatively, when all of these examples are finished, ask students which ratio they found most interesting.

Students record a ratio for each of the following examples:

- You traveled out of state this summer.
- You did not travel out of state this summer.
- You have at least one sibling.
- You are an only child.
- Your favorite class is math.
- Your favorite class is not math.

Example 2: Class Ratios

Write the ratio of the number of boys to the number of girls in our class.

Write the ratio of the number of girls to the number of boys in our class.

Record a ratio for each of the examples the teacher provides.

- | | |
|--|--|
| 1. <u>Answers will vary. One example is 12:10.</u> | 2. <u>Answers will vary. One example is 10:12.</u> |
| 3. <u>Answers will vary. One example is 7:15.</u> | 4. <u>Answers will vary. One example is 15:7.</u> |
| 5. <u>Answers will vary. One example is 11:11.</u> | 6. <u>Answers will vary. One example is 11:11.</u> |

Exercise 1 (2 minutes)

Have students look around the classroom to find quantities to compare. Have students create written ratio statements that represent their ratios in one of the summary forms.

Exercise 1

My own ratio compares the number of students wearing jeans to the number of students not wearing jeans.

My ratio is 16:6.

Exercise 2 (10 minutes)

With a partner, students use words to describe a context that could be represented by each ratio given. Encourage students to be precise about the order in which the quantities are stated (emphasizing that order matters) and about the quantities being compared. That is, instead of saying the ratio of boys to girls, encourage them to say the ratio of the number of boys to the number of girls. After students develop the capacity to be very precise about the quantities in the

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ratio, it is appropriate for them to abbreviate their communication in later lessons. Just be sure their abbreviations still accurately convey the meaning of the ratio in the correct order.

Exercise 2

Using words, describe a ratio that represents each ratio below.

- a. 1 to 12 For every one year, there are twelve months.
- b. 12: 1 For every twelve months, there is one year.
- c. 2 to 5 For every two non-school days in a week, there are five school days.
- d. 5 to 2 For every five female teachers I have, there are two male teachers.
- e. 10: 2 For every ten toes, there are two feet.
- f. 2: 10 For every two problems I can finish, there are ten minutes that pass.

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After completion, invite sharing and explanations of the chosen answers.

Point out the difference between ratios, such as, *for every one year, there are twelve months*, and *for every five female teachers I have, there are two male teachers*. The first type represents a constant relationship that will remain true as the number of years or months increases, and the second one is somewhat arbitrary and will not remain true if the number of teachers increases.

Closing (5 minutes)

Provide students with this description:

A **ratio** is an ordered pair of nonnegative numbers, which are not both zero. The ratio is denoted $A : B$ or A to B to indicate the order of the numbers. In this specific case, the number A is first, and the number B is second.

- What is a ratio? Can you verbally describe a ratio in your own words using this description?
 - *Answers will vary but should include the description that a ratio is an ordered pair of numbers, which are both not zero.*
- How do we write ratios?
 - *A colon B ($A : B$) or A to B.*
- What are two quantities you would love to have in a ratio of 5: 2 but hate to have in a ratio of 2: 5?
 - *Answers will vary. For example, I would love to have a ratio of the number of hours of play time to the number of hours of chores be 5: 2, but I would hate to have a ratio of the number of hours of television time to the number of hours of studying be 2: 5.*

**Lesson Summary**

A *ratio* is an ordered pair of numbers, which are not both zero.

A ratio is denoted $A : B$ to indicate the order of the numbers—the number A is first and the number B is second.

The order of the numbers is important to the meaning of the ratio. Switching the numbers changes the relationship. The description of the ratio relationship tells us the correct order for the numbers in the ratio.

Exit Ticket (5 minutes)



Exit Ticket Sample Solutions

1. Write a ratio for the following description: Kaleel made three times as many baskets as John during basketball practice.
A ratio of 3: 1 or 3 to 1 can be used.
2. Describe a situation that could be modeled with the ratio 4: 1.
Answers will vary but could include the following: For every four teaspoons of cream in a cup of tea, there is one teaspoon of honey.
3. Write a ratio for the following description: For every 6 cups of flour in a bread recipe, there are 2 cups of milk.
A ratio of 6: 2 or 6 to 2 can be used, or students might recognize and suggest the equivalent ratio of 3: 1.

Problem Set Sample Solutions

1. At the sixth grade school dance, there are 132 boys, 89 girls, and 14 adults.
 - a. Write the ratio of the number of boys to the number of girls.
132: 89 or 132 to 89
 - b. Write the same ratio using another form ($A: B$ vs. A to B).
132 to 89 or 132: 89
 - c. Write the ratio of the number of boys to the number of adults.
132: 14 or 132 to 14
 - d. Write the same ratio using another form.
132 to 14 or 132: 14
2. In the cafeteria, 100 milk cartons were put out for breakfast. At the end of breakfast, 27 remained.
 - a. What is the ratio of the number of milk cartons taken to the total number of milk cartons?
73: 100 or 73 to 100
 - b. What is the ratio of the number of milk cartons remaining to the number of milk cartons taken?
27: 73 or 27 to 73



3. Choose a situation that could be described by the following ratios, and write a sentence to describe the ratio in the context of the situation you chose.

For example:

3: 2. When making pink paint, the art teacher uses the ratio 3: 2. For every 3 cups of white paint she uses in the mixture, she needs to use 2 cups of red paint.

- a. 1 to 2

For every one nose, there are two eyes (answers will vary).

- b. 29 to 30

For every 29 girls in the cafeteria, there are 30 boys (answers will vary).

- c. 52: 12

For every 52 weeks in the year, there are 12 months (answers will vary).



Lesson 2: Ratios

Student Outcomes

- Students reinforce their understanding that a ratio is an ordered pair of nonnegative numbers, which are not both zero. Students continue to learn and use the precise language and notation of ratios (e.g., 3:2, 3 to 2). Students demonstrate their understanding that the order of the pair of numbers in a ratio matters.
- Students create multiple ratios from a context in which more than two quantities are given. Students conceive of real-world contextual situations to match a given ratio.

Classwork

Exercise 1 (5 minutes)

Allow students time to complete the exercise. Students can work in small groups or pairs for the exercise.

Exercise 1

Come up with two examples of ratio relationships that are interesting to you.

- My brother watches twice as much television as I do. The ratio of number of hours he watches in a day to the number of hours I watch in a day is usually 2:1.*
- For every 2 chores my mom gives my brother, she gives 3 to me. The ratio is 2:3.*

Allow students to share by writing the examples on the board, being careful to include some of the verbal clues that indicate a ratio relationship: *to, for each, for every*.

- What are the verbal cues that tell us someone is talking about a ratio relationship?

Exploratory Challenge (30 minutes)

Have students read and study the description of the data in the chart provided in their student materials. Ask students to explain what the chart is about (if possible, without looking back at the description). This strategy encourages students to really internalize the information given as opposed to jumping right into the problem without knowing the pertinent information.

- Based on the survey, should the company order more pink fabric or more orange fabric?
- What is the ratio of the number of bolts of pink fabric to the number of bolts of orange fabric you think the company should order?
- Someone said 5 to 3, and another person said (or my friend said) it would be 3 to 5. Are those the same? Is a ratio of 3 to 5 the same as a ratio of 5 to 3?
- Write a statement that describes the ratio relationship of this 3 to 5 ratio that we have been talking about.

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Review the statements written by students, checking and reinforcing their understanding that the ordering of the words in the description of the ratio relationship is what determines the order of the numbers in the ratio.

Allow students to work individually or in pairs to complete Exercises 2 and 3 for this Exploratory Challenge.

Exploratory Challenge

A T-shirt manufacturing company surveyed teenage girls on their favorite T-shirt color to guide the company’s decisions about how many of each color T-shirt they should design and manufacture. The results of the survey are shown here.

Favorite T-shirt Colors of Teenage Girls Surveyed



Exercises for Exploratory Challenge

- Describe a ratio relationship, in the context of this survey, for which the ratio is 3: 5.
The number of girls who answered orange to the number of girls who answered pink.
- For each ratio relationship given, fill in the ratio it is describing.

Description of the Ratio Relationship (Underline or highlight the words or phrases that indicate the description is a ratio.)	Ratio
For <u>every</u> 7 white T-shirts they manufacture, they should manufacture 4 yellow T-shirts. The ratio of the number of white T-shirts <u>to</u> the number of yellow T-shirts should be ...	7: 4
For <u>every</u> 4 yellow T-shirts they manufacture, they should manufacture 7 white T-shirts. The ratio of the number of yellow T-shirts <u>to</u> the number of white T-shirts should be ...	4: 7
The ratio of the number of girls who liked a white T-shirt best <u>to</u> the number of girls who liked a colored T-shirt best was ...	7: 19
For <u>each</u> red T-shirt they manufacture, they should manufacture 4 blue T-shirts. The ratio of the number of red T-shirts <u>to</u> the number of blue T-shirts should be ...	1: 4
They should purchase 4 bolts of yellow fabric <u>for every</u> 3 bolts of orange fabric. The ratio of the number of bolts of yellow fabric <u>to</u> the number of bolts of orange fabric should be ...	4: 3
The ratio of the number of girls who chose blue or green as their favorite <u>to</u> the number of girls who chose pink or red as their favorite was ...	6: 6 <i>or</i> 1: 1
Three <u>out of every</u> 26 T-shirts they manufacture should be orange. The ratio of the number of orange T-shirts <u>to</u> the total number of T-shirts should be ...	3: 26



3. For each ratio given, fill in a description of the ratio relationship it could describe, using the context of the survey.

Description of the Ratio Relationship (Underline or highlight the words or phrases that indicate your example is a ratio.)	Ratio
<i>They should make 4 yellow T-shirts <u>for every</u> 3 orange T-shirts. The ratio of the number of yellow T-shirts <u>to</u> the number of orange T-shirts should be ...</i>	4 to 3
<i>They should make 3 orange T-shirts <u>for every</u> 4 blue T-shirts. The ratio of the number of orange T-shirts <u>to</u> the number of blue T-shirts should be ...</i>	3: 4
<i><u>For every</u> 19 colored T-shirts, there should be 7 white T-shirts. The ratio of the number of colored T-shirts <u>to</u> the number of white T-shirts should be ...</i>	19: 7
<i>7 <u>out of</u> 26 T-shirts should be white. The ratio of the number of white T-shirts <u>to</u> the number of total T-shirts should be ...</i>	7 to 26

If time permits, allow students to share some of their descriptions for the ratios in Exercise 3.

Closing (5 minutes)

- Are the ratios 2: 5 and 5: 2 the same? Why or why not?

Lesson Summary

- Ratios can be written in two ways: A to B or $A: B$.
- We describe ratio relationships with words, such as *to*, *for each*, *for every*.
- The ratio $A: B$ is not the same as the ratio $B: A$ (unless A is equal to B).

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 2: Ratios

Exit Ticket

Give two different ratios with a description of the ratio relationship using the following information:

There are 15 male teachers in the school. There are 35 female teachers in the school.

Exit Ticket Sample Solutions

Give two different ratios with a description of the ratio relationship using the following information:

There are 15 male teachers in the school. There are 35 female teachers in the school.

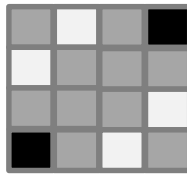
Possible solutions:

- *The ratio of the number of male teachers to the number of female teachers is 15: 35.*
- *The ratio of the number of female teachers to the number of male teachers is 35: 15.*
- *The ratio of the number of female teachers to the total number of teachers in the school is 35: 50.*
- *The ratio of the number of male teachers to the total number of teachers in the school is 15: 50.*

**Please note that some students may write other equivalent ratios as answers. For example, 3: 7 is equivalent to 15: 35.*

Problem Set Sample Solutions

1. Using the floor tiles design shown below, create 4 different ratios related to the image. Describe the ratio relationship, and write the ratio in the form $A : B$ or the form A to B .



For every 16 tiles, there are 4 white tiles.

The ratio of the number of black tiles to the number of white tiles is 2 to 4.

(Answers will vary.)

2. Billy wanted to write a ratio of the number of apples to the number of peppers in his refrigerator. He wrote 1: 3. Did Billy write the ratio correctly? Explain your answer.



Billy is incorrect. There are 3 apples and 1 pepper in the picture. The ratio of the number of apples to the number of peppers is 3: 1.



Lesson 3: Equivalent Ratios

Student Outcomes

- Students develop an intuitive understanding of equivalent ratios by using tape diagrams to explore possible quantities of each part when given the part-to-part ratio. Students use tape diagrams to solve problems when the part-to-part ratio is given and the value of one of the quantities is given.
- Students formalize a definition of equivalent ratios: Two ratios, $A : B$ and $C : D$, are equivalent ratios if there is a nonzero number c such that $C = cA$ and $D = cB$.

Classwork

Exercise 1 (5 minutes)

This exercise continues to reinforce students’ ability to relate ratios to the real world, as practiced in Lessons 1 and 2. Provide students with time to think of a one-sentence story problem about a ratio.

Exercise 1

Write a one-sentence story problem about a ratio.

Answers will vary. The ratio of the number of sunny days to the number of cloudy days in this town is 3: 1.

Write the ratio in two different forms.

3: 1 and 3 to 1

Have students share their sentences with each other in pairs or trios. Ask a few students to share with the whole class.

Exercise 2 (15 minutes)

Ask students to read the problem and then describe in detail what the problem is about without looking back at the description, if possible. This strategy encourages students to really internalize the information given as opposed to jumping right into the problem without knowing the pertinent information.

- Let’s represent this ratio in a table.

The Length of Shanni’s Ribbon (in inches)	The Length of Mel’s Ribbon (in inches)
7	3
14	6
21	9

- We can use a tape diagram to represent the ratio of the lengths of ribbon. Let’s create one together.

Walk through the construction of the tape diagram with students as they record.

- How many units should we draw for Shanni’s portion of the ratio?
 - *Seven*
- How many units should we draw for Mel’s portion of the ratio?
 - *Three*

Exercise 2

Shanni and Mel are using ribbon to decorate a project in their art class. The ratio of the length of Shanni’s ribbon to the length of Mel’s ribbon is 7: 3.

Draw a tape diagram to represent this ratio.

Shanni

--	--	--	--	--	--	--	--

Mel

--	--	--

- What does each unit on the tape diagram represent?
 - *Allow students to discuss; they should conclude that they do not really know yet, but each unit represents some unit that is a length.*
- What if each unit on the tape diagrams represents 1 inch? What are the lengths of the ribbons?
 - *Shanni’s ribbon is 7 inches; Mel’s ribbon is 3 inches.*
- What is the ratio of the lengths of the ribbons?
 - *7: 3 (Make sure that students feel comfortable expressing the ratio itself as simply the pair of numbers 7: 3 without having to add units.)*
- What if each unit on the tape diagrams represents 2 meters? What are the lengths of the ribbons?
 - *Shanni’s ribbon is 14 meters; Mel’s ribbon is 6 meters.*
- How did you find that?

Scaffolding:
 If students do not see that each unit represents a given length, write the length of each unit within the tape diagram units, and have students add them to find the total.

Allow students to verbalize and record using a tape diagram.

- What is the ratio of the length of Shanni’s ribbon to the length of Mel’s ribbon now? (Students may disagree; some may say it is 14: 6, and others may say it is still 7: 3.)

Allow them to debate and justify their answers. If there is no debate, initiate one: A friend of mine told me the ratio would be (provide the one that no one said, either 7: 3 or 14: 6). Is she right?

- What if each unit represents 3 inches? What are the lengths of the ribbons? (Record. Shanni’s ribbon is 21 inches; Mel’s ribbon is 9 inches.) Why?
 - *7 times 3 equals 21; 3 times 3 equals 9.*
- If each of the units represents 3 inches, what is the ratio of the length of Shanni’s ribbon to the length of Mel’s ribbon?

Allow for discussion as needed.

- We just explored three different possibilities for the length of the ribbon; did the number of units in our tape diagrams ever change?
 - *No*
- What did these three ratios, 7: 3, 14: 6, 21: 9, all have in common?

Write the ratios on the board. Allow students to verbalize their thoughts without interjecting a definition. Encourage all to participate by asking questions of the class with respect to what each student says, such as, “Does that sound right to you?”

- Mathematicians call these ratios *equivalent*. What ratios can we say are equivalent to 7: 3?

Shanni and Mel are using ribbon to decorate a project in their art class. The ratio of the length of Shanni’s ribbon to the length of Mel’s ribbon is 7: 3.

Draw a tape diagram to represent this ratio.

<i>Shanni</i>	<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 14.28%;"></td> <td style="width: 14.28%;"></td> <td style="width: 14.28%;"></td> <td style="width: 14.28%;"></td> <td style="width: 14.28%;"></td> <td style="width: 14.28%;"></td> <td style="width: 14.28%;"></td> </tr> </table>								<i>7 inches</i>	
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<i>Mel</i>	<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 33.33%;">3 in.</td> <td style="width: 33.33%;">3 in.</td> <td style="width: 33.33%;">3 in.</td> </tr> </table>	3 in.	3 in.	3 in.	<i>21: 9</i>					
3 in.	3 in.	3 in.								

Exercise 3 (8 minutes)

Work as a class or allow students to work independently first, and then go through as a class.

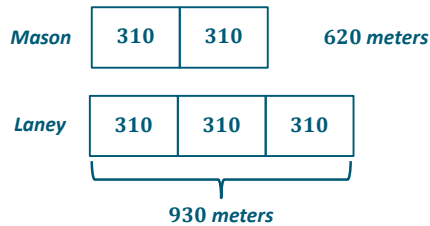
Exercise 3

Mason and Laney ran laps to train for the long-distance running team. The ratio of the number of laps Mason ran to the number of laps Laney ran was 2 to 3.

a. If Mason ran 4 miles, how far did Laney run? Draw a tape diagram to demonstrate how you found the answer.

	<p><i>4 miles</i></p>				
<i>Mason</i>	<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 50%;">2 mi.</td> <td style="width: 50%;">2 mi.</td> </tr> </table>	2 mi.	2 mi.		
2 mi.	2 mi.				
<i>Laney</i>	<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 33.33%;">2 mi.</td> <td style="width: 33.33%;">2 mi.</td> <td style="width: 33.33%;">2 mi.</td> </tr> </table>	2 mi.	2 mi.	2 mi.	<i>6 miles</i>
2 mi.	2 mi.	2 mi.			

- b. If Laney ran 930 meters, how far did Mason run? Draw a tape diagram to determine how you found the answer.



- c. What ratios can we say are equivalent to 2:3?

4:6 and 620:930

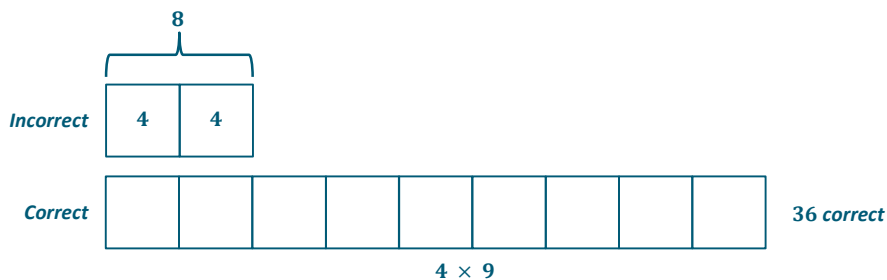
Exercise 4 (7 minutes)

Allow students to work the exercise independently and then compare their answers with a neighbor’s answer.

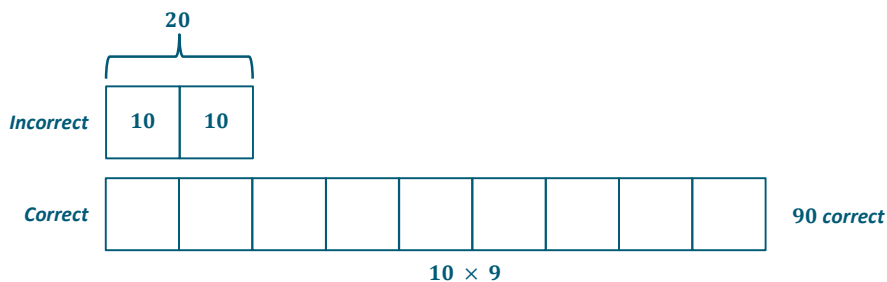
Exercise 4

Josie took a long multiple-choice, end-of-year vocabulary test. The ratio of the number of problems Josie got incorrect to the number of problems she got correct is 2:9.

- a. If Josie missed 8 questions, how many did she get correct? Draw a tape diagram to demonstrate how you found the answer.



- b. If Josie missed 20 questions, how many did she get correct? Draw a tape diagram to demonstrate how you found the answer.





c. What ratios can we say are equivalent to 2:9?
8:36 and 20:90

d. Come up with another possible ratio of the number Josie got incorrect to the number she got correct.

5	5
---	---

--	--	--	--	--	--	--	--	--	--

$5 \times 9 = 45$

10:45

e. How did you find the numbers?
Multiplied 5×2 and 5×9

f. Describe how to create equivalent ratios.
Multiply both numbers of the ratio by the same number (any number you choose).

Closing (5 minutes)

Ask students to share their answers to part (f); then, summarize by presenting the definition of equivalent ratios provided in the Lesson Summary below.

Note that if students do not have a sufficient grasp of algebra, they should not use the algebraic definition. It is acceptable to use only the second definition.

Lesson Summary

Two ratios $A:B$ and $C:D$ are *equivalent ratios* if there is a nonzero number c such that $C = cA$ and $D = cB$. For example, two ratios are equivalent if they both have values that are equal.

Ratios are equivalent if there is a nonzero number that can be multiplied by both quantities in one ratio to equal the corresponding quantities in the second ratio.

Exit Ticket (5 minutes)

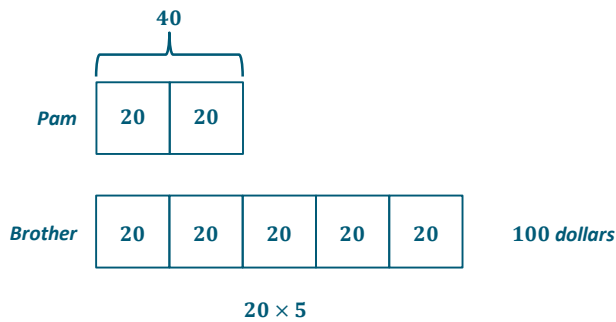
Exit Ticket Sample Solutions

Pam and her brother both open savings accounts. Each begin with a balance of zero dollars. For every two dollars that Pam saves in her account, her brother saves five dollars in his account.

- Determine a ratio to describe the money in Pam’s account to the money in her brother’s account.

2:5

- If Pam has 40 dollars in her account, how much money does her brother have in his account? Use a tape diagram to support your answer.



Pam’s brother has 100 dollars in his account.

- Record the equivalent ratio.

40:100

- Create another possible ratio that describes the relationship between the amount of money in Pam’s account and the amount of money in her brother’s account.

Answers will vary. 4:10, 8:20, etc.

Problem Set Sample Solutions

- Write two ratios that are equivalent to 1:1.

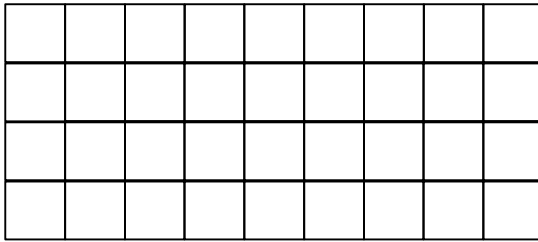
Answers will vary. 2:2, 50:50, etc.

- Write two ratios that are equivalent to 3:11.

Answers will vary. 6:22, 9:33, etc.

3.

- a. The ratio of the width of the rectangle to the height of the rectangle is 9 to 4.



- b. If each square in the grid has a side length of 8 mm, what is the width and height of the rectangle?

72 mm wide and 32 mm high

4. For a project in their health class, Jasmine and Brenda recorded the amount of milk they drank every day. Jasmine drank 2 pints of milk each day, and Brenda drank 3 pints of milk each day.

- a. Write a ratio of the number of pints of milk Jasmine drank to the number of pints of milk Brenda drank each day.

2:3

- b. Represent this scenario with tape diagrams.



- c. If one pint of milk is equivalent to 2 cups of milk, how many cups of milk did Jasmine and Brenda each drink? How do you know?

Jasmine drank 4 cups of milk, and Brenda drank 6 cups of milk. Since each pint represents 2 cups, I multiplied Jasmine's 2 pints by 2 and multiplied Brenda's 3 pints by 2.

- d. Write a ratio of the number of cups of milk Jasmine drank to the number of cups of milk Brenda drank.

4:6

- e. Are the two ratios you determined equivalent? Explain why or why not.

2:3 and 4:6 are equivalent because they represent the same value. The diagrams never changed, only the value of each unit in the diagram.



Lesson 4: Equivalent Ratios

Student Outcomes

- Given a ratio, students identify equivalent ratios. Students use tape diagrams and the description of equivalent ratios to determine if two ratios are equivalent.
- Students relate the nonzero number c in the description of equivalent ratios to the tape diagrams they have been using to find equivalent ratios.

Classwork

Example 1 (7 minutes)

Present Example 1 by reading it aloud or asking a student to read it aloud. Then encourage students to discuss what would need to be done. Guide students to a mathematically correct conclusion, and have them summarize their decisions.

Conclude by having students come up with the total number of students that would make Jasmine's statement true.

Example 1

The morning announcements said that two out of every seven sixth-grade students in the school have an overdue library book. Jasmine said, "That would mean 24 of us have overdue books!" Grace argued, "No way. That is way too high." How can you determine who is right?

You would have to know the total number of sixth-grade students, and then see if the ratio 24: total is equivalent to 2: 7.

$$\begin{array}{cc}
 2: 7 & 24: 84 \\
 \diagdown & \diagup \\
 \times 12 & \times 12
 \end{array}$$

- Let's look at the ratios we determined in Example 1. We found the ratios 2: 7 and 24: 84.
- How have we previously determined two sets of ratios to be equivalent?
 - Each number in the first ratio must be multiplied by the same nonzero number in order to determine the corresponding numbers in the second ratio.
- Let's test these two ratios to see if they are equivalent. Since the corresponding number to 2 in the second ratio is 24, what must we multiply 2 by to find 24?
 - 12
- We can determine from this that 12 is the nonzero number c that we will multiply each number in the first ratio by to determine the corresponding numbers in the second ratio.
- If we multiply 2 by 12, then following the description, we must also multiply 7 by 12. What is the product of 7×12 ?
 - 84

- Is 84 the number that corresponds to 7?
 - Yes

Allow students to finish the remaining problems independently.

Allow students to indicate their answers orally for each problem and debate with classmates when there are disagreements. If needed, step in and guide students to the correct reasoning process, ensuring all students come to understand how to use the description to determine equivalence.

Exercise 1 (20 minutes)

Exercise 1

Decide whether or not each of the following pairs of ratios is equivalent.

- If the ratios are not equivalent, find a ratio that is equivalent to the first ratio.
- If the ratios are equivalent, identify the nonzero number, c , that could be used to multiply each number of the first ratio by in order to get the numbers for the second ratio.

a. 6: 11 and 42: 88

_____ Yes, the value, c , is _____

X No, an equivalent ratio would be 42: 77

b. 0: 5 and 0: 20

X Yes, the value, c , is 4

_____ No, an equivalent ratio would be _____

Exercise 2 (8 minutes)

Exercise 2

In a bag of mixed walnuts and cashews, the ratio of the number of walnuts to the number of cashews is 5: 6. Determine the number of walnuts that are in the bag if there are 54 cashews. Use a tape diagram to support your work. Justify your answer by showing that the new ratio you created of the number of walnuts to the number of cashews is equivalent to 5: 6.

Walnuts

9	9	9	9	9
---	---	---	---	---

Cashews

9	9	9	9	9	9
---	---	---	---	---	---

54 divided by 6 equals 9.
5 times 9 equals 45.
There are 45 walnuts in the bag.
The ratio of the number of walnuts to the number of cashews is 45: 54. That ratio is equivalent to 5: 6.

5: 6 and 45: 54

Closing (5 minutes)

- How can we use the description of equivalent ratios to find an equivalent ratio?
- What do the numbers in the boxes of the tape diagram represent in terms of the ratios?
 - *Inside each of the boxes, the nonzero number c comes from the value of one unit in the tape diagram.*
- We can determine that to find an equivalent ratio, the nonzero number c must be the same in each box in the tape diagram. This can also be described as *constant*. If the number c is *constantly* the same number, then the ratios are equivalent. As in Exercise 4, the value of each unit is 9. It is constantly nine. We multiplied 5 by the *constant* 9 and multiplied 6 by the *constant* 9 to determine the equivalent ratio.

Lesson Summary**Recall the description:**

Two ratios $A : B$ and $C : D$ are *equivalent ratios* if there is a nonzero number c such that $C = cA$ and $D = cB$. For example, two ratios are equivalent if they both have values that are equal.

Ratios are equivalent if there is a nonzero number that can be multiplied by both quantities in one ratio to equal the corresponding quantities in the second ratio.

This description can be used to determine whether two ratios are equivalent.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 4: Equivalent Ratios

Exit Ticket

There are 35 boys in the sixth grade. The number of girls in the sixth grade is 42. Lonnie says that means the ratio of the number of boys in the sixth grade to the number of girls in the sixth grade is 5:7. Is Lonnie correct? Show why or why not.

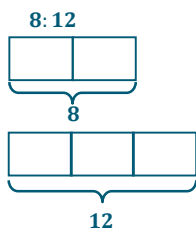
Exit Ticket Sample Solutions

There are 35 boys in the sixth grade. The number of girls in the sixth grade is 42. Lonnie says that means the ratio of the number of boys in the sixth grade to the number of girls in sixth grade is 5:7. Is Lonnie correct? Show why or why not.

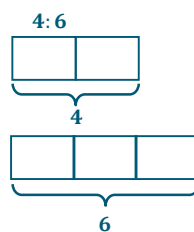
No, Lonnie is not correct. The ratios 5:7 and 35:42 are not equivalent. They are not equivalent because $5 \times 7 = 35$, but $7 \times 7 = 49$, not 42.

Problem Set Sample Solutions

1. Use diagrams or the description of equivalent ratios to show that the ratios 2:3, 4:6, and 8:12 are equivalent.



8 is 2 times 4; 12 is 3 times 4.
The constant number, c , is 4.

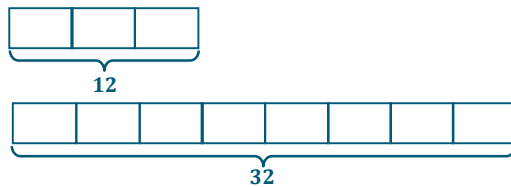


4 is 2 times 2; 6 is 3 times 2. The constant number, c , is 2.

2. Prove that 3:8 is equivalent to 12:32.

a. Use diagrams to support your answer.

12 is 3 times 4; 32 is 8 times 4.

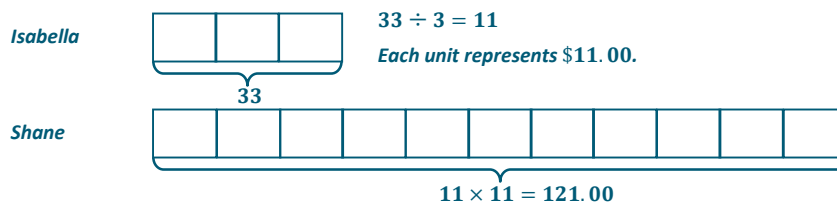


b. Use the description of equivalent ratios to support your answer.

Answers will vary. Descriptions should include multiplicative comparisons, such as 12 is 3 times 4 and 32 is 8 times 4. The constant number, c , is 4.

3. The ratio of Isabella's money to Shane's money is 3:11. If Isabella has \$33, how much money do Shane and Isabella have together? Use diagrams to illustrate your answer.

Isabella has \$33, and Shane has \$121. $\$33 + \$121 = \$154$. Together, Isabella and Shane have \$154.00.





Lesson 5: Solving Problems by Finding Equivalent Ratios

Student Outcomes

- Students use tape diagrams to find an equivalent ratio when given the part-to-part ratio and the total of those two quantities. Students use tape diagrams to find an equivalent ratio when given the part-to-part ratio and the difference between those two quantities.
- Students make the connection between the constant, c , in the definition of equivalent ratios and the value of the unit in the tape diagram used to solve ratio problems.

Classwork

Example 1 (10 minutes)

Provide students time to think about each question, and then elicit a class discussion for each question. Provide students opportunities to participate and ask questions.

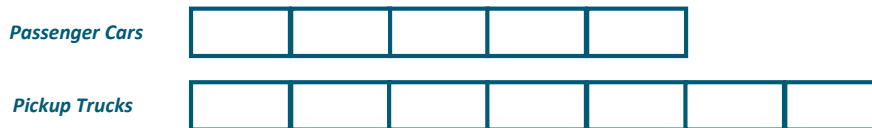
Example 1

A County Superintendent of Highways is interested in the numbers of different types of vehicles that regularly travel within his county. In the month of August, a total of 192 registrations were purchased for passenger cars and pickup trucks at the local Department of Motor Vehicles (DMV). The DMV reported that in the month of August, for every 5 passenger cars registered, there were 7 pickup trucks registered. How many of each type of vehicle were registered in the county in the month of August?

- a. Using the information in the problem, write four different ratios and describe the meaning of each.

The ratio of cars to trucks is 5: 7 and is a part-to-part ratio. The ratio of trucks to cars is 7: 5, and that is a part-to-part ratio. The ratio of cars to total vehicles is 5 to 12, and that is a part-to-whole ratio. The ratio of trucks to total vehicles is 7 to 12, and that is a part-to-whole ratio.

- b. Make a tape diagram that represents the quantities in the part-to-part ratios that you wrote.



- c. How many equal-sized parts does the tape diagram consist of?

12

- d. What total quantity does the tape diagram represent?

192 vehicles

e. What value does each individual part of the tape diagram represent?

Divide the total quantity into 12 equal-sized parts:

$$\frac{192}{12} = 16$$

f. How many of each type of vehicle were registered in August?

$$5 \cdot 16 = 80 \text{ passenger cars}$$

$$7 \cdot 16 = 112 \text{ pickup trucks}$$

Example 2 (10 minutes)

Find the values of the partial quantities in Example 2.

Example 2

The Superintendent of Highways is further interested in the numbers of commercial vehicles that frequently use the county’s highways. He obtains information from the Department of Motor Vehicles for the month of September and finds that for every 14 non-commercial vehicles, there were 5 commercial vehicles. If there were 108 more non-commercial vehicles than commercial vehicles, how many of each type of vehicle frequently use the county’s highways during the month of September?

Non-Commercial Vehicles



Commercial Vehicles



These 9 sections represent the “more than commercial vehicles,” which is 108.

To determine how many cars each section represents, divide 108 by 9 to get 12. Therefore, each section of the tape diagram represents 12 vehicles.

MP.5

Since every section of the tape diagram represents 12 vehicles, demonstrate how to calculate the number of each type of vehicle.

168 non-commercial vehicles and 60 commercial vehicles

Exercises (16 minutes)

In pairs or small groups, students complete the following problems. After students are given time to work, have groups explain their answers.

Exercises

1. The ratio of the number of people who own a smartphone to the number of people who own a flip phone is 4: 3. If 500 more people own a smartphone than a flip phone, how many people own each type of phone?

2, 000 people own a smartphone, and 1, 500 people own a flip phone.

2. Sammy and David were selling water bottles to raise money for new football uniforms. Sammy sold 5 water bottles for every 3 water bottles David sold. Together they sold 160 water bottles. How many did each boy sell?

Sammy sold 100 water bottles, and David sold 60 water bottles.

3. Ms. Johnson and Ms. Siple were folding report cards to send home to parents. The ratio of the number of report cards Ms. Johnson folded to the number of report cards Ms. Siple folded is 2:3. At the end of the day, Ms. Johnson and Ms. Siple folded a total of 300 report cards. How many did each person fold?

Ms. Johnson folded 120 report cards, and Ms. Siple folded 180 report cards.

4. At a country concert, the ratio of the number of boys to the number of girls is 2:7. If there are 250 more girls than boys, how many boys are at the concert?

There are 100 boys at the country concert.

Closing (4 minutes)

- Explain how tape diagrams can be helpful in solving ratio word problems.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 5: Solving Problems by Finding Equivalent Ratios

Exit Ticket

When Carla looked out at the school parking lot, she noticed that for every 2 minivans, there were 5 other types of vehicles. If there are 161 vehicles in the parking lot, how many of them are not minivans?



Exit Ticket Sample Solution

When Carla looked out at the school parking lot, she noticed that for every 2 minivans, there were 5 other types of vehicles. If there are 161 vehicles in the parking lot, how many of them are not minivans?

5 out of 7 vehicles are not minivans. $7 \times 23 = 161$. So, $5 \times 23 = 115$. 115 of the vehicles are not minivans.

Problem Set Sample Solutions

1. Last summer, at *Camp Okey-Fun-Okey*, the ratio of the number of boy campers to the number of girl campers was 8: 7. If there were a total of 195 campers, how many boy campers were there? How many girl campers?

104 boys and 91 girls are at Camp Okey-Fun-Okey.

2. The student-to-faculty ratio at a small college is 17: 3. The total number of students and faculty is 740. How many faculty members are there at the college? How many students?

111 faculty members and 629 students are at the college.

3. The Speedy Fast Ski Resort has started to keep track of the number of skiers and snowboarders who bought season passes. The ratio of the number of skiers who bought season passes to the number of snowboarders who bought season passes is 1: 2. If 1, 250 more snowboarders bought season passes than skiers, how many snowboarders and how many skiers bought season passes?

1, 250 skiers bought season passes, and 2, 500 snowboarders bought season passes.

4. The ratio of the number of adults to the number of students at the prom has to be 1: 10. Last year there were 477 more students than adults at the prom. If the school is expecting the same attendance this year, how many adults have to attend the prom?

53 adults have to be at the prom to keep the 1: 10 ratio.



Lesson 6: Solving Problems by Finding Equivalent Ratios

Student Outcomes

- Students use tape diagrams to solve problems when given a ratio between two quantities and a change to those quantities that changes the ratio.

Classwork

Exercise 1 (10 minutes)

Lead the completion of Exercise 1, as outlined. Start by asking students to read the problem and then describe the problem in detail without having to look back at the problem. This technique helps students process what they have read before attempting to model the problem.

- Any suggestions on how to start the problem?
 - Answers will vary.
- Use tape diagrams to model the occupied rooms and unoccupied rooms on Sunday night.

Provide students time to make their own tape diagrams.

The total number of occupied rooms is 432, and there are 6 sections on the tape diagram. So, each section represents 72 rooms.

- How can we use this information to answer the question?
 - Answers will vary.

After students share their thoughts, model how to solve the problem.

Exercises

1. The Business Direct Hotel caters to people who travel for different types of business trips. On Saturday night there is not a lot of business travel, so the ratio of the number of occupied rooms to the number of unoccupied rooms is 2: 5. However, on Sunday night the ratio of the number of occupied rooms to the number of unoccupied rooms is 6: 1 due to the number of business people attending a large conference in the area. If the Business Direct Hotel has 432 occupied rooms on Sunday night, how many unoccupied rooms does it have on Saturday night?

<p><u>Saturday</u></p> <p><i>Occupied Rooms</i></p> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <p><i>Unoccupied Rooms</i></p> <div style="border: 1px solid black; width: 250px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 250px; height: 20px; margin-bottom: 5px;"></div>	<p><u>Sunday</u></p> <p><i>Occupied Rooms</i></p> <div style="border: 1px solid black; width: 250px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 250px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 250px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 250px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 250px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 250px; height: 20px; margin-bottom: 5px;"></div>
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There were 360 unoccupied rooms on Saturday night.

Remind students that the total number of rooms in the hotel remains the same. Explain to students that there are still seven sections on the tape diagram, but they are just distributed between occupied and unoccupied rooms differently. Therefore, each section still represents 72 rooms.

Exercises 2–7 (25 minutes)

Have students work in small groups to solve each problem. Assign each group a problem to share with the class. Leave about 7–10 minutes to allow groups to present to the class.

2. Peter is trying to work out by completing sit-ups and push-ups in order to gain muscle mass. Originally, Peter was completing five sit-ups for every three push-ups, but then he injured his shoulder. After the injury, Peter completed the same number of repetitions as he did before his injury, but he completed seven sit-ups for every one push-up. During a training session after his injury, Peter completed eight push-ups. How many push-ups was Peter completing before his injury?

Peter was completing 24 push-ups before his injury.

3. Tom and Rob are brothers who like to make bets about the outcomes of different contests between them. Before the last bet, the ratio of the amount of Tom's money to the amount of Rob's money was 4: 7. Rob lost the latest competition, and now the ratio of the amount of Tom's money to the amount of Rob's money is 8: 3. If Rob had \$280 before the last competition, how much does Rob have now that he lost the bet?

Rob has \$120.

4. A sporting goods store ordered new bikes and scooters. For every 3 bikes ordered, 4 scooters were ordered. However, bikes were way more popular than scooters, so the store changed its next order. The new ratio of the number of bikes ordered to the number of scooters ordered was 5: 2. If the same amount of sporting equipment was ordered in both orders and 64 scooters were ordered originally, how many bikes were ordered as part of the new order?

80 bikes were ordered as part of the new order.

5. At the beginning of Grade 6, the ratio of the number of advanced math students to the number of regular math students was 3: 8. However, after taking placement tests, students were moved around changing the ratio of the number of advanced math students to the number of regular math students to 4: 7. How many students started in regular math and advanced math if there were 92 students in advanced math after the placement tests?

There were 69 students in advanced math and 184 students in regular math before the placement tests.

6. During first semester, the ratio of the number of students in art class to the number of students in gym class was 2: 7. However, the art classes were really small, and the gym classes were large, so the principal changed students' classes for second semester. In second semester, the ratio of the number of students in art class to the number of students in gym class was 5: 4. If 75 students were in art class second semester, how many were in art class and gym class first semester?

There were 30 students in art class and 105 students in gym class during first semester.

7. Jeanette wants to save money, but she has not been good at it in the past. The ratio of the amount of money in Jeanette's savings account to the amount of money in her checking account was 1: 6. Because Jeanette is trying to get better at saving money, she moves some money out of her checking account and into her savings account. Now, the ratio of the amount of money in her savings account to the amount of money in her checking account is 4: 3. If Jeanette had \$936 in her checking account before moving money, how much money does Jeanette have in each account after moving money?

Jeanette has \$624 in her savings account and \$468 in her checking account after moving money.

Closing (5 minutes)

- What advice would you have for a friend who missed class today and needed to do the Problem Set?
 - *If a problem has a ratio that changes, it is best to do one tape diagram for the before and another for the after so you can visualize the change.*

Lesson Summary

When solving problems in which a ratio between two quantities changes, it is helpful to draw a *before* tape diagram and an *after* tape diagram.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 6: Solving Problems by Finding Equivalent Ratios

Exit Ticket

Students surveyed boys and girls separately to determine which sport was enjoyed the most. After completing the boy survey, it was determined that for every 3 boys who enjoyed soccer, 5 boys enjoyed basketball. The girl survey had a ratio of the number of girls who enjoyed soccer to the number of girls who enjoyed basketball of 7:1. If the same number of boys and girls were surveyed, and 90 boys enjoy soccer, how many girls enjoy each sport?



Exit Ticket Sample Solutions

Students surveyed boys and girls separately to determine which sport was enjoyed the most. After completing the boy survey, it was determined that for every 3 boys who enjoyed soccer, 5 boys enjoyed basketball. The girl survey had a ratio of the number of girls who enjoyed soccer to the number of girls who enjoyed basketball of 7:1. If the same number of boys and girls were surveyed, and 90 boys enjoy soccer, how many girls enjoy each sport?

The girl survey would show that 210 girls enjoy soccer, and 30 girls enjoy basketball.

Problem Set Sample Solutions

1. Shelley compared the number of oak trees to the number of maple trees as part of a study about hardwood trees in a woodlot. She counted 9 maple trees to every 5 oak trees. Later in the year there was a bug problem, and many trees died. New trees were planted to make sure there were the same number of trees as before the bug problem. The new ratio of the number of maple trees to the number of oak trees is 3:11. After planting new trees, there were 132 oak trees. How many more maple trees were in the woodlot before the bug problem than after the bug problem? Explain.

There were 72 more maple trees before the bug problem than after because there were 108 maples trees before the bug problem and 36 maple trees after the bug problem.

2. The school band is comprised of middle school students and high school students, but it always has the same maximum capacity. Last year the ratio of the number of middle school students to the number of high school students was 1:8. However, this year the ratio of the number of middle school students to the number of high school students changed to 2:7. If there are 18 middle school students in the band this year, how many fewer high school students are in the band this year compared to last year? Explain.

There are 9 fewer high school students in the band this year when compared to last year because last year there were 72 high school students in the band, and this year there are only 63 high school students in the band.



Lesson 7: Associated Ratios and the Value of a Ratio

Student Outcomes

- Students understand the relationship between ratios and fractions. Students describe the fraction $\frac{A}{B}$ associated with the ratio $A : B$ as the value of the ratio A to B .
- Students understand that when given a ratio $A : B$, different ratios can be formed from the numbers A and B . For example, $B : A$, $A : (A + B)$, and $B : (A + B)$ are associated with the same ratio relationship.

Classwork

Example 1 (2 minutes)

Direct students to select an answer to the question posed by Example 1 in their student materials.

Example 1


Which of the following correctly models that the number of red gumballs is $\frac{5}{3}$ the number of white gumballs?


a.	Red	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	b.	Red	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	White	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		White	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
c.	Red	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	d.	Red	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	White	<input type="checkbox"/> <input type="checkbox"/>		White	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Poll students, and host a discussion encouraging students to express their reasoning about their choices. Ideally, students can come to a consensus that (b) is the correct answer without teacher direction. Provide an additional example if needed before moving on.

Example 2 (5 minutes)

Example 2
 The duration of two films are modeled below.

Film A 

Film B 

a. The ratio of the length of Film A to the length of Film B is 5:7.

b. The length of Film A is $\frac{\boxed{5}}{\boxed{7}}$ of the length of Film B.

c. The length of Film B is $\frac{\boxed{7}}{\boxed{5}}$ of the length of Film A.

Exercise 1 (10 minutes)

Have students work the following problem independently and then compare their answers with a neighbor’s answer. Encourage discussion among pairs of students or among students who arrived at different answers.

Exercise 1
 Sammy and Kaden went fishing using live shrimp as bait. Sammy brought 8 more shrimp than Kaden brought. When they combined their shrimp they had 32 shrimp altogether.

a. How many shrimp did each boy bring?
Kaden brought 12 shrimp. Sammy brought 20 shrimp.

b. What is the ratio of the number of shrimp Sammy brought to the number of shrimp Kaden brought?
20:12

c. Express the number of shrimp Sammy brought as a fraction of the number of shrimp Kaden brought.
 $\frac{20}{12}$

d. What is the ratio of the number of shrimp Sammy brought to the total number of shrimp?
20:32

e. What fraction of the total shrimp did Sammy bring?
 $\frac{20}{32}$



Exercise 2 (20 minutes)

Exercise 2

A food company that produces peanut butter decides to try out a new version of its peanut butter that is extra crunchy, using twice the number of peanut chunks as normal. The company hosts a sampling of its new product at grocery stores and finds that 5 out of every 9 customers prefer the new extra crunchy version.

- a. Let's make a list of ratios that might be relevant for this situation.
 - i. The ratio of number preferring new extra crunchy to total number surveyed is 5 to 9.
 - ii. The ratio of number preferring regular crunchy to the total number surveyed is 4 to 9.
 - iii. The ratio of number preferring regular crunchy to number preferring new extra crunchy is 4 to 5.
 - iv. The ratio of number preferring new extra crunchy to number preferring regular crunchy is 5 to 4.

- b. Let's use the value of each ratio to make multiplicative comparisons for each of the ratios we described here.
 - i. The number preferring new extra crunchy is $\frac{5}{9}$ of the total number surveyed.
 - ii. The number preferring regular crunchy is $\frac{4}{9}$ of the total number surveyed.
 - iii. The number preferring regular crunchy is $\frac{4}{5}$ of those preferring new extra crunchy.
 - iv. The number preferring new extra crunchy is $\frac{5}{4}$ of those preferring regular crunchy.

- c. If the company is planning to produce 90,000 containers of crunchy peanut butter, how many of these containers should be the new extra crunchy variety, and how many of these containers should be the regular crunchy peanut butter? What would be helpful in solving this problem? Does one of our comparison statements above help us?

The company should produce 50,000 containers of new crunchy peanut butter and 40,000 containers of regular crunchy peanut butter.

Discuss whether it is appropriate to assume that the company will still sell the same amount of regular crunchy peanut butter or whether the 90,000 containers will simply be split between the two kinds of peanut butter.

- What would be helpful in solving this problem? Does one of our comparison statements above help us?

Guide students to the recognition that if we assume 90,000 is the total number of containers sold for both types, then the number of new extra crunchy containers should be $\frac{5}{9}$ of that number.

Allow students to try solving the following three scenarios:

Try these next scenarios:

- d. If the company decides to produce 2,000 containers of regular crunchy peanut butter, how many containers of new extra crunchy peanut butter would it produce?
2,500 new extra crunchy peanut butter containers

- e. If the company decides to produce 10,000 containers of new extra crunchy peanut butter, how many containers of regular crunchy peanut butter would it produce?
8,000 regular crunchy peanut butter containers

- f. If the company decides to only produce 3,000 containers of new extra crunchy peanut butter, how many containers of regular crunchy peanut butter would it produce?

2,400 regular crunchy peanut butter containers

Closing (3 minutes)

- Given the ratio $A:B$, if $B \neq 0$, then the value of the ratio is the quotient $\frac{A}{B}$.
- Make up a ratio.
- Find the value of that ratio.

Lesson Summary

For a ratio $A:B$, we are often interested in the associated ratio $B:A$. Further, if A and B can both be measured in the same unit, we are often interested in the associated ratios $A:(A+B)$ and $B:(A+B)$.

For example, if Tom caught 3 fish and Kyle caught 5 fish, we can say:

- The ratio of the number of fish Tom caught to the number of fish Kyle caught is 3:5.
- The ratio of the number of fish Kyle caught to the number of fish Tom caught is 5:3.
- The ratio of the number of fish Tom caught to the total number of fish the two boys caught is 3:8.
- The ratio of the number of fish Kyle caught to the total number of fish the two boys caught is 5:8.

For the ratio $A:B$, where $B \neq 0$, the value of the ratio is the quotient $\frac{A}{B}$.

For example: For the ratio 6:8, the value of the ratio is $\frac{6}{8}$ or $\frac{3}{4}$.

Exit Ticket (5 minutes)

Exit Ticket Sample Solutions

Alyssa's extended family is staying at the lake house this weekend for a family reunion. She is in charge of making homemade pancakes for the entire group. The pancake mix requires 2 cups of flour for every 10 pancakes.

1. Write a ratio to show the relationship between the number of cups of flour and the number of pancakes made.

2:10

2. Determine the value of the ratio.

$$\frac{2}{10} = \frac{1}{5}$$

3. Use the value of the ratio to make a multiplicative comparison statement.

- a. The number of pancakes made is 5 times the number of cups of flour needed.
- b. The number of cups of flour needed is $\frac{1}{5}$ of the number of pancakes made.

4. If Alyssa has to make 70 pancakes, how many cups of flour will she have to use?

Alyssa will have to use 14 cups of flour.

Problem Set Sample Solutions

1. Maritza is baking cookies to bring to school and share with her friends on her birthday. The recipe requires 3 eggs for every 2 cups of sugar. To have enough cookies for all of her friends, Maritza determined she would need 12 eggs. If her mom bought 6 cups of sugar, does Maritza have enough sugar to make the cookies? Why or why not?

Maritza will NOT have enough sugar to make all the cookies because she needs 8 cups of sugar and only has 6 cups of sugar.

2. Hamza bought 8 gallons of brown paint to paint his kitchen and dining room. Unfortunately, when Hamza started painting, he thought the paint was too dark for his house, so he wanted to make it lighter. The store manager would not let Hamza return the paint but did inform him that if he used $\frac{1}{4}$ of a gallon of white paint mixed with 2 gallons of brown paint, he would get the shade of brown he desired. If Hamza decided to take this approach, how many gallons of white paint would Hamza have to buy to lighten the 8 gallons of brown paint?

Hamza would need 1 gallon of white paint to make the shade of brown he desires.



Lesson 8: Equivalent Ratios Defined Through the Value of a Ratio

Student Outcomes

- Students understand the value of the ratio $A:B$ is the quotient $\frac{A}{B}$ as long as B is not zero. They understand that if two ratios are equivalent, then their values are the same (when they have values). Students use the value of a ratio to solve ratio problems in a real-world context.
- Students use the value of a ratio in determining whether two ratios are equivalent.

Classwork

Exercise 1 (10 minutes)

Recall that when given a ratio $A:B$, where $B \neq 0$, we call the quotient, $\frac{A}{B}$, the value of the ratio.

Exercise 1

Circle any equivalent ratios from the list below.

Ratio: 1:2

Ratio: 5:10

Ratio: 6:16

Ratio: 12:32

Revisit this when discussing the value of the equivalent ratios.

Find the value of the following ratios, leaving your answer as a fraction, but rewrite the fraction using the largest possible unit.

Ratio: 1:2 Value of the Ratio: $\frac{1}{2}$

Ratio: 5:10 Value of the Ratio: $\frac{1}{2}$

Ratio: 6:16 Value of the Ratio: $\frac{3}{8}$

Ratio: 12:32 Value of the Ratio: $\frac{3}{8}$

What do you notice about the value of the equivalent ratios?

The value of the ratio is the same for equivalent ratios.



- Note that 1: 2 is not the same ratio as 5: 10, so we do not say they are equal. The ratios are not the same, but their values are equal. Would this always be the case? Would the values of equivalent ratios always be equal?
 - *Answers will vary. Some students may come to the conclusion that the values of equivalent ratios are always equal. However, some students may not be convinced at this point that all equivalent ratios will also have the same value of the ratio.*

Exercise 2 (10 minutes)

Exercise 2

Here is a theorem: If $A: B$ with $B \neq 0$ and $C: D$ with $D \neq 0$ are equivalent, then they have the same value: $\frac{A}{B} = \frac{C}{D}$.

This is essentially stating that if two ratios are equivalent, then their values are the same (when they have values).

Can you provide any counterexamples to the theorem above?

Allow students to try this in pairs. Observe the progress of students and question students' counterexamples. Ask for further clarification or proof that the two ratios are equivalent but do not have the same value. If students still think they have discovered a counterexample, share the example with the class and discuss why it is not a counterexample.

Ask entire class if anyone thought of a counterexample. If students share examples, have others explain why they are not counterexamples. Then discuss why there are no possible counterexamples to the given theorem. It is important for students to understand that the theorem is always true, so it is not possible to come up with a counterexample.

Exercise 3 (18 minutes)

Allow students 8 minutes to work on this exercise and 10 minutes to present and discuss.

Exercise 3

Taivon is training for a duathlon, which is a race that consists of running and cycling. The cycling leg is longer than the running leg of the race, so while Taivon trains, he rides his bike more than he runs. During training, Taivon runs 4 miles for every 14 miles he rides his bike.

- a. Identify the ratio associated with this problem and find its value.

The ratio of the number of miles he ran to the number of miles he cycled is 4: 14, and the value of the ratio is $\frac{2}{7}$. The ratio of the number of miles he cycled to the number of miles he ran is 14: 4, and the value of the ratio is $\frac{7}{2}$.

Use the value of each ratio to solve the following.

- b. When Taivon completed all of his training for the duathlon, the ratio of total number of miles he ran to total number of miles he cycled was 80: 280. Is this consistent with Taivon's training schedule? Explain why or why not.

This is consistent because the ratio of the number of miles he ran to the number of miles he cycled, 80: 280, has the value of $\frac{2}{7}$ which is the same value as the ratio 4: 14.

- c. In one training session, Taivon ran 4 miles and cycled 7 miles. Did this training session represent an equivalent ratio of the distance he ran to the distance he cycled? Explain why or why not.

This training session does not represent an equivalent ratio of the distance he ran to the distance he cycled because the value of the ratio in this instance is $\frac{4}{7}$, which is not equal to $\frac{2}{7}$.

MP.1 Select a couple of students, and allow them to present their solutions and explain their reasoning one at a time.

Closing (2 minutes)

- How is the value of a ratio related to the ratio?

Lesson Summary

The *value of the ratio* $A : B$ is the quotient $\frac{A}{B}$ as long as B is not zero.

If two ratios are equivalent, then their values are the same (when they have values).

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 8: Equivalent Ratios Defined Through the Value of a Ratio

Exit Ticket

You created a new playlist, and 100 of your friends listened to it and shared if they liked the new playlist or not. Nadhii said the ratio of the number of people who liked the playlist to the number of people who did not like the playlist is 75:25. Dylan said that for every three people who liked the playlist, one person did not.

Do Nadhii and Dylan agree? Prove your answer using the values of the ratios.

Exit Ticket Sample Solutions

You created a new playlist, and 100 of your friends listened to it and shared if they liked the new playlist or not. Nadhii said the ratio of the number of people who liked the playlist to the number of people who did not like the playlist is 75:25. Dylan said that for every three people who liked the playlist, one person did not.

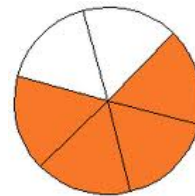
Do Nadhii and Dylan agree? Prove your answer using the values of the ratios.

Dylan and Nadhii agree. The value of both of their ratios is equivalent, so their ratios are also equivalent.

Problem Set Sample Solutions

1. The ratio of the number of shaded sections to the number of unshaded sections is 4 to 2. What is the value of the ratio of the number of shaded pieces to the number of unshaded pieces?

$$\frac{4}{2} = \frac{2}{1} \text{ or } 2$$



2. Use the value of the ratio to determine which ratios are equivalent to 7:15.

- 21:45
- 14:45
- 3:5
- 63:135

Both (a) and (d) are equivalent to 7:15.

3. Sean was at batting practice. He swung 25 times but only hit the ball 15 times.

- Describe and write more than one ratio related to this situation.

Ratio of the number of hits to the total number of swings is 15:25.

Ratio of the number hits to the number of misses is 15:10.

Ratio of the number of misses to the number of hits is 10:15.

Ratio of the number of misses to the total number of swings is 10:25.

- For each ratio you created, use the value of the ratio to express one quantity as a fraction of the other quantity.

The number of hits is $\frac{15}{25}$ or $\frac{3}{5}$ of the total number of swings.

The number of hits is $\frac{15}{10}$ or $\frac{3}{2}$ the number of misses.

The number of misses is $\frac{10}{15}$ or $\frac{2}{3}$ the number of hits.

The number of misses is $\frac{10}{25}$ or $\frac{2}{5}$ of the total number of swings.

- Make up a word problem that a student can solve using one of the ratios and its value.

If Sean estimates he will take 10 swings in his next game, how many hits would he expect to get, assuming his ratio of hits-to-swings does not change.

4. Your middle school has 900 students. $\frac{1}{3}$ of students bring their lunch instead of buying lunch at school. What is the value of the ratio of the number of students who do bring their lunch to the number of students who do not?



300 students bring lunch 600 students buy lunch

First, I created a tape diagram. In the tape diagram, $\frac{1}{3}$ of students bring their lunch instead of buying lunch at school. I determined that 300 students bring their lunch, leaving 600 students who buy their lunch. One unit of the tape diagram represents 300, and 2 units of the tape diagram represent 600. This creates a ratio of 1:2. As such, the value of the ratio of the number of students who bring their lunch to the number of students who buy their lunch is $\frac{1}{2}$.



Topic B

Collections of Equivalent Ratios

6.RP.A.3a

Focus Standard:	6.RP.A.3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. <ol style="list-style-type: none"> Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
Instructional Days:	7	
	Lesson 9:	Tables of Equivalent Ratios (P) ¹
	Lesson 10:	The Structure of Ratio Tables—Additive and Multiplicative (E)
	Lesson 11:	Comparing Ratios Using Ratio Tables (P)
	Lesson 12:	From Ratio Tables to Double Number Line Diagrams (P)
	Lesson 13:	From Ratio Tables to Equations Using the Value of the Ratio (P)
	Lesson 14:	From Ratio Tables, Equations, and Double Number Line Diagrams to Plots on the Coordinate Plane (S)
	Lesson 15:	A Synthesis of Representations of Equivalent Ratio Collections (E)

With the concept of ratio equivalence formally defined, students explore collections of equivalent ratios in real-world contexts in Topic B. In Lessons 9 and 10, students build ratio tables and study and articulate their additive and multiplicative structure (**6.RP.A.3a**). In Lesson 11, students answer comparative questions about two distinct ratios using reasoning with ratio tables. Students continue to apply reasoning to solve ratio problems while they explore other representations of collections of equivalent ratios and relate those representations to their experience working with the ratio table (**6.RP.A.3**).

¹Lesson Structure Key: **P**-Problem Set Lesson, **M**-Modeling Cycle Lesson, **E**-Exploration Lesson, **S**-Socratic Lesson

Building on their experience with number lines, students represent collections of equivalent ratios with a double number line model in Lesson 12. In Lesson 13, they relate ratio tables to equations using the value of a ratio defined in Topic A. Finally, students expand their experience with the coordinate plane (**5.G.A.1**, **5.G.A.2**) as they represent collections of equivalent ratios by plotting the pairs of values on the coordinate plane in Lesson 14. In the final lesson of this topic, students begin to synthesize their experience of the various representations by working a variety of ratio problems and choosing the representation that best represents their thinking. They continue to apply their understanding of the representations as they apply them to rate and percent problems in Topics C and D.



Lesson 9: Tables of Equivalent Ratios

Student Outcomes

- Students understand that a ratio is often used to describe the relationship between the amount of one quantity and the amount of another quantity as in the cases of mixtures or constant rates.
- Students understand that a *ratio table* is a table of equivalent ratios. Students use ratio tables to solve problems.

Lesson Notes

The approach of this lesson, and those that follow, is for the teacher to model the use of tables in problem solving. There is no need to engage in an explanation of why or how tables are useful; simply modeling their use in this lesson, examining their structure in the next lesson, and repeatedly using them for problem solving in the remaining lessons of the topic should sufficiently promote tables as a tool for problem solving with collections of equivalent ratios.

Classwork

Example 1 (10 minutes)

Example 1

To make paper mache, the art teacher mixes water and flour. For every two cups of water, she needs to mix in three cups of flour to make the paste.

Find equivalent ratios for the ratio relationship 2 cups of water to 3 cups of flour. Represent the equivalent ratios in the table below:

Cups of Water	Cups of Flour	
2	3	2:3
4	6	2:3
6	9	2:3
8	12	2:3
10	15	2:3



- What does this ratio mean? For every 2 cups of water, there are 3 cups of flour.
 - *Every time we have a set of two cups of water, we need to have a set of three cups of flour.*
- Why is it worded, “for every 2 cups of water, there are 3 cups of flour”?
 - *This suggests that we might be doing that action repeatedly, adding 2 cups of water and 3 cups of flour.*
- Why would I do it more than once?
 - *There are times that batches need to be larger than using 2 cups of water and 3 cups of flour.*
- (Create a table on the board and label the columns.) Can we list all of the possible recipes for this mixture in order in a table? Let’s start with the ratio that uses the smallest whole numbers. Is there an equivalent ratio that uses smaller whole numbers than the ratio 2 to 3?
 - *No*
- Then let’s make 2 cups of water and 3 cups of flour our first entry.
- What would the next possibility be if we were using only whole numbers? I don’t want to skip over any of my options here.
 - *For every 4 cups of water, there are 6 cups of flour.*

Continue to guide students to create the table shown.

MP.7

- What is the value of each ratio in the table?
 - $\frac{2}{3}$
- Is that what we expected? Should the value of all of these ratios be equal to each other?
 - *Yes*
- What we have created here is a ratio table, a table in which all of the values of the ratios are equivalent to one another.
- What kinds of questions could we answer with the data in our table? Can anyone think of a question we might have had at the start of this problem that this table could help us answer?
 - *Answers will vary, but students should include ratios and associated ratios in their answer.*

Example 2 (5 minutes)

Example 2

Javier has a new job designing websites. He is paid at a rate of \$700 for every 3 pages of web content that he builds. Create a ratio table to show the total amount of money Javier has earned in ratio to the number of pages he has built.

Total Pages Built	3	6	9	12	15	18	21	24
Total Money Earned	700	1,400	2,100	2,800	3,500	4,200	4,900	5,600

Javier is saving up to purchase a used car that costs \$4,200. How many web pages will Javier need to build before he can pay for the car?

Javier will need to build 18 web pages in order to pay for the car.



- Is there an equivalent ratio to $700 : 3$ that uses smaller whole numbers?
 - *No*
- So we'll start our table with the entry 3 pages built and \$700 earned.
- Go ahead and fill in the table without skipping over any possible ratios. Use only whole numbers in the table.

Allow 5 to 10 minutes for each of the next two exercises. If students can only finish one of them, that is alright. Alternatively, if students finish both exercises quickly, extend the lesson by either: (a) allowing students to present their table on the board and asking students if they notice any patterns within the table or (b) presenting a partially completed table on the board and asking students to create their own real-world situation and word problem that could go with it.

Exercise 1 (10 minutes)

Exercise 1

Spraying plants with cornmeal juice is a natural way to prevent fungal growth on the plants. It is made by soaking cornmeal in water, using two cups of cornmeal for every nine gallons of water. Complete the ratio table to answer the questions that follow.

Cups of Cornmeal	Gallons of Water
2	9
4	18
6	27
8	36
10	45

- a. How many cups of cornmeal should be added to 45 gallons of water?
10 cups of cornmeal should be added to 45 gallons of water.
- b. Paul has only 8 cups of cornmeal. How many gallons of water should he add if he wants to make as much cornmeal juice as he can?
Paul should add 36 gallons of water.
- c. What can you say about the values of the ratios in the table?
The values of the ratios are equivalent.

Exercise 2 (10 minutes)

Exercise 2

James is setting up a fish tank. He is buying a breed of goldfish that typically grows to be 12 inches long. It is recommended that there be 1 gallon of water for every inch of fish length in the tank. What is the recommended ratio of gallons of water per full-grown goldfish in the tank?

Complete the ratio table to help answer the following questions:

Number of Fish	Gallons of Water
1	12
2	24
3	36
4	48
5	60

- a. What size tank (in gallons) is needed for James to have 5 full-grown goldfish?

James needs a tank that holds 60 gallons of water in order to have 5 full-grown goldfish.

- b. How many full-grown goldfish can go in a 40-gallon tank?

3 full-grown goldfish can go in a 40-gallon tank.

- c. What can you say about the values of the ratios in the table?

The values of the ratios are equivalent.

Closing (5 minutes)

- When creating a ratio table, what does each pair of values represent?
 - Each pair of values represents a ratio that is equivalent to all the other ratios in the table and describes the ratio relationship of two quantities.*
- Can anyone think of a situation where you have seen a ratio table other than here in class?
 - The back of a pancake mix box*
- Can you think of an example of a table of numbers you've seen that was not a ratio table? If you can't think of one that you've seen, see if you can make one up to match a real-world situation.

Lesson Summary

A ratio table is a table of pairs of numbers that form equivalent ratios.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 9: Tables of Equivalent Ratios

Exit Ticket

A father and his young toddler are walking along the sidewalk. For every 3 steps the father takes, the son takes 5 steps just to keep up. What is the ratio of the number of steps the father takes to the number of steps the son takes? Add labels to the columns of the table, and place the ratio into the first row of data. Add equivalent ratios to build a ratio table.

What can you say about the values of the ratios in the table?

Exit Ticket Sample Solutions

A father and his young toddler are walking along the sidewalk. For every 3 steps the father takes, the son takes 5 steps just to keep up. What is the ratio of the number of steps the father takes to the number of steps the son takes? Add labels to the columns of the table, and place the ratio into the first row of data. Add equivalent ratios to build a ratio table.

<i>Number of Steps the Father Takes</i>	<i>Number of Steps the Son Takes</i>
3	5
6	10
9	15
12	20
15	25
18	30

What can you say about the values of the ratios in the table?

The values of the ratios in the table should all be equal since the ratios in the table are equivalent.

Problem Set Sample Solutions

Assume each of the following represents a table of equivalent ratios. Fill in the missing values. Then choose one of the tables, and create a real-world context for the ratios shown in the table.

1.

4	11
8	22
12	33
16	44
20	55
24	66

2.

5	7
10	14
15	21
20	28
25	35
30	42

3.

3	17
6	34
9	51
12	68
15	85
18	102

Context provided will vary.



Lesson 10: The Structure of Ratio Tables—Additive and Multiplicative

Student Outcomes

- Students identify both the additive and multiplicative structure of a ratio table and use the structure to make additional entries in the table.
- Students use ratio tables to solve problems.

Classwork

Exploratory Challenge (35 minutes)

Exploratory Challenge

Imagine that you are making a fruit salad. For every quart of blueberries you add, you would like to put in 3 quarts of strawberries. Create three ratio tables that show the amounts of blueberries and strawberries you would use if you needed to make fruit salad for greater numbers of people.

Table 1 should contain amounts where you have added fewer than 10 quarts of blueberries to the salad.

Table 2 should contain amounts of blueberries between and including 10 and 50 quarts.

Table 3 should contain amounts of blueberries greater than or equal to 100 quarts.

Student answers may vary. Here are possible solutions:

Table 1	
Quarts of Blueberries	Quarts of Strawberries
1	3
2	6
3	9
4	12
5	15

Table 2	
Quarts of Blueberries	Quarts of Strawberries
10	30
20	60
30	90
40	120
50	150

Table 3	
Quarts of Blueberries	Quarts of Strawberries
100	300
200	600
300	900
400	1,200
500	1,500

The answers to the questions will depend on the variation of the table that students have created.

- a. Describe any patterns you see in the tables. Be specific in your descriptions.

The value in the second column is always three times as much as the corresponding value in the first column. In the first table, the entries in the first column increase by 1, and the entries in the second column increase by 3. In the second table, the entries in the first column increase by 10, and the entries in the second column increase by 30. In the third table, the entries in the first column increase by 100, and the entries in the second column increase by 300.

b. How are the amounts of blueberries and strawberries related to each other?
The amount of strawberries is always three times the amount of blueberries. Students could also respond that the ratio of the number of quarts of blueberries to the number of quarts of strawberries is always equivalent to 1:3.

c. How are the values in the Blueberries column related to each other?
Answers will vary. However, students could use the chart paper and write on the table to see the patterns. Most tables should have addition repeating throughout.

d. How are the values in the Strawberries column related to each other?
Answers will vary. However, students could use the chart paper and write on the table to see the patterns. Most tables should have addition repeating throughout.

e. If we know we want to add 7 quarts of blueberries to the fruit salad in Table 1, how can we use the table to help us determine how many strawberries to add?
We could extend our table until we get to 7 in the blueberry column.

f. If we know we used 70 quarts of blueberries to make our salad, how can we use a ratio table to find out how many quarts of strawberries were used?
We could start with the ratio 1:3 that was given in the description and then multiply by ten to get 10 and 30. These would be the first values in our table. Then, we would count up by tens in the Blueberries column and count up by 30's in the Strawberries column.

Students create the three ratio tables on the student pages. Have index cards ready that say Table 1, Table 2, and Table 3 to hand out to students so that students can place the assigned table on chart paper (15 minutes). After the charts are created, have students focus on how they created the tables and discuss the structure of the tables with a partner or small group. After students have had a chance to work, pull the class together as a whole group for a discussion about the structure of the tables and how the tables are related. Use the questions below to guide the discussion.

MP.7

- How are all three of the tables related?
 - *Each table represents the same ratio of the number of quarts of blueberries to the number of quarts of strawberries, which is 1:3.*
- What operation(s) did you use to determine the values for quarts of blueberries and quarts of strawberries?
 - *Adding or multiplying (Have students elaborate where they used each operation.)*
- How is the number of quarts of strawberries related to the number of quarts of blueberries?
 - *The number of quarts of strawberries is always three times the number of quarts of blueberries, or the number of quarts of blueberries is one-third the number of quarts of strawberries. Students could also respond that the ratio of the number of quarts of blueberries to the number of quarts of strawberries is always equivalent to 1:3.*

B		S
1	x 3 =	3
2	x 3 =	6
3	x 3 =	9
4	x 3 =	12

Students write directly on the chart paper to check and see whether this is true for every entry in each table. Extend this question to ask students why the rows have the same ratio of the number of quarts of blueberries to the number of quarts of strawberries (or why the rows do not have the same ratio, if a mistake was made) or if the answer makes sense.

- How are the amounts of blueberries related to each other in the table?
 - *Answers will vary. Students should notice that there is a pattern in the blueberries column. The paper that each group of students made could be different so how they created the pattern will vary. However, students could use the chart paper and write on the table to see the patterns. Most tables should have addition repeating throughout.*

	B	S
+10	10	30
+10	20	60
+10	30	90
	40	120

How are the amounts of strawberries related to each other in the table?

MP.7

	B	S
	10	30
	20	60
	30	90
	40	120

Extend this question to further ask students how the two patterns are related to each other.

	B	S
+10	10	30
+10	20	60
+10	30	90
	40	120

- The change in the amount of blueberries compared to the change in the amount of strawberries is 10 to 30 or 1 to 3, the same ratio we started with.
- If we know we want to add 7 quarts of blueberries in Table 1, how can we use the table to help us get the amount of strawberries needed?
 - *We could extend our table until we got to seven in the blueberries column.*

MP.7

- What if we were making enough fruit salad to serve a large number of people and added 70 quarts of blueberries? How could we create a table to find the value for strawberries?
 - *We could start with the ratio 1: 3 that was given in the description and then multiply by ten to get 10 and 30. These would be the first values in our table. Then, we would count up by tens in the Blueberries column and count up by 30's in the Strawberries column.*

Exercise 1

Students examine tables that were made incorrectly and make comments on what was done wrong when making the tables. Students also note the ratio that was used to create the ratio table and then create a correct table.

Exercise 1

The following tables were made incorrectly. Find the mistakes that were made, create the correct ratio table, and state the ratio that was used to make the correct ratio table.

a.

Hours	Pay in Dollars
3	24
5	40
7	52
9	72

Hours	Pay in Dollars
3	24
5	40
7	56
9	72

Ratio 1: 8 (Solutions may vary.)

b.

Blue	Yellow
1	5
4	8
7	13
10	16

Blue	Yellow
1	5
4	20
7	35
10	50

Ratio 1: 5 (Solutions may vary.)

Hours	Pay in Dollars
3	24
5	40
7	52
9	72

Students should be able to note that the entry (7, 52) is incorrect. It should be (7, 56).

Students should also note that each entry should have a ratio of 1 to 8 showing that 1 hour pays \$8.

Blue	Yellow
1	5
4	8
7	13
10	16

Students may notice that each of the entries has a different ratio. The problem with this table is that the same amount was added repeatedly to both the Blue column and the Yellow column. Because the first ratio is 1: 5, to get a ratio of 4: 20, we would add three to the Blue column and fifteen to the Yellow column. Adding three to the Blue column and then adding fifteen to the Yellow column creates a ratio of 1: 5, just what we started with.

Closing (5 minutes)

Questions to Review:

- In a vertically oriented ratio table, how are the values across the rows related?
 - *The values across the rows form a ratio of $A : B$. So, the value of the second column will be determined by multiplying the value in the first column by $\frac{B}{A}$, and the value of the first column will be determined by multiplying the value in the second column by $\frac{A}{B}$.*
- In a vertically oriented ratio table, how are the values related as we move down a column?
 - *The values in the column depend on how the table was created, but they could be increasing by the same sum or by the same multiple. For example, the values in the first column could be increasing by 5 each time. So, the values could go from 6, 11, 16, 21, 26, etc. or the numbers could be formed by multiplying. In other words, the values could go from 6, 12, 24, 48, etc. if the values were multiplied by 2 each time.*
- Is there a way to use addition to figure out the next row in a ratio table?
 - *I can use the ratio to help me use addition to get the next row. For example, if the ratio of $A : B$ is 2 : 5, I can add 2 to the value in the first column and add 5 to the value in the second column to get the next row in the table. I cannot just add the same thing to both the values in the first and second columns.*
- Is there a way to use multiplication to figure out the next row in a ratio table?
 - *If I use multiplication to get the next row in the table, I need to multiply both the values in the first column and the values in the second column by the same number. So, if the original row is (4, 5), and I want to multiply by 3 to get the next row, I would multiply 4×3 and 5×3 to get a row that is (12, 15). Unlike the addition method, I would do the same thing to both the values in the first column and the values in the second column.*

Lesson Summary

Ratio tables are constructed in a special way.

Each pair of values in the table will be equivalent to the same ratio.

red	white
3	12
6	24
12	48
21	84

$$6 : 24 \qquad 21 : 84$$

$$1 : 4 \qquad 1 : 4$$

Repeated addition or multiplication can be used to create a ratio table.

The values in the first column can be multiplied by a constant value to get the values in the second column.

red	white
3 $\times 4$	12
6 $\times 4$	24
12 $\times 4$	48
21 $\times 4$	84

By just adding a certain number to the first entry of a ratio in the first column and adding the same number to the second entry in the second column, the new ratio formed is generally not equivalent to the original ratio. Instead, the numbers added to the entries must be related to the ratio used to make the table. However, if the entries in one column are multiplied by a certain number, multiplying the entries in the other column by the same number creates equivalent ratios.

red	white
3	12
6	24
12	48
21	84

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 10: The Structure of Ratio Tables—Additive and Multiplicative

Exit Ticket

Show more than one way you could use the structure of the table to find the unknown value. Fill in the unknown values.

Number of Weeks	Amount of Money in Account
2	\$350
4	\$700
6	\$1,050
8	
10	

Exit Ticket Sample Solutions

Show more than one way you could use the structure of the table to find the unknown value. Fill in the unknown values.

Number of Weeks	Amount of Money in Account
2	\$350
4	\$700
6	\$1,050
8	\$1,400
10	\$1,750

I can add two to the weeks each time to get the next number. I can add \$350 to the money to get the next values.

In the rows, we have 2: 350, which is equal to 1: 175. So the money is 175 times larger than the week. I can just multiply the week by 175 to get the amount of money in the account.

The ratio used to create the table was 1: 175.

Problem Set Sample Solutions

1.

- a. Create a ratio table for making lemonade with a lemon juice-to-water ratio of 1: 3. Show how much lemon juice would be needed if you use 36 cups of water to make lemonade.

Lemon Juice (cups)	Water (cups)
1	3
2	6
3	9
4	12
12	36

12 cups of lemon juice would be needed if 36 cups of water is used.

- b. How is the value of the ratio used to create the table?

The value of the ratio is $\frac{1}{3}$. If we know the amount of lemon juice, we can multiply that amount by 3 to get the amount of water. If we know the amount of water, we can multiply that amount by $\frac{1}{3}$ (or divide by 3) to get the amount of lemon juice.

2. Ryan made a table to show how much blue and red paint he mixed to get the shade of purple he will use to paint the room. He wants to use the table to make larger and smaller batches of purple paint.

Blue	Red
12	3
20	5
28	7
36	9

- a. What ratio was used to create this table? Support your answer.

The ratio of the amount of blue paint to the amount of red paint is 4: 1. I know this because 12: 3, 20: 5, 28: 7, and 36: 9 are all equivalent to 4: 1.



- b. How are the values in each row related to each other?

In each row, the amount of red paint is $\frac{1}{4}$ times the amount of blue paint, or the amount of blue paint is 4 times the amount of red paint.

- c. How are the values in each column related to each other?

The values in the columns are increasing using the ratio. Since the ratio of the amount of blue paint to the amount of red paint is 4:1, we have used 4×2 : 1×2 , or 8:2, and repeatedly added to form the table. 8 was added to the entries in the blue column while 2 was added to the entries in the red column.



Lesson 11: Comparing Ratios Using Ratio Tables

Student Outcomes

- Students solve problems by comparing different ratios using two or more ratio tables.

Classwork

Example 1 (10 minutes)

Allow students time to complete the example. If time permits, allow student volunteers to come to the board and explain their solutions. Students will be asked to complete two questions.

Example 1

Create four equivalent ratios (2 by scaling up and 2 by scaling down) using the ratio 30 to 80.

There are various possible answers.

Some examples of scaling down are 3: 8, 6: 16, 9: 24, 12: 32, 15: 40, 18: 48, 21: 56, 24: 64, and 27: 72.

Some examples of scaling up are 60: 160, 90: 240, 120: 320, etc.

Write a ratio to describe the relationship shown in the table.

Hours	Number of Pizzas Sold
2	16
5	40
6	48
10	80

The ratio used to create the table is 1: 8, which means that there are 8 pizzas being sold every hour.

Exercise 1 (10 minutes)

Students work in small groups or with partners for the exercise. Show the examples of three students and their texting speeds. Tables are provided in the student materials showing different numbers of words being texted by different students at different times. Display these tables to have a visual representation to use during discussion. Have students discuss possible ways of using the tables to figure out who can text the fastest.

Exercise 1

The following tables show how many words each person can text in a given amount of time. Compare the rates of texting for each person using the ratio table.

Michaela

Minutes	3	5	7	9
Words	150	250	350	450

Jenna

Minutes	2	4	6	8
Words	90	180	270	360

Maria

Minutes	3	6	9	12
Words	120	240	360	480

Michaela texts the fastest because she texts 50 words per minute, next is Jenna who texts 45 words per minute, and last is Maria who texts 40 words per minute.

While students are discussing the tables, ask the following:

- How can we compare the texting rates?
 - *Answers will vary. Students should see that comparing the girls' texting rates using the table can be a struggle because there is not a common time for all three tables.*
- Even though there is not a time that is common to all three tables, is it still possible to use the tables to determine which girl has the fastest texting rate and which has the slowest?
 - *Answers will vary. Sample Response: I could compare the first and third tables by comparing the words at 3 and 9 minutes. I could compare the second and third tables by comparing the words at 6 minutes.*
- If you used ratios to compare, what do the ratios mean in the context of this problem?
 - *The ratios show how many words each person can text in one minute.*
- How can we use the ratios to help us compare the texting rates of the three girls?
 - *We can find the values of the ratios and then put them in order to see who is fastest and slowest.*
- Why can't I just pick the student who has the largest number of words at the end of the table? (This question is meant to help students with a common misconception.)
 - *The times (minutes) are not equal in all tables. The ratio of words to minutes needs to be used to compare the texting rates.*
- If there were a fourth person, Max, who can text 55 words per minute, how could we create a table to show his texting speed? (This question is to help prepare the class for the next exercise and to review concepts learned in previous lessons.)
 - *The entries in the Minutes row would go up by 1 as the entries in the Words row goes up by 55.*

Complete the table so that it shows Max has a texting rate of 55 words per minute.

Max

Minutes	1	2	3	4
Words	55	110	165	220

Exercise 2 (10 minutes): Making Juice (Comparing Juice to Water)

Students work with a partner or in a small group. Students follow the set of instructions that leads them through examples and asks them questions to help them dig deeper. The questions ask students to compare the ratio of water to juice for a variety of beverages. Students can also find the value of the ratio in order to determine which juice has a higher water-to-juice ratio.

Exercise 2: Making Juice (Comparing Juice to Water)

a. The tables below show the comparison of the amount of water to the amount of juice concentrate (JC) in grape juice made by three different people. Whose juice has the greatest water-to-juice concentrate ratio, and whose juice would taste strongest? Be sure to justify your answer.

Franca's juice has the greatest amount of water in comparison to juice concentrate, followed by Milton, and then Laredo. Because Laredo's juice has the least amount of water in comparison to juice concentrate, his juice would taste the strongest.

Laredo's Juice		
Water	JC	Total
12	4	16
15	5	20
21	7	28
45	15	60

Franca's Juice		
Water	JC	Total
10	2	12
15	3	18
25	5	30
40	8	48

Milton's Juice		
Water	JC	Total
8	2	10
16	4	20
24	6	30
40	10	50

Put the juices in order from the juice containing the most water to the juice containing the least water.

Franca, Milton, Laredo

Discussing what these ratios mean and what the values of the ratios look like will help give meaning to the problem for students who are struggling. Students should see that the value of the water-to-juice concentrate ratio for Franca's juice is greater than the value of the water-to-juice concentrate ratio for Laredo's and Milton's juices.

Explain how you used the values in the table to determine the order.

- Laredo makes his juice by combining three cups of water for every one cup of juice concentrate.*
- Franca makes her juice by combining five cups of water for every one cup of juice concentrate.*
- Milton makes his juice by combining four cups of water for every one cup of juice concentrate.*

What ratio was used to create each table?

Laredo 3: 1, Franca 5: 1, Milton 4: 1

Explain how the ratio could help you compare the juices.

Answers will vary.

As you visit the groups or partners as they are working, discuss the third column in the table. Some students may have compared using the total as well.

The next question does not have equal values in the columns for all three tables, so other reasoning will need to be used to solve the problems.

Laredo's Juice		
Water	JC	Total
12	2	14
18	3	21
30	5	35
42	7	49

Franca's Juice		
Water	JC	Total
15	6	21
20	8	28
35	14	49
50	20	70

Milton's Juice		
Water	JC	Total
16	6	22
24	9	33
40	15	55
64	24	88

Students may use the ratios to compare the data.

Struggling students, and even average students, may be challenged when comparing these ratios. By finding the value of the ratios, it will be easier for students to compare the data. It should be fairly obvious that Laredo has the juice with the most water compared to juice concentrate. If students use the tables to compare Franca's ratio of the amount of water to the amount of juice concentrate with Milton's ratio of the amount of water to the amount of juice concentrate, they can look for numbers the columns have in common.

- b. The next day, each of the three people made juice again, but this time they were making apple juice. Whose juice has the greatest water-to-juice concentrate ratio, and whose juice would taste the strongest? Be sure to justify your answer.

Laredo's Juice		
Water	JC	Total
12	2	14
18	3	21
30	5	35
42	7	49

Franca's Juice		
Water	JC	Total
15	6	21
20	8	28
35	14	49
50	20	70

Milton's Juice		
Water	JC	Total
16	6	22
24	9	33
40	15	55
64	24	88

Put the juices in order from the strongest apple taste to the weakest apple taste.

Franca, Milton, Laredo

Explain how you used the values in the table to determine the order.

Answers will vary.

- Based on the data in the tables, Milton added more water to his juice than Franca added to her juice. So, the order of the juice with the strongest apple taste to the weakest apple taste is Franca, Milton, Laredo.

Students may use the ratios to get equal amounts of water and then compare the amounts of juice concentrate, or students may use the ratios to get equal amounts of juice concentrate and then compare the amounts of water.

$$5:2 \text{ -----} \rightarrow 5 \times 8:2 \times 8 \text{ -----} \rightarrow 40:16$$

$$8:3 \text{ -----} \rightarrow 8 \times 5:3 \times 5 \text{ -----} \rightarrow 40:15$$

Now we can compare and see that Franca's juice has more juice concentrate compared to water than Milton's juice.

Students also have the option of comparing the values of the ratios to see which value is greater. Then they can compare $\frac{15}{6}$ to $\frac{16}{6}$ and see that the value of Milton's ratio is larger than the value of Franca's ratio.

MP.7

What ratio was used to create each table?

Laredo: 6: 1

Franca: 5: 2

Milton: 8: 3

Explain how the ratio could help you compare the juices.

Answers will vary.

How was this problem different than the grape juice questions in part (a)?

Answers will vary.

- c. Max and Sheila are making orange juice. Max has mixed 15 cups of water with 4 cups of juice concentrate. Sheila has made her juice by mixing 8 cups of water with 3 cups of juice concentrate. Compare the ratios of juice concentrate to water using ratio tables. State which beverage has a higher juice concentrate-to-water ratio.

Max

JC	4	8	12
Water	15	30	45

Sheila

JC	3	6	9
Water	8	16	24

Sheila has a higher juice concentrate-to-water ratio because she mixed 12 cups of juice concentrate to only 32 cups of water. Max's juice would be more watery because he would have 45 cups of water with the 12 cups of juice concentrate.

- d. Victor is making recipes for smoothies. His first recipe calls for 2 cups of strawberries and 7 cups of other ingredients. His second recipe says that 3 cups of strawberries are combined with 9 cups of other ingredients. Which smoothie recipe has more strawberries compared to other ingredients? Use ratio tables to justify your answer.

Recipe 2 has more strawberries compared to other ingredients.

Recipe 1

Strawberries	2	4	6
Other	7	14	21

Recipe 2

Strawberries	3	6	9
Other	9	18	27

Recipe 2 has more strawberries compared to the other ingredients. When comparing 6 cups of strawberries, there were fewer other ingredients added in Recipe 2 than in Recipe 1.

MP.7

Students who are struggling can use the value of the ratio to compare the data. However, in parts (c) and (d), struggling students may need to see the comparison of part to whole or get equal amounts of water in part (c) and *other* in part (d) to make sense of the problem. If students use this comparison, they may want to use multiplication instead of adding to make the table. For example, in part (d), students may want to see how many strawberries would be needed when 63 cups of other ingredients are added.

2: 7 becomes 18 to 63.

3: 9 becomes 21 to 63.

This might be an easier way for students to see that there are more strawberries in Recipe 2.

While students are working, circulate and ask students to share their solving strategies. It is important to also ask students to prove their claims. If a student has simply written that one beverage has a higher amount of water per juice than the other, ask the student to prove or explain how the answer was determined. Students share how they have compared the values in the table.

Closing (10 minutes)

- Today we used ratio tables to compare two ratios that were not equivalent and answered questions about which situation would reach a given level first. Can anyone think of another way to compare two different ratios?
 - *The value of a ratio might be useful because then we could determine which ratio had the larger or smaller value.*

Lesson Summary

Ratio tables can be used to compare two ratios.

Look for equal amounts in a row or column to compare the second amount associated with it.

3	6	12	30
7	14	28	70

10	25	30	45
16	40	48	72

The values of the tables can also be extended in order to get comparable amounts. Another method would be to compare the values of the ratios by writing the values of the ratios as fractions and then using knowledge of fractions to compare the ratios.

When ratios are given in words, creating a table of equivalent ratios helps in comparing the ratios.

12: 35 compared to 8: 20

Quantity 1	12	24	36	48
Quantity 2	35	70	105	140

Quantity 1	8	56
Quantity 2	20	140

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 11: Comparing Ratios Using Ratio Tables

Exit Ticket

Beekeepers sometimes supplement the diet of honey bees with sugar water to help promote colony growth in the spring and help the bees survive through fall and winter months. The tables below show the amount of water and the amount of sugar used in the Spring and in the Fall.

Spring Sugar Water Mixture	
Sugar (cups)	Water (cups)
6	4
15	10
18	12
27	18

Fall Sugar Water Mixture	
Sugar (cups)	Water (cups)
4	2
10	5
14	7
30	15

Write a sentence that compares the ratios of the number of cups of sugar to the number of cups of water in each table.

Explain how you determined your answer.



Exit Ticket Sample Solutions

Beekeepers sometimes supplement the diet of honey bees with sugar water to help promote colony growth in the spring and help the bees survive through fall and winter months. The tables below show the amount of water and the amount of sugar used in the Spring and in the Fall.

Spring Sugar Water Mixture	
Sugar (cups)	Water (cups)
6	4
15	10
18	12
27	18

Fall Sugar Water Mixture	
Sugar (cups)	Water (cups)
4	2
10	5
14	7
30	15

Write a sentence that compares the ratios of the number of cups of sugar to the number of cups of water in each table.

The value of the ratio for the Spring sugar water is $\frac{1.5}{1}$, while the value of the ratio of the Fall sugar water is $\frac{2}{1}$. Therefore, the Fall sugar water mixture has more sugar mixed in for every cup of water added to the mixture than the Spring sugar water mixture.

Explain how you determined your answer.

Spring: $\frac{6}{4} = \frac{3}{2} = \frac{1.5}{1}$

Fall: $\frac{4}{2} = \frac{2}{1}$

Problem Set Sample Solutions

1. Sarah and Eva were swimming.

a. Use the ratio tables below to determine who the faster swimmer is.

Sarah

Time (min)	3	5	12	17
Distance (meters)	75	125	300	425

Eva

Time (min)	2	7	10	20
Distance (meters)	52	182	260	520

Eva is the faster swimmer because she swims 26 meters in 1 minute, which is faster than Sarah who swims 25 meters in 1 minute.

b. Explain the method that you used to determine your answer.

Answers will vary.

2. A 120 lb. person would weigh about 20 lb. on the earth's moon. A 150 lb. person would weigh about 28 lb. on Io, a moon of Jupiter. Use ratio tables to determine which moon would make a person weigh the most.

Answers will vary. A person on Io will weigh more than a person on our moon.



Lesson 12: From Ratio Tables to Double Number Line

Diagrams

Student Outcomes

- Students create equivalent ratios using a ratio table and represent these ratios on a double number line diagram.
- Students extend and use a double number line diagram to solve ratio problems related to the real world.

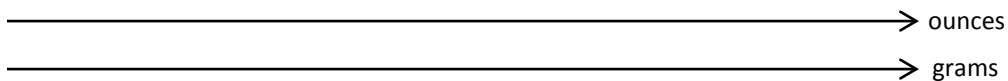
Lesson Notes

Be aware that double number line diagrams may be unfamiliar to students. Creating and delivering brief opening exercises that demonstrate the use of double number line diagrams, as well as providing fluency activities, such as Rapid Whiteboard Exchanges (RWBE), is highly suggested throughout the rest of this module. Students employ double number line diagrams to understand the equivalence of two related numbers. Generally, double number line diagrams are often chosen when two different units are being compared. An example of a double number line diagram is as follows:

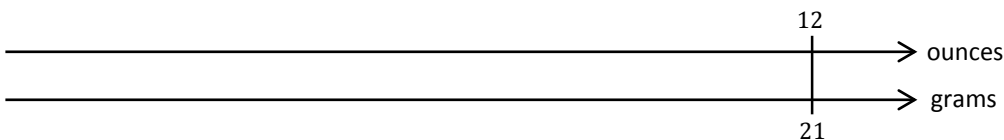
A 12 oz. bottle of sport drink contains 21 g of sugar. If Claudia wants the maximum number of grams of sugar she drinks to be 7 g, how many ounces of the sport drink can she have?

(Note that there are two different units being compared: grams and ounces. They are not equivalent, as one gram is not the same as one ounce. Since this is true, students employ tape diagrams to find equivalence between unlike units).

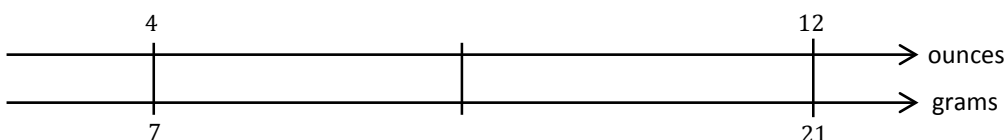
Students begin by constructing one number line to represent the number of ounces and then constructing another number line directly beneath the original line to represent the number of grams.



Students determine how to label the diagram based on the information in the problem. Since there are 21 g of sugar in 12 oz. of sports drink, the equivalency can be represented directly on the double number line diagram.



This represents that for every 12 oz. of sports drink, there are 21 g of sugar. Students determine the amount of sports drink they can have if they can only drink 7 g of sugar. Students can represent 7 on the double number line diagram by dividing 21 by 3. Since they divided 21 by 3, they must also divide 12 by 3, which results in 4 oz.



Classwork

Exercise 1 (5 minutes)

Recall of prior knowledge—Ratio Tables (See attached ratio cards.)

MP.2

Each student is given a card with a ratio on it. Students move around the room in search of other students who have ratios that are equivalent to theirs. Students with equivalent ratios form a group and create a ratio table, which contains all of the equivalent ratios. As students present their ratio tables, the student audience determines the accuracy of the groups’ formations, as well as the accuracy of their tables. Circulate around the room as a facilitator, guiding students who are having trouble. Collect cards and direct students back to their seats once the groups are completed.

Scaffolding:

Differentiate the exercise by choosing certain cards for each student. For example, a ratio of 2: 1 may be easier for a struggling learner to conceptualize, while a ratio of $3\frac{1}{2}$: 2 may be more challenging.

Exercise 2 (7 minutes)

A guided whole-group discussion occurs as outlined below. Students are given time to think about and discuss the following questions independently or with their peers and then contribute to the whole-group discussion.

Scaffolding:

For more support, or to provide more information on this topic to support all learners’ needs, refer to Teacher Notes—More Information on Soda and Sugar for video and news-related links.

Exercise 2

The amount of sugary beverages Americans consume is a leading health concern. For a given brand of cola, a 12 oz. serving of cola contains about 40 g of sugar. Complete the ratio table, using the given ratio to find equivalent ratios.

Cola (ounces)	6	12	18
Sugar (grams)	20	40	60

Answers may vary but are found by either multiplying or dividing both 12 and 40 by the same number.

Exercise 3 (7 minutes)

Exercise 3

A 1 L bottle of cola contains approximately 34 fluid ounces. How many grams of sugar would be in a 1 L bottle of the cola? Explain and show how to arrive at the solution.

Cola (ounces)	6	12	18	24	30	36
Sugar (grams)	20	40	60	80	100	120

MP.3

Students may use different approaches. Some students may decide to extend their tables but may realize that they do not easily arrive at 34 for the ounces of cola when finding equivalent ratios. After adequate time, have students/groups present their predictions and methods to the class.

MP.1

When eliciting students’ responses, ask probing questions as the opportunity arises (e.g., “So are you telling me that since 34 oz. is between 30 and 36 oz., the answer will be between 100 and 120 g of sugar?” “Is it closer to 100 or 120? How do you know?” “Will the answer be a whole number? Why or why not?” “Can you express your answer as a mixed number?”).

- What are some of the challenges we face when using a table for this type of problem?
 - 34 is not a multiple of 6, and we are counting by 6's for the ounces of cola and by 20's for grams of sugar.

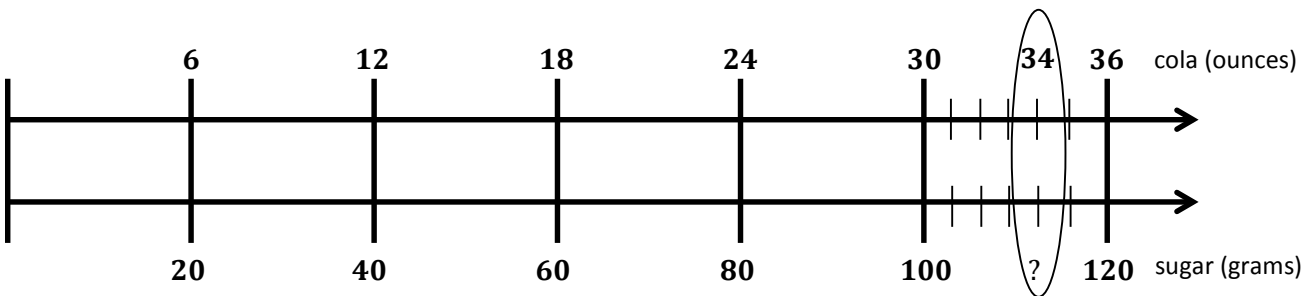
Example 1 (9 minutes)

MP.5

Whole group instruction continues with a teacher-led discussion (with an illustration) on using a double number line diagram to arrive at the answer for Example 1. This problem requires two different number lines since we are comparing ounces and grams, which are not the same units (1 gram is not equivalent to 1 ounce). Students record the following illustration on the double number line reproducible.

Scaffolding:

Use the following fluency exercise to reinforce understanding: Students can practice skip-counting aloud for each number line to understand the concept of scale.



- What is the scale we are using on each number line?
 - 6 for cola and 20 for sugar

Show on the cola number line that 34 oz. is $\frac{4}{6}$, or $\frac{2}{3}$, of the way between 30 and 36. The answer for grams of sugar will be $\frac{4}{6}$, or $\frac{2}{3}$, of the way between 100 and 120. Since the intervals are by 20, to determine the answer, find $\frac{2}{3}$ of 20 and add it to 100. Students may choose to use $\frac{4}{6}$ instead of $\frac{2}{3}$.

Elicit student volunteers to show the math process and work using each of the two fractions. Students should see that the answers will be the same regardless of which fraction was used.

$$\frac{2}{3} \times \frac{20}{1} = \frac{40}{3} = 13 \frac{2}{6} = 13 \frac{1}{3}$$

OR

$$\frac{4}{6} \times \frac{20}{1} = \frac{80}{6} = 13 \frac{2}{6} = 13 \frac{1}{3}$$

$$100 + 13 \frac{1}{3} = 113 \frac{1}{3}$$

$$100 + 13 \frac{1}{3} = 113 \frac{1}{3}$$

113 $\frac{1}{3}$ g of sugar

113 $\frac{1}{3}$ g of sugar

Exercise 4 (7 minutes)

Exercise 4

A school cafeteria has a restriction on the amount of sugary drinks available to students. Drinks may not have more than 25 g of sugar. Based on this restriction, what is the largest size cola (in ounces) the cafeteria can offer to students?

My estimate is between 6 and 12 oz. but closer to 6 ounces. I need to find $\frac{1}{4}$ of 6 and add it to 6.

$$\frac{1}{4} \times \frac{6}{1} = \frac{6}{4} = 1\frac{1}{2}$$

$$6 + 1\frac{1}{2} = 7\frac{1}{2}$$

A $7\frac{1}{2}$ oz. cola is the largest size that the school cafeteria can offer to students.

After students have ample time to create their double number line diagram and answer the question, encourage students to present their thought process to the class.

Exercise 5 (time permitting)

Exercise 5

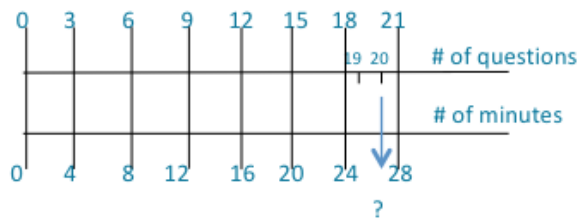
Shontelle solves three math problems in four minutes.

a. Use this information to complete the table below.

Number of Questions	3	6	9	12	15	18	21	24	27	30
Number of Minutes	4	8	12	16	20	24	28	32	36	40

- b. Shontelle has soccer practice on Thursday evening. She has a half hour before practice to work on her math homework and to talk to her friends. She has 20 math skill-work questions for homework, and she wants to complete them before talking with her friends. How many minutes will Shontelle have left after completing her math homework to talk to her friends?

Use a double number line diagram to support your answer, and show all work.



step 1: $\frac{2}{3} \times 4 = \frac{8}{3} = 2\frac{2}{3}$

step 2: $24 + 2\frac{2}{3} = 26\frac{2}{3}$

step 3: $30 - 26\frac{2}{3} = 3\frac{1}{3}$

Shontelle can talk to her friends for $3\frac{1}{3}$ minutes.

Closing (5 minutes)

Have students complete the 3-2-1 Activity.

- Name three different ways you can represent a group of equivalent ratios.
 - *Ratio table, tape diagram, double number line diagrams*
- Share two things you learned about double number line diagrams.
- Tell one thing you want to know more about from today’s lesson.

Lesson Summary

A **double number line** is a representation of a ratio relationship using a pair of parallel number lines. One number line is drawn above the other so that the zeros of each number line are aligned directly with each other. Each ratio in a ratio relationship is represented on the double number line by always plotting the first entry of the ratio on one of the number lines and plotting the second entry on the other number line so that the second entry is aligned with the first entry.

Exit Ticket (5 minutes)

Additional Teacher Notes

More Information on Soda and Sugar:

Video: <http://www.cnn.com/2013/01/14/health/coke-obesity>

Video: http://www.teachertube.com/viewVideo.php?video_id=13788

<http://www.sugarstacks.com/beverages.htm>



Name _____

Date _____

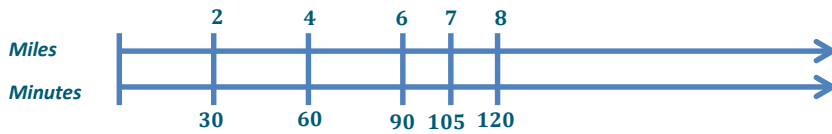
Lesson 12: From Ratio Tables to Double Number Line Diagrams

Exit Ticket

Kyra is participating in a fundraiser walk-a-thon. She walks 2 miles in 30 minutes. If she continues to walk at the same rate, determine how many minutes it will take her to walk 7 miles. Use a double number line diagram to support your answer.

Exit Ticket Sample Solution

Kyra is participating in a fundraiser walk-a-thon. She walks 2 miles in 30 minutes. If she continues to walk at the same rate, determine how many minutes it will take her to walk 7 miles. Use a double number line diagram to support your answer.



It will take Kyra 105 minutes to walk 7 miles.

Problem Set Sample Solutions

1. While shopping, Kyla found a dress that she would like to purchase, but it costs \$52.25 more than she has. Kyla charges \$5.50 an hour for babysitting. She wants to figure out how many hours she must babysit to earn \$52.25 to buy the dress. Use a double number line to support your answer.

9.5 hours

2. Frank has been driving at a constant speed for 3 hours, during which time he traveled 195 miles. Frank would like to know how long it will take him to complete the remaining 455 miles, assuming he maintains the same constant speed. Help Frank determine how long the remainder of the trip will take. Include a table or diagram to support your answer.

7 hours



7 to 4	28:16	$3\frac{1}{2}$ to 2	35:20
3 to 8	30:80	6 to 16	12:32
5 to 1	45:9	15 to 3	$2\frac{1}{2}$ to $\frac{1}{2}$

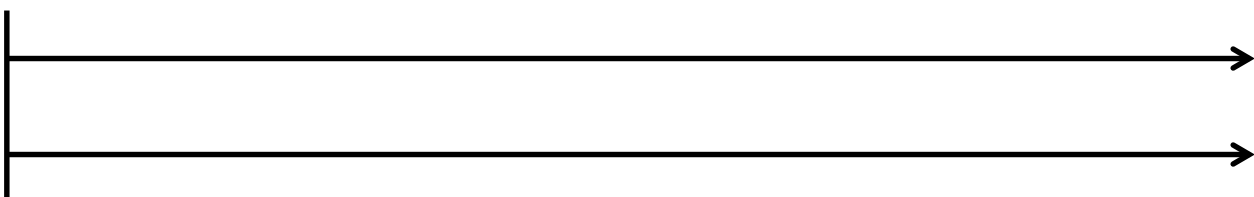
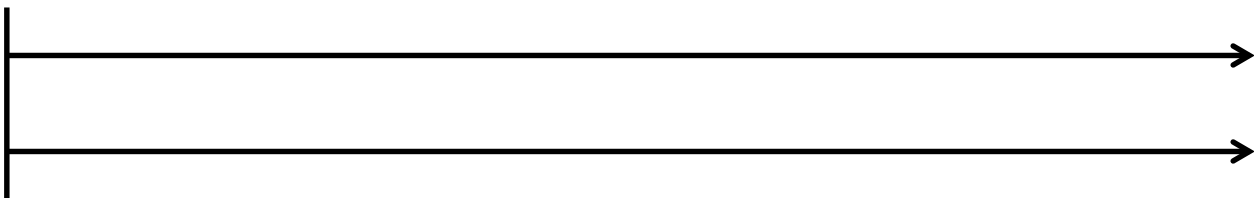
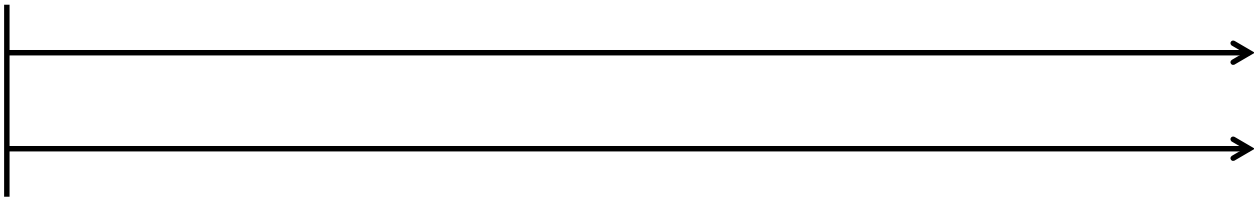
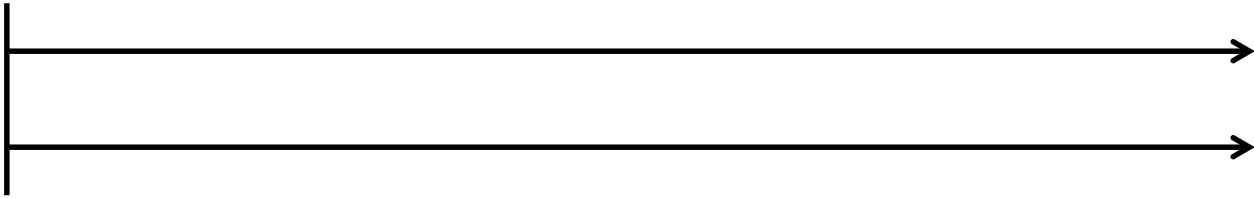


3 to 4	9:16	$1\frac{1}{2}$ to 2	15:20
3 to 6	30:60	1 to 2	4:8
2 to 1	44:22	18:9	1 to $\frac{1}{2}$



1 to 6	8:48	6 to 36	5:30
9 to 4	36:16	3 to $\frac{4}{3}$	18:8
7 to 6	42:36	21 to 8	$3\frac{1}{2}$ to 3

Double Number Line Reproducible





Lesson 13: From Ratio Tables to Equations Using the Value of a Ratio

Student Outcomes

- Students restate a ratio in terms of its value; for example, if the ratio of length A to length B is 3:5 (in the same units), students state that *length A is $\frac{3}{5}$ of length B , length B is $\frac{5}{3}$ of length A , length A is $\frac{3}{8}$ of the total length, and length B is $\frac{5}{8}$ of the total length.*
- Students use the value of the ratio to problem-solve by writing and solving equations.

Classwork

Exercise 1–3 (35 minutes)

Exercise 1

Each student is given a pre-made linking cube model consisting of one red cube and three yellow cubes to be used as a model for the scenario below.

Exercise 1

Jorge is mixing a special shade of orange paint. He mixed 1 gallon of red paint with 3 gallons of yellow paint.

Based on this ratio, which of the following statements are true?

- $\frac{3}{4}$ of a 4-gallon mix would be yellow paint.
True
- Every 1 gallon of yellow paint requires $\frac{1}{3}$ gallon of red paint.
True
- Every 1 gallon of red paint requires 3 gallons of yellow paint.
True
- There is 1 gallon of red paint in a 4-gallon mix of orange paint.
True
- There are 2 gallons of yellow paint in an 8-gallon mix of orange paint.
False

Use the space below to determine if each statement is true or false.

Scaffolding:

Linking cubes should be available for each learner. They give a color-coded manipulative model that makes the abstract story problem tangible. The cubes can be combined to give a concrete model of the chart.

Allow students to discuss each question with a partner or group. When the class comes back together as a whole group, each group is responsible for explaining to the class *one* of the statements and whether the group feels the statement is true or false and why. (The first four statements are true while the fifth statement is false. To be made true, the fifth statement should read “There are 6 gallons of yellow paint in an 8 gallon mix of orange paint.”)

Exercise 2

Exercise 2

Based on the information on red and yellow paint given in Exercise 1, complete the table below.

Red Paint (R)	Yellow Paint (Y)
1	3
2	6
3	9
4	12
5	15

MP.7

Students should be encouraged to combine their linking cubes with those of a partner to model the ratio given in the second row of the table. Students should find a third partner to model the ratio given in the third row, etc.

Facilitate and lead the discussion (if necessary) to point out that we can extend the table to show total gallons.

Red Paint (R)	Yellow Paint (Y)	Relationship
1	3	$3 = 1 \times 3$
2	6	$6 = 2 \times 3$
3	9	$9 = 3 \times 3$
4	12	$12 = 4 \times 3$
5	15	$15 = 5 \times 3$

Use the table to identify the relationship between two quantities as an intermediate step in creating an equation that models that relationship.

Here is a possible conversation that could be used to help students see the relationships:

- What information is given in the table?
 - *The table gives the number of gallons of red paint and the number of gallons of yellow paint.*
- In what context would someone use this information?
 - *This information would be useful to anyone who had a need to paint a surface and also had to mix his own paint, such as a painting contractor who prefers to mix custom colors for high-end clients.*
- We need to interpret what this table means. If I use 5 gallons of red paint, how many gallons of yellow paint would I need?
 - *I would need 15 gallons of yellow paint.*
- How is the amount of yellow paint related to the amount of red paint?
 - *The amount of yellow paint is always 3 times as much as the amount of red paint.*

- Is that true for all of the entries?
 - Yes
- Now imagine that we want to make orange paint to cover an entire wing of our school, and we have 100 gallons of red paint. How could we figure out how many gallons of yellow paint to use?
 - *We could multiply 100 by 3.*
- Now we want to write this as an equation. You have told me that I can take all the values in the first column and multiply by three to get the values in the second column. When we were given 4 gallons of red paint, we knew we would need $3 \cdot 4$ gallons of yellow paint. What if we were given R gallons of red paint, how many gallons of yellow paint would we need? So, Y , the number of gallons of yellow paint, would equal...?
 - *3 times R*
- How would we write this equation?

To get to these steps, students might need a little guidance. Help by pointing out the variables given in the table, and ask them to write what R must be multiplied by to get Y .

- $Y = 3R$
- We were trying to find out how much yellow paint we needed given the amount of red paint. Is the formula related to the value of the ratio of the number of gallons of yellow paint to the number of gallons of red paint?
 - *The ratio of the number of gallons of yellow paint to the number of gallons of red paint is 3:1; the value of the ratio is $\frac{3}{1}$.*
- What if we wanted an equation to tell us how much red paint to use if we are given the amount of yellow paint? How can we use the amount of yellow paint to determine the amount of red paint needed?
 - *Divide by three or multiply by $\frac{1}{3}$.*
- What is the ratio of the number of gallons of red paint to the number of gallons of yellow paint?
 - *The ratio is 1:3 or 1 to 3, and the value of the ratio is $\frac{1}{3}$.*
- How can I use this information to write the equation?
 - *We would take the Y -value and divide by 3; in other words, multiply by $\frac{1}{3}$. So, the equation would be $R = \frac{1}{3}Y$.*

MP.2

Some suggestions for discussion questions:

- In this case, the ratio of the number of gallons of red paint to the number of gallons of yellow paint is 1:3. What if the ratio were changed to 1:4? What would this mean in the context of our paint problem?
 - *We would use one gallon of red paint for every four gallons of yellow paint.*
- Can we still use the equation we created earlier? What would the new equation be?
 - *No. The new equation would be $Y = 4 \cdot R$*

Scaffolding:

The connection to the multiplication table should be elicited: rows 1 and 3 show the relationship in this ratio. Students might also find that equivalent fractions can be seen this way.

- How can we use the ratio to write the equation?
 - *There will be 4 times as much yellow paint as there is red paint. The 4 tells us what to multiply the number of gallons of red paint by to find the number of gallons of yellow paint.*
- What if the ratio were 1: 7? What would the new equation be?
 - $Y = 7 \cdot R$

Exercise 3

Students can try the first question on their own, or discuss the question if students need further instructions with the concept. Otherwise, students start the exercise on their own, in partners, or in small groups.

- Jorge now plans to mix red paint and blue paint to create purple paint. The color of purple he has decided to make combines red paint and blue paint in the ratio 4: 1. If Jorge can only purchase paint in one gallon containers, construct a ratio table for all possible combinations for red and blue paint that will give Jorge no more than 25 gallons of purple paint.
- Write an equation that will let Jorge calculate the amount of red paint he will need for any given amount of blue paint.
- Write an equation that will let Jorge calculate the amount of blue paint he will need for any given amount of red paint.
- If Jorge has 24 gallons of red paint, how much blue paint will he have to use to create the desired color of purple?
- If Jorge has 24 gallons of blue paint, how much red paint will he have to use to create the desired color of purple?

MP.5 Allow students to make a table or drawing.

- Remember that we sometimes use variables to represent numbers. Let's use B and R for the amounts of blue paint and red paint, respectively.
- No matter how much blue paint I use, I need 4 times as much red paint. So, for one gallon of blue paint, I need (1×4) 4 gallons of red paint. That is a ratio of 1: 4. The value of the ratio is $\frac{1}{4}$.
- Where do we see the ratio in the equations?
 - *We determine the amount of red paint by multiplying the unknown amount of blue paint by 4. So, for every 1 gallon of blue paint, we need 4 gallons of red paint. To determine the amount of blue paint, we need to find $\frac{1}{4}$ of the amount of red paint.*

Scaffolding:

The connection to the multiplication table should be elicited: columns 1 and 4 show the relationship in this ratio.

Exercise 3

- a. Jorge now plans to mix red paint and blue paint to create purple paint. The color of purple he has decided to make combines red paint and blue paint in the ratio 4: 1. If Jorge can only purchase paint in one gallon containers, construct a ratio table for all possible combinations for red and blue paint that will give Jorge no more than 25 gallons of purple paint.

Blue (B)	Red (R)	Relationship
1	4	$4 = 1 \times 4$
2	8	$8 = 2 \times 4$
3	12	$12 = 3 \times 4$
4	16	$16 = 4 \times 4$
5	20	$20 = 5 \times 4$

$$R = 4B$$

$$B = \frac{1}{4}R$$

Write an equation that will let Jorge calculate the amount of red paint he will need for any given amount of blue paint.

$$R = 4B$$

Write an equation that will let Jorge calculate the amount of blue paint he will need for any given amount of red paint.

$$B = \frac{1}{4}R$$

If Jorge has 24 gallons of red paint, how much blue paint will he have to use to create the desired color of purple?

Jorge will have to use 6 gallons of blue paint.

If Jorge has 24 gallons of blue paint, how much red paint will he have to use to create the desired color of purple?

Jorge will have to use 96 gallons of red paint.

- b. Using the same relationship of red to blue from above, create a table that models the relationship of the three colors blue, red, and purple (total) paint. Let B represent the number of gallons of blue paint, let R represent the number of gallons of red paint, and let T represent the total number of gallons of (purple) paint. Then write an equation that models the relationship between the blue paint and the total amount of paint, and answer the questions.

Blue (B)	Red (R)	Total Paint (T)
1	4	5
2	8	10
3	12	15
4	16	20
5	20	25

Equation: $T = 5B$

Value of the ratio of total paint to blue paint: $\frac{5}{1}$

How is the value of the ratio related to the equation?

The value of the ratio is used to determine the total paint value by multiplying it with the blue paint value.

Continue to allow students time to work on the remainder of the problems. While working with students, be sure to remind them of the value of the ratio and how it is used to make the equation.

Exercise 4

During a particular U.S. Air Force training exercise, the ratio of the number of men to the number of women was 6: 1. Use the ratio table provided below to create at least two equations that model the relationship between the number of men and the number of women participating in this training exercise.

Women (W)	Men (M)
1	6
2	12
3	18
4	24
5	30

Equations:

$$M = 6W$$

$$W = \left(\frac{1}{6}\right)M$$

$$\frac{M}{W} = 6$$

$$\frac{W}{M} = \frac{1}{6}$$

Scaffolding:

The connection to the multiplication table should be elicited: Columns 1 and 6 show the relationship in this ratio.

If 200 women participated in the training exercise, use one of your equations to calculate the number of men who participated.

I can substitute 200 for the value of women and multiply by 6, the value of the ratio, to get the number of men. There would be 1,200 men participating in the training exercise.

Exercise 5

Malia is on a road trip. During the first five minutes of Malia’s trip, she sees 18 cars and 6 trucks. Assuming this ratio of cars to trucks remains constant over the duration of the trip, complete the ratio table using this comparison. Let T represent the number of trucks she sees, and let C represent the number of cars she sees.

Trucks (T)	Cars (C)
1	3
3	9
6	18
12	36
20	60

What is the value of the ratio of the number of cars to the number of trucks?

$$\frac{3}{1}$$

What equation would model the relationship between cars and trucks?

$$C = 3T \text{ and } T = \left(\frac{1}{3}\right)C$$

At the end of the trip, Malia had counted 1,254 trucks. How many cars did she see?

$$C = 1,254 \cdot 3; C = 3,762 \text{ cars}$$

Exercise 6

Kevin is training to run a half-marathon. His training program recommends that he run for 5 minutes and walk for 1 minute. Let R represent the number of minutes running, and let W represent the number of minutes walking.

Minutes Running (R)	5	10	20	40	50
Minutes Walking (W)	1	2	4	8	10

What is the value of the ratio of the number of minutes walking to the number of minutes running?

$$\frac{1}{5}$$

What equation could you use to calculate the minutes spent walking if you know the minutes spent running?

$$W = \frac{1}{5}R; \text{ Answers will vary.}$$

Closing (5 minutes)

MP.5

Have students explain the relationship between the ratio and the equation. Students can include examples, tables, equations, or other representations to justify their reasoning.

Lesson Summary

The value of a ratio can be determined using a ratio table. This value can be used to write an equation that also represents the ratio.

Example:

1	4
2	8
3	12
4	16

The multiplication table can be a valuable resource to use in seeing ratios. Different rows can be used to find equivalent ratios.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 13: From Ratio Tables to Equations Using the Value of a Ratio

Exit Ticket

A carpenter uses four nails to install each shelf. Complete the table to represent the relationship between the number of nails (N) and the number of shelves (S). Write the ratio that describes the number of nails per number of shelves. Write as many different equations as you can that describe the relationship between the two quantities.

Shelves (S)	Nails (N)
1	4
2	
	12
	16
5	



Exit Ticket Sample Solutions

A carpenter uses four nails to install each shelf. Complete the table to represent the relationship between the number of nails (N) and the number of shelves (S). Write the ratio that describes the number of nails per number of shelves. Write as many different equations as you can that describe the relationship between the two quantities.

Shelves (S)	Nails (N)
1	4
2	8
3	12
4	16
5	20

$$\left(\frac{N}{S}\right) = \left(\frac{4}{1}\right)$$

Equations:

$$N = 4S$$

$$S = \left(\frac{1}{4}\right)N$$

Problem Set Sample Solutions

A cookie recipe calls for 1 cup of white sugar and 3 cups of brown sugar.

Make a table showing the comparison of the amount of white sugar to the amount of brown sugar.

White Sugar (W)	Brown Sugar (B)
1	3
2	6
3	9
4	12
5	15

- Write the value of the ratio of the amount of white sugar to the amount of brown sugar.

$$\frac{1}{3}$$

- Write an equation that shows the relationship of the amount of white sugar to the amount of brown sugar.

$$B = 3W \text{ or } W = \frac{1}{3}B$$

- Explain how the value of the ratio can be seen in the table.

The values in the first row show the values in the ratio. The ratio of the amount of brown sugar to the amount of white sugar is 3:1. The value of the ratio is $\frac{3}{1}$.

- Explain how the value of the ratio can be seen in the equation.

The amount of brown sugar is represented as B in the equation. The amount of white sugar is represented as W . The value is represented because the amount of brown sugar is three times as much as the amount of white sugar, or $B = 3W$.



Using the same recipe, compare the amount of white sugar to the amount of total sugars used in the recipe.

Make a table showing the comparison of the amount of white sugar to the amount of total sugar.

White Sugar (W)	Total Sugar (T)
1	4
2	8
3	12
4	16
5	20

5. Write the value of the ratio of the amount of total sugar to the amount of white sugar.

$$\frac{4}{1}$$

6. Write an equation that shows the relationship of total sugar to white sugar.

$$T = 4W$$



Lesson 14: From Ratio Tables, Equations, and Double Number Line Diagrams to Plots on the Coordinate Plane

Student Outcomes

- Students associate with each ratio $A:B$ the ordered pair (A,B) and plot it in the x - y coordinate plane.
- Students represent ratios in ratio tables, equations, and double number line diagrams and then represent those ratios in the coordinate plane.

Lesson Notes

This lesson serves as a means for students to associate ratios with ordered pairs and plot the ordered pairs in the x - y coordinate plane. Students graph collected data on the coordinate plane. Collected data falls within two categories: discrete data and continuous data. Discrete data is a set of data values with unconnected data points and often represents data that is countable and often finite. In this lesson, students represent non-integer data on the coordinate plane using points that are not connected with a ray. Continuous data can represent an unlimited selection of data and include integers. The lesson starts with an example that uses data that is continuous, allowing students to connect the data points with a ray. Students are able to navigate through the graph in order to analyze data, predict values, and find missing values based on the ratio relationship. A student is not required to know the vocabulary of collected data, nor is collected data part of the outcomes of the lesson. The information provided is for reference.

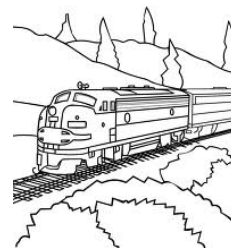
Classwork

Representing ratios: Using knowledge from previous lessons in this module, students work together in predetermined groups to complete the table to satisfy the missing values, create a double number line diagram to support the values, and develop an equation to support the values. Pose the following scenario:

Kelli is traveling by train with her soccer team from Yonkers, NY to Morgantown, WV for a tournament. The distance between Yonkers and Morgantown is 400 miles. The total trip will take 8 hours. The train schedule is provided below:

Leaving Yonkers, NY	
Destination	Distance
Allentown, PA	100 miles
Carlisle, PA	200 miles
Berkeley Springs, WV	300 miles
Morgantown, WV	400 miles

Leaving Morgantown, WV	
Destination	Distance
Berkeley Springs, WV	100 miles
Carlisle, PA	200 miles
Allentown, PA	300 miles
Yonkers, NY	400 miles



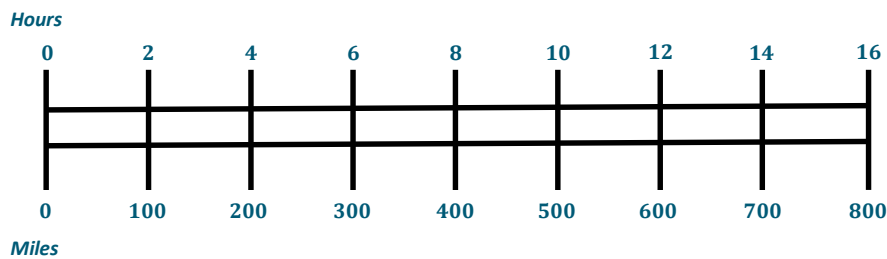
Exercises (10 minutes)

Exercises

1. Create a table to show the time it will take Kelli and her team to travel from Yonkers to each town listed in the schedule assuming that the ratio of the amount of time traveled to the distance traveled is the same for each city. Then, extend the table to include the cumulative time it will take to reach each destination on the ride home.

Hours	Miles
2	100
4	200
6	300
8	400
10	500
12	600
14	700
16	800

2. Create a double number line diagram to show the time it will take Kelli and her team to travel from Yonkers to each town listed in the schedule. Then, extend the double number line diagram to include the cumulative time it will take to reach each destination on the ride home. Represent the ratio of the distance traveled on the round trip to the amount of time taken with an equation.



Using the information from the double number line diagram, how many miles would be traveled in one hour?

50

How do you know?

If the train is moving at a constant speed, half of 2 hours is 1 hour, and half of 100 miles is 50 miles.

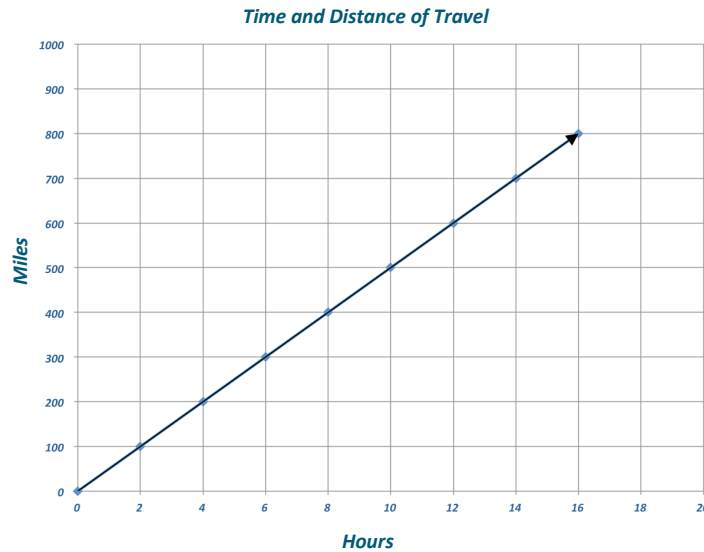
Example 1 (25 minutes)

Example 1

Dinner service starts once the train is 250 miles away from Yonkers. What is the minimum time the players will have to wait before they can have their meal?

Hours	Miles	Ordered Pairs
2	100	(2, 100)
4	200	(4, 200)
6	300	(6, 300)
8	400	(8, 400)
10	500	(10, 500)
12	600	(12, 600)
14	700	(14, 700)
16	800	(16, 800)

The minimum time is 5 hours.



Discussion

Elicit prior knowledge of the coordinate plane from Grade 5, where students plotted points using ordered pairs of numbers identified as coordinates, identified x - and y -axes, and determined how to travel along the axes based upon the ordered pairs.

Display the completed table and coordinate plane. Should materials be available, students can use sticky dots to aid in plotting points on large gridded chart paper.

Have students determine the following through questioning and discussion:

- We use the horizontal and vertical axes to measure quantities.
- In most cases, time is what is placed on the horizontal axis.
- How should we label this axis?
 - *Hours* (Label.)
- Which quantity will we measure using the vertical axis, time or distance?
 - *Distance*
- How should we label this axis?
 - *Miles* (Label.)
- Let's create the intervals for the x -axis. The data is increasing by two each time, but there is enough room to count by 1 for each interval.



Create the intervals on the x -axis.

- Now let's look at the intervals for the y -axis. The data is increasing by 100, so we will use 100 as the interval on the y -axis.

Create the intervals on the y -axis.

- How can I show the relationship between hours and distance on the coordinate plane?
 - *Travel first from the origin using the x -coordinate (the hours). Next, travel from the x -coordinate up the y -axis the value of the y -coordinate (miles).*

Guide students through the following activity to ensure students understand that an ordered pair can be graphed on a plane. Students should also understand how far the train traveled during a given time period and how long it took for the train to travel a given distance.

Have students locate the ordered pair (4, 600) on the coordinate plane.

- What does this point represent in the context of distance and time?
 - *The train traveled 600 miles in 4 hours.*

Have students locate the ordered pair (7, 500) on the coordinate plane.

- How far did the train travel in 7 hours?
 - *The train traveled 500 miles in 7 hours.*

Have students locate the ordered pair (15, 750) on the coordinate plane.

- How many hours does it take the train to travel 750 miles?
 - *The train has traveled 750 miles in 15 hours.*

Elicit student responses to create and then place the ordered pairs from the table on the coordinate plane. Allow students to individually model placement of ordered pairs on the coordinate plane, coming to the instructional area and explaining in detail the reasoning behind their placement of the point.

- What do you notice about the arrangement of the points on the coordinate plane?
 - *They appear to be in a line.*

Model how to connect the ordered pairs to the origin with a line and arrow.

- What do you think having an ordered pair of (0,0) means since we drew the line to the origin?
 - *Zero hours after the trip began the train has traveled zero miles.*
- Using this graph, we can determine how many hours the team will have to wait before being served dinner.
- What information do we know?
 - *Dinner is served at mile 250.*
- Where can we find 250 miles on our graph?

Students take time to think and share their thoughts with a partner. One pair of students comes to the instructional area and shares their thoughts with the class.

- Model how to draw a horizontal line from 100 miles on the y -axis to the line representing the relationship between hours and miles.
- If I draw a vertical line down, at what hour will I intersect the x -axis?
 - *2 hours*

- What do you notice?
 - *It takes 2 hours to travel 100 miles.*
- What would happen if I drew a horizontal line from 200 miles on the y -axis to the line representing the relationship between hours and miles and then drew a vertical line down to the x -axis?
 - *We will intersect the x -axis at 4 hours.*

Draw a horizontal line from 250 miles on the y -axis to the line representing the relationship between hours and miles.

Draw a vertical line down to the x -axis.

- What do you notice?
 - *We intersect the x -axis halfway between 4 hours and 6 hours.*
- What is the midpoint of the intervals between 4 hours and 6 hours?
 - *5 hours*
- How many hours will the team have to wait to be served dinner?
 - *5 hours*
- Check with the table and the following equation:

$$\text{Miles} = 50 \times \text{hours}$$

$$\text{Miles} = 50 \times 5$$

$$250 = 250$$

Closing (5 minutes)

- Why would you choose to use a graph to represent a ratio?
 - Answers will vary but should include consideration that reading a graph can be more efficient than creating a table to determine missing values.

Lesson Summary

A ratio table, equation, or double number line diagram can be used to create ordered pairs. These ordered pairs can then be graphed on a coordinate plane as a representation of the ratio.

Example:

Equation: $y = 3x$

x	y
0	0
1	3
2	6
3	9

→

Ordered Pairs
 (x, y)
 $(0, 0)$
 $(1, 3)$
 $(2, 6)$
 $(3, 9)$

→

Exit Ticket (5 minutes)

Name _____

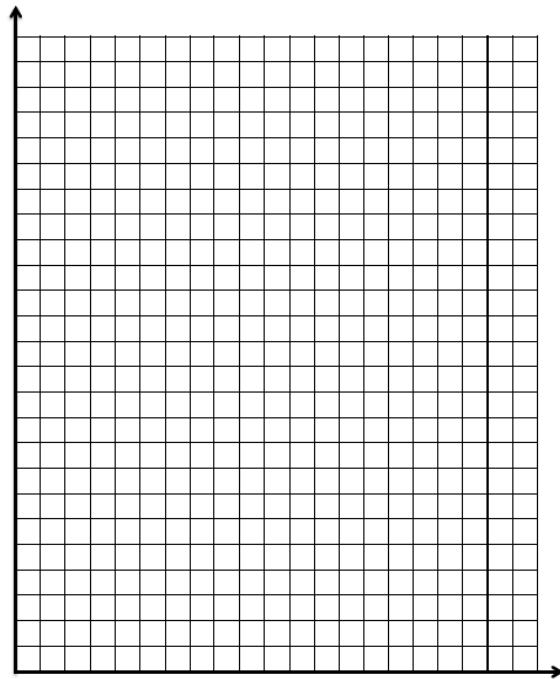
Date _____

Lesson 14: From Ratio Tables, Equations, and Double Number Line Diagrams to Plots on the Coordinate Plane

Exit Ticket

Dominic works on the weekends and on vacations from school mowing lawns in his neighborhood. For every lawn he mows, he charges \$12. Complete the table. Then determine ordered pairs, and create a labeled graph.

Lawns	Charge (in dollars)	Ordered Pairs
2		
4		
6		
8		
10		



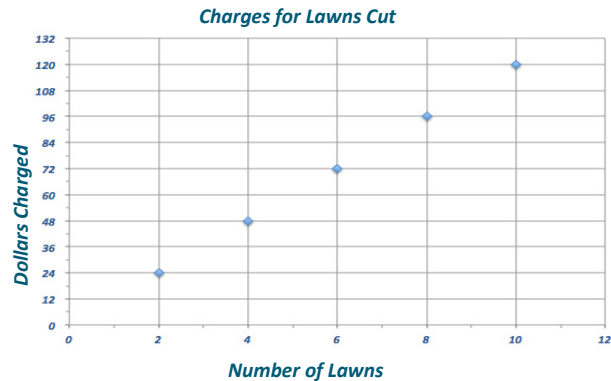
- How many lawns will Dominic need to mow in order to make \$240?
- How much money will Dominic make if he mows 9 lawns?

Exit Ticket Sample Solutions

Dominic works on the weekends and on vacations from school mowing lawns in his neighborhood. For every lawn he mows, he charges \$12.

Complete the table. Then determine ordered pairs, and create a labeled graph.

Lawns	Charge (in dollars)	Ordered Pairs
2	24	(2, 24)
4	48	(4, 48)
6	72	(6, 72)
8	96	(8, 96)
10	120	(10, 120)



1. How many lawns will Dominic need to mow in order to make \$240?

20 lawns

2. How much money will Dominic make if he mows 9 lawns?

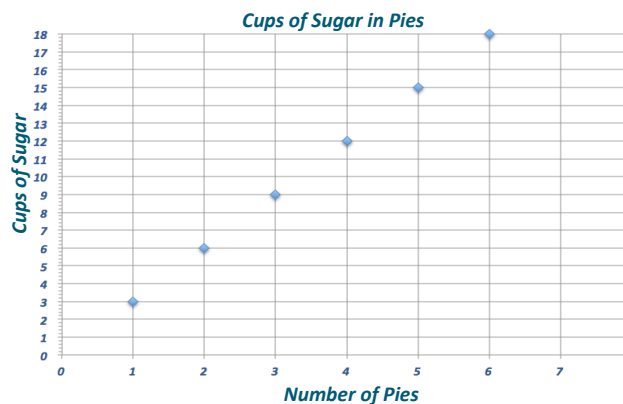
\$108

Problem Set Sample Solutions

1. Complete the table of values to find the following:

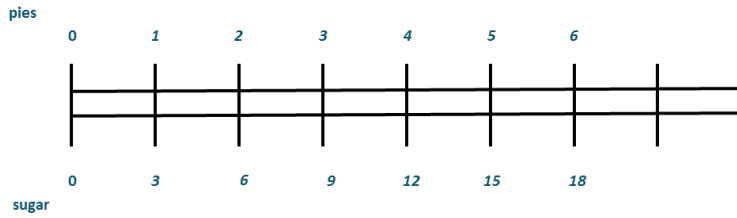
Find the number of cups of sugar needed if for each pie Karrie makes, she has to use 3 cups of sugar.

Pies	Cups of Sugar
1	3
2	6
3	9
4	12
5	15
6	18



Use a graph to represent the relationship.

Create a double number line diagram to show the relationship.

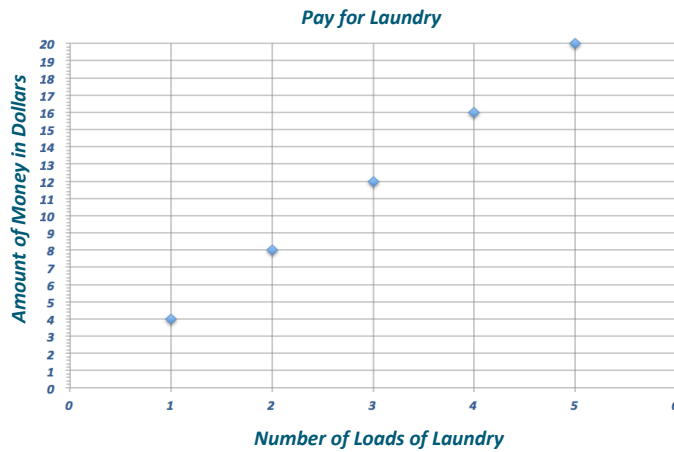


2. Write a story context that would be represented by the ratio 1:4.

Answers will vary. Example: Kendra’s mom pays her four dollars for every load of laundry she washes and dries.

Complete a table of values for this equation and graph.

Loads of Laundry	Amount of Money She Earned in Dollars
1	4
2	8
3	12
4	16
5	20





Lesson 15: A Synthesis of Representations of Equivalent Ratio Collections

Student Outcomes

- Students associate with each ratio $A:B$ the ordered pair (A,B) and plot it in the x - y coordinate plane.
- Given a ratio table, students plot the ratios in the plane and observe that they lie on a line through the origin. Students conclude that the coordinates in the line satisfy $y = kx$, where k is the value of an associated ratio.

Classwork

Exploratory Challenge

Based on their previous knowledge from earlier lessons in this module, and working in predetermined groups, students complete Exercises 1–7 independently with ample time to share their collaboration with the entire class.

Exploratory Challenge

At the end of this morning's news segment, the local television station highlighted area pets that need to be adopted. The station posted a specific website on the screen for viewers to find more information on the pets shown and the adoption process. The station producer checked the website two hours after the end of the broadcast and saw that the website had 24 views. One hour after that, the website had 36 views.

Exercise 1 (3 minutes)

Exercise 1

Create a table to determine how many views the website probably had one hour after the end of the broadcast based on how many views it had two and three hours after the end of the broadcast. Using this relationship, predict how many views the website will have 4, 5, and 6 hours after the end of the broadcast.

Hours	Views
1	12
2	24
3	36
4	48
5	60
6	72



Exercise 2 (2 minutes)

Exercise 2

What is the constant number, c , that makes these ratios equivalent?

12

Using an equation, represent the relationship between the number of views, v , the website received and the number of hours, h , after this morning's news broadcast.

$$v = 12h$$

Exercise 3 (2 minutes)

Exercise 3

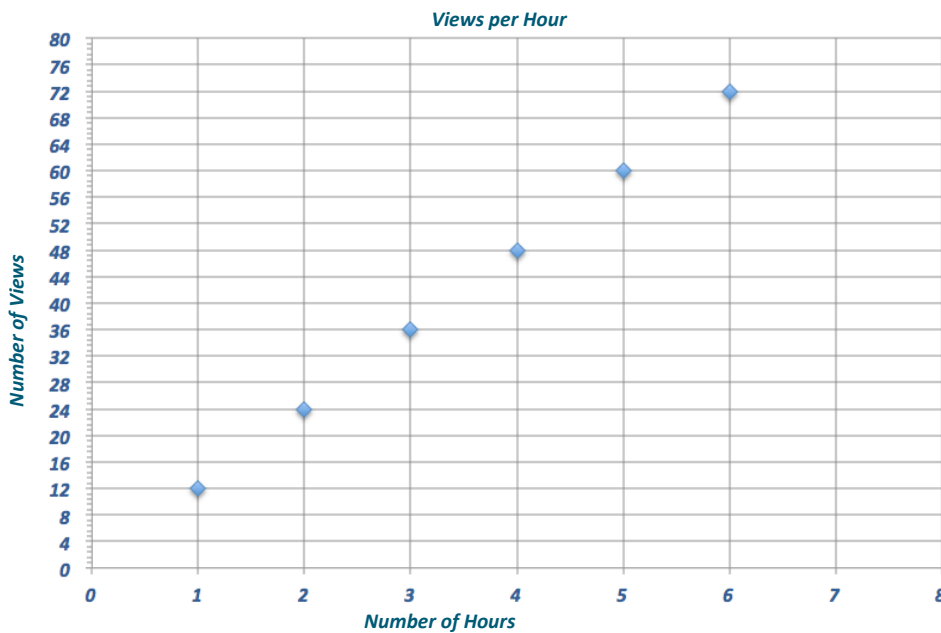
Use the table created in Exercise 1 to identify sets of ordered pairs that can be graphed.

(1, 12), (2, 24), (3, 36), (4, 48), (5, 60), (6, 72)

Exercise 4 (5 minutes)

Exercise 4

Use the ordered pairs you created to depict the relationship between hours and number of views on a coordinate plane. Label your axes and create a title for the graph. Do the points you plotted lie on a line?



Exercise 5 (8 minutes)

Exercise 5
 Predict how many views the website will have after twelve hours. Use at least two representations (e.g., tape diagram, table, double number line diagram) to justify your answer.

Hours	Views
1	12
2	24
3	36
4	48
5	60
6	72
7	84
8	96
9	108
10	120
11	132
12	144

Hours

Views

Hours

Exercise 6 (10 minutes)

Exercise 6
 Also on the news broadcast, a chef from a local Italian restaurant demonstrated how he makes fresh pasta daily for his restaurant. The recipe for his pasta is below:

3 eggs, beaten
 1 teaspoon salt
 2 cups all-purpose flour
 2 tablespoons water
 2 tablespoons vegetable oil

Determine the ratio of the number of tablespoons of water to the number of eggs.

2:3

Provided the information in the table below, complete the table to determine ordered pairs. Use the ordered pairs to graph the relationship of the number of tablespoons of water to the number of eggs.

Tablespoons of Water	Number of Eggs
2	3
4	6
6	9
8	12
10	15
12	18

(2, 3)

(4, 6)

(6, 9)

(8, 12)

(10, 15)

(12, 18)

Pasta Recipe

What would you have to do to the graph in order to find how many eggs would be needed if the recipe was larger and called for 16 tablespoons of water?

Extend the graph.

Demonstrate on your graph.

How many eggs would be needed if the recipe called for 16 tablespoons of water?

24

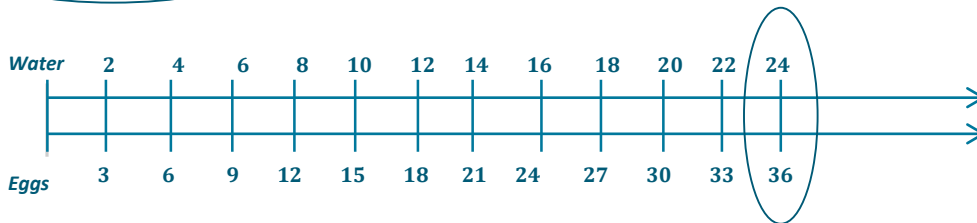
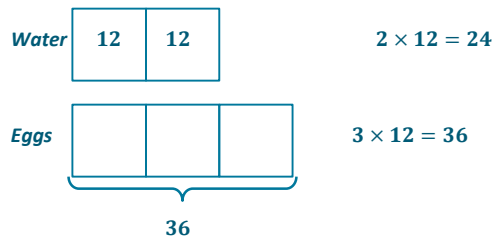
Exercise 7 (5 minutes)

Exercise 7

Determine how many tablespoons of water will be needed if the chef is making a large batch of pasta and the recipe increases to 36 eggs. Support your reasoning using at least one diagram you find applies best to the situation, and explain why that tool is the best to use.

Answers may vary but should include reasoning for each tool. For example, extending the table/double number line diagram because values were already given to find the pattern or using a tape diagram to determine the equivalent ratios.

Tablespoons of Water	Number of Eggs
2	3
4	6
6	9
8	12
10	15
12	18
14	21
16	24
18	27
20	30
22	33
24	36



Closing (5 minutes)

Finish any leftover student discussion and presentation.

- Describe the advantages and disadvantages of using each of the representations of equivalent ratios: table, double number line diagram, equation, and graph.
 - *Answers will vary but should include the following: tables allow for organization and prediction of unknown values; double number line diagrams help make visible that there are many, even infinitely many, pairs of numbers in the same ratio; an equation is an efficient way to understand the relationship between the first value and the second value and allows us to simply multiply or divide to find any equivalent ratio; a graph is a visual way to immediately see the relationship between two values.*

Lesson Summary

There are several ways to represent the same collection of equivalent ratios. These include ratio tables, tape diagrams, double number line diagrams, equations, and graphs on coordinate planes.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 15: A Synthesis of Representations of Equivalent Ratio Collections

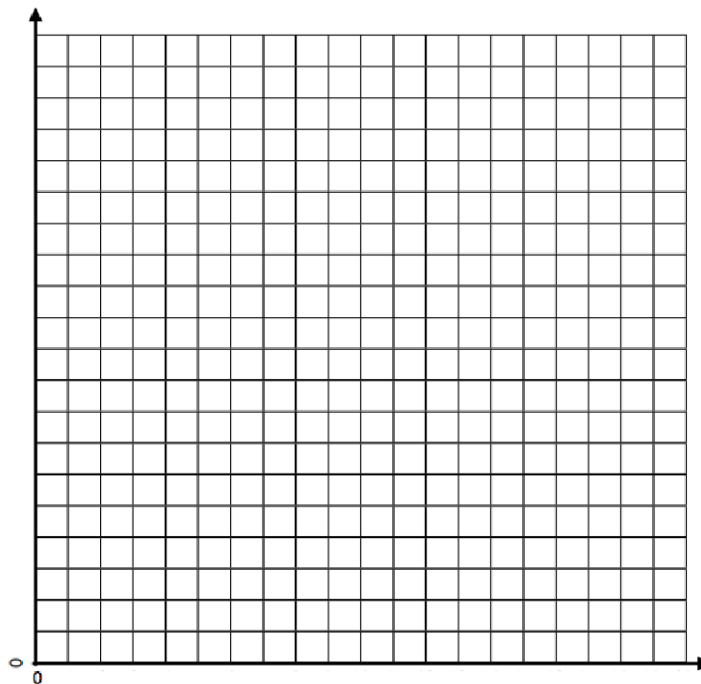
Exit Ticket

Jen and Nikki are making bracelets to sell at the local market. They determined that each bracelet would have eight beads and two charms.

Complete the table below to show the ratio of the number of charms to the number of beads.

Charms	2	4	6	8	10
Beads	8				

Create ordered pairs from the table, and plot the pairs on the graph below. Label the axes of the graph, and provide a title.





Exit Ticket Sample Solutions

Jen and Nikki are making bracelets to sell at the local market. They determined that each bracelet would have eight beads and two charms.

Complete the table below to show the ratio of the number of charms to the number of beads.

Charms	2	4	6	8	10
Beads	8	16	24	32	40

Create ordered pairs from the table, and plot the pairs on the graph below. Label the axes of the graph, and provide a title.

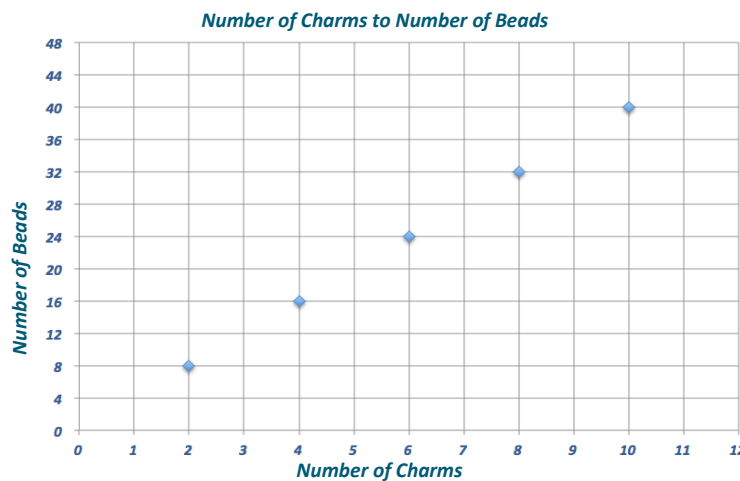
(2, 8)

(4, 16)

(6, 24)

(8, 32)

(10, 40)



Problem Set Sample Solutions

- The producer of the news station posted an article about the high school’s football championship ceremony on a new website. The website had 500 views after four hours. Create a table to show how many views the website would have had after the first, second, and third hours after posting, if the website receives views at the same rate. How many views would the website receive after 5 hours?

Hours	Views
1	125
2	250
3	375
4	500
5	625

- Write an equation that represents the relationship from Problem 1. Do you see any connections between the equations you wrote and the ratio of the number of views to the number of hours?

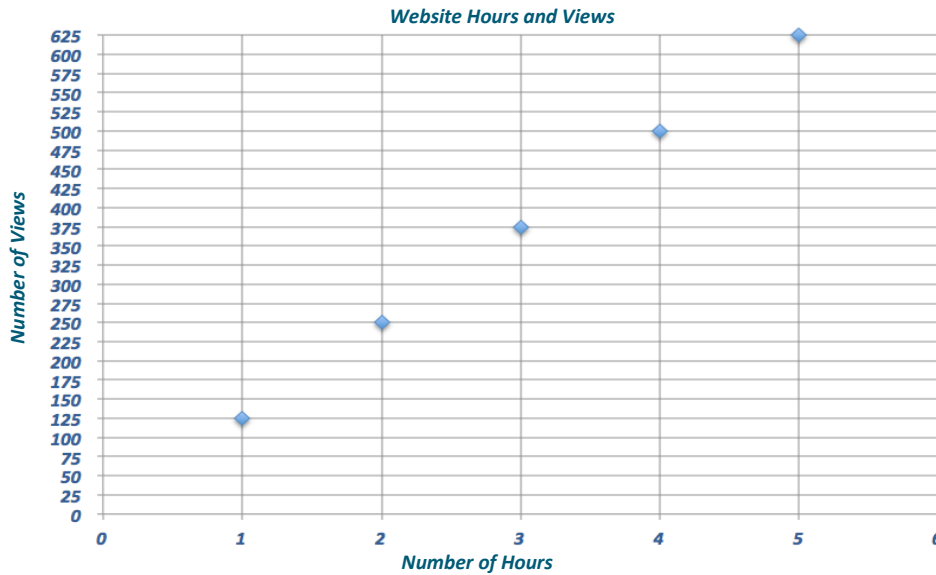
$125h = v$



3. Use the table in Problem 1 to make a list of ordered pairs that you could plot on a coordinate plane.

$(1, 125)$, $(2, 250)$, $(3, 375)$, $(4, 500)$, $(5, 625)$

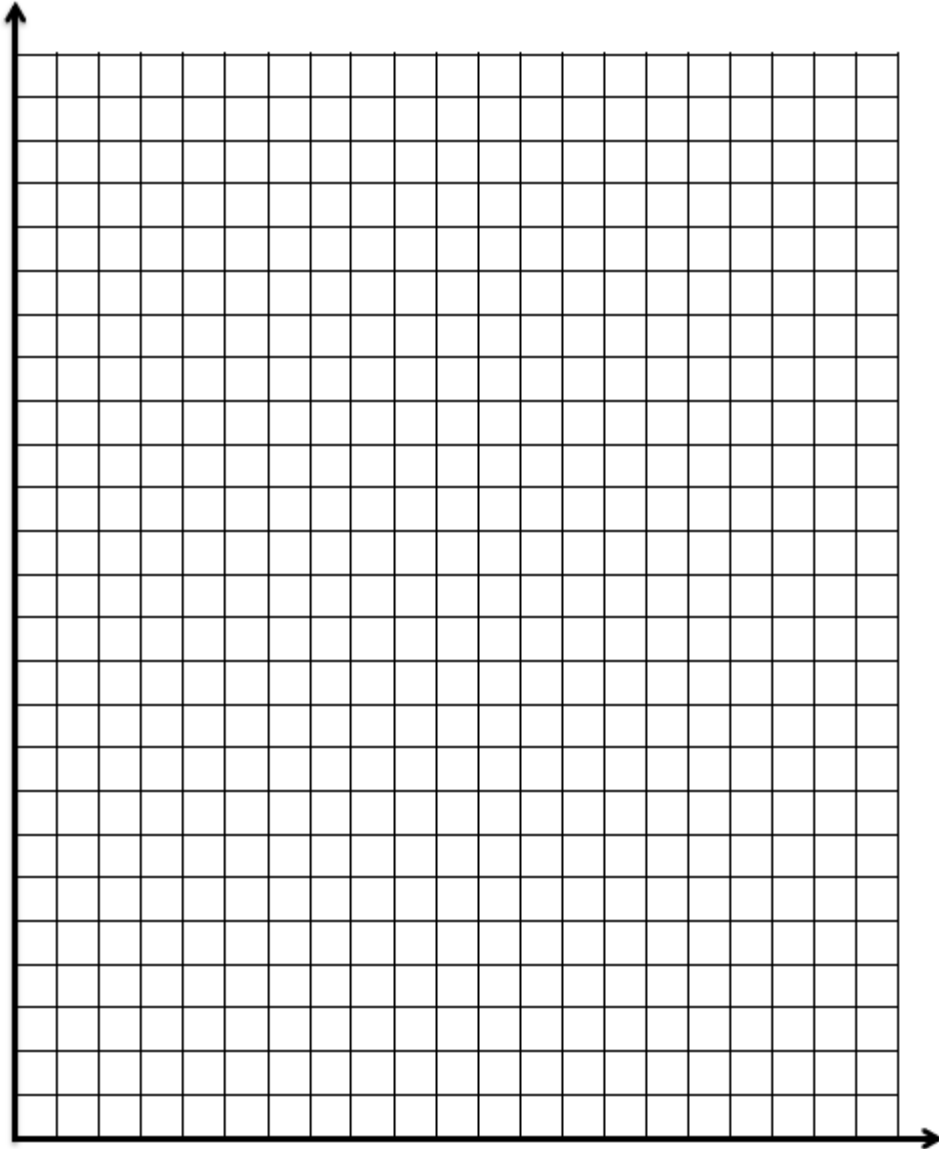
4. Graph the ordered pairs on a coordinate plane. Label your axes and create a title for the graph.



5. Use multiple tools to predict how many views the website would have after 12 hours.

Answers may vary but could include all representations from the module. The correct answer is 1,500 views.

Graph Reproducible



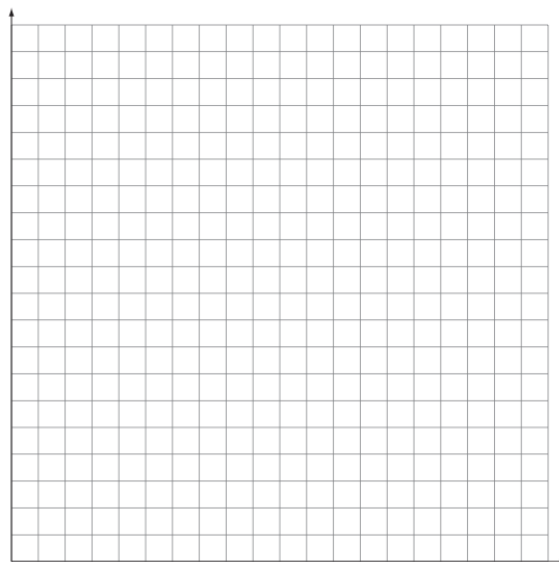
Name _____

Date _____

1. The most common women’s shoe size in the U.S. is reported to be an $8\frac{1}{2}$. A shoe store uses a table like the one below to decide how many pairs of size $8\frac{1}{2}$ shoes to buy when it places a shoe order from the shoe manufacturers.

Total Number of Pairs of Shoes Being Ordered	Number of Pairs of Size $8\frac{1}{2}$ to Order
50	8
100	16
150	24
200	32

- a. What is the ratio of the number of pairs of size $8\frac{1}{2}$ shoes the store orders to the total number of pairs of shoes being ordered?
- b. Plot the values from the table on a coordinate plane. Label the axes. Then use the graph to find the number of pairs of size $8\frac{1}{2}$ shoes the store orders for a total order of 125 pairs of shoes.



2. Wells College in Aurora, New York was previously an all-girls college. In 2005, the college began to allow boys to enroll. By 2012, the ratio of boys to girls was 3 to 7. If there were 200 *more girls than boys* in 2012, how many boys were enrolled that year? Use a table, graph, or tape diagram to justify your answer.
3. Most television shows use 13 minutes of every hour for commercials, leaving the remaining 47 minutes for the actual show. One popular television show wants to change the ratio of commercial time to show time to be 3:7. Create two ratio tables, one for the normal ratio of commercials to programming and another for the proposed ratio of commercials to programming. Use the ratio tables to make a statement about which ratio would mean fewer commercials for viewers watching 2 hours of television.

A Progression Toward Mastery					
Assessment Task Item		STEP 1 Missing or incorrect answer and little evidence of reasoning or application of mathematics to solve the problem.	STEP 2 Missing or incorrect answer but evidence of some reasoning or application of mathematics to solve the problem.	STEP 3 A correct answer with some evidence of reasoning or application of mathematics to solve the problem, OR an incorrect answer with substantial evidence of solid reasoning or application of mathematics to solve the problem.	STEP 4 A correct answer supported by substantial evidence of solid reasoning or application of mathematics to solve the problem.
1	a 6.RP.A.1 6.RP.A.3a	Student provides an incorrect ratio and does not reflect an associated ratio. Student does not display an understanding of determining ratio using a ratio table.	Student provides an associated ratio, such as 25:4. It may or may not be expressed in the smallest unit possible. Student shows evidence of understanding how to determine a ratio from a ratio table but lacks attentiveness to the precision for which the ratio is being asked.	Student provides the correct ratio, 4:25, but has expressed using a larger unit, such as 8:50. The notation or wording of the ratio statement may have minor errors.	Student provides the correct ratio, 4:25. The notation and/or wording of the ratio statement are correct.
	b 6.RP.A.1 6.RP.A.3a	Student does not produce a graph, or the graph does not accurately depict the pairs from the table. Student is unable to answer the question correctly.	Student depicts a graph, but the graph contains more than one error in its depiction, such as not going through the given points or not labeling the axes. Student may or may not answer the question correctly.	Student depicts a graph, but the graph contains a minor error in its depiction, such as not accurately plotting the given points or not labeling the axes. Student answers the question correctly or incorrectly, but the graph depicts the correct answer.	Student depicts the graph correctly, including plotting the given points and labeling the axes. Student answers the question correctly, and the answer is represented in the graph.

2	6.RP.A.3 (Stem Only)	Student is unable to answer the question. Student is not able to accurately depict the ratio of boys to girls or does not show evidence of moving beyond that basic depiction.	Student depicts the ratio of boys to girls and shows some evidence of using the depiction to solve the problem but is unable to come to a correct answer. The answer is either incomplete or incorrect.	Student is able to choose a depiction of the ratio and to incorporate the other information given into the depiction but makes an error in arriving at the answer.	Student is able to choose a depiction of the ratio of boys to girls and incorporate into the depiction the additional information of the difference between the number of girls and the number of boys. Student is able to use the depiction to arrive at the correct answer.
3	6.RP.A.3a	Student is unable to complete the two tables or is unable to fill in at least one row in each table. Student is unable to compose a reasonably accurate comparison of which option would be better for viewers.	Student constructs ratio tables with at least one entry in each table and demonstrates some reasoning in making a statement of comparison, even if the statement does not match the table entries.	Student makes two ratio tables with at least two entries in each table. There is one or more errors in the entries of the table. Student is able to make a statement of comparison of which option is better for viewers based on the entries provided in the table.	Student makes two ratio tables with at least two entries in each table. The student is able to make an accurate comparison of which option is better for viewers and relate the comparison to a 2-hour show using accurate grade-level language.

Name _____

Date _____

1. The most common women’s shoe size in the U.S. is reported to be an $8\frac{1}{2}$. A shoe store uses a table like the one below to decide how many pairs of size $8\frac{1}{2}$ shoes to buy when it places a shoe order from the shoe manufacturers.

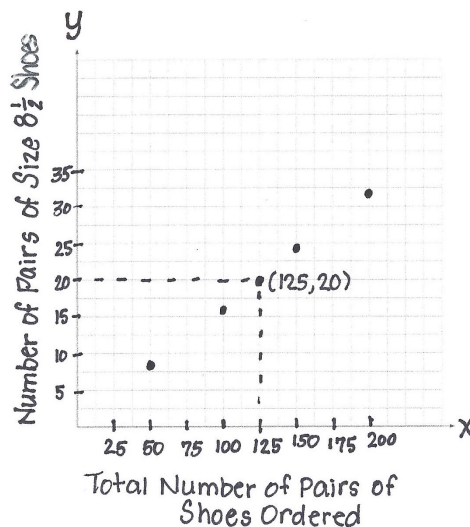
Total Number of Pairs of Shoes Being Ordered	Number of Pairs of Size $8\frac{1}{2}$ to Order
50	8
100	16
150	24
200	32

- a. What is the ratio of the number of pairs of size $8\frac{1}{2}$ shoes the store orders to the total number of pairs of shoes being ordered?

The ratio of size $8\frac{1}{2}$ shoes to the total number

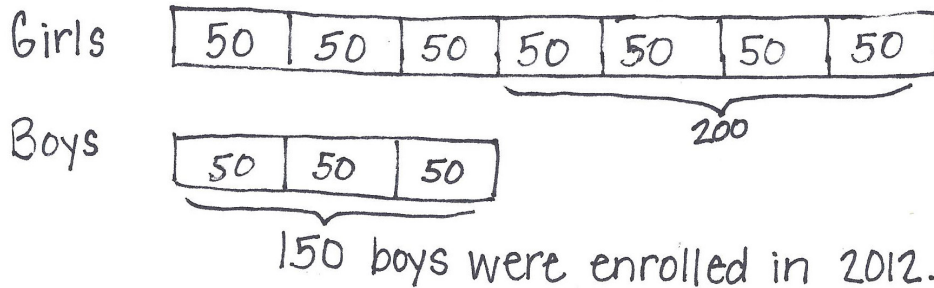
The ratio of the number of pairs of size $8\frac{1}{2}$ shoes to the total number of pairs of shoes ordered is 4:25

- b. Plot the values from the table on a coordinate plane. Label the axes. Then use the graph to find the number of pairs of size $8\frac{1}{2}$ shoes the store orders for a total order of 125 pairs of shoes.



They should order 20 pairs of size $8\frac{1}{2}$ shoes if the total order is 125 pairs of shoes.

2. Wells College in Aurora, New York was previously an all-girls college. In 2005, the college began to allow boys to enroll. By 2012, the ratio of boys to girls was 3 to 7. If there were 200 more girls than boys in 2012, how many boys were enrolled that year? Use a table, graph, or tape diagram to justify your answer.



3. Most television shows use 13 minutes of every hour for commercials, leaving the remaining 47 minutes for the actual show. One popular television show wants to change the ratio of commercial time to show time to be 3:7. Create two ratio tables, one for the normal ratio of commercials to programming and another for the proposed ratio of commercials to programming. Use the ratio tables to make a statement about which ratio would mean fewer commercials for viewers watching 2 hours of television.

<u>Normal</u>			<u>Changed</u>		
Total Time	Commercial Time	Show Time	Total Time	Commercial Time	Show Time
60	13	47	10	3	7
120	26	94	60	18	42
			120	36	84

The normal way is better for viewers. In a 2 hour show, the normal way uses 26 minutes for commercials, but the proposed way would use 36 minutes for commercials.



Topic C

Unit Rates

6.RP.A.2, 6.RP.A.3b, 6.RP.A.3d

Focus Standards:	6.RP.A.2	Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. <i>For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3/4$ cup of flour for each cup of sugar." "We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger."</i>
	6.RP.A.3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. <ul style="list-style-type: none"> b. Solve unit rate problems including those involving unit pricing and constant speed. <i>For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?</i> d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.
Instructional Days:	8	
	Lesson 16:	From Ratios to Rates (E) ¹
	Lesson 17:	From Rates to Ratios (S)
	Lesson 18:	Finding a Rate by Dividing Two Quantities (M)
	Lessons 19–20:	Comparison Shopping—Unit Price and Related Measurement Conversions (P, E)
	Lessons 21–22:	Getting the Job Done—Speed, Work, and Measurement Units (P, E)
	Lesson 23:	Problem Solving Using Rates, Unit Rates, and Conversions (S)

¹Lesson Structure Key: P-Problem Set Lesson, M-Modeling Cycle Lesson, E-Exploration Lesson, S-Socratic Lesson

In Topic C, students apply their understanding of ratios and the *value of a ratio* as they come to understand that a ratio relationship of 5 miles to 2 hours corresponds to a rate of 2.5 miles per hour, where the unit rate is the numerical part of the rate, 2.5, and miles per hour is the newly formed unit of measurement of the rate (**6.RP.A.2**). Throughout Topic C, students continue to make use of the representations and diagrams of Topics A and B as they investigate the concepts of this topic within the context of real-world rate problems. In Lesson 16, students develop their vocabulary and conceptual understanding of rate as they work through and discuss problems that require expressing simple ratios as rates using phrases such as ‘per’, ‘for each’ and ‘for every’. In Lesson 17, students reinforce their understanding as they see problems for the first time where the ratio relationship is expressed in rate form. Students are asked to verbalize and depict the underlying ratio relationship as a collection of equivalent ratios.

In Lesson 18, students generalize the process for finding a rate and define the term *unit rate* relating it to the *value of a ratio*. In the remaining lessons of Topic C, students solve unit rate problems involving unit pricing, constant speed, and constant rates of work (**6.RP.A.3b**). They combine their new understanding of rate to connect and revisit concepts of converting among different-sized standard measurement units (**5.MD.A.1**). They then expand upon this background as they learn to manipulate and transform units when multiplying and dividing quantities (**6.RP.A.3d**). In Lessons 19–20, students are conscientious consumers, and comparison shop by comparing unit prices and converting measurement units as needed. For instance, when comparing a 10-ounce bag of salad that sells for \$2.25 to a 1-pound bag of salad that retails for \$3.50, students recognize that in addition to finding a unit price, they must convert pounds to ounces for an accurate comparison.

In Lessons 21–22, students conduct real-world simulations that generate rates related to speed and work. In doing so, students begin to view math as a tool for solving real-life problems. Topic C concludes with Lesson 23, in which students draw upon their experiences in previous modeling lessons to demonstrate their ability to problem-solve using rates, unit rates, and conversions.



Lesson 16: From Ratios to Rates

Student Outcomes

- Students associate a description of a ratio relationship, such as “5 miles for every 2 hours,” to a new quantity, “2.5 miles/hour,” called a *rate*.
- Given a ratio, students precisely identify the associated rate. They identify the unit rate and the rate unit.

Classwork

Ratios can be transformed to rates and unit rates.

Example (5 minutes): Introduction to Rates and Unit Rates

Students complete the problem individually. Encourage students to use prior knowledge of equivalent ratios. Discuss answers and methods after a few minutes of student work time.

Example: Introduction to Rates and Unit Rates

Diet cola was on sale last week; it cost \$10 for every 4 packs of diet cola.

- a. How much do 2 packs of diet cola cost?

<i>Packs of Diet Cola</i>	4	2
<i>Total Cost</i>	10	5

2 packs of diet cola cost \$5.00.

- b. How much does 1 pack of diet cola cost?

<i>Packs of Diet Cola</i>	2	1
<i>Total Cost</i>	5	2.50

1 pack of diet cola costs \$2.50.

After answers have been discussed, use this example to identify the new terms.

Rate: Ratio relationship given by “\$10 for every 4 packs of diet cola” can be written as the *rate* “2.5 dollars/pack.”

Unit Rate: The *unit rate* is 2.5 because it is the value of the ratio.

Rate Unit: The *rate unit* is dollars/pack of diet cola because it costs 2.5 dollars for every 1 pack of diet cola.

Now that the new terms have been introduced, use these vocabulary words throughout the lesson.

Exploratory Challenge (25 minutes)

Students may work in pairs or small groups to discuss different methods of solving examples. Encourage them to show or explain their thinking as much as possible. Take note of different ways groups are solving problems. After providing time for groups to solve the problems, have different groups present their findings and explain the methods they used to solve each problem.

Exploratory Challenge

- a. Teagan went to Gamer Realm to buy new video games. Gamer Realm was having a sale: \$65 for 4 video games. He bought 3 games for himself and one game for his friend, Diego, but Teagan does not know how much Diego owes him for the one game. What is the unit price of the video games? What is the rate unit?

The unit price is \$16.25; the rate unit is dollars/video game.

- b. Four football fans took turns driving the distance from New York to Oklahoma to see a big game. Each driver set the cruise control during his or her portion of the trip, enabling him or her to travel at a constant speed. The group changed drivers each time they stopped for gas and recorded their driving times and distances in the table below.

Fan	Distance (miles)	Time (hours)
Andre	208	4
Matteo	456	8
Janaye	300	6
Greyson	265	5

Use the given data to answer the following questions.

- i. What two quantities are being compared?

The two quantities being compared are distance and time, which are measured in miles and hours.

- ii. What is the ratio of the two quantities for Andre’s portion of the trip? What is the associated rate?

Andre’s ratio: 208:4 Andre’s rate: 52 miles per hour

- iii. Answer the same two questions in part (ii) for the other three drivers.

Matteo’s ratio: 456:8 Matteo’s rate: 57 miles per hour

Janaye’s ratio: 300:6 Janaye’s rate: 50 miles per hour

Greyson’s ratio: 265:5 Greyson’s rate: 53 miles per hour

- iv. For each driver in parts (ii) and (iii), circle the unit rate, and put a box around the rate unit.

Scaffolding:

If one of these drivers had been chosen to drive the entire distance,

- Which driver would have gotten them to the game in the shortest time? Approximately how long would this trip have taken?
- Which driver would have gotten them to the game in the greatest amount of time? Approximately how long would this trip have taken?

- c. A publishing company is looking for new employees to type novels that will soon be published. The publishing company wants to find someone who can type at least 45 words per minute. Dominique discovered she can type at a constant rate of 704 words in 16 minutes. Does Dominique type at a fast enough rate to qualify for the job? Explain why or why not.

<i>Minutes</i>	1	2	4	8	16
<i>Words</i>	44	88	176	352	704

Dominique does not type at a fast enough rate because she only types 44 words per minute.

Scaffolding:

Part (c) could be extended to ask students to figure out how many words Dominique needed to type in the 20 minutes to be able to qualify.

Closing (10 minutes)

Describe additional questions:

- What are some examples of rates?
- What are some examples of unit rates?

Lesson Summary

A *rate* is a quantity that describes a ratio relationship between two types of quantities.

For example, 15 miles/hour is a rate that describes a ratio relationship between hours and miles: If an object is traveling at a constant 15 miles/hour, then after 1 hour it has gone 15 miles, after 2 hours it has gone 30 miles, after 3 hours it has gone 45 miles, and so on.

When a rate is written as a measurement, the *unit rate* is the measure (i.e., the numerical part of the measurement). For example, when the rate of speed of an object is written as the measurement 15 miles/hour, the number 15 is the unit rate. The unit of measurement is miles/hour, which is read as “miles per hour.”

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 16: From Ratios to Rates

Exit Ticket

Angela enjoys swimming and often swims at a steady pace to burn calories. At this pace, Angela can swim 1,700 meters in 40 minutes.

a. What is Angela's unit rate?

b. What is the rate unit?



Exit Ticket Sample Solutions

Angela enjoys swimming and often swims at a steady pace to burn calories. At this pace, Angela can swim 1,700 meters in 40 minutes.

- a. What is Angela's unit rate?

42.5

- b. What is the rate unit?

Meters per minute

Problem Set Sample Solutions

The Scott family is trying to save as much money as possible. One way to cut back on the money they spend is by finding deals while grocery shopping; however, the Scott family needs help determining which stores have the better deals.

1. At Grocery Mart, strawberries cost \$2.99 for 2 lb., and at Baldwin Hills Market strawberries are \$3.99 for 3 lb.

- a. What is the unit price of strawberries at each grocery store? If necessary, round to the nearest penny.

Grocery Mart: \$1.50 per pound (1.495 rounded to the nearest penny)

Baldwin Hills Market: \$1.33 per pound

- b. If the Scott family wanted to save money, where should they go to buy strawberries? Why?

Possible Answer: The Scott family should go to Baldwin Hills Market because the strawberries cost less money there than at Grocery Mart.

2. Potatoes are on sale at both Grocery Mart and Baldwin Hills Market. At Grocery Mart, a 5 lb. bag of potatoes cost \$2.85, and at Baldwin Hills Market a 7 lb. bag of potatoes costs \$4.20. Which store offers the best deal on potatoes? How do you know? How much better is the deal?

Grocery Mart: \$0.57 per pound

Baldwin Hills Market: \$0.60 per pound

Grocery Mart offers the best deal on potatoes because potatoes cost \$0.03 less per pound at Grocery Mart when compared to Baldwin Hills Market.



Lesson 17: From Rates to Ratios

Student Outcomes

- Given a rate, students find ratios associated with the rate, including a ratio where the second term is one and a ratio where both terms are whole numbers.
- Students recognize that all ratios associated to a given rate are equivalent because they have the same value.

Classwork

Given a rate, you can calculate the unit rate and associated ratios. Recognize that all ratios associated with a given rate are equivalent because they have the same value.

Example 1 (4 minutes)

Example 1

Write each ratio as a rate.

- a. The ratio of miles to the number of hours is 434 to 7.

Miles to hour: 434:7

Student responses: $\frac{434 \text{ miles}}{7 \text{ hours}} = 62 \text{ miles/hour}$

- b. The ratio of the number of laps to the number of minutes is 5 to 4.

Laps to minute: 5:4

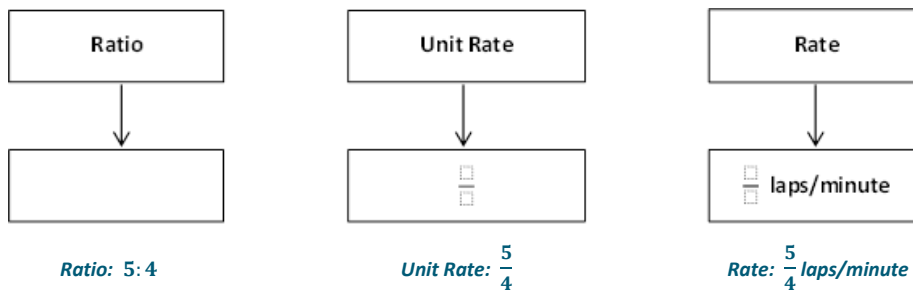
Student responses: $\frac{5 \text{ laps}}{4 \text{ minutes}} = \frac{5}{4} \text{ laps/min}$

Example 2 (15 minutes)

Demonstrate how to change a ratio to a unit rate then to a rate by recalling information students learned the previous day. Use Example 1, part (b).

Example 2

- a. Complete the model below using the ratio from Example 1, part (b).



Rates to Ratios: Guide students to complete the next flow map where the rate is given. Students identify the unit rate and ratio.

b. Complete the model below now using the rate listed below.

<div style="border: 1px solid black; padding: 5px; width: 100px; margin: 0 auto;">Ratio</div> <div style="text-align: center; margin: 5px 0;">↓</div> <div style="border: 1px solid black; height: 60px; width: 100%; margin: 0 auto;"></div>	<div style="border: 1px solid black; padding: 5px; width: 100px; margin: 0 auto;">Unit Rate</div> <div style="text-align: center; margin: 5px 0;">↓</div> <div style="border: 1px solid black; height: 60px; width: 100%; margin: 0 auto;"></div>	<div style="border: 1px solid black; padding: 5px; width: 100px; margin: 0 auto;">Rate</div> <div style="text-align: center; margin: 5px 0;">↓</div> <div style="border: 1px solid black; padding: 5px; width: 100%; margin: 0 auto; text-align: center;">6 ft/sec</div>
<p><i>Ratios: Answers may vary</i> 6: 1, 60: 10, 12: 2, etc.</p>	<p><i>Unit Rate: 6</i></p>	

Discussion

- Will everyone have the same exact ratio to represent the given rate? Why or why not?
 - *Possible Answer: Not everyone’s ratios will be exactly the same because there are many different equivalent ratios that could be used to represent the same rate.*
- What are some different examples that could be represented in the ratio box?
 - *Answers will vary: All representations represent the same rate: 12: 2, 18: 3, 24: 4.*
- Will everyone have the same exact unit rate to represent the given rate? Why or why not?
 - *Possible Answer: Everyone will have the same unit rate for two reasons. First, the unit rate is the value of the ratio, and each ratio only has one value. Second, the second quantity of the unit rate is always 1, so the rate will be the same for everyone.*
- Will everyone have the same exact rate when given a unit rate? Why or why not?
 - *Possible Answer: No, a unit rate can represent more than one rate. A rate of $\frac{18}{3}$ feet/second has a unit rate of 6 feet/second.*

Examples 3–6 (20 minutes)

Students work on one problem at a time. Have students share their reasoning. Provide opportunities for students to share different methods on how to solve each problem.

Examples 3–6

3. Dave can clean pools at a constant rate of $\frac{3}{5}$ pools/hour.

a. What is the ratio of the number of pools to the number of hours?

3: 5



b. How many pools can Dave clean in 10 hours?

Pools

2	2	2
---	---	---

 = 6 pools

Hours

2	2	2	2	2
---	---	---	---	---

 = 10 hours

Dave can clean 6 pools in 10 hours.

c. How long does it take Dave to clean 15 pools?

Pools

5	5	5
---	---	---

 = 15 pools

Hours

5	5	5	5	5
---	---	---	---	---

 = 25 hours

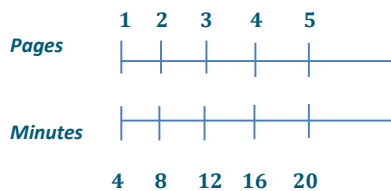
It will take Dave 25 hours to clean 15 pools.

4. Emeline can type at a constant rate of $\frac{1}{4}$ pages/minute.

a. What is the ratio of the number of pages to the number of minutes?

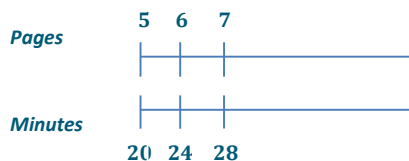
1:4

b. Emeline has to type a 5-page article but only has 18 minutes until she reaches the deadline. Does Emeline have enough time to type the article? Why or why not?



No, Emeline will not have enough time because it will take her 20 minutes to type a 5-page article.

c. Emeline has to type a 7-page article. How much time will it take her?



It will take Emeline 28 minutes to type a 7-page article.

5. Xavier can swim at a constant speed of $\frac{5}{3}$ meters/second.

a. What is the ratio of the number of meters to the number of seconds?

5:3



- b. Xavier is trying to qualify for the National Swim Meet. To qualify, he must complete a 100-meter race in 55 seconds. Will Xavier be able to qualify? Why or why not?

Meters	Seconds
5	3
10	6
100	60

Xavier will not qualify for the meet because he would complete the race in 60 seconds.

- c. Xavier is also attempting to qualify for the same meet in the 200-meter event. To qualify, Xavier would have to complete the race in 130 seconds. Will Xavier be able to qualify in this race? Why or why not?

Meters	Seconds
100	60
200	120

Xavier will qualify for the meet in the 200 meter race because he would complete the race in 120 seconds.

6. The corner store sells apples at a rate of 1.25 dollars per apple.

- a. What is the ratio of the amount in dollars to the number of apples?

1.25:1

- b. Akia is only able to spend \$10 on apples. How many apples can she buy?

8 apples

- c. Christian has \$6 in his wallet and wants to spend it on apples. How many apples can Christian buy?

Christian can buy 4 apples and would spend \$5.00. Christian cannot buy 5 apples because it would cost \$6.25, and he only has \$6.00.

Closing (2 minutes)

- Explain the similarities and differences between rate, unit rate, rate unit, and ratio.

Lesson Summary

A rate of $\frac{2}{3}$ gal/min corresponds to the unit rate of $\frac{2}{3}$ and also corresponds to the ratio 2:3.

All ratios associated with a given rate are equivalent because they have the same value.

Exit Ticket (4 minutes)



Name _____

Date _____

Lesson 17: From Rates to Ratios

Exit Ticket

Tiffany is filling her daughter's pool with water from a hose. She can fill the pool at a rate of $\frac{1}{10}$ gallons/second.

Create at least three equivalent ratios that are associated with the rate. Use a double number line to show your work.

Exit Ticket Sample Solutions

Tiffany is filling her daughter's pool with water from a hose. She can fill the pool at a rate of $\frac{1}{10}$ gallons/second.

Create at least three equivalent ratios that are associated with the rate. Use a double number line to show your work.

Answers will vary.

Problem Set Sample Solutions

1. Once a commercial plane reaches the desired altitude, the pilot often travels at a cruising speed. On average, the cruising speed is 570 miles/hour. If a plane travels at this cruising speed for 7 hours, how far does the plane travel while cruising at this speed?

3,990 miles

2. Denver, Colorado often experiences snowstorms resulting in multiple inches of accumulated snow. During the last snow storm, the snow accumulated at $\frac{4}{5}$ inch/hour. If the snow continues at this rate for 10 hours, how much snow will accumulate?

8 inches



Lesson 18: Finding a Rate by Dividing Two Quantities

Student Outcomes

- While there is no physical way to divide two different quantities like (5 miles)/(2 hours), students make use of the structure of division and ratios to model (5 miles)/(2 hours) as a quantity 2.5 mph. Interpreting a rate as a division of two quantities, or better yet a fraction, is the first step toward converting measurement units using rates later in the module and dimensional analysis in high school. Students use this interpretation of a rate in word problems when multiplying a rate by a quantity, as in $\left(5 \frac{\text{gal}}{\text{min}}\right) \cdot (10 \text{ min}) = \frac{5 \text{ gal}}{1 \cancel{\text{min}}} \cdot 10 \cancel{\text{min}} = 50 \text{ gal}$.

Materials

- Stations—Set up six workstations around the classroom, identifying each with a number from 1 to 6.
- Countdown timer

Classwork

Mathematical Modeling Exercises (12 minutes)

Mathematical Modeling Exercises

- At Fun Burger, the Burger Master can make hamburgers at a rate of 4 burgers/minute. In order to address the heavy volume of customers, he needs to continue at this rate for 30 minutes. If he continues to make hamburgers at this pace, how many hamburgers will the Burger Master make in 30 minutes?

$$4 \frac{\text{burgers}}{\text{minute}} \times 30 \text{ minutes} = 120 \text{ burgers}$$

If the Burger Master can make four burgers in one minute, he can make 120 burgers in 30 minutes.

Model how to solve the exercise as students take notes. Students can be part of the discussion on how to solve each problem, but the teacher should be modeling the process.

- At what rate does the Burger Master make hamburgers?
- How long does the Burger Master make hamburgers?
- Multiply the rate by the amount of time the Burger Master works.
- Answer the question asked in the problem.

- Chandra is an editor at the New York Gazette. Her job is to read each article before it is printed in the newspaper. If Chandra can read 10 words/second, how many words can she read in 60 seconds?

$$10 \frac{\text{words}}{\text{second}} \times 60 \text{ seconds} = 600 \text{ words}$$

If Chandra can read 10 words in 1 second, then she can read 600 words in 60 seconds.



Model how to solve the exercise as students take notes. Ask for student volunteers to explain each step.

- At what rate does Chandra read?
- How long does Chandra have to read?
- Multiply the unit rate by the amount of time Chandra reads.
- Answer the question asked in the problem.

Exercises (18 minutes—3 minutes per station)

Students work in groups to complete station work.

Station One: Helena works for a publishing firm. She is considered an average typist and can type 52 words/minute. If she continues at this rate, how many words would Helena type in 4 minutes?

Station Two: Jaxon test-drives cars for a car company. Part of his job is to test the cruise control on a testing course. On his last test drive, Jaxon set the cruise control at 48 miles/hour and drove for 2 hours. How many miles did Jaxon drive?

Station Three: To train for an upcoming marathon, Alvin runs 9 miles a day. If Alvin runs 9 miles every day for 30 days, how many total miles will he run?

Station Four: A library just hired Brittany to write reviews on different books. The job requires Brittany to read 3 books/week. If Brittany reads at this pace for 12 weeks, how many books will she read?

Station Five: Notebooks are on sale for 4 notebooks/dollar. Mrs. Day wants to buy notebooks for her students but only has \$12 to spend. How many notebooks can Mrs. Day buy?

Station Six: Kevin hopes to earn a college basketball scholarship. To improve his shooting skills, Kevin shoots 50 baskets/day. If Kevin shoots 50 baskets every day for 60 days, how many shots would Kevin take?

Exercises

Use the table below to write down your work and answers for the stations.

- | | |
|----|---|
| 1. | <i>If Helena types at a constant rate of 52 words/minute, she can type 208 words in 2 minutes.</i> |
| 2. | <i>If Jaxon drives at a constant rate of 48 miles/hour, he can drive 96 miles in 2 hours.</i> |
| 3. | <i>If Alvin runs 9 miles every day for 30 days, he would run a total of 270 miles.</i> |
| 4. | <i>If Brittany is required to read 3 books/week, she would read 36 books in 12 weeks.</i> |
| 5. | <i>If notebooks are on sale for 4 notebooks/dollar, then Mrs. Day can buy 48 notebooks for \$12.</i> |
| 6. | <i>If Kevin continues to shoot 50 baskets/day for 60 days, he would shoot a total of 3,000 baskets.</i> |

**Closing (10 minutes)**

Discuss solutions for each station. Students show how they solved each problem. Allow time for questions.

Lesson Summary

We can convert measurement units using rates. The information can be used to further interpret the problem.

Here is an example:

$$\left(5 \frac{\text{gal}}{\text{min}}\right) \cdot (10 \text{ min}) = \frac{5 \text{ gal}}{1 \cancel{\text{min}}} \cdot 10 \cancel{\text{min}} = 50 \text{ gal}$$

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 18: Finding a Rate by Dividing Two Quantities

Exit Ticket

Alejandra drove from Michigan to Colorado to visit her friend. The speed limit on the highway is 70 miles/hour. If Alejandra's combined driving time for the trip was 14 hours, how many miles did Alejandra drive?

Exit Ticket Sample Solutions

Alejandra drove from Michigan to Colorado to visit her friend. The speed limit on the highway is 70 miles/hour. If Alejandra's combined driving time for the trip was 14 hours, how many miles did Alejandra drive?

980 miles

Problem Set Sample Solutions

1. Enguun earns \$17 per hour tutoring student-athletes at Brooklyn University.
 - a. If Enguun tutored for 12 hours this month, how much money did she earn this month?
\$204
 - b. If Enguun tutored for 19.5 hours last month, how much money did she earn last month?
\$331.50

2. The Piney Creek Swim Club is preparing for the opening day of the summer season. The pool holds 22,410 gallons of water, and water is being pumped in at 540 gallons per hour. The swim club has its first practice in 42 hours. Will the pool be full in time? Explain your answer.

Yes, the pool will be full of water in time for the first practice because 22,680 gallons of water can be pumped in 42 hours at a rate of 540 gallons per hour. Since 22,680 gallons is more water than the pool needs, we know that the swim club will have enough water.



Lesson 19: Comparison Shopping—Unit Price and Related Measurement Conversions

Student Outcomes

- Students solve problems by analyzing different unit rates given in tables, equations, and graphs.

Materials

- Matching activity cut and prepared for groups

Classwork

Analyze tables, graphs, and equations in order to compare rates.

Examples 1–2 (10 minutes): Creating Tables from Equations

- Let's fill in the labels for each table as shown in the completed table below.
- If we have 1 cup of blue paint, how many cups of red paint would we have? (Model where these values go on the table.)
- If we have 2 cups of blue paint, how many cups of red paint would we have? (Model where these values go on the table.)

Examples 1–2: Creating Tables from Equations

- The ratio of cups of blue paint to cups of red paint is 1:2, which means for every cup of blue paint, there are two cups of red paint. In this case, the equation would be $\text{red} = 2 \times \text{blue}$, or $r = 2b$, where b represents the amount of blue paint and r represents the amount of red paint. Make a table of values.

<i>Cups of Blue Paint</i>	1	2	3	4
<i>Cups of Red Paint</i>	2	4	6	8

Follow this line of questioning for a few more values.

- Examine the table, and identify the unit rate.
 - 2
- Where do you see this value in the equation?
 - The unit rate is represented in the equation as the value by which the cups of blue paint are being multiplied.*

2. Ms. Siple is a librarian who really enjoys reading. She can read $\frac{3}{4}$ of a book in one day. This relationship can be represented by the equation $\text{days} = \frac{3}{4} \text{ books}$, which can be written as $d = \frac{3}{4}b$, where b is the number of books and d is the number of days.

<i>Number of Books</i>	1	2	3	4
<i>Number of Days</i>	$\frac{3}{4}$	$\frac{6}{4}$ or $1\frac{1}{2}$	$\frac{9}{4}$ or $2\frac{1}{4}$	$\frac{12}{4}$ or 3

Encourage students to fill in the table on their own. If students need more assistance, teachers can ask leading questions similar to those above.

Have students recognize the unit rate in the table and the equation, so they can later identify the unit rate in equations without creating a table.

Example 3 (13 minutes): Matching

Match an equation, table, and graph that represent the same unit rate. Students work individually or in pairs. Cut apart the data representations at the end of the lesson and supply each student-pair with a set.

Exercises (12 minutes)

Students work on problems individually. Encourage students to explain their thinking.

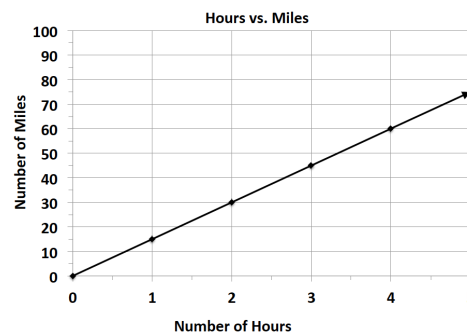
Exercises

1. Bryan and ShaNiece are both training for a bike race and want to compare who rides his or her bike at a faster rate. Both bikers use apps on their phones to record the time and distance of their bike rides. Bryan’s app keeps track of his route on a table, and ShaNiece’s app presents the information on a graph. The information is shown below.

Bryan:

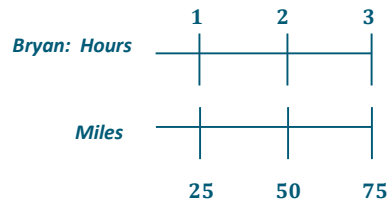
Number of Hours	0	3	6
Number of Miles	0	75	150

ShaNiece:



MP.2

- a. At what rate does each biker travel? Explain how you arrived at your answer.

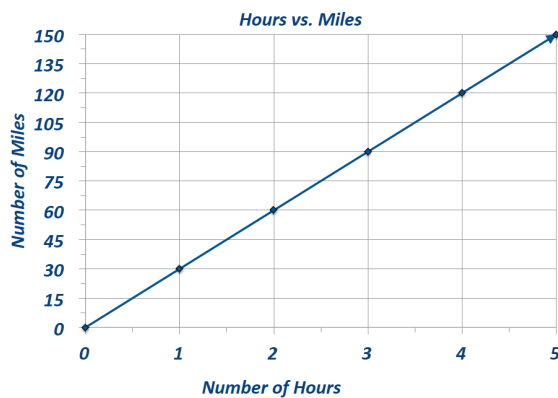


Bryan travels at a rate of 25 miles per hour. The double number line had to be split in 3 equal sections. That's how I got 25; $(25 + 25 + 25) = 75$.

ShaNiece travels at 15 miles per hour. I know this by looking at the point $(1, 15)$ on the graph.

The 1 represents the number of hours, and the 15 represents the number of miles.

- b. ShaNiece wants to win the bike race. Make a new graph to show the speed ShaNiece would have to ride her bike in order to beat Bryan.



The graph shows ShaNiece traveling at a rate of 30 miles per hour, which is faster than Bryan's rate.

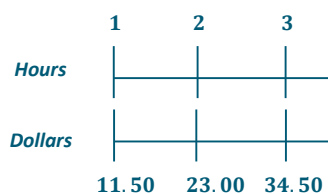
2. Braylen and Tyce both work at a department store and are paid by the hour. The manager told the boys they both earn the same amount of money per hour, but Braylen and Tyce did not agree. They each kept track of how much money they earned in order to determine if the manager was correct. Their data is shown below.

Braylen: $m = 10.50h$, where h represents the number of hours worked, and m represents the amount of money Braylen was paid.

Tyce:

Number of Hours	0	3	6
Money in Dollars	0	34.50	69

- a. How much did each person earn in one hour?



Tyce earned \$11.50 per hour. Braylen earned \$10.50 per hour.

MP.2

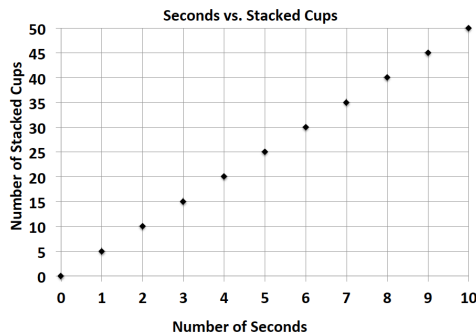
MP.2

b. Was the manager correct? Why or why not?

The manager was not correct because Tyce earned \$1 more than Braylen in one hour.

3. Claire and Kate are entering a cup stacking contest. Both girls have the same strategy: Stack the cups at a constant rate so that they do not slow down at the end of the race. While practicing, they keep track of their progress, which is shown below.

Claire:



Kate: $c = 4t$, where t represents the amount of time in seconds, and c represents the number of stacked cups.

a. At what rate does each girl stack her cups during the practice sessions?

Claire stacks cups at a rate of 5 cups per second. Kate stacks cups at a rate of 4 cups per second.

b. Kate notices that she is not stacking her cups fast enough. What would Kate’s equation look like if she wanted to stack cups faster than Claire?

Answers will vary. $c = 6t$, where t represents the time in seconds, and c represents the number of cups stacked.

Closing (5 minutes)

Students share their answers to the exercises and answer the following questions:

- How do you identify the unit rate in a table, graph, and equation?
- Why was the unit rate instrumental when comparing rates?

Lesson Summary

When comparing rates and ratios, it is best to find the unit rate.

Comparing unit rates can happen across tables, graphs, and equations.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 19: Comparison Shopping—Unit Price and Related Measurement Conversions

Exit Ticket

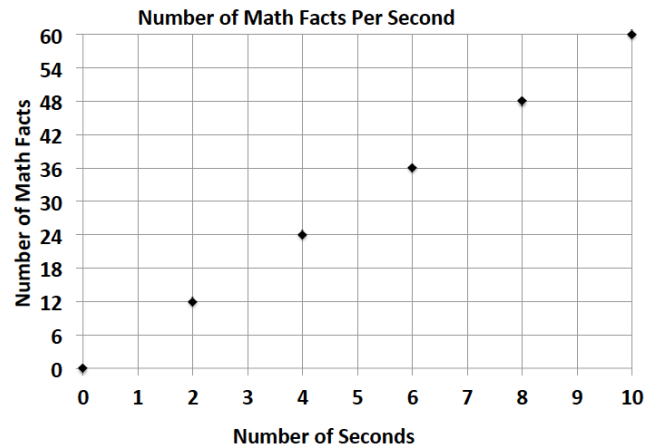
Kiara, Giovanni, and Ebony are triplets and always argue over who can answer basic math facts the fastest. After completing a few different math fact activities, Kiara, Giovanni, and Ebony record their data, which is shown below.

Kiara: $m = 5t$, where t represents the time in seconds, and m represents the number of math facts completed.

Giovanni:

Seconds	5	10	15
Math Facts	20	40	60

Ebony:



1. What is the math fact completion rate for each student?

2. Who would win the argument? How do you know?

Exit Ticket Sample Solutions

Kiara, Giovanni, and Ebony are triplets and always argue over who can answer basic math facts the fastest. After completing a few different math fact activities, Kiara, Giovanni, and Ebony recorded their data, which is shown below.

Kiara: $m = 5t$, where t represents the time in seconds, and m represents the number of math facts completed

Giovanni:

Seconds	5	10	15
Math Facts	20	40	60

1. What is the math fact completion rate for each student?

Kiara: 5 math facts/second

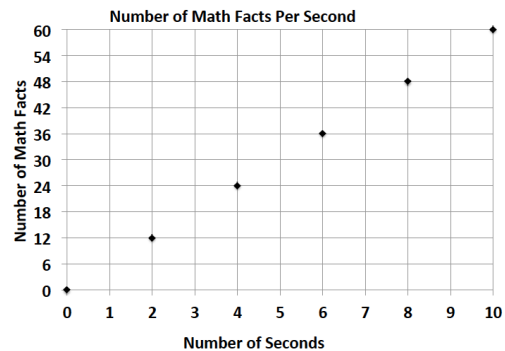
Giovanni: 4 math facts/second

Ebony: 6 math facts/second

2. Who would win the argument? How do you know?

Ebony would win the argument because when comparing the unit rates of the three triplets, Ebony completes math facts at the fastest rate.

Ebony:



Problem Set Sample Solutions

Victor was having a hard time deciding which new vehicle he should buy. He decided to make the final decision based on the gas efficiency of each car. A car that is more gas efficient gets more miles per gallon of gas. When he asked the manager at each car dealership for the gas mileage data, he received two different representations, which are shown below.

Vehicle 1: Legend

Gallons of Gas	4	8	12
Number of Miles	72	144	216

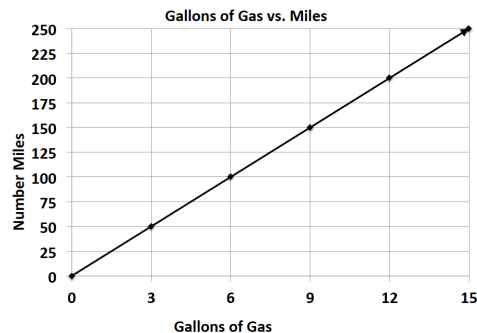
1. If Victor based his decision only on gas efficiency, which car should he buy? Provide support for your answer.

Victor should buy the Legend because it gets 18 miles per gallon of gas, and the Supreme only gets $16\frac{2}{3}$ miles per gallon. Therefore, the Legend is more gas efficient.

2. After comparing the Legend and the Supreme, Victor saw an advertisement for a third vehicle, the Lunar. The manager said that the Lunar can travel about 289 miles on a tank of gas. If the gas tank can hold 17 gallons of gas, is the Lunar Victor's best option? Why or why not?

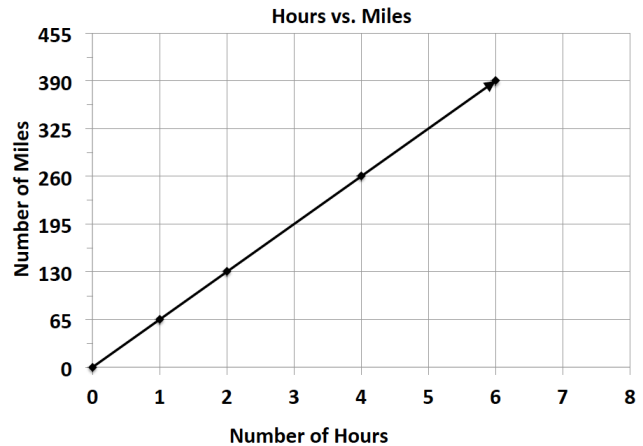
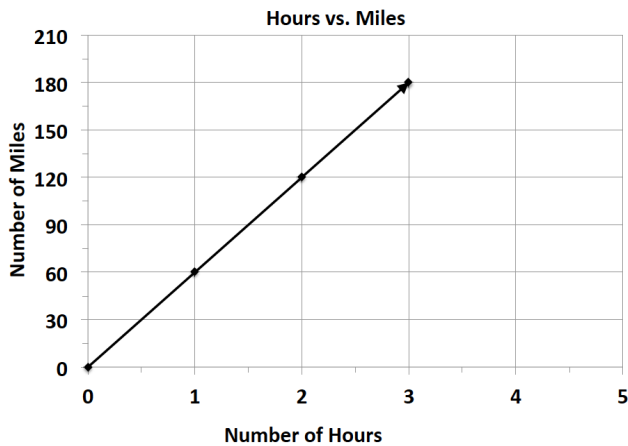
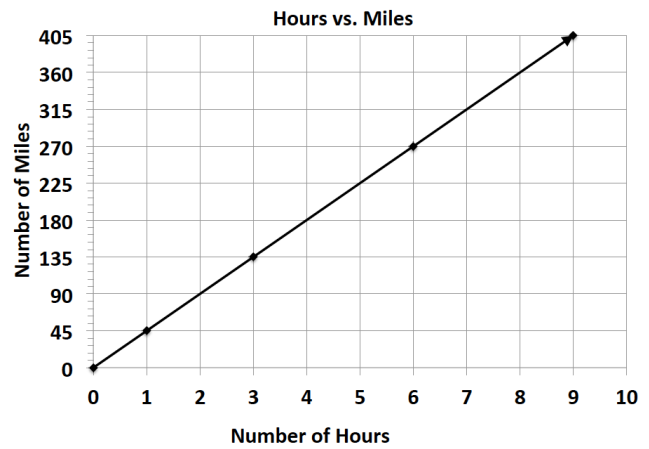
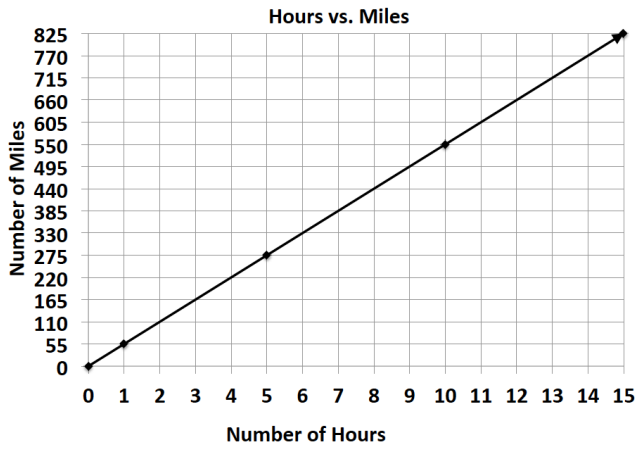
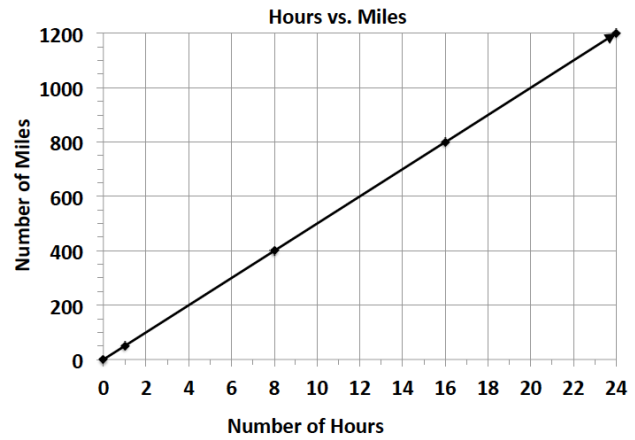
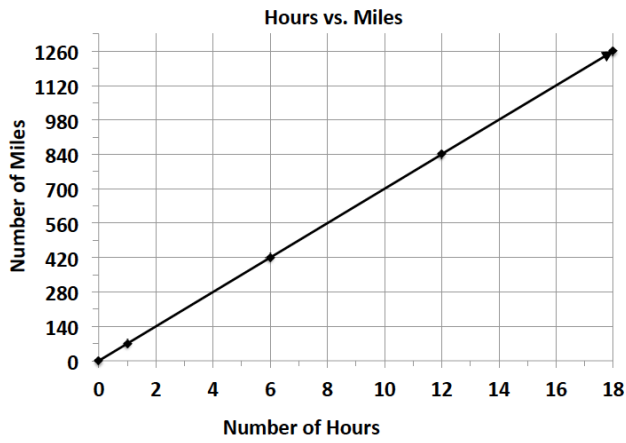
The Lunar is not a better option than the Legend because the Lunar only gets 17 miles per gallon, and the Legend gets 18 miles per gallon. Therefore, the Legend is still the best option.

Vehicle 2: Supreme





Example 3 Template





$m = 65h$	$m = 45h$	$m = 55h$																														
$m = 70h$	$m = 50h$	$m = 60h$																														
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Lesson 20: Comparison Shopping—Unit Price and Related Measurement Conversions

Student Outcomes

- Students solve problems by analyzing different unit rates given in words, tables, equations, and graphs.

Classwork

An activity will be completed in order to gain confidence in comparing rates in tables, graphs, and equations.

Example 1 (5 minutes): Notes from Exit Ticket

Discuss the results of the Exit Ticket from the day before. Make sure students are able to interpret rates and unit rates given information in tables, graphs, and equations.

Example 1: Notes from Exit Ticket

Take notes from the discussion in the space provided below.

Notes:

Exploratory Challenge (30 minutes)

Have students work on the following exercises in pairs or individually. Tell students that this information was introduced in the previous lesson, so this is an opportunity for extra practice.

Allow students to use calculators and remind them to round any answers dealing with money to the nearest penny.

MP.2

Walk around the room while students are working to check for understanding. If the teacher is not confident with students' skills after the previous lesson, these questions can be completed one at a time with a discussion after each problem.

If problems are not done one at a time, provide students time to share their answers and their methods of arriving at an answer. This time can also be used for students to ask any questions they may have.

Exploratory Challenge

- a. Mallory is on a budget and wants to determine which cereal is a better buy. A 10-ounce box of cereal costs \$2.79, and a 13-ounce box of the same cereal costs \$3.99.
 - i. Which box of cereal should Mallory buy?
Because the 10-ounce box costs about 28 cents per ounce, and the 13-ounce box costs about 31 cents per ounce, Mallory should buy the 10-ounce box of cereal.
 - ii. What is the difference between the two unit prices?
The 10-ounce box of cereal would be preferred because it is 3 cents cheaper per ounce.
- b. Vivian wants to buy a watermelon. Kingston’s Market has 10-pound watermelons for \$3.90, but the Farmer’s Market has 12-pound watermelons for \$4.44.
 - i. Which market has the best price for watermelon?
The Farmer’s Market has the best price for watermelons.
 - ii. What is the difference between the two unit prices?
The 12-pound watermelon is a better deal because it is 2 cents cheaper per pound.
- c. Mitch needs to purchase soft drinks for a staff party. He is trying to figure out if it is cheaper to buy the 12-pack of soda or the 20-pack of soda. The 12-pack of soda costs \$3.99, and the 20-pack of soda costs \$5.48.
 - i. Which pack should Mitch choose?
20-pack of soda for \$5.48
 - ii. What is the difference in cost between single cans of soda from each of the two packs?
The difference in cost between single cans from each pack is 6 cents.
- d. Mr. Steiner needs to purchase 60 AA batteries. A nearby store sells a 20-pack of AA batteries for \$12.49 and a 12-pack of the same batteries for \$7.20.
 - i. Would it be less expensive for Mr. Steiner to purchase the batteries in 20-packs or 12-packs?
He should purchase five 12-packs of batteries for \$7.20 for a total cost of \$36.00.
 - ii. What is the difference between the costs of one battery from each pack?
The difference between the costs of one battery is 2 cents.
- e. The table below shows the amount of calories Mike burns as he runs.

Number of Miles Ran	3	6	9	12
Number of Calories Burned	360	720	1,080	1,440

Fill in the missing part of the table.

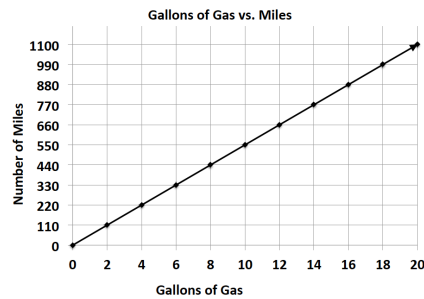
MP.2

- f. Emilio wants to buy a new motorcycle. He wants to compare the gas efficiency for each motorcycle before he makes a purchase. The dealerships presented the data below.

Sports Motorcycle:

Number of Gallons of Gas	5	10	15	20
Number of Miles	287.5	575	862.5	1,150

Leisure Motorcycle:

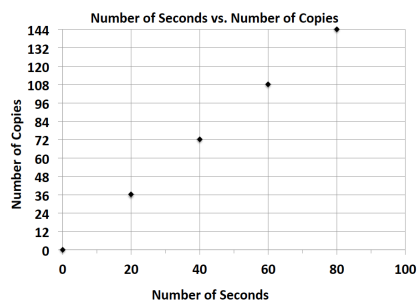


Which motorcycle is more gas efficient and by how much?

The sports motorcycle gets 2.5 more miles per gallon of gas.

- g. Milton Middle School is planning to purchase a new copy machine. The principal has narrowed the choice to two models: SuperFast Deluxe and Quick Copies. He plans to purchase the machine that copies at the fastest rate. Use the information below to determine which copier the principal should choose.

SuperFast Deluxe:



Quick Copies:

$c = 1.5t$
(where t represents the amount of time in seconds, and c represents the number of copies)

SuperFast Deluxe

- h. Elijah and Sean are participating in a walk-a-thon. Each student wants to calculate how much money he would make from his sponsors at different points of the walk-a-thon. Use the information in the tables below to determine which student would earn more money if they both walked the same distance. How much more money would that student earn per mile?

Elijah's Sponsor Plan:

Number of Miles Walked	7	14	21	28
Money Earned in Dollars	35	70	105	140

Sean's Sponsor Plan:

Number of Miles Walked	6	12	18	24
Money Earned in Dollars	33	66	99	132

Sean earns 50 cents more than Elijah every mile.

MP.2

- i. Gerson is going to buy a new computer to use for his new job and also to download movies. He has to decide between two different computers. How many more kilobytes does the faster computer download in one second?

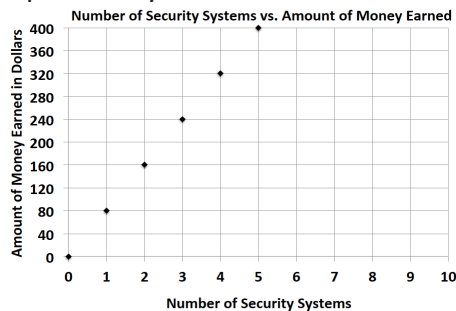
Choice 1: The rate of download is represented by the following equation: $k = 153t$, where t represents the amount of time in seconds, and k represents the number of kilobytes.

Choice 2: The rate of download is represented by the following equation: $k = 150t$, where t represents the amount of time in seconds, and k represents the number of kilobytes.

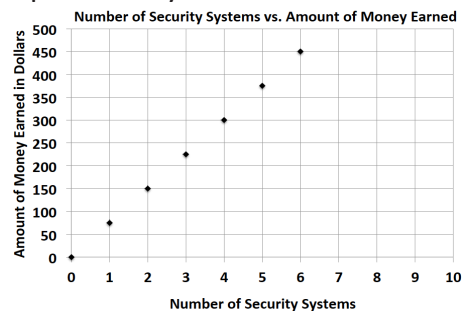
Choice 1 downloads 3 more kilobytes per second than Choice 2.

- j. Zyearaye is trying to decide which security system company he will make more money working for. Use the graphs below that show Zyearaye’s potential commission rate to determine which company will pay Zyearaye more commission. How much more commission would Zyearaye earn by choosing the company with the better rate?

Superior Security:



Top Notch Security:



Superior Security would pay \$5 more per security system sold than Top Notch Security.

- k. Emilia and Miranda are sisters, and their mother just signed them up for a new cell phone plan because they send too many text messages. Using the information below, determine which sister sends the most text messages. How many more text messages does this sister send per week?

Emilia:

Number of Weeks	3	6	9	12
Number of Text Messages	1,200	2,400	3,600	4,800

Miranda: $m = 410w$, where w represents the number of weeks, and m represents the number of text messages.

Miranda sends 10 more text messages per week than Emilia.

MP.2

Closing (5 minutes)

- What did all of the problems we solved today have in common?
 - *Each involved using unit rates, although the information was provided in different forms.*

Lesson Summary

Unit Rate can be located in tables, graphs, and equations.

- **Table**—the unit rate is the value of the first quantity when the second quantity is 1.
- **Graphs**—the unit rate is the value of r at the point $(1, r)$.
- **Equation**—the unit rate is the constant number in the equation. For example, the unit rate in $r = 3b$ is 3.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 20: Comparison Shopping—Unit Price and Related Measurement Conversions

Exit Ticket

Value Grocery Mart and Market City are both having a sale on the same popular crackers. McKayla is trying to determine which sale is the better deal. Using the given table and equation, determine which store has the better deal on crackers? Explain your reasoning. (Remember to round your answers to the nearest penny.)

Value Grocery Mart:

Number of Boxes of Crackers	3	6	9	12
Cost (in dollars)	5	10	15	20

Market City:

$c = 1.75b$, where c represents the cost in dollars, and b represents the number of boxes of crackers.



Exit Ticket Sample Solutions

Value Grocery Mart and Market City are both having a sale on the same popular crackers. McKayla is trying to determine which sale is the better deal. Using the given table and equation, determine which store has the better deal on crackers. Explain your reasoning. (Remember to round your answers to the nearest penny.)

Value Grocery Mart:

Number of Boxes of Crackers	3	6	9	12
Cost (in dollars)	5	10	15	20

Market City:

$c = 1.75b$, where c represents the cost in dollars, and b represents the number of boxes of crackers.

Value Grocery Mart is better because one box of crackers would cost \$1.67. One box of crackers at Market City would cost \$1.75, which is a little more expensive than Value Grocery Mart.

Problem Set Sample Solutions

The table below shows the amount of money Gabe earns working at a coffee shop.

Number of Hours Worked	3	6	9	12
Money Earned (in dollars)	40.50	81.00	121.50	162.00

- How much does Gabe earn per hour?

Gabe earns \$13.50 per hour.

- Jordan is another employee at the same coffee shop. He has worked there longer than Gabe and earns \$3 more per hour than Gabe. Complete the table below to show how much Jordan earns.

Hours Worked	4	8	12	16
Money Earned (in dollars)	66	132	198	264

- Serena is the manager of the coffee shop. The amount of money she earns is represented by the equation $m = 21h$, where h is the number of hours Serena works, and m is the amount of money she earns. How much more money does Serena make an hour than Gabe? Explain your thinking.

21 – 13.5 = 7.50, so Serena makes \$7.50 per hour more than Gabe.

- Last month, Jordan received a promotion and became a manager. He now earns the same amount as Serena. How much more money does he earn per hour now that he is a manager than he did before his promotion? Explain your thinking.

Jordan now makes the same amount as Serena, which is \$21 an hour. Jordan previously made \$16.50 an hour, so 21 – 16.50 = 4.50. Therefore, Jordan will make an additional \$4.50 an hour now that he is a manager.



Lesson 21: Getting the Job Done—Speed, Work, and Measurement Units

Student Outcomes

- Students use rates between measurements to convert measurement in one unit to measurement in another unit. They manipulate and transform units appropriately when multiplying or dividing quantities.

Lesson Notes

Prior to this lesson, a measurement center should be made available to students. By allowing all students to handle all the various items, they gain a real sense of each measure and its relationship to the others.

Measurement Center Materials: rulers (centimeter and inches), meter sticks, yard sticks, measuring tapes; kilogram, gram, and milligram masses; liter box, liter bottle, or liter graduated cylinder, eyedropper (for milliliter); ounce and pound weights; cup, pint, quart, and gallon containers

Materials: copies of conversion charts, calculators

Vocabulary: length, mass, weight, capacity, metric system, U.S. customary system, kilo-, deci-, centi-, milli-

Conversion tables contain ratios that can be used to convert units of length, weight, or capacity. You must multiply the given number by the ratio that compares the two units.

Classwork

It may be helpful to copy the vocabulary terms on one side of a handout and the conversion charts on the other. Distribute these to each student. Pair the students for the first two examples.

Opening Exercise (5 minutes)

Opening Exercise

Identify the ratios that are associated with conversions between feet, inches, and yards.

12 inches = 1 foot; the ratio of inches to feet is 12:1.

1 foot = 12 inches; the ratio of feet to inches is 1:12.

3 feet = 1 yard; the ratio of feet to yards is 3:1.

1 yard = 3 feet; the ratio of yards to feet is 1:3.



Example 1 (10 minutes)

- Conversion tables are really ratio tables that can be used to convert units of length, weight, or capacity (and other units, too). You must multiply the given number by the ratio that compares the two units.
- Work with your partner to find out how many feet are in 48 inches. Make a ratio table that compares feet and inches. Use the conversion rate of 12 inches per foot or $\frac{1}{12}$ foot per inch.

Allow students to solve the problem using the conversion chart. When all groups finish, make clear that they can multiply 48 by $\frac{1}{12}$ or divide 48 by 12. The result is 4 feet either way.

Example 1

Work with your partner to find out how many feet are in 48 inches. Make a ratio table that compares feet and inches.

Use the conversion rate of 12 inches per foot or $\frac{1}{12}$ foot per inch.

$$\frac{1 \text{ foot}}{12 \text{ inches}} \times \frac{48 \text{ inches}}{1} = \frac{1 \times 48}{12 \times 1} \text{ feet} = \frac{48}{12} \text{ feet} = 4 \text{ feet}$$

48 inches equals 4 feet.

Example 2 (10 minutes)

Example 2

How many grams are in 6 kilograms? Again, make a record of your work before using the calculator. The rate would be 1,000 grams per kg. The unit rate would be 1,000.

$$\frac{6}{1} \times \frac{1000}{1} = \frac{6 \times 1000}{1 \times 1} = 6000$$

$$\frac{6 \text{ kilograms}}{1} \times \frac{1000 \text{ grams}}{1 \text{ kilograms}} = \frac{6 \times 1000}{1 \times 1} \text{ grams} = 6000 \text{ grams}$$

There are 6,000 grams in 6 kilograms.

Exercises (10 minutes)

Exercise 1

How many cups are in 5 quarts? As always, make a record of your work before using the calculator. The rate would be 4 cups per quart. The unit rate would be 4.

$$\frac{5}{1} \times \frac{4}{1} = \frac{5 \times 4}{1 \times 1} = 20$$

$$\frac{5 \text{ quarts}}{1} \times \frac{4 \text{ cups}}{1 \text{ quart}} = \frac{5 \times 4}{1 \times 1} \text{ cups} = 20 \text{ cups}$$

There are 20 cups in 5 quarts.

Exercise 2

How many quarts are in 10 cups?

$$10 \text{ cups} \cdot \frac{1 \text{ quart}}{4 \text{ cups}} = \frac{10}{4} \text{ quarts} = \frac{5}{2} \text{ quarts} = 2 \frac{1}{2} \text{ quarts}$$

Closing (5 minutes)

- In Exercise 2, what if the problem was set up this way: $10 \text{ cups} \times \frac{4 \text{ cups}}{1 \text{ quart}} = 40 \text{ quarts}$. What is wrong with that set up?
 - *If the conversion factor is flipped upside down, the units will not cancel, and the number won't make sense.*

Lesson Summary

Conversion tables contain ratios that can be used to convert units of length, weight, or capacity. You must multiply the given number by the ratio that compares the two units.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 21: Getting the Job Done—Speed, Work, and Measurement Units

Exit Ticket

Jill and Erika made 4 gallons of lemonade for their lemonade stand. How many quarts did they make? If they charge \$2.00 per quart, how much money will they make if they sell it all?



Exit Ticket Sample Solutions

Jill and Erika made 4 gallons of lemonade for their lemonade stand. How many quarts did they make? If they charge \$2.00 per quart, how much money will they make if they sell it all?

The conversion rate is 4 quarts per gallon.

$$\frac{4 \text{ quarts}}{1 \text{ gallon}} \cdot 4 \text{ gallons} = \frac{4 \cdot 4}{1} \text{ quarts} = 16 \text{ quarts}$$

$$16 \text{ quarts} \times \frac{2 \text{ dollars}}{1 \text{ quart}} = 32 \text{ dollars in sales}$$

Problem Set Sample Solutions

- 7 ft. = 84 in.
- 100 yd. = 300 ft.
- 25 m = 2,500 cm
- 5 km = 5,000 m
- 96 oz. = 6 lb.
- 2 mi. = 10,560 ft.
- 2 mi. = 3,520 yd.
- 32 fl. oz. = 4 c.
- 1,500 mL = 1.5 L
- 6 g = 6,000 mg
- Beau buys a 3-pound bag of trail mix for a hike. He wants to make one-ounce bags for his friends with whom he is hiking. How many one-ounce bags can he make?
48 bags
- The maximum weight for a truck on the New York State Thruway is 40 tons. How many pounds is this?
80,000 lb.
- Claudia's skis are 150 centimeters long. How many meters is this?
1.5 m



14. Claudia's skis are 150 centimeters long. How many millimeters is this?

1,500 mm

15. Write your own problem, and solve it. Be ready to share the question tomorrow.

Answers will vary.

U.S. Customary Length	Conversion
Inch (in.)	1 in. = $\frac{1}{12}$ ft.
Foot (ft.)	1 ft. = 12 in.
Yard (yd.)	1 yd. = 3 ft. 1 yd. = 36 in.
Mile (mi.)	1 mi. = 1,760 yd. 1 mi. = 5,280 ft.

Metric Length	Conversion
Centimeter (cm)	1 cm = 10 mm
Meter (m)	1 m = 100 cm 1 m = 1,000 mm
Kilometer (km)	1 km = 1,000 m

U.S. Customary Weight	Conversion
Pound (lb.)	1 lb. = 16 oz.
Ton (T.)	1 T. = 2,000 lb.

Metric Capacity	Conversion
Liter (L)	1 L = 1,000 ml
Kiloliter (kL)	1 kL = 1,000 L

U.S. Customary Capacity	Conversion
Cup (c.)	1 c. = 8 fluid ounces
Pint (pt.)	1 pt. = 2 c.
Quart (qt.)	1 qt. = 4 c. 1 qt. = 2 pt. 1 qt. = 32 fluid ounces
Gallon (gal.)	1 gal. = 4 qt. 1 gal. = 8 pt. 1 gal. = 16 c. 1 gal. = 128 fluid ounces

Metric Mass	Conversion
Gram (g)	1 g = 1,000 mg
Kilogram (kg)	1 kg = 1,000 g



Lesson 22: Getting the Job Done—Speed, Work, and Measurement Units

Student Outcomes

- Students decontextualize a given speed situation, representing symbolically the quantities involved with the formula distance = rate · time.

Materials

- Stopwatches
- 50-foot measured course
- Calculators

Lesson Notes

Vocabulary: distance, rate, time, $d = r \cdot t$, $r = \frac{d}{t}$

Classwork

If an object is moving at a constant rate of speed for a certain amount of time, it is possible to find how far the object went by multiplying the rate and the time. In mathematical language, we say, distance = rate · time.

Exploratory Challenge

Students will make measurements of distance and time during this lesson and will calculate speed. When using a stopwatch, the teacher can decide whether to round to the nearest second or tenth of a second. If desired, multiple trials can be measured and results averaged.

Opening Exercise (2 minutes)

- How many seconds are in 1 minute?
 - 60 seconds
- Can you verbalize this relationship?
 - For every 60 seconds, there is 1 minute.
- Here are two different ways (display for students):

$$\frac{60 \text{ seconds}}{1 \text{ minute}} \text{ and } 60 \frac{\text{seconds}}{\text{minute}}$$

- Are these the same values?
 - *Allow for discussion.*
- The first representation states that for every 60 seconds, there is 1 minute. Is that what the second representation states? I read this as “60 seconds per minute.” Knowing what we learned previously in Lessons 1 and 2, “per” and “for every” are verbal representations of a ratio, so they mean the same thing.

Example 1 (15 minutes)

Measure out a 50-foot course in the hallway (or shorter in the classroom). Have student volunteers use a stopwatch to measure the time it takes to have others walk the distance. Also, ask a fast runner to run the course as fast as he or she can.

- *I wonder how fast you were moving.* In this exercise, we know the distance (in feet) and time (in seconds), and we must find the speed, which is the rate of distance traveled per unit of time. This will be expressed in feet per second for this activity.
- Many people like to use the $d = r \cdot t$ formula, substitute in the values for rate and time, and then multiply. Would you agree that $r = \frac{d}{t}$?

Remind students that $12 = 3 \cdot 4$, $3 = \frac{12}{4}$, and $4 = \frac{12}{3}$ are all related and can be an anchor in relating $d = r \cdot t$ and $r = \frac{d}{t}$. Substitute the values to test if needed.

MP.2

Ask students to substitute the runner’s distance and time into the equation and solve for the rate of speed. Also, substitute the runner’s time and distance into the equation to find his or her rate of speed.

Example 1

Walker: Substitute the walker’s distance and time into the equation and solve for the rate of speed.

distance = rate · time

$$d = r \cdot t$$

Hint: Consider the units that you want to end up with. If you want to end up with the rate (feet/second), then divide the distance (feet) by time (seconds).

Runner: Substitute the runner’s time and distance into the equation to find the rate of speed.

distance = rate · time

$$d = r \cdot t$$

Here is a sample of student work using 8 seconds as an example:

$d = r \cdot t$ and $r = \frac{d}{t}$; Distance: 50 feet; Time: 8 seconds

$$r = \frac{50 \text{ ft}}{8 \text{ sec}} = 6.25 \frac{\text{ft}}{\text{sec}}$$

MP.5
&
MP.6

It might be important to discuss the desired precision of each measurement and the limitations to precision inherent in the tools used (e.g., 50-foot race course measured to the nearest inch and time measured to the nearest hundredth of a second on the stopwatch). Measurements are, by their nature, never exact. Also, when arriving at an answer, it should be expressed with a degree of precision appropriate for the context of the problem.

Example 2 (15 minutes)

Example 2

Part 1: Chris Johnson ran the 40-yard dash in 4.24 seconds. What is the rate of speed? Round any answer to the nearest hundredth.

distance = rate · time

$$d = r \cdot t$$

$$d = r \cdot t \text{ and } r = \frac{d}{t}; r = \frac{40 \text{ yd}}{4.24 \text{ sec}} \approx 9.43 \frac{\text{yd}}{\text{sec}}$$

Part 2: In Lesson 21, we converted units of measure using unit rates. If the runner were able to run at a constant rate, how many yards would he run in an hour? This problem can be solved by breaking it down into two steps. Work with a partner, and make a record of your calculations.

- a. How many yards would he run in one minute?

$$9.43 \frac{\text{yards}}{\text{second}} \cdot 60 \frac{\text{seconds}}{\text{minute}} = 565.80 \text{ yards in one minute}$$

- b. How many yards would he run in one hour?

$$565.80 \frac{\text{yards}}{\text{minute}} \cdot 60 \frac{\text{minutes}}{\text{hour}} = 33\,948 \text{ yards in one hour}$$

We completed that problem in two separate steps, but it is possible to complete this same problem in one step. We can multiply the yards per second by the seconds per minute, then by the minutes per hour.

$$9.43 \frac{\text{yards}}{\text{second}} \cdot 60 \frac{\text{seconds}}{\text{minute}} \cdot 60 \frac{\text{minutes}}{\text{hour}} = 33\,948 \text{ yards in one hour}$$

Cross out any units that are in both the numerator and denominator in the expression because these cancel each other out.

Part 3: How many miles did the runner travel in that hour? Round your response to the nearest tenth.

$$33\,948 \frac{\text{yards}}{\text{hour}} \cdot \frac{1 \text{ mile}}{1760 \text{ yards}} \approx 19.3 \text{ miles per hour}$$

Cross out any units that are in both the numerator and denominator in the expression because they cancel out.

MP.1

Exercises (5 minutes): Road Trip

Exercise 1

I drove my car on cruise control at 65 miles per hour for 3 hours without stopping. How far did I go?

$$d = r \cdot t$$

$$d = \underline{\quad} \frac{\text{miles}}{\text{hour}} \cdot \underline{\quad} \text{ hours}$$

$$d = 65 \frac{\text{miles}}{\text{hour}} \cdot 3 \text{ hours}$$

Cross out any units that are in both the numerator and denominator in the expression because they cancel out.

$$d = \underline{\quad} \text{ miles}$$

$$d = 195 \text{ miles}$$

Exercise 2

On the road trip, the speed limit changed to 50 miles per hour in a construction zone. Traffic moved along at a constant rate (50 mph), and it took me 15 minutes (0.25 hours) to get through the zone. What was the distance of the construction zone? (Round your response to the nearest hundredth of a mile.)

$$d = r \cdot t$$

$$d = \underline{\quad} \frac{\text{miles}}{\text{hour}} \cdot \underline{\quad} \text{ hours}$$

$$d = 50 \frac{\text{miles}}{\text{hour}} \cdot 0.25 \text{ hour}$$

$$d = 12.50 \text{ miles}$$

Closing (3 minutes)

- Describe the relationship between distance, rate, and time. State this relationship as many different ways as you can. How does each of these representations differ? How are they alike?
 - We can find distance if we know the rate and time using the formula/equation

$$d = r \cdot t.$$
 - We can find the rate if we know the distance and the time using the formula/equation

$$r = \frac{d}{t}.$$

Lesson Summary

Distance, rate, and time are related by the formula $d = r \cdot t$.

Knowing any two of the values allows the calculation of the third.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 22: Getting the Job Done—Speed, Work, and Measurement Units

Exit Ticket

Franny took a road trip to her grandmother’s house. She drove at a constant speed of 60 miles per hour for 2 hours. She took a break and then finished the rest of her trip driving at a constant speed of 50 miles per hour for 2 hours. What was the total distance of Franny’s trip?



Exit Ticket Sample Solutions

Franny took a road trip to her grandmother's house. She drove at a constant speed of 60 miles per hour for 2 hours. She took a break and then finished the rest of her trip driving at a constant speed of 50 miles per hour for 2 hours. What was the total distance of Franny's trip?

$$d = 60 \frac{\text{miles}}{\text{hour}} \cdot 2 \text{ hours} = 120 \text{ miles}$$

$$d = 50 \frac{\text{miles}}{\text{hour}} \cdot 2 \text{ hours} = 100 \text{ miles}$$

$$120 \text{ miles} + 100 \text{ miles} = 220 \text{ miles}$$

Problem Set Sample Solutions

1. If Adam's plane traveled at a constant speed of 375 miles per hour for six hours, how far did the plane travel?

$$d = r \cdot t$$

$$d = \frac{375 \text{ miles}}{1 \text{ hour}} \times 6 \text{ hours} = 2250 \text{ miles}$$

2. A Salt Marsh Harvest Mouse ran a 360 centimeter straight course race in 9 seconds. How fast did it run?

$$r = \frac{d}{t}$$

$$r = \frac{360 \text{ centimeters}}{9 \text{ seconds}} = 40 \frac{\text{cm}}{\text{sec}}$$

3. Another Salt Marsh Harvest Mouse took 7 seconds to run a 350 centimeter race. How fast did it run?

$$r = \frac{d}{t}$$

$$r = \frac{350 \text{ centimeters}}{7 \text{ seconds}} = 50 \frac{\text{cm}}{\text{sec}}$$

4. A slow boat to China travels at a constant speed of 17.25 miles per hour for 200 hours. How far was the voyage?

$$d = r \cdot t$$

$$d = \frac{17.25 \text{ miles}}{1 \text{ hour}} \times 200 \text{ hours} = 3450 \text{ miles}$$

5. The Sopwith Camel was a British, First World War, single-seat, biplane fighter introduced on the Western Front in 1917. Traveling at its top speed of 110 mph in one direction for $2\frac{1}{2}$ hours, how far did the plane travel?

$$d = r \cdot t$$

$$d = \frac{110 \text{ miles}}{1 \text{ hour}} \times 2.5 \text{ hours} = 275 \text{ miles}$$



6. A world-class marathon runner can finish 26.2 miles in 2 hours. What is the rate of speed for the runner?

$$r = \frac{d}{t}$$

$$r = \frac{26.2 \text{ miles}}{2 \text{ hours}} = 13.1 \text{ mph or } 13.1 \frac{\text{mi}}{\text{h}}$$

7. Banana slugs can move at 17 cm per minute. If a banana slug travels for 5 hours, how far will it travel?

$$d = r \cdot t$$

$$d = \frac{17 \text{ cm}}{1 \text{ min}} \times 300 \text{ min} = 5100 \text{ cm}$$



Lesson 23: Problem Solving Using Rates, Unit Rates, and Conversions

Student Outcomes

- Students solve constant rate work problems by calculating and comparing unit rates.

Materials

- Calculators

Classwork

- If work is being done at a constant rate by one person, and at a different constant rate by another person, both rates can be converted to their unit rates and then compared directly.
- “Work” can include jobs done in a certain time period, rates of running or swimming, etc.

Example 1 (10 minutes): Fresh-Cut Grass

- In the last lesson, we learned about constant speed problems. Today we will be learning about constant rate work problems. Think for a moment about what a *constant rate work* problem might be.

Allow time for speculation and sharing of possible interpretations of what the lesson title might mean. Student responses should be summarized by the following:

- *Constant rate work problems let us compare two unit rates to see which situation is faster or slower.*
- In Lesson 18, we found a rate by dividing two quantities. Recall how to do this.
 - *To find a unit rate, divide the numerator by the denominator.*
- Did it matter which quantity was in the numerator and which quantity was in the denominator?
 - *Yes. To find the unit rate, it is important to have specific quantities in the numerator and denominator based on the rate unit.*
- Did the two quantities have to be two different units?
 - *Yes*
- Suppose that on a Saturday morning you can cut 3 lawns in 5 hours, and your friend can cut 5 lawns in 8 hours. Your friend claims he is working faster than you. Who is cutting lawns at a faster rate? How do you find out?
 - *Divide the numerator by the denominator to find the unit rate.*



- Again, does it matter which quantity is represented in the numerator and which quantity is represented in the denominator?
 - Yes. To find the amount of lawns per hour, or the rate unit of $\frac{\text{lawns}}{\text{hour}}$, the amount of lawns cut must be represented in the numerator, and the amount of time in hours must be represented in the denominator.
- What is 3 divided by 5?
 - 0.6
- How should you label the problem?
 - The same way it is presented. Here “lawns” remains in the numerator, and “hours” remains in the denominator.
- How should the unit rate and rate unit look when it is written completely?
 - $\frac{3 \text{ lawns}}{5 \text{ hours}} = \frac{0.6 \text{ lawns}}{1 \text{ hour}}$
- How should it be read?
 - If I can cut 3 lawns in 5 hours, that equals $\frac{3}{5}$ lawns in one hour. If a calculator is used, that will be a unit rate of six-tenths. The rate unit is lawn per hour.
- What is the unit rate of your friend’s lawn cutting?
 - My friend is cutting $\frac{5}{8}$ lawns in an hour.

$$\frac{5 \text{ lawns}}{8 \text{ hours}} = \frac{0.625 \text{ lawns}}{1 \text{ hour}}$$
- How is this interpreted?
 - If my friend cuts 5 lawns in 8 hours, the unit rate is 0.625.
- Compare the two unit rates $\frac{3}{5}$ and $\frac{5}{8}$.
 - $\frac{24}{40} < \frac{25}{40}$ My friend is a little faster, but only $\frac{1}{40}$ of a lawn per hour, so it is very close. The unit rates have corresponding decimals 0.6 and 0.625.

Example 1: Fresh-Cut Grass

Suppose that on a Saturday morning you can cut 3 lawns in 5 hours, and your friend can cut 5 lawns in 8 hours. Who is cutting lawns at a faster rate?

$$\frac{3 \text{ lawns}}{5 \text{ hours}} = \frac{\quad \text{lawns}}{1 \text{ hour}}$$

$$\frac{5 \text{ lawns}}{8 \text{ hours}} = \frac{\quad \text{lawns}}{1 \text{ hour}}$$

$\frac{24}{40} < \frac{25}{40}$ My friend is a little faster but only $\frac{1}{40}$ of a lawn per hour, so it is very close. The unit rates have corresponding decimals 0.6 and 0.625.



Example 2 (9 minutes): Restaurant Advertising

- Next, suppose you own a restaurant. You want to do some advertising, so you hire 2 students to deliver take-out menus around town. One student, Darla, delivers 350 menus in 2 hours, and another student, Drew, delivers 510 menus in 3 hours. You promise a \$10 bonus to the fastest worker since time is money in the restaurant business. Who gets the bonus?
- How should the unit rates and the rate units look when they are written completely?
 - $\frac{350 \text{ menus}}{2 \text{ hours}} = \frac{175 \text{ menus}}{1 \text{ hour}}$, $\frac{510 \text{ menus}}{3 \text{ hours}} = \frac{170 \text{ menus}}{1 \text{ hour}}$
- Compare the unit rates for each student. Who works faster at the task and gets the bonus cash?
 - *Darla's unit rate is $\frac{175 \text{ menus}}{1 \text{ hour}}$ and Drew's unit rate is $\frac{170 \text{ menus}}{1 \text{ hour}}$. Since Darla is able to deliver 5 more menus an hour than Drew, she should get the bonus.*
- Will the unit labels in the numerator and denominator always match in the work rates we are comparing?
 - Yes.

Example 2: Restaurant Advertising

$\frac{\text{— menus}}{\text{— hours}} = \frac{\text{— menus}}{1 \text{ hour}}$	$\frac{\text{— menus}}{\text{— hours}} = \frac{\text{— menus}}{1 \text{ hour}}$
$\frac{350 \text{ menus}}{2 \text{ hours}} = \frac{175 \text{ menus}}{1 \text{ hour}}$	$\frac{510 \text{ menus}}{3 \text{ hours}} = \frac{170 \text{ menus}}{1 \text{ hour}}$

Set up a problem for the student that does not keep the units in the same arrangement:

$\frac{350 \text{ menus}}{2 \text{ hours}} = \frac{175 \text{ menus}}{1 \text{ hour}}$	$\frac{3 \text{ hours}}{510 \text{ menus}} = \frac{1 \text{ hour}}{170 \text{ menus}}$
--	--

- What happens if they do not match and one is inverted?
 - *It will be difficult to compare the rates. We would have to say 175 menus would be delivered per hour by Darla, and it would take an hour for Drew to deliver 170 menus. Mixing up the units makes the explanations awkward.*
- Will time always be in the denominator?
 - Yes
- Do you always divide the numerator by the denominator to find the unit rate?
 - Yes



Example 3 (9 minutes): Survival of the Fittest

- Which runs faster: a cheetah that can run 60 feet in 4 seconds or gazelle that can run 100 feet in 8 seconds?

Example 3: Survival of the Fittest

$\frac{\text{_____ feet}}{\text{_____ seconds}} = \frac{\text{_____ feet}}{1 \text{ second}}$ $\frac{60 \text{ feet}}{4 \text{ seconds}} = \frac{15 \text{ feet}}{1 \text{ second}}$	$\frac{\text{_____ feet}}{\text{_____ seconds}} = \frac{\text{_____ feet}}{1 \text{ second}}$ $\frac{100 \text{ feet}}{8 \text{ seconds}} = \frac{12.5 \text{ feet}}{1 \text{ second}}$
--	---

The cheetah runs faster.

Example 4 (7 minutes): Flying Fingers

- What if the units of time are not the same in the two rates? What will this mean for the rate units? The secretary in the main office can type 225 words in 3 minutes, while the computer teacher can type 105 words in 90 seconds. Can we still compare the unit rates? Who types at a faster rate?

Ask half of the class to solve this problem using words per minute and the other half using words per second. Ask for a volunteer from each group to display and explain their solutions.

Example 4: Flying Fingers

$\text{_____} = \text{_____}$ $\frac{225 \text{ words}}{3 \text{ minutes}} = \frac{75 \text{ words}}{1 \text{ minute}} \quad \frac{105 \text{ words}}{1.5 \text{ minutes}} = \frac{70 \text{ words}}{1 \text{ minute}}$	$\text{_____} = \text{_____}$ $\frac{225 \text{ words}}{180 \text{ seconds}} = \frac{1.25 \text{ words}}{1 \text{ second}} \quad \frac{105 \text{ words}}{90 \text{ seconds}} = \frac{1.166667 \text{ words}}{1 \text{ second}}$
---	--

The secretary types faster.

- Do we have to convert one time unit?
 - Yes
- What will happen if we do not convert one time unit so that they match?
 - We cannot compare the rates. It is not easy to tell which is faster: 70 words per minute or 1.25 words per second.
- Does it matter which one you change?
 - No. Either change 90 seconds to 1.5 minutes or change 3 minutes to 180 seconds, as long as the rate units are the same when you are finished.
- Can you choose the one that makes the problem easier for you?
 - Yes
- Is there an advantage in choosing one method over the other?
 - Changing seconds to minutes avoids repeating decimals.
- Looking back on our work so far what is puzzling you? What questions do you have?



- Describe how this type of problem is similar to unit pricing problems.
 - *Unit pricing problems use division and so do work rate problems.*
- Describe how work problems are different than unit price problems.
 - *Unit price problems always have cost in the numerator; work rate problems always have time in the denominator.*

Closing (5 minutes)

- Rate problems, including constant rate problems, always count or measure something happening per unit of time. The time is always in the denominator.
- Sometimes the units of time in the denominators of the rates being compared are not the same. One must be converted to the other before calculating the unit rate of each.

Lesson Summary

- **Rate problems, including constant rate problems, always count or measure something happening per unit of time. The time is always in the denominator.**
- **Sometimes the units of time in the denominators of the rates being compared are not the same. One must be converted to the other before calculating the unit rate of each.**

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 23: Problem Solving Using Rates, Unit Rates, and Conversions

Exit Ticket

A sixth-grade math teacher can grade 25 homework assignments in 20 minutes.

Is he working at a faster rate or slower rate than grading 36 homework assignments in 30 minutes?



Exit Ticket Sample Solutions

A sixth-grade math teacher can grade 25 homework assignments in 20 minutes.

Is he working at a faster rate or slower rate than grading 36 homework assignments in 30 minutes?

$$\frac{25 \text{ assignments}}{20 \text{ minutes}} = \frac{1.25 \text{ assignments}}{1 \text{ minute}} \qquad \frac{36 \text{ assignments}}{30 \text{ minutes}} = \frac{1.2 \text{ assignments}}{1 \text{ minute}}$$

It is faster to grade 25 assignments in 20 minutes.

Problem Set Sample Solutions

1. Who walks at a faster rate: someone who walks 60 feet in 10 seconds or someone who walks 42 feet in 6 seconds?

$$\frac{60 \text{ feet}}{10 \text{ seconds}} = 6 \frac{\text{feet}}{\text{second}}$$

$$\frac{42 \text{ feet}}{6 \text{ seconds}} = 7 \frac{\text{feet}}{\text{second}} \rightarrow \text{Faster}$$

2. Who walks at a faster rate: someone who walks 60 feet in 10 seconds or someone who takes 5 seconds to walk 25 feet? Review the lesson summary before answering!

$$\frac{60 \text{ feet}}{10 \text{ seconds}} = 6 \frac{\text{feet}}{\text{second}} \rightarrow \text{Faster}$$

$$\frac{25 \text{ feet}}{5 \text{ seconds}} = 5 \frac{\text{feet}}{\text{second}}$$

3. Which parachute has a slower decent: a red parachute that falls 10 feet in 4 seconds or a blue parachute that falls 12 feet in 6 seconds?

$$\text{Red: } \frac{10 \text{ feet}}{4 \text{ seconds}} = 2.5 \frac{\text{feet}}{\text{second}}$$

$$\text{Blue: } \frac{12 \text{ feet}}{6 \text{ seconds}} = 2 \frac{\text{feet}}{\text{second}} \rightarrow \text{Slower}$$

4. During the winter of 2012–2013, Buffalo, New York received 22 inches of snow in 12 hours. Oswego, New York received 31 inches of snow over a 15-hour period. Which city had a heavier snowfall rate? Round your answers to the nearest hundredth.

$$\frac{22 \text{ inches}}{12 \text{ hours}} = 1.83 \frac{\text{inches}}{\text{hour}}$$

$$\frac{31 \text{ inches}}{15 \text{ hours}} = 2.07 \frac{\text{inches}}{\text{hour}} \rightarrow \text{Heavier}$$



5. A striped marlin can swim at a rate of 70 miles per hour. Is this a faster or slower rate than a sailfish, which takes 30 minutes to swim 40 miles?

Marlin: 70 mph → Slower

Sailfish:

$$\frac{40 \text{ miles}}{30 \text{ minutes}} \times \frac{60 \text{ minutes}}{1 \text{ hour}} = \frac{2400 \text{ miles}}{30 \text{ hour}} = 80 \text{ mph}$$

6. One math student, John, can solve 6 math problems in 20 minutes while another student, Juaquine, can solve the same 6 math problems at a rate of 1 problem per 4 minutes. Who works faster?

$$\frac{6 \text{ problems}}{20 \text{ minutes}} = 0.3 \frac{\text{problems}}{\text{minute}} \rightarrow \text{Faster}$$

$$\frac{1 \text{ problem}}{4 \text{ minutes}} = 0.25 \frac{\text{problems}}{\text{minute}}$$



Topic D

Percent

6.RP.A.3c

Focus Standard:	6.RP.A.3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.
Instructional Days:	6	
Lesson 24:	Percent and Rates per 100 (P) ¹	
Lesson 25:	A Fraction as a Percent (P)	
Lesson 26:	Percent of a Quantity (P)	
Lessons 27–29:	Solving Percent Problems (P, P, E)	

In the first lesson of Topic D, students are introduced to percent and then find percent of a quantity as a rate per 100. Students understand that N percent of a quantity has the same value as $\frac{N}{100}$ of that quantity. In Lessons 24 and 25, students express a fraction as a percent and find a percent of a quantity in real-world contexts. In Lessons 26–28, students learn to express ratio using the language of percent and to solve percent problems selecting from familiar representations, such as tape diagrams and double number line diagrams or combinations of both (**6.RP.A.3c**).

¹Lesson Structure Key: **P**-Problem Set Lesson, **M**-Modeling Cycle Lesson, **E**-Exploration Lesson, **S**-Socratic Lesson



Lesson 24: Percent and Rates per 100

Student Outcomes

- Students understand that percents are related to part-to-whole ratios and rates where the whole is 100.
- Students model percents and write a percent as a fraction over 100 or a decimal to the hundredths place.

Classwork

Example 1 (5 minutes)

Begin class with a discussion to gather prior knowledge and to show a relationship to real-world applications.

- Imagine that you are shopping. You want to purchase an item for \$100, but today it is 20% off. What does this mean?
 - *It means that \$20 out of every \$100 dollars will be subtracted from the total.*
- How can this situation be modeled?
 - *We could use a tape diagram that represents \$100 divided into ten sections of \$10. Two of the sections represent the discount, and eight of the sections represent the amount paid for the item. It could also be shown on a 10×10 grid, where 20 of the squares represent the discount, and 80 squares represent the amount paid.*
- How are percent problems related to the types of problems we have been working with involving ratios and rates?
 - *Answers will vary depending on prior knowledge. Some students may see that 20% of \$100 is \$20 off. Other students may see that we are trying to find part of a whole.*

Use the following website on a projector to visually explore percents in a 10×10 grid model.

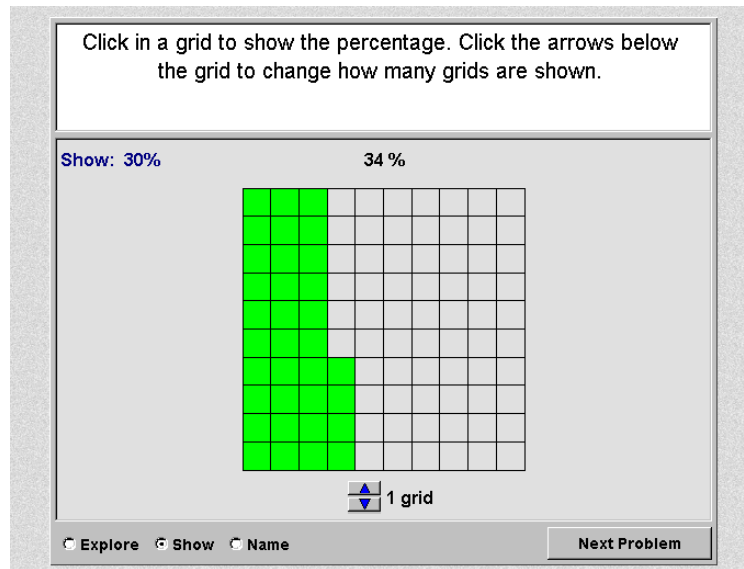
http://nlvm.usu.edu/en/nav/frames_asid_333_g_3_t_1.html?from_category_g_3_t_1.html

Click the explore button on the website to be able to show 20%. This provides students with the visual for making the connection that 20% means 20 out of 100.

- What does this grid show?
 - *100 blocks*
- How many are shaded in?
 - *20 blocks*
- How many are not shaded in?
 - *80 blocks*
- How can we use this model to help us think through 20% off of \$100?
 - *From the grid, I can see that when I save 20%, I am paying 80% of the original value.*

Now they can see that since each block represents \$1, they would be saving the 20 and spending the 80 when a \$100 item is 20% off the original price.

Here is an example of what the website will look like:



If time allows, add more grids to model percents greater than 100% so that students further build an understanding.

Exercises 1–2 (8 minutes)

Solve the following two exercises with student input in order to model the process of working with percents. Students will need coloring utensils in order to complete the remaining activities.

Exercise 1

B	B	G	G	G	G	G	P	P	P
B	B	G	G	G	G	G	P	P	P
B	B	G	G	G	G	G	P	P	P
B	B	G	G	G	G	G	P	P	P
B	B	G	G	G	G	G	P	P	P
B	B	B	G	G	G	G	P	P	P
B	B	B	G	G	G	G	P	P	P
B	B	B	G	G	G	G	P	P	P
B	B	B	G	G	G	G	P	P	P

Robb’s Fruit Farm consists of 100 acres on which three different types of apples grow. On 25 acres, the farm grows Empire apples. McIntosh apples grow on 30% of the farm. The remainder of the farm grows Fuji apples. Shade in the grid below to represent the portion of the farm each apple type occupies. Use a different color for each type of apple. Create a key to identify which color represents each type of apple.

	Color Key	Part-to-Whole Ratio
Empire	<u>Black (B)</u>	<u>25:100</u>
McIntosh	<u>Purple (P)</u>	<u>30:100</u>
Fuji	<u>Green (G)</u>	<u>45:100</u>



Exercise 2

The shaded portion of the grid below represents the portion of a granola bar remaining.

What percent does each block of granola bar represent?

1% of the granola bar

What percent of the granola bar remains?

80%

What other ways can we represent this percent?

$\frac{80}{100}$, $\frac{8}{10}$, $\frac{4}{5}$, $\frac{16}{20}$, $\frac{32}{40}$, $\frac{64}{80}$, 0.8

0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

In this example, the teacher can discuss how 0.01 is related to $\frac{1}{100}$ and 1%. There are many examples that could be used to represent this percent in the last question. Students should list several examples.

Exercises 3–6 (15 minutes)

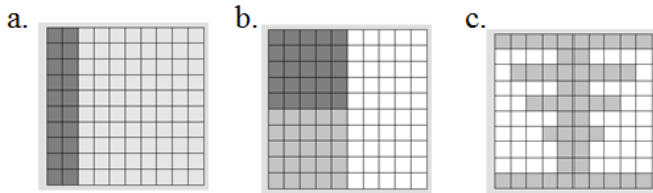
In predetermined pairs or groups, students solve the remaining problems.

Circulate around the room. Students may have varying answers for several questions in the practice. There is more than one possible answer for several questions to spark conversation between pairs or small groups.

For example, the second 10 × 10 grid used two different colors, so students could compare colored to total: light gray to total, dark gray to total. In addition, when they are asked to describe the different scenarios, some may use part-to-part ratios while others may use part-to-whole. This is a good time for a discussion on how part-to-part can lead to part-to-whole. In addition, it is important to remember that percents are out of a total 100, so consider asking students which form of the ratio is most helpful for getting a percent.

A percent is just another way to show the part-to-whole ratio for each picture.

Exercise 3



- a. For each figure shown, represent the gray shaded region as a percent of the whole figure. Write your answer as a decimal, fraction, and percent.

Picture (a)	Picture (b)	Picture (c)
<p>20% is shaded darker than the rest, 0.20, $\frac{20}{100}$</p>	<p>Answers will vary. Sample answer (colored compared to total): 50%, 0.50, $\frac{50}{100}$ (Students could also compare darker shading to total, lighter shading to total, light shading to darker shading, darker shading to lighter shading, etc.)</p>	<p>48%, 0.48, $\frac{48}{100}$</p>

- b. What ratio is being modeled in each picture?

Picture (a): Answers will vary. One example is the ratio of darker gray to the total is 20 to 100.

Picture (b): 50 to 100, or a correct answer for whichever description they chose.

Picture (c): The ratio of gray to the total is 48 to 100.



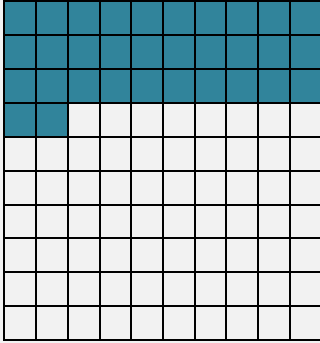
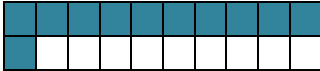


- c. How are the ratios and percents related?

Answers will vary.

Exercise 4

Each relationship below compares the shaded portion (or part) to the entire figure (the whole). Complete the table.

Percentage	Decimal	Fraction	Ratio	Model
6%	0.06	$\frac{6}{100}$	6:100	

60%	0.6	$\frac{60}{100}, \frac{6}{10}$	60:100	
600%	6	$\frac{600}{100} = \frac{6}{1}$	6:1	
32%	0.32	$\frac{32}{100}$	32:100	
55%	0.55	$\frac{55}{100}, \frac{11}{20}$	11:20	
90%	0.9	$\frac{9}{10}$	9:10	
70%	0.7	$\frac{7}{10}, \frac{70}{100}$	7:10	

Exercise 5

Mr. Brown shares with the class that 70% of the students got an A on the English vocabulary quiz. If Mr. Brown has 100 students, create a model to show how many of the students received an A on the quiz.



$$70\% \rightarrow \frac{70}{100} = \frac{7}{10}$$

What fraction of the students received an A on the quiz?

$$\frac{7}{10} \text{ or } \frac{70}{100}$$

How could we represent this amount using a decimal?

0.7 or 0.70

How are the decimal, the fraction, and the percent all related?

The decimal, fraction, and percent all show 70 out of 100.

Exercise 6

Marty owns a lawn mowing service. His company, which consists of three employees, has 100 lawns to mow this week. Use the 10 × 10 grid to model how the work could have been distributed between the three employees.

Students choose how they want to separate the workload. The answers will vary. Below is a sample response.

G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B

Worker	Percentage	Fraction	Decimal
Employee 1 (G)	30%	$\frac{30}{100}$	0.30
Employee 2 (P)	50%	$\frac{50}{100}$	0.50
Employee 3 (B)	20%	$\frac{20}{100}$	0.20

Closing (12 minutes)

Students present their work. Each group presents a problem or a part of a problem in order for all groups to respond.

Students complete this closing activity.

- What are three things you learned about in this lesson?
- Share two ways that you can write 2%.
- What is one thing that you still want to know about from the lesson?

Lesson Summary

One percent is the number $\frac{1}{100}$ and is written as 1%.

Percentages can be used as rates. For example, 30% of a quantity means $\frac{30}{100}$ times the quantity.

We can create models of percents. One example would be to shade a 10×10 grid. Each square in a 10×10 grid represents 1% or 0.01.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 24: Percent and Rates per 100

Exit Ticket

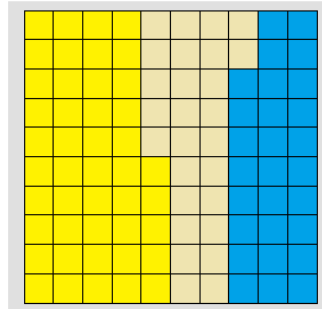
One hundred offices need to be painted. The workers choose between yellow, blue, or beige paint. They decide that 45% of the offices will be painted yellow; 28% will be painted blue, and the remaining offices will be painted beige. Create a model that shows the percent of offices that will be painted each color. Write the amounts as decimals and fractions.

Color	%	Fraction	Decimal
Yellow			
Blue			
Beige			

Exit Ticket Sample Solutions

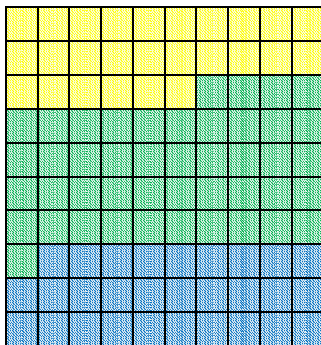
One hundred offices need to be painted. The workers choose between yellow, blue, or beige paint. They decide that 45% of the offices will be painted yellow; 28% will be painted blue, and the remaining offices will be painted beige. Create a model that shows the percent of offices that will be painted each color. Write the amounts as decimals and fractions.

Color	%	Fraction	Decimal
Yellow	45	$\frac{45}{100}$	0.45
Blue	28	$\frac{28}{100}$	0.28
Beige	27	$\frac{27}{100}$	0.27



Problem Set Sample Solutions

1. Marissa just bought 100 acres of land. She wants to grow apple, peach, and cherry trees on her land. Color the model to show how the acres could be distributed for each type of tree. Using your model, complete the table.



Tree	Percentage	Fraction	Decimal
Apple	26%	$\frac{26}{100}$	0.26
Peach	45%	$\frac{45}{100}$	0.45
Cherry	29%	$\frac{29}{100}$	0.29

Apple–Yellow, Peach– Green, Cherry–Blue

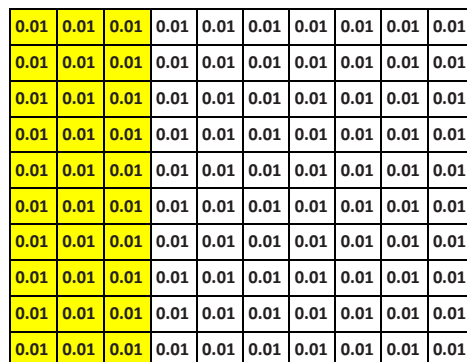
2. After renovations on Kim’s bedroom, only 30 percent of one wall is left without any décor. Shade the grid below to represent the space that is left to decorate.

a. What does each block represent?

Each block represents $\frac{1}{100}$ of the total wall.

b. What percent of this wall has been decorated?

30%





Lesson 25: A Fraction as a Percent

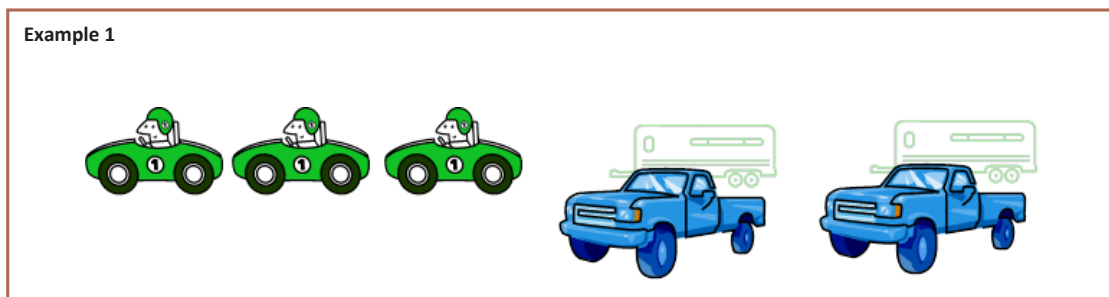
Student Outcomes

- Students write a fraction and a decimal as a percent of a whole quantity and write a percent of a whole quantity as a fraction or decimal.

Classwork

Example 1 (5 minutes)

Have students discuss the image with a partner. First, students should create two ratios that describe the images. Then, students should use the ratios to help them discuss and work through the two claims. Students place answers in the box provided on the student pages.



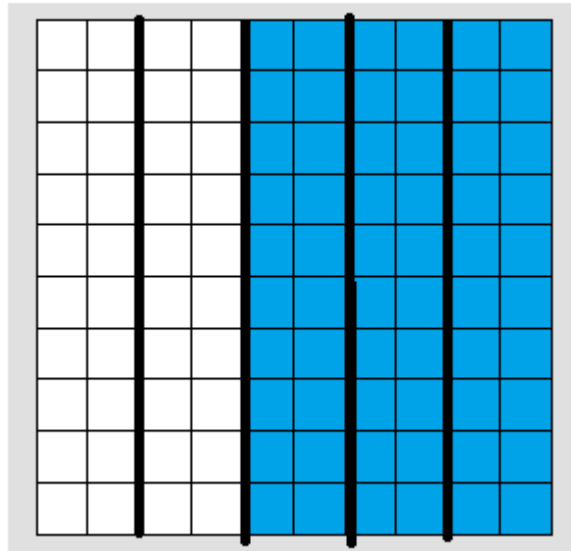
- Create two ratios that accurately describe the picture.
 - Part-to-Whole: Car to Whole 3:5, 3 to 5 or Truck to Whole 2:5, 2 to 5*

Note that some students may write part-to-part ratios. When the class comes back together, this could be a good time to discuss why a part-to-whole ratio is more useful when comparing statements that include percents. Students may need to be reminded that percents are a form of a part-to-whole comparison where the whole is 100.

Sam says 50% of the vehicles are cars. Give three different reasons or models that prove or disprove Sam's statement. Models can include tape diagrams, 10×10 grids, double number lines, etc.

- $\frac{3}{5} = \frac{60}{100} \rightarrow 60\% \text{ are cars.}$
-
- $50\% = \frac{50}{100} = \frac{1}{2}$ $5 \times \frac{1}{2} = \frac{5}{2} = 2\frac{1}{2}$ *There are more than $2\frac{1}{2}$ cars.*

Another example of a possible model used is a 10×10 grid. It can be used to visually show students that 3 out of 5 is not the same as 50 out of 100.



At this point, students are given a chance to share some of their ideas on percent. Help to mold the discussion so students see that percentages are based on part-to-whole ratios.

- 50% means 50 out of 100, which is equivalent to 1 out of 2 that would have to be cars. In other words, half of the vehicles would have to be cars.

During the discussion, explore the three following questions:

How is the fraction of cars related to the percent?
 $\frac{3}{5}$ is equal to $\frac{60}{100}$. Since percents are out of 100, the two are equivalent.

Use a model to prove that the fraction and percent are equivalent.

$\frac{3}{5} = 60\%$

What other fractions or decimals also represent 60%?
 $\frac{3}{5} = \frac{6}{10} = \frac{9}{15} = \frac{12}{20} = \frac{15}{25} = 0.6$

Example 2 (10 minutes)

Example 2

A survey was taken that asked participants whether or not they were happy with their job. An overall score was given. 300 of the participants were unhappy while 700 of the participants were happy with their job. Give a part-to-whole fraction for comparing happy participants to the whole. Then write a part-to-whole fraction of the unhappy participants to the whole. What percent were happy with their job, and what percent were unhappy with their job?

Happy	$\frac{700}{1,000}$	70%	Unhappy	$\frac{300}{1,000}$	30%
	<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>		<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>
	Fraction	Percent		Fraction	Percent

Create a model to justify your answer.

Have students write a fraction to represent the number of people that are happy with their job compared to the total.

$$\frac{\text{number of people who said they were happy(part)}}{\text{total number of people questioned (whole)}} = \frac{700}{1000} = \frac{70}{100} = 70\%$$

Students should also see that 30% were unhappy.

- Why is it helpful to write this fraction with a denominator of 100?
 - *Percent refers to the number per 100.*
- How would we represent this as a decimal?
 - $0.70 = 0.7$
- How can you model this question using a double number line?

Students can simply give a verbal description of the number line because it is so similar to the tape diagram.

The same reasoning could be used to create double number line graphs with percents on one line and the values being used on the other.

The two questions are meant to help show students that fractions with denominators other than 100 can also represent a percent. Before letting students work on the exercises, it is important to review how to identify the percent that a fraction represents.

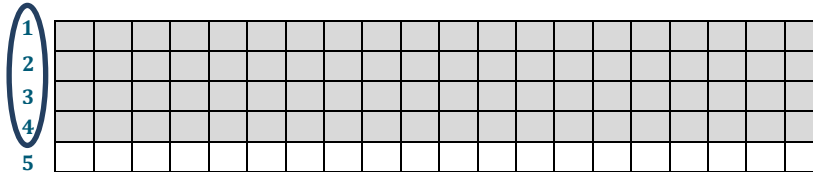
- We can scale up or scale down to get 100 as a denominator.
- What if the denominator is not a multiple or a factor of 100? What would we do now? For example, what if I ate $\frac{1}{8}$ of a pizza and wanted to know what percent of the pizza I ate. How would I calculate this?
 - *I can change a fraction to a decimal by dividing.*

Exercises (20 minutes): Group/Partner/Independent Practice

Students work on the practice problems where they are asked to convert from fraction to decimal to percent. In addition, they are asked to use models to help prove some of their answers. Consider having 10×10 grids ready for some students to use for these questions. A reproducible has been provided for you.

Exercise 1

Renita claims that a score of 80% means that she answered $\frac{4}{5}$ of the problems correctly. She drew the following picture to support her claim.:



Is Renita correct?

Yes

Why or why not?

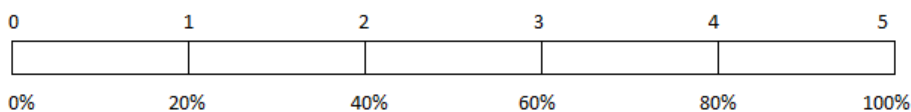
$$\frac{4}{5} = \frac{40}{50} = \frac{80}{100} \rightarrow 80\%$$

How could you change Renita’s picture to make it easier for Renita to see why she is correct or incorrect?

I could change her picture so that there is a percent scale down the right side showing 20%, 40%, etc. I could also change the picture so that there are ten strips with eight shaded.

Exercise 2

Use the diagram to answer the following questions.



80% is what fraction of the whole quantity?

$$\frac{4}{5}$$

$\frac{1}{5}$ is what percent of the whole quantity?

20%

50% is what fraction of the whole quantity?

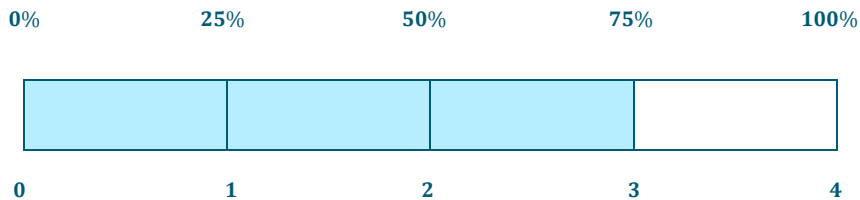
$$2\frac{1}{2} \text{ or } \frac{2.5}{5} = \frac{25}{50}$$

1 is what percent of the whole quantity?

$$1 = \frac{5}{5} \quad \text{This would be 100\%}.$$

Exercise 3

Maria completed $\frac{3}{4}$ of her workday. Create a model that represents what percent of the workday Maria has worked.



She has completed 75% of the workday.

What percent of her workday does she have left?

25%

How does your model prove that your answer is correct?

My model shows that $\frac{3}{4} = 75\%$ and that the $\frac{1}{4}$ she has left is the same as 25%.

Exercise 4

Matthew completed $\frac{5}{8}$ of his workday. What decimal would also describe the portion of the workday he has finished?

$$5 \div 8 = 0.625 \text{ or } \frac{5}{8} \text{ of } 100\% = 62.5\%$$

How can you use the decimal to get the percent of the workday Matthew has completed?

$\frac{5}{8}$ is the same as 0.625. This is 625 thousandths or $\frac{625}{1,000}$. If I divide both the numerator and denominator by ten, I can see that $\frac{625}{1,000} = \frac{62.5}{100}$.

Before students solve Exercise 3, have students go back to the previous examples and write the percent and fraction as a decimal. Then have them work with fractions, like $\frac{5}{8}$.

Some students may have difficulty writing a decimal given as thousandths as a fraction.

Exercise 5

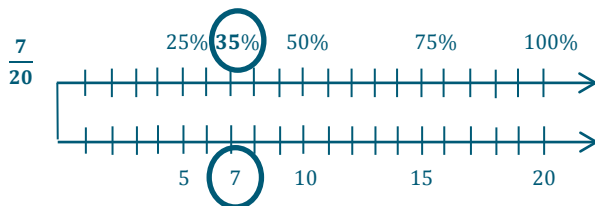
Complete the conversions from fraction to decimal to percent.

Fraction	Decimal	Percent
$\frac{1}{8}$	0.125	12.5%
$\frac{7}{20}$	0.35	35%
$\frac{84.5}{100} = \frac{845}{1000}$	0.845	84.5%
$\frac{32.5}{100} = \frac{325}{1000}$	0.325	32.5%
$\frac{2}{25}$	0.08	8%

Exercise 6

Choose one of the rows from the conversion table in Exercise 5, and use models to prove your answers. (Models could include a 10×10 grid, a tape diagram, a double number line, etc.)

Answers will vary. One possible solution is shown:



$$\frac{7}{20} = \frac{35}{100} = 0.35 \rightarrow 35\%$$

Closing (5 minutes)

Choose different pairs or small groups to post diagrams and explain how the diagram helped them to see the relationship between the fractions, percents, and decimals. If possible, it may be helpful to choose groups that have used two different models and compare the two. Students could draw on a blank overhead or have pre-made grids and tape diagrams that they can fill in on an interactive white board or a document camera.

Lesson Summary

Fractions, decimals, and percentages are all related.

To change a fraction to a percentage, you can scale up or scale down so that 100 is in the denominator.

Example:

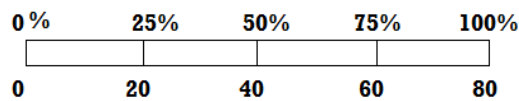
$$\frac{9}{20} = \frac{9 \times 5}{20 \times 5} = \frac{45}{100} = 45\%$$

There may be times when it is more beneficial to convert a fraction to a percent by first writing the fraction in decimal form.

Example:

$$\frac{5}{8} = 0.625 = 62.5 \text{ hundredths} = 62.5\%$$

Models, like tape diagrams and number lines, can also be used to model the relationships.



The diagram shows that $\frac{20}{80} = 25\%$.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 25: A Fraction as a Percent

Exit Ticket

Show all the necessary work to support your answer.

1. Convert 0.3 to a fraction and a percent.

2. Convert 9% to a fraction and a decimal.

3. Convert $\frac{3}{8}$ to a decimal and a percent.

Exit Ticket Sample Solutions

Show all the necessary work to support your answer.

1. Convert 0.3 to a fraction and a percent.

$$\frac{3}{10} = \frac{30}{100}, 30\%$$

2. Convert 9% to a fraction and a decimal.

$$\frac{9}{100}, 0.09$$

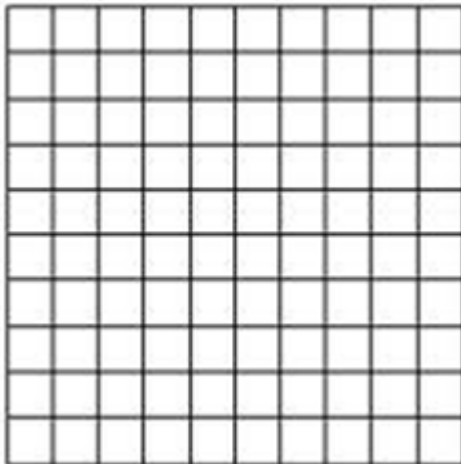
3. Convert $\frac{3}{8}$ to a decimal and a percent.

$$0.375 = \frac{375}{1000} = \frac{37.5}{100} = 37.5\%$$

Problem Set Sample Solutions

1. Use the 10×10 grid to express the fraction $\frac{11}{20}$ as a percent.

Students should shade 55 of the squares in the grid. They might divide it into 5 sections of 20 each and shade in 11 of the 20.



2. Use a tape diagram to relate the fraction $\frac{11}{20}$ to a percent.

Answers will vary.



3. How are the diagrams related?

Both show that $\frac{11}{20}$ is the same as $\frac{55}{100}$.

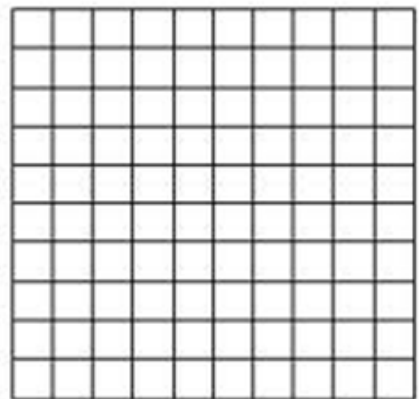
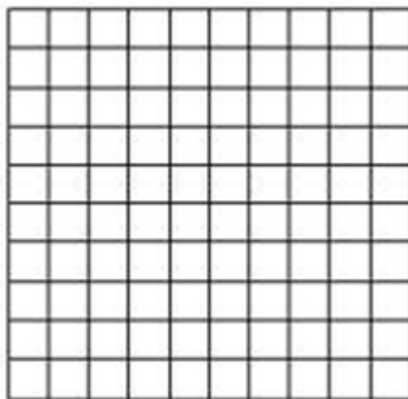
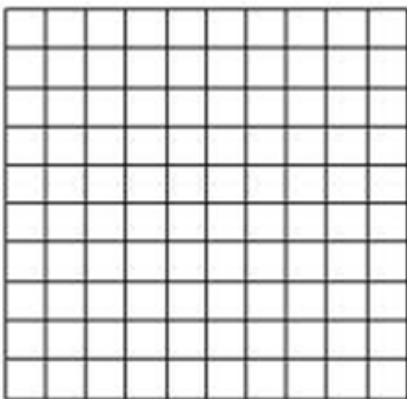
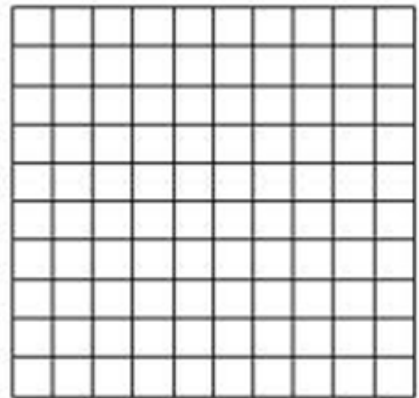
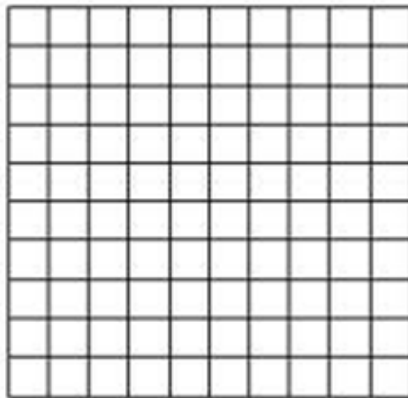
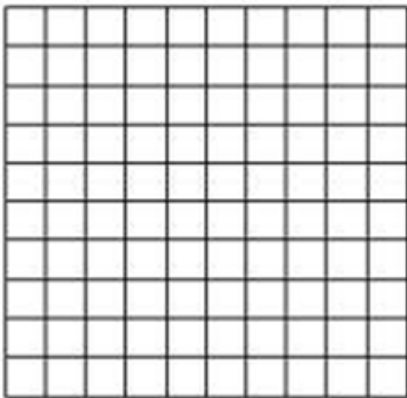
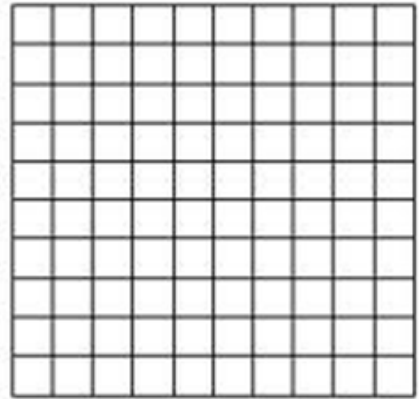
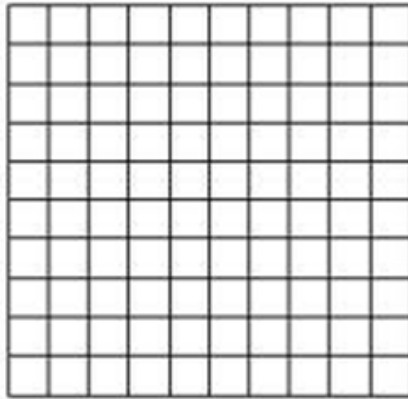
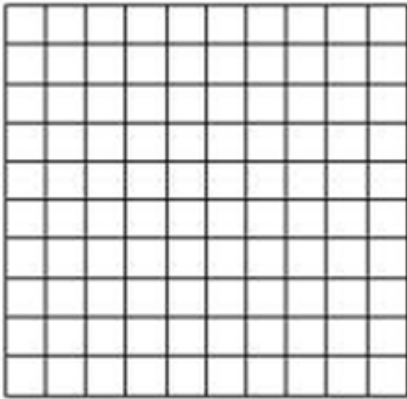
4. What decimal is also related to the fraction?

0.55

5. Which diagram is the most helpful for converting the fraction to a decimal? _____ Explain why.

Answers will vary according to student preferences.

10 × 10 Grid Reproducible





Lesson 26: Percent of a Quantity

Student Outcomes

- Students find the percent of a quantity. Given a part and the percent, students solve problems involving finding the whole.

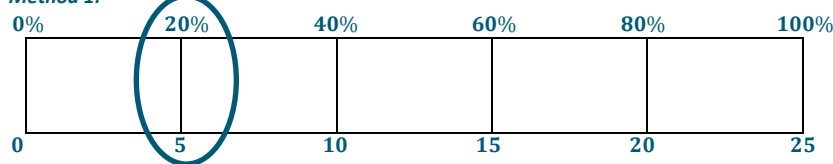
Classwork

Example 1 (5 minutes)

Example 1

Five of the 25 girls on Alden Middle School's soccer team are seventh-grade students. Find the percentage of seventh graders on the team. Show two different ways of solving for the answer. One of the methods must include a diagram or picture model.

Method 1:



Method 2:

$$\frac{5}{25} = \frac{1}{5} = \frac{20}{100} = 20\%$$

Students take time to make their own diagram or model and discuss with a partner. Students review the work they completed in Lesson 25. If they make a tape diagram, they begin by deciding to divide the tape diagram into 5 equal rectangles. Each rectangle represents 5 girls. From there they divide the 100% into 5 equal sections.

If time permits, students share the model they chose and explain why it did or did not help them solve the problem.

Students need to come to the conclusion that $\frac{5}{25} = \frac{20}{100}$, which is the same as 20%.

Note: Students who are struggling may need help figuring out which model to use and how to divide up the diagram. Help them think through the different options. Would it make sense to count by 5's, 10's, 20's, 25's, etc.?

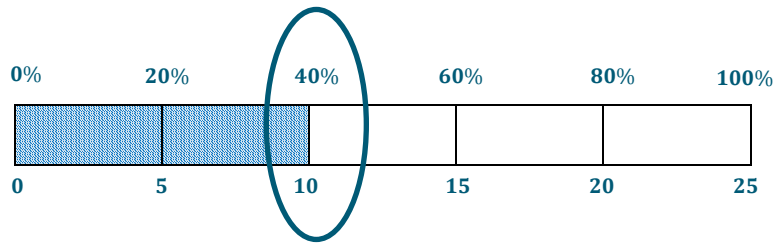
Example 2 (5 minutes)

Example 2

Of the 25 girls on the Alden Middle School soccer team, 40% also play on a travel team. How many of the girls on the middle school team also play on a travel team?

One method: $40\% = \frac{40}{100} = \frac{10}{25}$. Therefore, 10 of the 25 girls are also on the travel team.

Another method: Use of tape diagram shown below.



10 of the girls also play on a travel team.

Example 3 (5 minutes)

Example 3

The Alden Middle School girls' soccer team won 80% of its games this season. If the team won 12 games, how many games did it play? Solve the problem using at least two different methods.

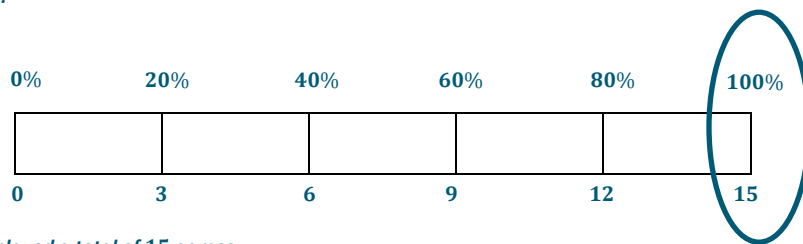
Method 1:

$$80\% = \frac{80}{100} = \frac{8}{10} = \frac{4}{5}$$

$$\frac{4 \times 3 \rightarrow 12}{5 \times 3 \rightarrow 15}$$

15 total games

Method 2:



The girls played a total of 15 games.

Exercises (20 minutes)

At this time, the students break out into pairs or small groups to solve the problems.

Exercises

1. There are 60 animal exhibits at the local zoo. What percent of the zoo’s exhibits does each animal class represent?

Exhibits by Animal Class	Number of Exhibits	Percent of the Total Number of Exhibits
Mammals	30	$\frac{30}{60} = \frac{5}{10} = \frac{50}{100} = 50\%$
Reptiles & Amphibians	15	$\frac{15}{60} = \frac{3}{12} = \frac{1}{4} = \frac{25}{100} = 25\%$
Fish & Insects	12	$\frac{12}{60} = \frac{2}{10} = \frac{20}{100} = 20\%$
Birds	3	$\frac{3}{60} = \frac{1}{20} = \frac{5}{100} = 5\%$

2. A sweater is regularly \$32. It is 25% off the original price this week.

- a. Would the amount the shopper saved be considered the part, whole, or percent?

It would be the part because the \$32 is the whole amount of the sweater, and we want to know the part that was saved.

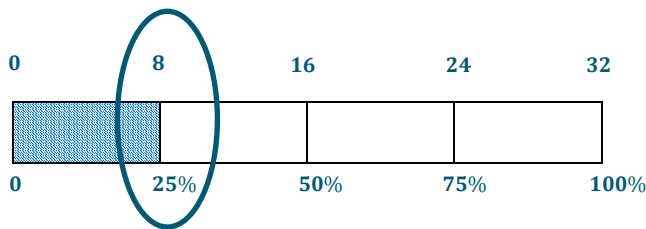
- b. How much would a shopper save by buying the sweater this week? Show two methods for finding your answer.

Method 1:

$$25\% = \frac{25}{100} = \frac{1}{4}$$

$$32 \times \frac{1}{4} = \$8 \text{ saved}$$

Method 2:



The shopper would save \$8.

3. A pair of jeans was 30% off the original price. The sale resulted in a \$24 discount.

- a. Is the original price of the jeans considered the whole, part, or percent?

The original price is the whole.

b. What was the original cost of the jeans before the sale? Show two methods for finding your answer.

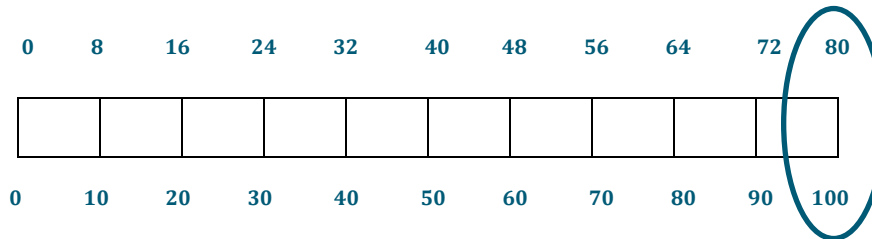
Method 1:

$$30\% = \frac{30}{100} = \frac{3}{10}$$

$$\frac{3 \times 8}{10 \times 8} = \frac{24}{80}$$

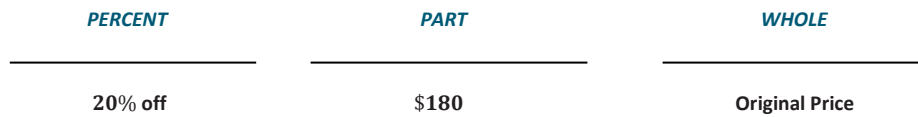
The original cost was \$80.

Method 2:



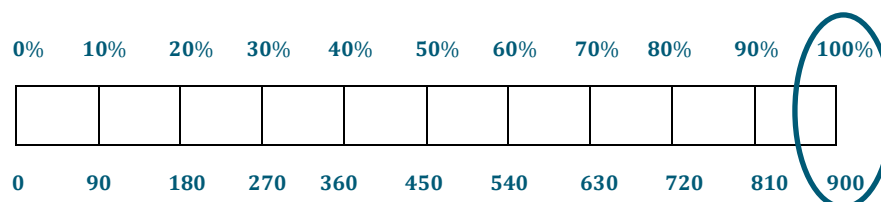
4. Purchasing a TV that is 20% off will save \$180.

a. Name the different parts with the words: PART, WHOLE, PERCENT.



b. What was the original price of the TV? Show two methods for finding your answer.

Method 1:



Method 2:

$$20\% = \frac{20}{100}$$

$$\frac{20 \times 9}{100 \times 9} = \frac{180}{900}$$

The original price was \$900.

**Closing (5 minutes)**

- Describe additional questions.
- Discuss the main differences in solving strategies.
- Were there times when you preferred to use one method over another method?
- How did the steps change when you were given the part instead of the total?

Lesson Summary

Models and diagrams can be used to solve percent problems. Tape diagrams, 10×10 grids, double number line diagrams, and others can be used in a similar way to using them with ratios to find the percent, the part, or the whole.

Exit Ticket (5 minutes)

Exit Ticket Sample Solutions

1. Find 40% of 60 using two different strategies, one of which must include a pictorial model or diagram.

$40\% \text{ of } 60 \quad 40\% = \frac{40}{100} = \frac{4}{10} = \frac{24}{60} \quad 40\% \text{ of } 60 \text{ is } 24.$

0 6 12 18 24 30 36 42 48 54 60
0 10 20 30 40 50 60 70 80 90 100

2. 15% of an amount is 30. Calculate the whole amount using two different strategies, one of which must include a pictorial model.

$15\% = \frac{15}{100} = \frac{30}{200}$

The whole quantity is 200.

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

Problem Set Sample Solutions

1. What is 15% of 60? Create a model to prove your answer.

9

2. If 40% of a number is 56, what was the original number?

140

3. In a 10×10 grid that represents 800, one square represents 8.
Use the grids below to represent 17% and 83% of 800.

17%

17% of 800 is 136.

83%

83% of 800 is 664.



Lesson 27: Solving Percent Problems

Student Outcomes

- Students find the percent of a quantity. Given a part and the percent, students solve problems involving finding the whole.

Classwork

Example (10 minutes)

Example

Solve the following three problems.

Write the words PERCENT, WHOLE, or PART under each problem to show which piece you were solving for.

$60\% \text{ of } 300 = \underline{180}$	$60\% \text{ of } \underline{500} = 300$	$60 \text{ out of } 300 = \underline{20}\%$
$\frac{60 \times 3}{100 \times 3} = \frac{\underline{180}}{300}$	$\frac{60 \times 5}{100 \times 5} = \frac{\underline{300}}{500}$	$\frac{60 \div 3}{300 \div 3} = \frac{\underline{20}}{100}$
PART	WHOLE	PERCENT

How did your solving method differ with each problem?

Solutions will vary. A possible answer may include: When solving for the part, I need to find the missing number in the numerator. When solving for the whole, I solve for the denominator. When I solve for the percent, I need to find the numerator when the denominator is 100.

- What are you trying to find in each example?
 - Part, whole, percent
- How are the problems different from each other?
 - Answers will vary.
- How are the problems alike?
 - Answers will vary.

Take time to discuss the clues in each problem including the placement of the word “of.” The word “of” lets students know which piece of information is the whole amount compared to the part. In the first example, 60% of 300 tells us that we are looking for part of 300. Therefore, 300 is the whole. In the second example where 60% of 500 is 300, 300 is the part, and 500 is the whole. In the third example, 60 out of 300 tells us that now, 60 is the part, and 300 is the whole. Structure the conversation around the part-whole relationship.



- In the first question, what is 60% of 300?
 - *Students should understand that $\frac{60}{100}$ is the same ratio as $\frac{\text{unknown number}}{300}$ to determine an answer of 180.*
- In this case, is 180 the part or the whole?
 - *180 is the part. It is part of 300.*
- In the second question, we are given 60% of some value equals 300 $\rightarrow \frac{60}{100} = \frac{300}{?}$. What is that value?
 - 500
- In this case, is 500 the part or the whole? What about 300? Is that a part or the whole?
 - *500 is the whole, and 300 is the part.*
- In the third question, we are asked, 60 out of 300 equals what percent $\rightarrow \frac{60}{300} = \frac{?}{100}$. What percent is that?
 - *The percent is 20%.*
- In this case, is 300 the part or the whole?
 - *300 is the whole.*

Exercise (20 minutes)

At this time, students break out into pairs or small groups to solve the problem.

Exercise

Use models, such as 10×10 grids, ratio tables, tape diagrams, or double number line diagrams, to solve the following situation.

Priya is doing her back-to-school shopping. Calculate all of the missing values in the table below, rounding to the nearest penny, and calculate the total amount Priya will spend on her outfit after she receives the indicated discounts.

	Shirt (25% discount)	Pants (30% discount)	Shoes (15% discount)	Necklace (10% discount)	Sweater (20% discount)
Original Price	\$44	\$50	\$60	\$20	\$35
Amount of Discount	\$11	\$15	\$9	\$2	\$7

What is the total cost of Priya's outfit?

Shirt $25\% = \frac{25}{100} = \frac{1}{4} = \frac{11}{44}$ *The discount is \$11. The cost of the shirt is \$33 because* $\$44 - \$11 = \$33$.

Pants $30\% = \frac{30}{100} = \frac{15}{50}$ *The original price is \$50. The price of the pants is \$35 because* $\$50 - \$15 = \$35$.

Shoes $15\% = \frac{15}{100} = \frac{3}{20} = \frac{9}{60}$ *The original price is \$60. The cost of the shoes is \$51 because* $\$60 - \$9 = \$51$.

Necklace $10\% = \frac{1}{10} = \frac{2}{20}$ *The discount is \$2. The cost of the necklace is \$18 because* $\$20 - \$2 = \$18$.

Sweater $20\% = \frac{20}{100} = \frac{1}{5} = \frac{7}{35}$ *The original price is \$35. The cost of the sweater is \$28 because* $\$35 - \$7 = \$28$.

The total outfit would cost the following: $\$33 + \$35 + \$51 + \$18 + \$28 = \165 .

Closing (10 minutes)

Give students time to share samples of how they solved the problem and describe the methods they chose to use when solving.

Lesson Summary

Percent problems include the part, whole, and percent. When one of these values is missing, we can use tables, diagrams, and models to solve for the missing number.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 27: Solving Percent Problems

Exit Ticket

Jane paid \$40 for an item after she received a 20% discount. Jane's friend says this means that the original price of the item was \$48.

a. How do you think Jane's friend arrived at this amount?

b. Is her friend correct? Why or why not?

Exit Ticket Sample Solutions

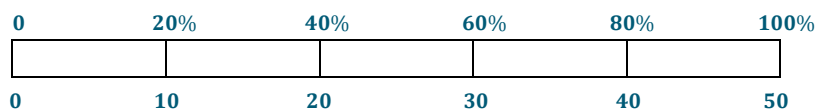
Jane paid \$40 for an item after she received a 20% discount. Jane's friend says this means that the original price of the item was \$48.

- a. How do you think Jane's friend arrived at this amount?

Jane's friend found that 20% of 40 is 8. Then she added \$8 to the sale price: $40 + 8 = 48$. Then she determined that the original amount was \$48.

- b. Is her friend correct? Why or why not?

Jane's friend was incorrect. Because Jane saved 20%, she paid 80% of the original amount, so that means that 40 is 80% of the original amount.



The original amount of the item was \$50.

Problem Set Sample Solutions

1. Mr. Yoshi has 75 papers. He graded 60 papers, and he had a student teacher grade the rest. What percent of the papers did each person grade?

Mr. Yoshi graded 80% of the papers, and the student teacher graded 20%.

2. Mrs. Bennett has graded 20% of her 150 students' papers. How many papers does she still need to finish grading?

Mrs. Bennett has graded 30 papers. $150 - 30 = 120$. Mrs. Bennett has 120 papers left to grade.



Lesson 28: Solving Percent Problems

Student Outcomes

- Given a part and the percent, students find the percent of a quantity and solve problems involving finding the whole.

Classwork

Example (5 minutes)

Read the questions from the example one by one.

Example

If an item is discounted 20%, the sale price is what percent of the original price?

$$100 - 20 = 80$$

80%

If the original price of the item is \$400, what is the dollar amount of the discount?

$$20\% = \frac{20}{100} = \frac{2}{10}$$

$$400 \times \frac{2}{10} = \frac{800}{10} = \$80$$

\$80 discount

How much is the sale price?

$$80\% = \frac{80}{100} = \frac{8}{10}$$

$$400 \times \frac{8}{10} = \frac{3200}{10} = \$320, \text{ or } 400 - 80 = \$320$$

\$320 sale price

- What are some different ways that we can solve this question?
 - Answers will vary. Some students may draw diagrams that they can share with the class. Others may have found the value by finding equivalent fractions or by multiplying a quantity by the percent written as a fraction.

Be sure to discuss different models that could be used.



Exercise (20 minutes)

Have students work in pairs or small groups to solve the problems. Students are given the sale price and the percent that was saved. They need to come up with the original price.

Students should create models in order to prove that their answers are correct.

Exercise

The following items were bought on sale. Complete the missing information in the table.

Item	Original Price	Sale Price	Amount of Discount	Percent Saved	Percent Paid
Television	\$1000	\$800	\$200	20%	80%
Sneakers	\$80	\$60	\$20	25%	75%
Video Games	\$60	\$54	\$6	10%	90%
MP3 Player	\$86	\$51.60	\$34.40	40%	60%
Book	\$14.00	\$11.20	\$2.80	20%	80%
Snack Bar	\$2.00	\$1.70	\$0.30	15%	85%

Closing (10 minutes)

- Have students showcase some of the models used to solve the problems. One possible way to showcase the work, if time allows, would be to hang the work on the walls and have students do a gallery walk to view the diagrams. Ask students how they could check their work.
 - *The answers may vary according to which values are given and which values are missing. Students may mention that the discount and the sale price should add to be the original amount. The percents should add to 100%. They could solve the problem using the answer to see if they can work back to a given amount.*

Lesson Summary

Percent problems include the part, whole, and percent. When one of these values is missing, we can use tables, diagrams, and models to solve for the missing number.

Exit Ticket (10 minutes)



Name _____

Date _____

Lesson 28: Solving Percent Problems

Exit Ticket

1. Write one problem using a dollar amount of \$420 and a percent of 40%. Provide the solution to your problem.

2. The sale price of an item is \$160 after a 20% discount. What was the original price of the item?

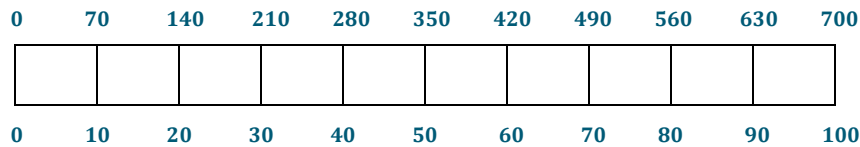
Exit Ticket Sample Solutions

1. Write one problem using a dollar amount of \$420 and a percent of 40%. Provide the solution to your problem.

Answers will vary.

Problems that include \$420 as the sale price should include \$700 as the original. Because 40% is saved, 60% is paid of the original. Therefore, the original price is \$700.

Problems that include \$420 as the original price and a 40% discount should include \$252 as a sale price. Below is an example of a tape diagram that could be included in the solution.



2. The sale price of an item is \$160 after a 20% off discount. What was the original price of the item?

Because the discount was 20%, the purchase price was 80% of the original.

$$80\% = \frac{80}{100} = \frac{160}{200}$$

The original price was \$200.

Problem Set Sample Solutions

1. The Sparkling House Cleaning Company has cleaned 28 houses this week. If this number represents 40% of the total number of houses the company is contracted to clean, how many total houses will the company clean by the end of the week?

70 houses

2. Joshua delivered 30 hives to the local fruit farm. If the farmer has paid to use 5% of the total number of Joshua's hives, how many hives does Joshua have in all?

600 hives



Lesson 29: Solving Percent Problems

Student Outcomes

- Students find the percent of a quantity.
- Given a part and the percent, students solve problems involving finding the whole.

Classwork

Exploratory Challenges (25 minutes): Group/Partner

Students explore what it means to have 10%. Students recognize the equivalence between 10%, $\frac{10}{100}$, and $\frac{1}{10}$ and use this relationship to quickly calculate 10% of different quantities. Being able to calculate 10% of a quantity can be an efficient tool or strategy when calculating other percents.

Exploratory Challenge 1

Claim: To find 10% of a number, all you need to do is move the decimal to the left once.

Use at least one model to solve each problem (e.g., tape diagram, table, double number line diagram, 10×10 grid).

- a. Make a prediction. Do you think the claim is true or false? _____ Explain why.

Answers will vary. One could think the claim is true because 10% as a fraction is $\frac{1}{10}$. The same thing happens when one divides by 10 or multiplies by $\frac{1}{10}$. A student may think the claim is false because it depends on what whole amount represents the number from which the percentage is taken.

- b. Determine 10% of 300. 30

$$300 \times \frac{1}{10} = \frac{300}{10} = 30$$

- c. Find 10% of 80. 8

$$80 \times \frac{1}{10} = \frac{80}{10} = 8$$

- d. Determine 10% of 64. 6.4

$$64 \times \frac{1}{10} = 6.4$$

- e. Find 10% of 5. $\frac{1}{2}$

$$5 \times \frac{1}{10} = \frac{5}{10} = \frac{1}{2}$$

- f. 10% of 480 is 48.

- g. 10% of 60 is 6.

$$6 \times 10 = 60$$

48	48	48	48	48	48	48	48	48	48	48
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$$48 \times 10 = 480$$

- h. Gary read 34 pages of a 340 pages book. What percent did he read?

$$\frac{34 \div 34}{340 \div 34} = \frac{1}{10} = \frac{10}{100} = 10\%$$

- i. Micah read 16 pages of his book. If this is 10% of the book, how many pages are in the book?

$$\frac{10}{100} = \frac{1 \times 16}{10 \times 16} = \frac{16}{160}$$

There are 160 pages in the book.

- j. Using the solutions to the problems above, what conclusions can you make about the claim?

The claim is true. When I find 10% of a number, I am really finding $\frac{1}{10}$ of the amount or dividing by 10, which is the same as what occurred when I moved the decimal point in the number one place to the left.

- Using the solutions to the problems above, what conclusions can you make about the claim?
 - *Answers will vary. However, students are required to share what is mathematically happening when the decimal is moved over once to help make connections to why it works. Students may relate back to using place value and regrouping with the concept of decimals.*

Students read a claim that two separate discounts give the same results as the sum of the two discounts taken off the original price at the same time. Students need to conclude that they are not the same because the second discount is being taken off a new amount not the original price.

Exploratory Challenge 2

Claim: If an item is already on sale, and then there is another discount taken off the sale price, this is the same as taking the sum of the two discounts off the original price.

Use at least one model to solve each problem (e.g., tape diagram, table, double number line diagram, 10×10 grid).

- a. Make a prediction. Do you think the claim is true or false? _____ Explain.

The answer is false. They will be different because when two discounts are taken off, the second discount is taken off a new amount.

- b. Sam purchased 3 games for \$140 after a discount of 30%. What was the original price?



Sale price: \$140

Discount: \$60

\$200 is the original price.

- c. If Sam had used a 20% off coupon and opened a frequent shopper discount membership to save 10%, would the games still have a total of \$140?

$$20\% = \frac{20}{100} = \frac{2}{10}$$

$$\$200 \times \frac{2}{10} = \frac{\$400}{10} = \$40 \text{ saved. The price after the coupon is } \$160.$$

$$10\% = \frac{10}{100} = \frac{1}{10}$$

$$\$160 \times \frac{1}{10} = \frac{\$160}{10} = \$16 \text{ saved. The price after the coupon and discount membership is } \$144.$$

No, the games would now total \$144.



- d. Do you agree with the claim? NO Explain why or why not. Create a new example to help support your claim.

When two discounts are taken off, the shopper pays more than if both were added together and taken off.

Example:

\$100 original price

20%:

$$100 \times \frac{2}{10} = \frac{200}{10} = 20 \text{ saved}$$

$$\$100 - \$20 = \$80 \text{ sale price}$$

Two 10% off discounts:

$$100 \times \frac{1}{10} = \frac{100}{10} = 10$$

$$90 \times \frac{1}{10} = \frac{90}{10} = 9$$

$$\$100 - \$10 - \$9 = \$81 \text{ sale price}$$

Closing (15 minutes)

Give students time to share samples of how they solved the problem. Take time to point out similarities in the different models. Ask students to reflect on which models they like to use most and why.

Lesson Summary

Percent problems have three parts: whole, part, percent.

Percent problems can be solved using models such as ratio tables, tape diagrams, double number line diagrams, and 10×10 grids.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 29: Solving Percent Problems

Exit Ticket

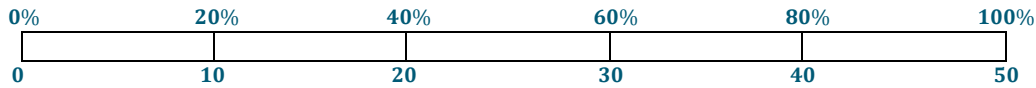
Angelina received two discounts on a \$50 pair of shoes. The discounts were taken off one after the other. If she paid \$30 for the shoes, what was the percent discount for each coupon? Is there only one answer to this question?



Exit Ticket Sample Solutions

Angelina received two discounts on a \$50 pair of shoes. The discounts were taken off one after the other. If she paid \$30 for the shoes, what was the percent discount for each coupon? Is there only one answer to this question?

Original Price \$50



20% off \$50 = \$10 discount. After a 20% off discount, the new price would be \$40.

25% off \$40 = \$10 discount. After a 25% off discount, the new price would be \$30.

Therefore, the two discounts could be 20% off and then 25%.

This is not the only answer. She could have also saved 25% and then 20%.

Problem Set Sample Solutions

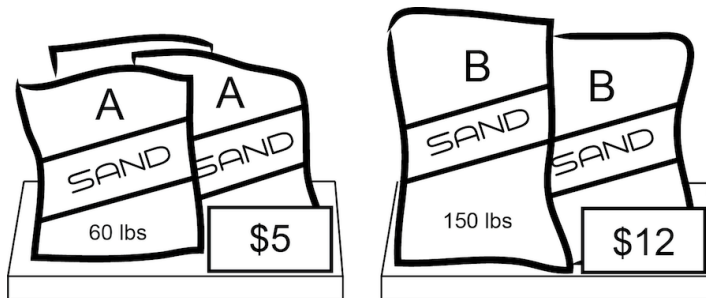
- Henry has 15 lawns mowed out of a total of 60 lawns. What percent of the lawns does Henry still have to mow?
75% of the lawns still need to be mowed.
- Marissa got an 85% on her math quiz. She had 34 questions correct. How many questions were on the quiz?
There were 40 questions on the quiz.
- Lucas read 30% of his book containing 480 pages. What page is he going to read next?
30% is 144 pages, so he will read page 145 next.

Name _____

Date _____

- Jasmine has taken an online boating safety course and is now completing her end-of-course exam. As she answers each question, the progress bar at the bottom of the screen shows what portion of the test she has finished. She has just completed Question 16, and the progress bar shows she is 20% complete. How many total questions are on the test? Use a table, diagram, or equation to justify your answer.

- Alisa hopes to play beach volleyball in the Olympics someday. She has convinced her parents to allow her to set up a beach volleyball court in their backyard. A standard beach volleyball court is approximately 26 feet by 52 feet. She figures that she will need the sand to be one foot deep. She goes to the hardware store to shop for sand and sees the following signs on pallets containing bags of sand.



- What is the rate that Brand A is selling for? Give the rate and then specify the unit rate.

- b. Which brand is offering the better value? Explain your answer.
- c. Alisa uses her cell phone to search how many pounds of sand is required to fill 1 cubic foot and finds the answer is 100 pounds. Choose one of the brands and compute how much it will cost Alisa to purchase enough sand to fill the court. Identify which brand was chosen as part of your answer. Use the volume formula, $V = l \times w \times h$, to determine your answer.

3. Loren and Julie have different part-time jobs after school. They are both paid at a constant rate of dollars per hour. The tables below show Loren and Julie's total income (amount earned) for working a given amount of time.

Loren

Hours	2	4	6	8	10	12	14	16	18
Dollars	18	36	54	72	90	108			162

Julie

Hours	3	6	9	12	15	18	21	24	27
Dollars	36		108	144	180	216		288	324

- a. Find the missing values in the two tables above.
- b. Who makes more per hour? Justify your answer.
- c. Write how much Julie makes as a rate. What is the unit rate?

- d. How much money would Julie earn for working 16 hours?
- e. What is the ratio between how much Loren makes per hour and how much Julie makes per hour?
- f. Julie works $\frac{1}{12}$ hours/dollar. Write a one or two-sentence explanation of what this rate means. Use this rate to find how long it takes for Julie to earn \$228.

4. Your mother takes you to your grandparents' house for dinner. She drives 60 minutes at a constant speed of 40 miles per hour. She reaches the highway, quickly speeds up, and drives for another 30 minutes at constant speed of 70 miles per hour.
- How far did you and your mother travel altogether?
 - How long did the trip take?
 - Your older brother drove to your grandparents' house in a different car but left from the same location at the same time. If he traveled at a constant speed of 60 miles per hour, explain why he would reach your grandparents' house first. Use words, diagrams, or numbers to explain your reasoning.

A Progression Toward Mastery

Assessment Task Item		STEP 1 Missing or incorrect answer and little evidence of reasoning or application of mathematics to solve the problem.	STEP 2 Missing or incorrect answer but evidence of some reasoning or application of mathematics to solve the problem.	STEP 3 A correct answer with some evidence of reasoning or application of mathematics to solve the problem, OR an incorrect answer with substantial evidence of solid reasoning or application of mathematics to solve the problem.	STEP 4 A correct answer supported by substantial evidence of solid reasoning or application of mathematics to solve the problem.
1	6.RP.A.3c	Student is unable to depict the problem using a table, diagram, or equation, and student either answers incorrectly or does not answer the question at all.	Student depicts the problem using a table, diagram, or equation, but has significant errors in the reasoning or calculations, leading to an incorrect answer.	Student is able to answer the question correctly, but is not able to explain the reasoning process with an accurate depiction using a table, diagram, or equation. OR Student gives an accurate depiction of the problem but makes a minor calculation or articulation error in arriving at the answer.	Student gives an accurate depiction of the problem with a table, diagram, or equation and connects that depiction to a correct answer to the question.
2	a 6.RP.A.2 6.RP.A.3d	Student is unable to answer the question. Student is not able to accurately represent the rate or unit rate for Brand A. The student shows no evidence of moving beyond that representation.	Student is able to accurately represent the rate for Brand A but is unable to determine the unit rate. The student is unable to apply the unit rate to further questioning in the problem.	Student correctly provides the unit rate as 12, but the work lacks connection to the original problem of 60 lb. per \$5.	Student correctly provides the rate as 12 pounds per dollar and the unit rate is given as 12.

	<p>b</p> <p>6.RP.A.2 6.RP.A.3d</p>	<p>Student is unable to answer the question. Student is not able to accurately represent the rate or unit rate for Brand B and shows no evidence of moving beyond that representation.</p>	<p>Student is able to accurately represent the rate for Brand B but is unable to apply the unit rate in comparison to the unit rate of Brand A.</p>	<p>Student accurately represents the unit rate of Brand B as 12.5 lb. per \$1 and compares the unit rate to being more than Brand A. However, the student does not make connections to the problem and does not determine that Brand B is a better deal because it gives more sand than Brand A.</p>	<p>Student accurately represents both unit rates of Brand A and Brand B. The student determines Brand B is a better unit rate and relates the unit rates to the problem.</p>
	<p>c</p> <p>6.RP.A.2 6.RP.A.3d</p>	<p>Student does not answer the question correctly. The total number of cubic feet is not found. The rate of 100 lb./1 ft. is not used to determine the total pounds of sand, and the unit rate of the cost of either A or B is not used to determine the total cost of the project.</p>	<p>Student determines the total number of cubic feet. The rates to find the total pounds of sand needed are not used or are miscalculated. The unit rate of the cost of A or B is not used to determine the total cost of the project or is miscalculated.</p>	<p>Student accurately determines the number of cubic feet needed for the project. The rate of 100 lb./1 ft. is accurately calculated to determine the total pounds of sand needed; however, the rate of \$1/the unit rate of A or B to determine the final cost is miscalculated.</p>	<p>Student accurately determines the total cubic feet needed and the total pounds of sand needed and uses the appropriate rate to determine the final cost of the project. The student uses labels accurately to support the reasoning of the final answer.</p>
3	<p>a</p> <p>6.RP.A.1 6.RP.A.2 6.RP.A.3a 6.RP.A.3b</p>	<p>Student is unable to answer the question. The values are not placed in either table, or incorrect values are provided.</p>	<p>Student is able to provide two to three correct values to portions of the tables but does not support the answers mathematically.</p>	<p>Student is able to provide correct values for three to four portions of the tables but does not support the answers mathematically.</p>	<p>Student is able to provide correct values for all portions of the tables. The student provides reasoning for the answers using additive patterns and unit rate conversion.</p>
	<p>b</p> <p>6.RP.A.1 6.RP.A.2 6.RP.A.3a 6.RP.A.3b</p>	<p>Student does not calculate the hourly rate of either Loren or Julie correctly or does not answer the question. The rates to determine a final answer are not compared.</p>	<p>Student does not correctly calculate the hourly rate of either Loren or Julie and is unable to compare the rates and determine which girl made more money per hour.</p>	<p>Student correctly calculates the hourly rate of each girl but does not compare the rates to determine which made more money per hour.</p>	<p>Student accurately answers the question and justifies the reasoning through comparison of the hourly rates.</p>
	<p>c</p> <p>6.RP.A.1 6.RP.A.2 6.RP.A.3a 6.RP.A.3b</p>	<p>Student is unable to answer the question. The rate or the unit rate is not accurately determined. The student does not make connections to the values in the table.</p>	<p>Student references values from the table (e.g., \$36/3 hrs.) but does not express the values as a rate or a unit rate.</p>	<p>Student correctly determines the rate of Julie’s pay as \$12 for every hour but does not determine the unit rate to be 12.</p>	<p>Student accurately answers the question by representing the unit rate as 12 and by referencing the values from the table.</p>

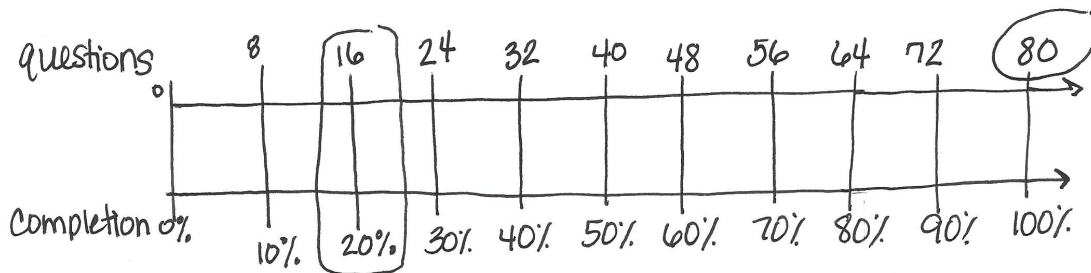
	<p>d</p> <p>6.RP.A.1 6.RP.A.2 6.RP.A.3a 6.RP.A.3b</p>	<p>Student is unable to answer the question. The correct rate with the number of hours is not accurately computed. OR Student does not attempt the problem.</p>	<p>Student does not accurately compute the correct rate with the number of hours but is proficient in the process to find the correct answer.</p>	<p>Student computes the correct rate with the number of hours. The student finds the total amount of money Julie made in 16 hours. Student work lacks labeling and clear sequence in solving.</p>	<p>Student accurately derives the correct amount of money Julie made in 16 hours. Student uses the correct rate, and the work is labeled in order to justify the reasoning. Student's work is in logical progression.</p>
	<p>e</p> <p>6.RP.A.1 6.RP.A.2 6.RP.A.3a 6.RP.A.3b</p>	<p>Student is unable to answer the question. The correct rate of pay for one or both of the girls is not found.</p>	<p>Student is able to compute the accurate rate of pay for the girls but does not compare to determine which girl made more money per hour.</p>	<p>Student accurately computes the rate of pay for each girl and accurately compares the pay in ratio form. Student does not derive a simplified ratio from the rates of pay.</p>	<p>Student answers the problem accurately, with labels, and simplifies the final answer.</p>
	<p>f</p> <p>6.RP.A.1 6.RP.A.2 6.RP.A.3a 6.RP.A.3b</p>	<p>Student explains what the rate means in the problem but does not accurately find the answer.</p>	<p>Student explains the meaning of the rate in detail using conversions but makes errors when deriving the plan to solve. <i>Example: The answer is not indicative of understanding cancellation of units and finds \$19 instead of 19 hours.</i></p>	<p>Student provides a lucid explanation with conversions and support. The student may multiply by minute conversion and find a final answer of 1,140 minutes instead of 19 hours.</p>	<p>Student answers the problem with precision and coherent explanation of what the rate means. Calculations are accurate, and the final answer is supported and justified through appropriate labeling.</p>
<p>4</p>	<p>a</p> <p>6.RP.A.3b</p>	<p>Student is unable to answer the problem accurately. Student is not able to apply the rates to determine the number of miles.</p>	<p>Student is able to show intent to multiply the rate by the time to find the miles but computes incorrectly.</p>	<p>Student multiplies the rates appropriately to the time for each section of the trip. The number of separate miles is found, but student does not combine them for a total number of miles for the trip. OR Student shows understanding of the concept but makes computation errors.</p>	<p>Student completes the entire problem accurately with appropriate labels. Student is able to derive a total distance with no computation errors.</p>

	<p>b</p> <p>6.RP.A.3b</p>	<p>Student does not complete the problem or answers with an incorrect response.</p>	<p>Student uses information from the original problem to determine the addends but computes the total incorrectly.</p>	<p>Student uses information from the original problem to determine addends and computes the sum correctly but does not report the correct unit.</p>	<p>Student uses information from the original problem to determine addends and computes the sum correctly. Student labels work appropriately and converts the minutes into hours.</p>
	<p>c</p> <p>6.RP.A.3b</p>	<p>Student does not use a diagram, words, or numbers to support the answer or uses the diagram inappropriately. Student does not answer the problem with an accurate response.</p>	<p>Student provides an accurate response but does not utilize a diagram, words, or numbers to support the answer.</p>	<p>Student provides a correct answer and uses only words or numbers to support the answer.</p>	<p>Student uses appropriate diagrams, words, and numbers to support the accurate answer.</p>

Name _____

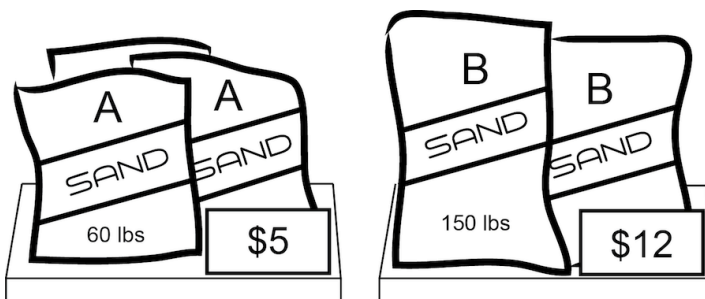
Date _____

1. Jasmine has taken an online boating safety course and is now completing her end-of-course exam. As she answers each question, the progress bar at the bottom of the screen shows what portion of the test she has finished. She has just completed Question 16, and the progress bar shows she is 20% complete. How many total questions are on the test? Use a table, diagram, or equation to justify your answer.



There are 80 questions on the test.

2. Alisa hopes to play beach volleyball in the Olympics someday. She has convinced her parents to allow her to set up a beach volleyball court in their backyard. A standard beach volleyball court is approximately 26 feet by 52 feet. She figures that she will need the sand to be one foot deep. She goes to the hardware store to shop for sand and sees the following signs on pallets containing bags of sand.



- a. What is the rate that Brand A is selling for? Give the rate and then specify the unit rate.

$$\text{Brand A } \frac{60 \text{ lbs.}}{5 \text{ dollar}} = \frac{12 \text{ lbs}}{1 \text{ dollar}} = 12 \text{ unit rate}$$

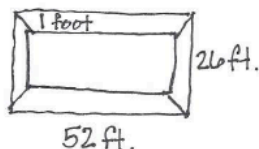
- b. Which brand is offering the better value? Explain your answer.

$$\text{Brand B } \frac{150 \text{ lbs.}}{12 \text{ dollar}} = \frac{12.5 \text{ lbs.}}{1 \text{ dollar}} = 12.5$$

Brand A is selling sand at a rate of 12 lbs per dollar. Brand B is selling at a rate of 12.5 lbs. per dollar. Brand B offers a better value because it gives more sand per dollar.

- c. Alisa uses her cell phone to search how many pounds of sand is required to fill 1 cubic foot and finds the answer is 100 pounds. Choose one of the brands and compute how much it will cost Alisa to purchase enough sand to fill the court. Identify which brand was chosen as part of your answer. Use the volume formula, $V = l \times w \times h$, to determine your answer.

Brand A



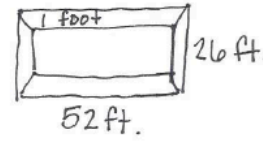
52 ft. \times 26 ft. \times 1 ft. =
1,352 ft³

1,352 ft³ \times 100 $\frac{\text{lbs.}}{\text{ft.}^3}$ =
135,200 lbs.

135,200 lbs. \times $\frac{1}{12} \frac{\text{dollars}}{\text{lb.}}$ =
\$ 11,266.67

Alisa would need \$ 11,266.67.

Brand B



52 ft. \times 26 ft. \times 1 ft. =
1,352 ft³

1,352 ft³ \times 100 $\frac{\text{lbs.}}{\text{ft.}^3}$ =
135,200 lbs.

135,200 lbs. \times $\frac{1}{12.5} \frac{\text{dollars}}{\text{lb.}}$ =
\$ 10,816

Alisa would need \$ 10,816.

3. Loren and Julie have different part-time jobs after school. They are both paid at a constant rate of dollars per hour. The tables below show Loren and Julie’s total income (amount earned) for working a given amount of time.

Loren

Hours	2	4	6	8	10	12	14	16	18
Dollars	18	36	54	72	90	108	126	144	162

$$\begin{array}{r} 108 \\ + 18 \\ \hline 126 \end{array} \quad \begin{array}{r} 126 \\ + 18 \\ \hline 144 \end{array}$$

Julie

Hours	3	6	9	12	15	18	21	24	27
Dollars	36	72	108	144	180	216	252	288	324

- a. Find the missing values in the two tables above.

$$\begin{array}{r} 216 \\ + 36 \\ \hline 252 \end{array} \quad \begin{array}{r} 252 \\ + 36 \\ \hline 288 \end{array} \quad \begin{array}{r} 36 \\ + 36 \\ \hline 72 \end{array}$$

ratio $3:36 = 1:12$
 so, $6:72$

- b. Who makes more per hour? Justify your answer.

$$\text{Loren} - \frac{18 \text{ dollars}}{2 \text{ hour}} = 9 \frac{\text{dollars}}{\text{hour}}$$

$$\text{Julie} - \frac{36 \text{ dollars}}{3 \text{ hour}} = 12 \frac{\text{dollars}}{\text{hour}}$$

Loren Julie
 $9 < 12$
 Julie makes more per hour.

- c. Write how much Julie makes as a rate. What is the unit rate?

Julie $3:36 \rightarrow 1:12$
 $\$12$ per hour
 unit rate - $12 \frac{\text{dollars}}{\text{hour}}$

- d. How much money would Julie earn for working 16 hours?

$$\frac{12 \text{ dollars}}{1 \text{ hour}} \times 16 \text{ hours} = 12 \text{ dollars} \times 16 = 192 \text{ dollars}$$

Julie earns \$192 for working 16 hours.

- e. What is the ratio between how much Loren makes per hour and how much Julie makes per hour?

$$\begin{array}{l} \text{Loren} - 9 \frac{\text{dollars}}{\text{hour}} \\ \text{Julie} - 12 \frac{\text{dollars}}{\text{hour}} \end{array}$$

$$9:12 \rightarrow 3:4$$

- f. Julie works $\frac{1}{12}$ hours/dollar. Write a one or two-sentence explanation of what this rate means. Use this rate to find how long it takes for Julie to earn \$228.

To earn one dollar, Julie has to work $\frac{1}{12}$ hour, or 5 minutes.

$$\frac{\frac{1}{12} \text{ hours}}{1 \text{ dollars}} \times 228 \text{ dollars} = \frac{1}{12} \text{ hour} \times 228 = 19 \text{ hours}$$

$$\begin{array}{r} 19 \\ 12 \overline{)228} \\ \underline{-12} \\ 108 \\ \underline{-108} \\ 0 \end{array}$$

4. Your mother takes you to your grandparents' house for dinner. She drives 60 minutes at a constant speed of 40 miles per hour. She reaches the highway, quickly speeds up, and drives for another 30 minutes at constant speed of 70 miles per hour.
- a. How far did you and your mother travel altogether?

$$1 \text{ hour} \times 40 \frac{\text{miles}}{\text{hour}} = 1 \times 40 \text{ miles} = 40 \text{ miles}$$

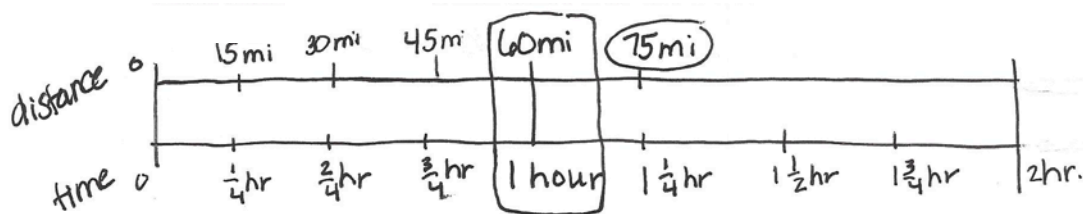
$$0.5 \text{ hour} \times 70 \frac{\text{miles}}{\text{hour}} = 0.5 \times 70 \text{ miles} = 35 \text{ miles}$$

$$40 \text{ miles} + 35 \text{ miles} = 75 \text{ miles}$$

- b. How long did the trip take?

$$60 \text{ minutes} + 30 \text{ minutes} = 90 \text{ minutes or } 1\frac{1}{2} \text{ hours.}$$

- c. Your older brother drove to your grandparents' house in a different car but left from the same location at the same time. If he traveled at a constant speed of 60 miles per hour, explain why he would reach your grandparents' house first. Use words, diagrams, or numbers to explain your reasoning.



The trip is 75 miles long. If he travels 60 miles in 1 hour, it will take him $1\frac{1}{4}$ or 1.25 hours to get there.

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Algebra I • Module 1

Relationships Between Quantities and Reasoning with Equations and Their Graphs

OVERVIEW

By the end of Grade 8, students have learned to solve linear equations in one variable and have applied graphical and algebraic methods to analyze and solve systems of linear equations in two variables. Now, students are introduced to nonlinear equations and their graphs. Students formalize their understanding of equivalent algebraic expressions and begin their study of polynomial expressions. Further, they learn that there are some actions that, when applied to the expressions on both sides of an equal sign, will not result in an equation with the same solution set as the original equation. Finally, they encounter problems that induce the full modeling cycle, as it is described in the Common Core Learning Standards for Mathematics.

In Topic A, students explore the main functions that they will work with in Algebra I: linear, quadratic, and exponential. The goal is to introduce students to these functions by having them make graphs of situations (usually based upon time) in which the functions naturally arise (**A-CED.A.2**). As they graph, they reason abstractly and quantitatively as well as choose and interpret units to solve problems related to the graphs they create (**N-Q.A.1, N-Q.A.2, N-Q.A.3**).

In middle school, students applied the properties of operations to add, subtract, factor, and expand expressions (**6.EE.A.3, 6.EE.A.4, 7.EE.A.1, 8.EE.A.1**). Now, in Topic B, students use the structure of expressions to define what it means for two algebraic expressions to be equivalent. In doing so, they discern that the commutative, associative, and distributive properties help link each of the expressions in the collection together, even if the expressions look very different themselves (**A-SSE.A.2**). They learn the definition of a polynomial expression and build fluency in identifying and generating polynomial expressions as well as adding, subtracting, and multiplying polynomial expressions (**A-APR.A.1**). The Mid-Module Assessment follows Topic B.

Throughout middle school, students practice the process of solving linear equations (**6.EE.B.5, 6.EE.B.7, 7.EE.B.4, 8.EE.C.7**) and systems of linear equations (**8.EE.C.8**). Now, in Topic C, instead of just solving equations, they formalize descriptions of what they learned before (variable, solution sets, etc.) and are able to explain, justify, and evaluate their reasoning as they strategize methods for solving linear and nonlinear equations (**A-REI.A.1, A-REI.B.3, A-CED.A.4**). Students take their experience solving systems of linear equations further as they prove the validity of the addition method, learn a formal definition for the graph of an equation and use it to explain the reasoning of solving systems graphically, and represent the solution to systems of linear inequalities graphically (**A-CED.A.3, A-REI.C.5, A-REI.C.6, A-REI.D.10, A-REI.D.12**).

In Topic D, students are formally introduced to the modeling cycle (see page 61 of the CCLS) through problems that can be solved by creating equations and inequalities in one variable, systems of equations, and graphing (**N-Q.A.1, A-SSE.A.1, A-CED.A.1, A-CED.A.2, A-REI.B.3**). The End-of-Module Assessment follows Topic D.

Focus Standards

Reason quantitatively and use units to solve problems.

- N-Q.A.1** Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.*
- N-Q.A.2²** Define appropriate quantities for the purpose of descriptive modeling.*
- N-Q.A.3** Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.*

Interpret the structure of expressions.

- A-SSE.A.1** Interpret expressions that represent a quantity in terms of its context.*
- Interpret parts of an expression, such as terms, factors, and coefficients.
 - Interpret complicated expressions by viewing one or more of their parts as a single entity. *For example, interpret $P(1 + r)n$ as the product of P and a factor not depending on P .*
- A-SSE.A.2** Use the structure of an expression to identify ways to rewrite it. *For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.*

Perform arithmetic operations on polynomials.

- A-APR.A.1** Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.

Create equations that describe numbers or relationships.

- A-CED.A.1³** Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.**
- A-CED.A.2** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.*
- A-CED.A.3** Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. *For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.**

²This standard will be assessed in Algebra I by ensuring that some modeling tasks (involving Algebra I content or securely held content from Grades 6-8) require the student to create a quantity of interest in the situation being described.

³In Algebra I, tasks are limited to linear, quadratic, or exponential equations with integer exponents.

- A-CED.A.4** Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *For example, rearrange Ohm's law $V = IR$ to highlight resistance R .*[★]

Understand solving equations as a process of reasoning and explain the reasoning.

- A-REI.A.1** Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

Solve equations and inequalities in one variable.

- A-REI.B.3** Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.

Solve systems of equations.

- A-REI.C.5** Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.
- A-REI.C.6**⁴ Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.

Represent and solve equations and inequalities graphically.

- A-REI.D.10** Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).
- A-REI.D.12** Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

⁴Tasks have a real-world context. In Algebra I, tasks have hallmarks of modeling as a mathematical practice (less defined tasks, more of the modeling cycle, etc.).

Foundational Standards

Apply and extend previous understandings of numbers to the system of rational numbers.

- 6.NS.C.7** Understand ordering and absolute value of rational numbers.
- Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret $-3 > -7$ as a statement that -3 is located to the right of -7 on a number line oriented from left to right.*
 - Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write $-3^{\circ}\text{C} > -7^{\circ}\text{C}$ to express the fact that -3°C is warmer than -7°C .*

Apply and extend previous understandings of arithmetic to algebraic expressions.

- 6.EE.A.3** Apply the properties of operations to generate equivalent expressions. *For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$.*
- 6.EE.A.4** Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for.*

Reason about and solve one-variable equations and inequalities.

- 6.EE.B.5** Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
- 6.EE.B.6** Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
- 6.EE.B.7** Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all nonnegative rational numbers.
- 6.EE.B.8** Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.

Use properties of operations to generate equivalent expressions.

- 7.EE.A.1** Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
- 7.EE.A.2** Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. *For example, $a + 0.05a = 1.05a$ means that “increase by 5%” is the same as “multiply by 1.05.”*

Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

- 7.EE.B.3** Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. *For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional $1/10$ of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar $9\frac{3}{4}$ inches long in the center of a door that is $27\frac{1}{2}$ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.*
- 7.EE.B.4** Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
- Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p , q , and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. *For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?*
 - Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p , q , and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. *For example: As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.*

Work with radicals and integer exponents.

- 8.EE.A.1** Know and apply the properties of integer exponents to generate equivalent numerical expressions. *For example, $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$.*
- 8.EE.A.2** Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational.

Analyze and solve linear equations and pairs of simultaneous linear equations.

- 8.EE.C.7** Solve linear equations in one variable.
- Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).
 - Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.
- 8.EE.C.8** Analyze and solve pairs of simultaneous linear equations.
- Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.
 - Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. *For example, $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because $3x + 2y$ cannot simultaneously be 5 and 6.*
 - Solve real-world and mathematical problems leading to two linear equations in two variables. *For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.*

Focus Standards for Mathematical Practice

- MP.1** **Make sense of problems and persevere in solving them.** Students are presented with problems that require them to try special cases and simpler forms of the original problem to gain better understanding of the problem.
- MP.2** **Reason abstractly and quantitatively.** Students analyze graphs of non-constant rate measurements and reason from the shape of the graphs to infer what quantities are being displayed and consider possible units to represent those quantities.
- MP.3** **Construct viable arguments and critique the reasoning of others.** Students reason about solving equations using *if-then* moves based on equivalent expressions and properties of equality and inequality. They analyze when an *if-then* move is not reversible.
- MP.4** **Model with mathematics.** Students have numerous opportunities in this module to solve problems arising in everyday life, society, and the workplace from modeling bacteria growth to understanding the federal progressive income tax system.
- MP.6** **Attend to precision.** Students formalize descriptions of what they learned before (variables, solution sets, numerical expressions, algebraic expressions, etc.) as they build equivalent expressions and solve equations. Students analyze solution sets of equations to determine processes (e.g., squaring both sides of an equation) that might lead to a solution set that differs from that of the original equation.

- MP.7 Look for and make use of structure.** Students reason with and about collections of equivalent expressions to see how all the expressions in the collection are linked together through the properties of operations. They discern patterns in sequences of solving equation problems that reveal structures in the equations themselves: $2x + 4 = 10$, $2(x - 3) + 4 = 10$, $2(3x - 4) + 4 = 10$, etc.
- MP.8 Look for and express regularity in repeated reasoning.** After solving many linear equations in one variable (e.g., $3x + 5 = 8x - 17$), students look for general methods for solving a generic linear equation in one variable by replacing the numbers with letters: $ax + b = cx + d$. They have opportunities to pay close attention to calculations involving the properties of operations, properties of equality, and properties of inequality as they find equivalent expressions and solve equations, noting common ways to solve different types of equations.

Terminology

New or Recently Introduced Terms

- **Algebraic Expression** (An *algebraic expression* is either: (1) a numerical symbol or a variable symbol or (2) the result of placing previously generated algebraic expressions into the two blanks of one of the four operators ($(_) + (_)$, $(_) - (_)$, $(_) \times (_)$, $(_) \div (_)$) or into the base blank of an exponentiation with an exponent that is a rational number.)
- **Constant Term of a Polynomial in Standard Form** (The *constant term* is the value of the numerical expression found by substituting 0 into all the variable symbols of the polynomial, namely a_0 .)
- **Degree of a Monomial** (The *degree of a nonzero monomial* is the sum of the exponents of the variable symbols that appear in the monomial.)
- **Degree of a Polynomial in Standard Form** (The *degree of a polynomial in standard form* is the highest degree of the terms in the polynomial, namely n .)
- **Equivalent Algebraic Expressions** (Two algebraic expressions are *equivalent* if we can convert one expression into the other by repeatedly applying the commutative, associative, and distributive properties and the properties of rational exponents to components of the first expression.)
- **Equivalent Numerical Expressions** (Two numerical expressions are *equivalent* if they evaluate to the same number.)
- **Graph of an Equation in Two Variables** (The set of all points in the coordinate plane that are solutions to an equation in two variables is called the *graph of the equation*.)
- **Leading Term and Leading Coefficient of a Polynomial in Standard Form** (The term $a_n x^n$ is called the *leading term*, and a_n is called the *leading coefficient*.)
- **Monomial** (A *monomial* is a polynomial expression generated using only the multiplication operator ($_ \times _$). Monomials are products whose factors are numerical expressions or variable symbols.)
- **Numerical Expression** (A *numerical expression* is an algebraic expression that contains only numerical symbols (no variable symbols) and that evaluates to a single number.)
- **Numerical Symbol** (A *numerical symbol* is a symbol that represents a specific number.)

- **Piecewise Linear Function** (Given a finite number of non-overlapping intervals on the real number line, a *real piecewise linear function* is a function from the union of the intervals to the set of real numbers such that the function is defined by (possibly different) linear functions on each interval.)
- **Polynomial Expression** (A *polynomial expression* is either: (1) a numerical expression or a variable symbol or (2) the result of placing two previously generated polynomial expressions into the blanks of the addition operator ($_ + _$) or the multiplication operator ($_ \times _$.)
- **Solution** (A *solution* to an equation with one variable is a number in the domain of the variable that, when substituted for all instances of the variable in both expressions, makes the equation a true number sentence.)
- **Solution Set** (The set of solutions of an equation is called its *solution set*.)
- **Standard Form of a Polynomial Expression in One Variable** (A polynomial expression with one variable symbol x is in *standard form* if it is expressed as $a_n x^n + a_{n-1} x^{n-1} + \dots + a_1 x + a_0$, where n is a nonnegative integer, and $a_0, a_1, a_2, \dots, a_n$ are constant coefficients with $a_n \neq 0$. A polynomial expression in x that is in standard form is often called a *polynomial in x* .)
- **Variable Symbol** (A *variable symbol* is a symbol that is a placeholder for a number. It is possible that a question may restrict the type of number that a placeholder might permit, maybe integers only or a positive real number, for instance.)
- **Zero Product Property** (The *Zero Product Property* states that given real numbers, a and b , if $a \cdot b = 0$ then either $a = 0$ or $b = 0$, or both a and $b = 0$.)

Familiar Terms and Symbols⁵

- Equation
- Formula
- Identity
- Inequality
- Linear Function
- Properties of Equality
- Properties of Inequality
- Solve
- System of Equations
- Term

Suggested Tools and Representations

- Coordinate Plane
- Equations and Inequalities

⁵These are terms and symbols students have seen previously.

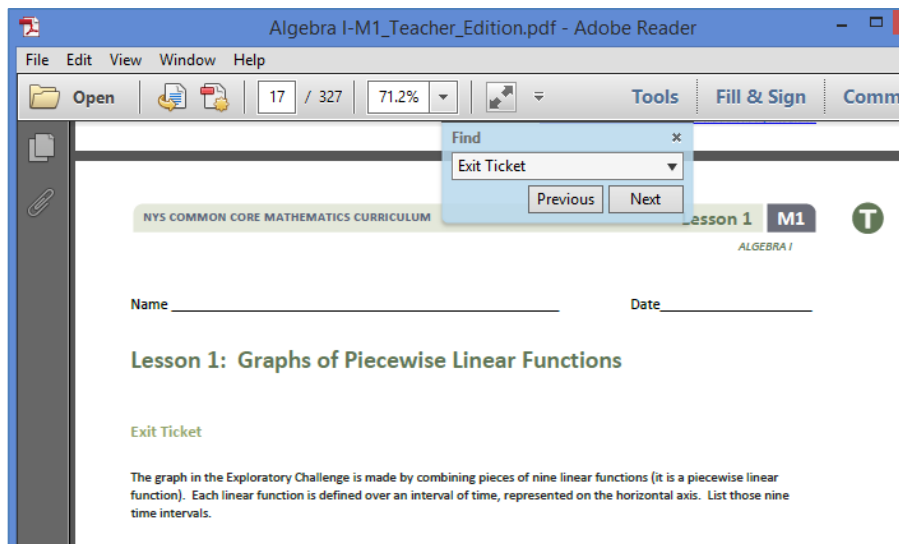
Preparing to Teach a Module

Preparation of lessons will be more effective and efficient if there has been an adequate analysis of the module first. Each module in *A Story of Functions* can be compared to a chapter in a book. How is the module moving the plot, the mathematics, forward? What new learning is taking place? How are the topics and objectives building on one another? The following is a suggested process for preparing to teach a module.

Step 1: Get a preview of the plot.

- A: Read the Table of Contents. At a high level, what is the plot of the module? How does the story develop across the topics?
- B: Preview the module’s Exit Tickets to see the trajectory of the module’s mathematics and the nature of the work students are expected to be able to do.

Note: When studying a PDF file, enter “Exit Ticket” into the search feature to navigate from one Exit Ticket to the next.



Step 2: Dig into the details.

- A: Dig into a careful reading of the Module Overview. While reading the narrative, liberally reference the lessons and Topic Overviews to clarify the meaning of the text—the lessons demonstrate the strategies, show how to use the models, clarify vocabulary, and build understanding of concepts.
- B: Having thoroughly investigated the Module Overview, read through the Student Outcomes of each lesson (in order) to further discern the plot of the module. How do the topics flow and tell a coherent story? How do the outcomes move students to new understandings?

Step 3: Summarize the story.

Complete the Mid- and End-of-Module Assessments. Use the strategies and models presented in the module to explain the thinking involved. Again, liberally reference the lessons to anticipate how students who are learning with the curriculum might respond.

Preparing to Teach a Lesson

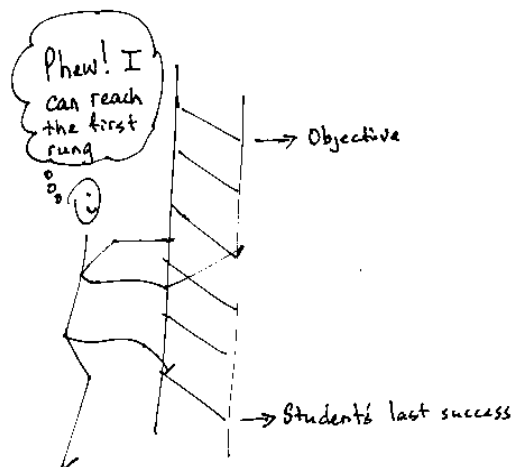
A three-step process is suggested to prepare a lesson. It is understood that at times teachers may need to make adjustments (customizations) to lessons to fit the time constraints and unique needs of their students. The recommended planning process is outlined below. Note: The ladder of Step 2 is a metaphor for the teaching sequence. The sequence can be seen not only at the macro level in the role that this lesson plays in the overall story, but also at the lesson level, where each rung in the ladder represents the next step in understanding or the next skill needed to reach the objective. To reach the objective, or the top of the ladder, all students must be able to access the first rung and each successive rung.

Step 1: Discern the plot.

- A: Briefly review the module’s Table of Contents, recalling the overall story of the module and analyzing the role of this lesson in the module.
- B: Read the Topic Overview related to the lesson, and then review the Student Outcome(s) and Exit Ticket of each lesson in the topic.
- C: Review the assessment following the topic, keeping in mind that assessments can be found midway through the module and at the end of the module.

Step 2: Find the ladder.

- A: Work through the lesson, answering and completing each question, example, exercise, and challenge.
- B: Analyze and write notes on the new complexities or new concepts introduced with each question or problem posed; these notes on the sequence of new complexities and concepts are the rungs of the ladder.
- C: Anticipate where students might struggle, and write a note about the potential cause of the struggle.
- D: Answer the Closing questions, always anticipating how students will respond.



Step 3: Hone the lesson.

Lessons may need to be customized if the class period is not long enough to do all of what is presented and/or if students lack prerequisite skills and understanding to move through the entire lesson in the time allotted. A suggestion for customizing the lesson is to first decide upon and designate each question, example, exercise, or challenge as either “Must Do” or “Could Do.”

- A: Select “Must Do” dialogue, questions, and problems that meet the Student Outcome(s) while still providing a coherent experience for students; reference the ladder. The expectation should be that the majority of the class will be able to complete the “Must Do” portions of the lesson within the allocated time. While choosing the “Must Do” portions of the lesson, keep in mind the need for a balance of dialogue and conceptual questioning, application problems, and abstract problems, and a balance between students using pictorial/graphical representations and abstract representations. Highlight dialogue to be included in the delivery of instruction so that students have a chance to articulate and consolidate understanding as they move through the lesson.

- B: “Must Do” portions might also include remedial work as necessary for the whole class, a small group, or individual students. Depending on the anticipated difficulties, the remedial work might take on different forms as suggested in the chart below.

Anticipated Difficulty	“Must Do” Remedial Problem Suggestion
The first problem of the lesson is too challenging.	Write a short sequence of problems on the board that provides a ladder to Problem 1. Direct students to complete those first problems to empower them to begin the lesson.
There is too big of a jump in complexity between two problems.	Provide a problem or set of problems that bridge student understanding from one problem to the next.
Students lack fluency or foundational skills necessary for the lesson.	Before beginning the lesson, do a quick, engaging fluency exercise. ⁶ Before beginning any fluency activity for the first time, assess that students have conceptual understanding of the problems in the set and that they are poised for success with the easiest problem in the set.
More work is needed at the concrete or pictorial level.	Provide manipulatives or the opportunity to draw solution strategies.
More work is needed at the abstract level.	Add a set of abstract problems to be completed toward the end of the lesson.

- C: “Could Do” problems are for students who work with greater fluency and understanding and can, therefore, complete more work within a given time frame.
- D: At times, a particularly complex problem might be designated as a “Challenge!” problem to provide to advanced students. Consider creating the opportunity for students to share their “Challenge!” solutions with the class at a weekly session or on video.
- E: If the lesson is customized, be sure to carefully select Closing questions that reflect such decisions, and adjust the Exit Ticket if necessary.

⁶Look for fluency suggestions at www.eureka-math.org.

Assessment Summary

Assessment Type	Administered	Format	Standards Addressed
Mid-Module Assessment Task	After Topic B	Constructed response with rubric	N-Q.A.1, N-Q.A.2, N-Q.A.3, A-APR.A.1, A-SSE.A.2
End-of-Module Assessment Task	After Topic D	Constructed response with rubric	N-Q.A.1, A-SSE.A.1, A-SSE.A.2, A-APR.A.1, A-CED.A.1, A-CED.A.2, A-CED.A.3, A-CED.A.4, A-REI.A.1, A-REI.C.5, A-REI.C.6, A-REI.D.10, A-REI.D.12

Name _____

Date _____

1. Solve the following equations for x . Write your answer in set notation.

a. $3x - 5 = 16$

b. $3(x + 3) - 5 = 16$

c. $3(2x - 3) - 5 = 16$

d. $6(x + 3) - 10 = 32$

e. Which two equations above have the same solution set? Write a sentence explaining how the properties of equality can be used to determine the pair without having to find the solution set for each.

2. Let c and d be real numbers.
- If $c = 42 + d$ is true, then which is greater: c or d , or are you not able to tell? Explain how you know your choice is correct.

 - If $c = 42 - d$ is true, then which is greater: c or d , or are you not able to tell? Explain how you know your choice is correct.

3. If $a < 0$ and $c > b$, circle the expression that is greater:

$$a(b - c) \quad \text{or} \quad a(c - b)$$

Use the properties of inequalities to explain your choice.

4. Solve for x in each of the equations or inequalities below, and name the property and/or properties used:

a. $\frac{3}{4}x = 9$

b. $10 + 3x = 5x$

c. $a + x = b$

d. $cx = d$

e. $\frac{1}{2}x - g < m$

f. $q + 5x = 7x - r$

g. $\frac{3}{4}(x + 2) = 6(x + 12)$

h. $3(5 - 5x) > 5x$

5. The equation $3x + 4 = 5x - 4$ has the solution set $\{4\}$.

a. Explain why the equation $(3x + 4) + 4 = (5x - 4) + 4$ also has the solution set $\{4\}$.

- b. In part (a), the expression $(3x + 4) + 4$ is equivalent to the expression $3x + 8$. What is the definition of equivalent expressions? Why does changing an expression on one side of an equation to an equivalent expression leave the solution set unchanged?

- c. When we square both sides of the original equation, we get the following new equation:

$$(3x + 4)^2 = (5x - 4)^2.$$

Show that 4 is still a solution to the new equation. Show that 0 is also a solution to the new equation but is not a solution to the original equation. Write a sentence that describes how the solution set to an equation may change when both sides of the equation are squared.

- d. When we replace x by x^2 in the original equation, we get the following new equation:

$$3x^2 + 4 = 5x^2 - 4.$$

Use the fact that the solution set to the original equation is $\{4\}$ to find the solution set to this new equation.

6. The Zonda Information and Telephone Company (ZI&T) calculates a customer's total monthly cell phone charge using the formula,

$$C = (b + rm)(1 + t),$$

where C is the total cell phone charge, b is a basic monthly fee, r is the rate per minute, m is the number of minutes used that month, and t is the tax rate.

Solve for m , the number of minutes the customer used that month.

7. Students and adults purchased tickets for a recent basketball playoff game. All tickets were sold at the ticket booth—season passes, discounts, etc., were not allowed.

Student tickets cost \$5 each, and adult tickets cost \$10 each. A total of \$4,500 was collected. 700 tickets were sold.

- a. Write a system of equations that can be used to find the number of student tickets, s , and the number of adult tickets, a , that were sold at the playoff game.

- b. Assuming that the number of students and adults attending would not change, how much more money could have been collected at the playoff game if the ticket booth charged students and adults the same price of \$10 per ticket?

- c. Assuming that the number of students and adults attending would not change, how much more money could have been collected at the playoff game if the student price was kept at \$5 per ticket and adults were charged \$15 per ticket instead of \$10?

8. Alexis is modeling the growth of bacteria for an experiment in science. She assumes that there are B bacteria in a Petri dish at 12:00 noon. In reality, each bacterium in the Petri dish subdivides into two new bacteria approximately every 20 minutes. However, for the purposes of the model, Alexis assumes that each bacterium subdivides into two new bacteria exactly every 20 minutes.
- a. Create a table that shows the total number of bacteria in the Petri dish at $\frac{1}{3}$ hour intervals for 2 hours starting with time 0 to represent 12:00 noon.
- b. Write an equation that describes the relationship between total number of bacteria T and time h in hours, assuming there are B bacteria in the Petri dish at $h = 0$.
- c. If Alexis starts with 100 bacteria in the Petri dish, draw a graph that displays the total number of bacteria with respect to time from 12:00 noon ($h = 0$) to 4:00 p.m. ($h = 4$). Label points on your graph at time $h = 0, 1, 2, 3, 4$.

- d. For her experiment, Alexis plans to add an anti-bacterial chemical to the Petri dish at 4:00 p.m. that is supposed to kill 99.9% of the bacteria instantaneously. If she started with 100 bacteria at 12:00 noon, how many live bacteria might Alexis expect to find in the Petri dish right after she adds the anti-bacterial chemical?
9. Jack is 27 years older than Susan. In 5 years, he will be 4 times as old as she is.
- a. Find the present ages of Jack and Susan.
- b. What calculations would you do to check if your answer is correct?

10.

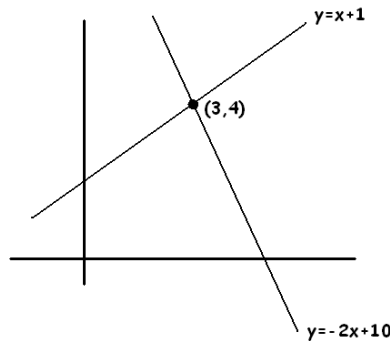
a. Find the product: $(x^2 - x + 1)(2x^2 + 3x + 2)$.

b. Use the results of part (a) to factor 21,112 as a product of a two-digit number and a three-digit number.

11. Consider the following system of equations with the solution $x = 3, y = 4$.

Equation A1: $y = x + 1$

Equation A2: $y = -2x + 10$



a. Write a unique system of two linear equations with the same solution set. This time make both linear equations have positive slope.

Equation B1: _____

Equation B2: _____

- b. The following system of equations was obtained from the original system by adding a multiple of equation A2 to equation A1.

Equation C1: $y = x + 1$

Equation C2: $3y = -3x + 21$

What multiple of A2 was added to A1?

- c. What is the solution to the system given in part (b)?

- d. For any real number m , the line $y = m(x - 3) + 4$ passes through the point $(3, 4)$.

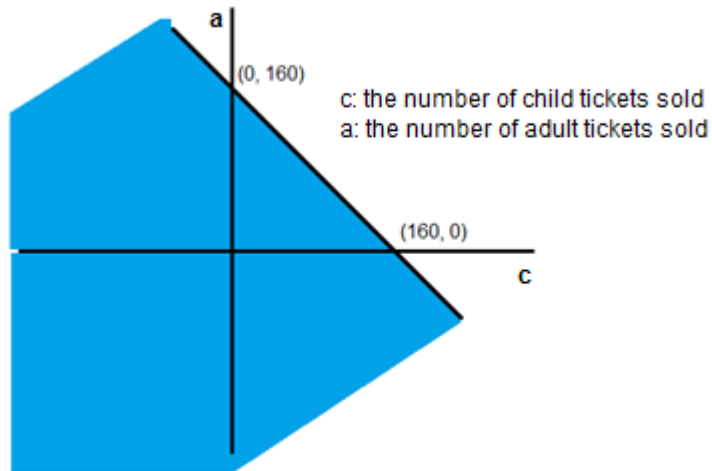
Is it certain, then, that the system of equations

Equation D1: $y = x + 1$

Equation D2: $y = m(x - 3) + 4$

has only the solution $x = 3, y = 4$? Explain.

12. The local theater in Jamie's home town has a maximum capacity of 160 people. Jamie shared with Venus the following graph and said that the shaded region represented all the possible combinations of adult and child tickets that could be sold for one show.



- a. Venus objected and said there was more than one reason that Jamie's thinking was flawed. What reasons could Venus be thinking of?

- b. Use equations, inequalities, graphs, and/or words to describe for Jamie the set of all possible combinations of adult and child tickets that could be sold for one show.
- c. The theater charges \$9 for each adult ticket and \$6 for each child ticket. The theater sold 144 tickets for the first showing of the new release. The total money collected from ticket sales for that show was \$1,164. Write a system of equations that could be used to find the number of child tickets and the number of adult tickets sold, and solve the system algebraically. Summarize your findings using the context of the problem.

A Progression Toward Mastery

Assessment Task Item		STEP 1 Missing or incorrect answer and little evidence of reasoning or application of mathematics to solve the problem.	STEP 2 Missing or incorrect answer but evidence of some reasoning or application of mathematics to solve the problem.	STEP 3 A correct answer with some evidence of reasoning or application of mathematics to solve the problem, or an incorrect answer with substantial evidence of solid reasoning or application of mathematics to solve the problem.	STEP 4 A correct answer supported by substantial evidence of solid reasoning or application of mathematics to solve the problem.
1	a–d A-REI.A.1	Student gives a short incorrect answer or leaves the question blank.	Student shows at least one correct step, but the solution is incorrect.	Student solves the equation correctly (every step that is shown is correct) but does not express the answer as a solution set.	Student solves the equation correctly (every step that is shown is correct) and expresses the answer as a solution set.
	e A-SSE.A.1b A-REI.B.3	Student does not answer or answers incorrectly with something other than (b) and (d).	Student answers (b) and (d) but does not demonstrate solid reasoning in the explanation.	Student answers (b) and (d) but makes minor misstatements in the explanation.	Student answers (b) and (d) and articulates solid reasoning in the explanation.
2	a A-CED.A.3	Student responds incorrectly or leaves the question blank.	Student responds correctly that (c) must be greater but does not use solid reasoning to explain the answer.	Student responds correctly that (c) must be greater but gives an incomplete or slightly incorrect explanation of why.	Student responds correctly that (c) must be greater and supports the statement with solid, well-expressed reasoning.
	b A-CED.A.3	Student responds incorrectly or leaves the question blank.	Student responds correctly that there is no way to tell but does not use solid reasoning to explain the answer.	Student responds correctly that there is no way to tell but gives an incomplete or slightly incorrect explanation of why.	Student responds correctly that there is no way to tell and supports the statement with solid, well-expressed reasoning.

3	A-SSE.A.1b	Student responds incorrectly or leaves the question blank.	Student responds correctly by circling the expression on the left but does not use solid reasoning to explain the answer.	Student responds correctly by circling the expression on the left but gives limited explanation or does not use the properties of inequality in the explanation.	Student responds correctly by circling the expression on the left and gives a complete explanation that uses the properties of inequality.
4	a–h A-REI.A.1 A-REI.B.3	Student answers incorrectly with no correct steps shown.	Student answers incorrectly but has one or more correct steps.	Student answers correctly but does not correctly identify the property or properties used.	Student answers correctly and correctly identifies the property or properties used.
5	a A-REI.A.1	Student does not answer or demonstrates incorrect reasoning throughout.	Student demonstrates only limited reasoning.	Student demonstrates solid reasoning but falls short of a complete answer or makes a minor misstatement in the answer.	Student answer is complete and demonstrates solid reasoning throughout.
	b A-REI.A.1	Student does not answer or does not demonstrate understanding of what the question is asking.	Student makes more than one misstatement in the definition.	Student provides a mostly correct definition with a minor misstatement.	Student answers completely and uses a correct definition without error or misstatement.
	c A-REI.A.1	Student makes mistakes in both verifications and demonstrates incorrect reasoning or leaves the question blank.	Student conducts both verifications but falls short of articulating reasoning to answer the question.	Student conducts both verifications and articulates valid reasoning to answer the question but makes a minor error in the verification or a minor misstatement in the explanation.	Student conducts both verifications without error and articulates valid reasoning to answer the question.
	d A-REI.A.1	Student answers incorrectly or does not answer.	Student identifies one or both solutions but is unable to convey how the solutions could be found using the fact that 4 is a solution to the original equation.	Student identifies only one solution correctly but articulates the reasoning of using the solution to the original equation to find the solution to the new equation.	Student identifies both solutions correctly and articulates the reasoning of using the solution to the original equation to find the solution to the new equation.

6	A-CED.A.4	Student does not answer or shows no evidence of reasoning.	Student makes more than one error in the solution process but shows some evidence of reasoning.	Student answer shows valid steps but with one minor error.	Student answers correctly.
7	a–c A-CED.A.3	Student is unable to answer any portion correctly.	Student answers one part correctly or shows some evidence of reasoning in more than one part.	Student shows solid evidence of reasoning in every part but may make minor errors.	Student answers every part correctly and demonstrates and expresses valid reasoning throughout.
8	a A-CED.A.2	Student provides no table or a table with multiple incorrect entries.	Student provides a data table that is incomplete or has more than one minor error.	Student provides a data table that is complete but may have one error or slightly inaccurate headings.	Student provides a data table that is complete and correct with correct headings.
	b A-CED.A.2	Student provides no equation or an equation that does not represent exponential growth.	Student provides an incorrect equation but one that models exponential growth.	Student provides a correct answer in the form of $T = B(2)^{3h}$.	Student provides a correct answer in the form of $T = B8^h$ or in more than one form, such as $T = B(2)^{3h}$ and $T = B8^h$.
	c A-CED.A.2	Student provides no graph or a grossly inaccurate graph.	Student provides a graph with an inaccurate shape but provides some evidence of reasoning in labeling the axes and/or data points.	Student creates a graph with correct general shape but may leave off or make an error on one or two axes or data points.	Student creates a complete graph with correctly labeled axes and correctly labeled data points (or a data table) showing the values for $h = 0, 1, 2, 3, 4$.
	d A-CED.A.2	Student provides no answer or an incorrect answer with no evidence of reasoning in arriving at the answer.	Student provides limited evidence of reasoning and an incorrect answer.	Student answers that 409.6 bacteria are alive.	Student answers that 410, or about 410, bacteria are alive.

9	a A-CED.A.1	Student writes incorrect equations or does not provide equations.	Student answers are incorrect, but at least one of the equations is correct. Student makes a gross error in the solution, makes more than one minor error in the solution process, or has one of the two equations incorrect.	Both equations are correct, but student makes a minor mistake in finding the solution.	Both equations are correct and student solves them correctly to arrive at the answer that Jack is 31 and Susan is 4.
	b A-REI.B.3	Student does not answer or gives a completely incorrect answer.	Student articulates only one of the calculations correctly.	Student articulates the two calculations but with a minor misstatement in one of the descriptions.	Student articulates both calculations correctly.
10	a–b A-APR.A.1	Student work is blank or demonstrates no understanding of multiplication of polynomials, nor how to apply part (a) to arrive at an answer for part (b).	Student makes more than one error in the multiplication but demonstrates some understanding of multiplication of polynomials. Student may not be able to garner or apply information from part (a) to use in answering part (b) correctly.	Student demonstrates the ability to multiply the polynomials (expressing the product as a sum of monomials with like terms combined) and to apply the structure from part (a) to solve part (b). There may be minor errors.	Student demonstrates the ability to multiply the polynomials (expressing the product as a sum of monomials with like terms combined) and to apply the structure from part (a) to solve part (b) as $91(232)$.
11	a A-REI.C.6	Student is unable to demonstrate the understanding that two equations with $(3, 4)$ as a solution are needed.	Student provides two equations that have $(3, 4)$ as a solution (or attempts to provide such equations) but makes one or more errors. Student may provide an equation with a negative slope.	Student shows one minor error in the answer but attempts to provide two equations both containing $(3, 4)$ as a solution and both with positive slope.	Student provides two equations both containing $(3, 4)$ as a solution and both with positive slope.
	b A-REI.C.6	Student is unable to identify the multiple correctly.	Student identifies the multiple as 3.	N/A	Student correctly identifies the multiple as 2.

	c A-REI.C.6	Student is unable to demonstrate even a partial understanding of how to find the solution to the system.	Student shows some reasoning required to find the solution but makes multiple errors.	Student makes a minor error in finding the solution point.	Student successfully identifies the solution point as (3, 4).
	d A-REI.C.5 A-REI.C.6 A-REI.D.10	Student is unable to answer or to support the answer with any solid reasoning.	Student concludes yes or no but is only able to express limited reasoning in support of the answer.	Student correctly explains that all the systems have the solution point (3, 4) but incorrectly assumes this is true for all cases of m .	Student correctly explains that while in most cases this is true, if $m = 1$, the two lines are coinciding lines, resulting in a solution set consisting of all the points on the line.
12	a MP.2 A-REI.D.12	Student is unable to articulate any sound reasons.	Student is only able to articulate one sound reason.	Student provides two sound reasons but makes minor errors in the expression of reasoning.	Student is able to articulate at least two valid reasons. Valid reasons include the following: the graph assumes x could be less than zero, the graph assumes y could be less than zero, the graph assumes a and b could be non-whole numbers, the graph assumes 160 children could attend with no adults.
	b A-CED.A.2 A-REI.D.10 A-REI.D.12	Student is unable to communicate a relevant requirement of the solution set.	Student provides a verbal description that lacks precision and accuracy but demonstrates some reasoning about the solution within the context of the problem.	Student makes minor errors in communicating the idea that both (a) and (b) must be whole numbers whose sum is less than or equal to 160.	Student communicates effectively that both (a) and (b) must be whole numbers whose sum is less than or equal to 160.

	<p>c</p> <p>A-CED.A.2 A-REI.C.6</p>	<p>Student is unable to demonstrate any substantive understanding in how to create the equations and solve the system of equations.</p>	<p>Student makes multiple errors in the equations and/or solving process but demonstrates some understanding of how to create equations to represent a context and/or solve the system of equations.</p>	<p>Student makes minor errors in the equations but solves the system accurately, or the student creates the correct equations but makes a minor error in solving the system of equations.</p>	<p>Student correctly writes the equations to represent the system. Student solves the system accurately and summarizes by defining or describing the values of the variable in the context of the problem (i.e., that there are 100 adult tickets and 44 child tickets sold.)</p>
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Name _____

Date _____

1. Solve the following equations for x . Write your answer in set notation.

a. $3x - 5 = 16$

$$3x = 21 \quad \text{Solution set: } \{7\}$$

$$x = 7$$

b. $3(x + 3) - 5 = 16$

$$3x + 9 - 5 = 16 \quad \text{Solution set: } \{4\}$$

$$3x = 12$$

$$x = 4$$

c. $3(2x - 3) - 5 = 16$

$$6x - 9 - 5 = 16 \quad \text{Solution set: } \{5\}$$

$$6x - 14 = 16$$

$$6x = 30$$

$$x = 5$$

d. $6(x + 3) - 10 = 32$

$$6x + 18 - 10 = 32 \quad \text{Solution set: } \{4\}$$

$$6x = 24$$

$$x = 4$$

- e. Which two equations above have the same solution set? Write a sentence explaining how the properties of equality can be used to determine the pair without having to find the solution set for each.

Problems (b) and (d) have the same solution set. The expressions on each side of the equal sign for (d) are twice those for (b). So, if (left side) = (right side) is true for only some x -values, then $2(\text{left side}) = 2(\text{right side})$ will be true for exactly the same x -values. Or simply, applying the multiplicative property of equality does not change the solution set.

2. Let c and d be real numbers.

- a. If $c = 42 + d$ is true, then which is greater: c or d or are you not able to tell? Explain how you know your choice is correct.

c must be greater because c is always 42 more than d .

- b. If $c = 42 - d$ is true, then which is greater: c or d or are you not able to tell? Explain how you know your choice is correct.

There is no way to tell. We only know that the sum of c and d is 42. If d were 10, c would be 32 and, therefore, greater than d . But if d were 40, c would be 2 and, therefore, less than d .

3. If $a < 0$ and $c > b$, circle the expression that is greater:

$a(b - c)$ or $a(c - b)$

Use the properties of inequalities to explain your choice.

*Since $c > b$,
it follows that $0 > b - c$,
and since $a < 0$, a is negative,
and the product of two negatives will be
a positive.*

*Since $c > b$,
it follows that $c - b > 0$.
so $(c - b)$ is positive. And since a is
negative, the product of
 $a \cdot (c - b) < a \cdot (b - c)$.*

4. Solve for x in each of the equations or inequalities below and name the property and/or properties used:

a. $\frac{3}{4}x = 9$

$$x = 9 \cdot \left(\frac{4}{3}\right)$$

$$x = 12$$

Multiplication property of equality

b. $10 + 3x = 5x$

$$10 = 2x$$

$$5 = x$$

Addition property of equality

Multiplication property of equality

c. $a + x = b$

$$x = b - a$$

Addition property of equality

d. $cx = d$

$$x = \frac{d}{c}, c \neq 0$$

Multiplication property of equality

e. $\frac{1}{2}x - g < m$

$$\frac{1}{2}x < m + g$$

$$x < 2 \cdot (m + g)$$

Addition property of equality

Multiplication property of equality

f. $q + 5x = 7x - r$

$$q + r = 2x$$

$$\frac{(q+r)}{2} = x$$

Addition property of equality

Multiplication property of equality

g. $\frac{3}{4}(x + 2) = 6(x + 12)$

$$3 \cdot (x + 2) = 24 \cdot (x + 12)$$

Multiplication property of equality

$$3x + 6 = 24x + 288$$

Distributive property

$$-\frac{282}{21} = x$$

Addition property of equality and multiplication

$$-\frac{94}{7} = x$$

Property of equality

$$-\frac{94}{7} = x$$

h. $3(5 - 5x) > 5x$

$$15 - 15x > 5x$$

Distributive property

$$15 > 20x$$

Addition property of inequality

$$\frac{3}{4} > x$$

Multiplication property of equality

5. The equation, $3x + 4 = 5x - 4$, has the solution set $\{4\}$.

a. Explain why the equation, $(3x + 4) + 4 = (5x - 4) + 4$, also has the solution set $\{4\}$.

Since the new equation can be created by applying the addition property of equality, the solution set does not change.

OR

Each side of this equation is 4 more than the sides of the original equation. Whatever value(s) make $3x + 4 = 5x - 4$ true would also make 4 more than $3x + 4$ equal to 4 more than $5x - 4$.

- b. In part (a), the expression $(3x + 4) + 4$ is equivalent to the expression $3x + 8$. What is the definition of equivalent algebraic expressions? Describe why changing an expression on one side of an equation to an equivalent expression leaves the solution set unchanged?

Algebraic expressions are equivalent if (possibly repeated) use of the distributive, associative, and commutative properties and/or the properties of rational exponents can be applied to one expression to convert it to the other expression.

When two expressions are equivalent, assigning the same value to x in both expressions will give an equivalent numerical expression, which then evaluates to the same number. Therefore, changing the expression to something equivalent will not change the truth value of the equation once values are assigned to x .

- c. When we square both sides of the original equation, we get the following new equation:

$$(3x + 4)^2 = (5x - 4)^2.$$

Show that 4 is still a solution to the new equation. Show that 0 is also a solution to the new equation but is not a solution to the original equation. Write a sentence that describes how the solution set to an equation may change when both sides of the equation are squared.

$(3 \cdot 4 + 4)^2 = (5 \cdot 4 - 4)^2$ gives $16^2 = 16^2$, which is true.

$(3 \cdot 0 + 4)^2 = (5 \cdot 0 - 4)^2$ gives $4^2 = (-4)^2$, which is true.

But, $(3 \cdot 0 + 4) = (5 \cdot 0 - 4)$ gives $4 = -4$, which is false.

When both sides are squared, you might introduce new numbers to the solution set because statements like $4 = -4$ are false, but statements like $4^2 = (-4)^2$ are true.

- d. When we replace x by x^2 in the original equation, we get the following new equation:

$$3x^2 + 4 = 5x^2 - 4.$$

Use the fact that the solution set to the original equation is $\{4\}$ to find the solution set to this new equation.

Since the original equation $3x + 4 = 5x - 4$ was true when $x = 4$, the new equation $3x^2 + 4 = 5x^2 - 4$ should be true when $x^2 = 4$. And, $x^2 = 4$ when $x = 2$, so the solution set to the new equation is $\{-2, 2\}$.

6. The Zonda Information and Telephone Company calculates a customer's total monthly cell phone charge using the formula,

$$C = (b + rm)(1 + t),$$

where C is the total cell phone charge, b is a basic monthly fee, r is the rate per minute, m is the number of minutes used that month, and t is the tax rate.

Solve for m , the number of minutes the customer used that month.

$$C = b + bt + rm + rmt$$

$$C - b - bt = m \cdot (r + rt)$$

$$\frac{C - b - bt}{r + rt} = m$$

$$t \neq -1$$

$$r \neq 0$$

7. Students and adults purchased tickets for a recent basketball playoff game. All tickets were sold at the ticket booth—season passes, discounts, etc., were not allowed.

Student tickets cost \$5 each, and adult tickets cost \$10 each. A total of \$4,500 was collected. 700 tickets were sold.

- a. Write a system of equations that can be used to find the number of student tickets, s , and the number of adult tickets, a , that were sold at the playoff game.

$$5s + 10a = 4500$$

$$s + a = 700$$

- b. Assuming that the number of students and adults attending would not change, how much more money could have been collected at the playoff game if the ticket booth charged students and adults the same price of \$10 per ticket?

$$700 \times \$10 = \$7000$$

$$\$7000 - \$4500 = \$2500 \text{ more}$$

- c. Assuming that the number of students and adults attending would not change, how much more money could have been collected at the playoff game if the student price was kept at \$5 per ticket and adults were charged \$15 per ticket instead of \$10?

First solve for a and s

$$5s + 10a = 4500$$

$$-5s - 5a = -3500$$

$$5a = 1000$$

$$a = 200$$

$$s = 500$$

$$\$5 \cdot (500) + \$15 \cdot (200) = \$5500$$

$$\$1,000 \text{ more}$$

OR

$$\$5 \text{ more per adult ticket } (200 \cdot \$5 = \$1000 \text{ more})$$

8. Alexis is modeling the growth of bacteria for an experiment in science. She assumes that there are B bacteria in a Petri dish at 12:00 noon. In reality, each bacterium in the Petri dish subdivides into two new bacteria approximately every 20 minutes. However, for the purposes of the model, Alexis assumes that each bacterium subdivides into two new bacteria exactly every 20 minutes.

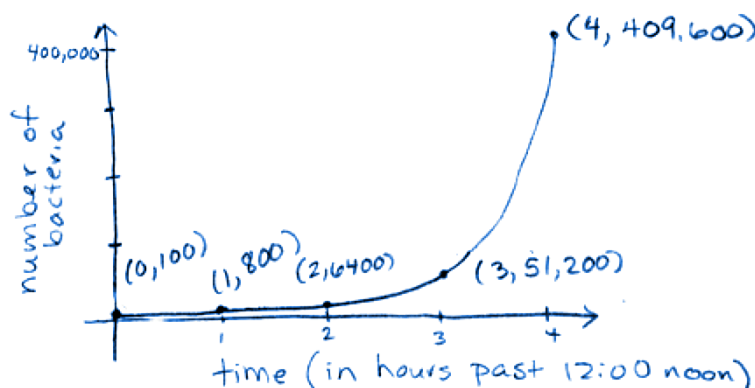
- a. Create a table that shows the total number of bacteria in the Petri dish at $\frac{1}{3}$ hour intervals for 2 hours starting with time 0 to represent 12:00 noon.

Time	Number of Bacteria
0	B
$\frac{1}{3}$ hour	$2B$
$\frac{2}{3}$ hour	$4B$
1 hour	$8B$
$1 \frac{1}{3}$ hour	$16B$
$1 \frac{2}{3}$ hour	$32B$
2 hour	$64B$

- b. Write an equation that describes the relationship between total number of bacteria T and time h in hours, assuming there are B bacteria in the Petri dish at $h = 0$.

$$T = B \cdot (2)^{3h} \text{ or } T = B \cdot 8^h$$

- c. If Alexis starts with 100 bacteria in the Petri dish, draw a graph that displays the total number of bacteria with respect to time from 12:00 noon ($h = 0$) to 4:00 p.m. ($h = 4$). Label points on your graph at time $h = 0, 1, 2, 3, 4$.



- d. For her experiment, Alexis plans to add an anti-bacterial chemical to the Petri dish at 4:00 p.m. that is supposed to kill 99.9% of the bacteria instantaneously. If she started with 100 bacteria at 12:00 noon, how many live bacteria might Alexis expect to find in the Petri dish right after she adds the anti-bacterial chemical?

$$(1 - 0.999) \cdot 409600 = 409.6$$

about 410 live bacteria

9. Jack is 27 years older than Susan. In 5 years time, he will be 4 times as old as she is.
- a. Find the present ages of Jack and Susan.

$$J = S + 27$$

$$J + 5 = 4 \cdot (S + 5)$$

$$S + 27 + 5 = 4S + 20$$

$$S + 32 = 4S + 20$$

$$12 = 3S$$

$$S = 4$$

$$J = 4 + 27$$

$$J = 31$$

Jack is 31 and Susan is 4.

- b. What calculations would you do to check if your answer is correct?

Is Jack's age – Susan's age = 27?

Add 5 years to Jack's and Susan's ages, and see if that makes Jack 4 times as old as Susan.

10.

a. Find the product: $(x^2 - x + 1)(2x^2 + 3x + 2)$

$$\begin{array}{r} 2x^4 + 3x^3 + 2x^2 - 2x^3 - 3x^2 - 2x + 2x^2 + 3x + 2 \\ 2x^4 + x^3 + x^2 + x + 2 \end{array}$$

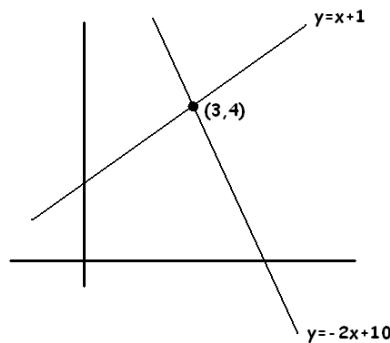
b. Use the results of part (a) to factor 21,112 as a product of a two-digit number and a three-digit number.

$$\begin{array}{r} (100 - 10 + 1) \cdot (200 + 30 + 2) \\ (91) \cdot (232) \end{array}$$

11. Consider the following system of equations with the solution $x = 3, y = 4$.

Equation A1: $y = x + 1$

Equation A2: $y = -2x + 10$



a. Write a unique system of two linear equations with the same solution set. This time make both linear equations have positive slope.

Equation B1: $y = \frac{4}{3}x$

Equation B2: $y = x + 1$

- b. The following system of equations was obtained from the original system by adding a multiple of equation A2 to equation A1.

Equation C1: $y = x + 1$

Equation C2: $3y = -3x + 21$

What multiple of A2 was added to A1?

2 times A2 was added to A1.

- c. What is the solution to the system given in part (b)?

(3,4)

- d. For any real number m , the line $y = m(x - 3) + 4$ passes through the point $(3,4)$.

Is it certain then that the system of equations:

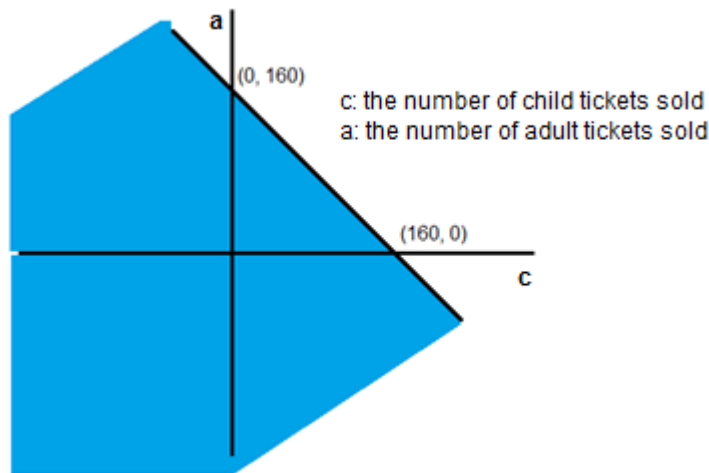
Equation D1: $y = x + 1$

Equation D2: $y = m(x - 3) + 4$

has only the solution $x = 3, y = 4$? Explain.

No. If $m = 1$, then the two lines have the same slope. Both lines pass through the point $(3,4)$, and the lines are parallel; therefore, they coincide. There are infinite solutions. The solution set is all the points on the line. Any other nonzero value of m would create a system with the only solution of $(3,4)$.

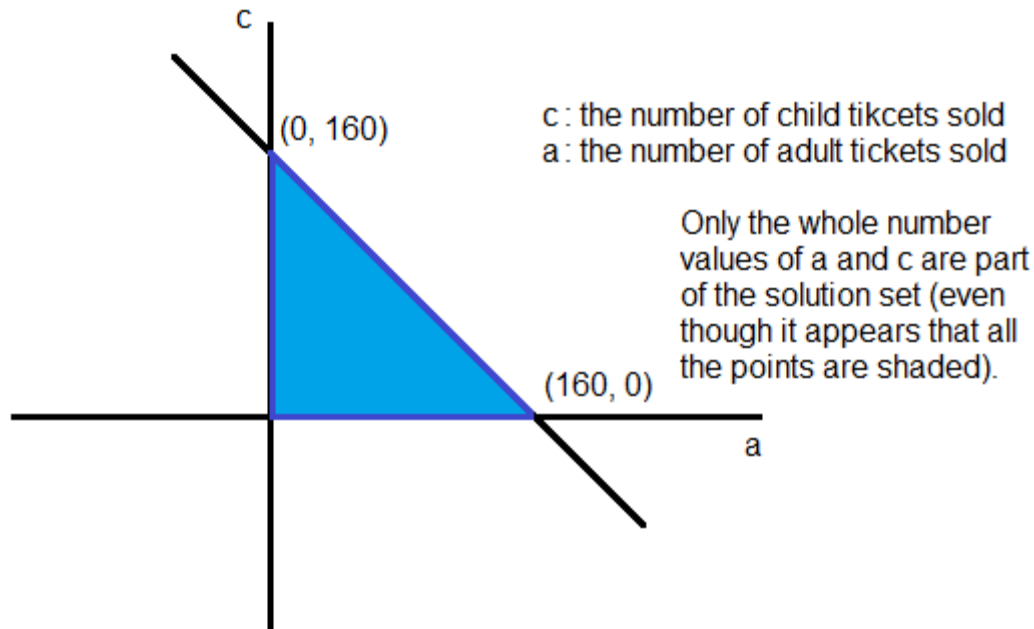
12. The local theater in Jamie's home town has a maximum capacity of 160 people. Jamie shared with Venus the following graph and said that the shaded region represented all the possible combinations of adult and child tickets that could be sold for one show.



- a. Venus objected and said there was more than one reason that Jamie's thinking was flawed. What reasons could Venus be thinking of?
- The graph implies that the number of tickets sold could be a fractional amount, but really it only makes sense to sell whole number tickets. x and y must be whole numbers.*
 - The graph also shows that negative ticket amounts could be sold, which does not make sense.*

- b. Use equations, inequalities, graphs, and/or words to describe for Jamie the set of all possible combinations of adult and child tickets that could be sold for one show.

The system would be $\begin{cases} a + c \leq 160 \\ a \geq 0 \\ c \geq 0 \end{cases}$ where a and c are whole numbers.



- c. The theater charges \$9 for each adult ticket and \$6 for each child ticket. The theater sold 144 tickets for the first showing of the new release. The total money collected from ticket sales for that show was \$1,164. Write a system of equations that could be used to find the number of child tickets and the number of adult tickets sold, and solve the system algebraically. Summarize your findings using the context of the problem.

a : the number of adult tickets sold (must be a whole number)

c : the number of child tickets sold (must be a whole number)

$$\begin{cases} 9a + 6c = 1164 \\ a + c = 144 \end{cases}$$

$$9a + 6c = 1164$$

$$-6a - 6c = -864$$

$$3a = 300$$

$$a = 100, c = 44$$

In all, 100 adult tickets and 44 child tickets were sold.

**Section 1.3 - Education Plan :: Attachment 5 - Units of instruction ::
Mathematics**



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Grade 6 • Module 1

Ratios and Unit Rates

OVERVIEW

In this module, students are introduced to the concepts of ratio and rate. Their previous experience solving problems involving multiplicative comparisons, such as *Max has three times as many toy cars as Jack*, (**4.OA.A.2**) serves as the conceptual foundation for understanding ratios as a multiplicative comparison of two or more numbers used in quantities or measurements (**6.RP.A.1**). Students develop fluidity in using multiple forms of ratio language and ratio notation. They construct viable arguments and communicate reasoning about ratio equivalence as they solve ratio problems in real-world contexts (**6.RP.A.3**). As the first topic comes to a close, students develop a precise definition of the value of a ratio $a:b$, where $b \neq 0$ as the value $\frac{a}{b}$, applying previous understanding of fraction as division (**5.NF.B.3**). They can then formalize their understanding of equivalent ratios as ratios having the same value.

With the concept of ratio equivalence formally defined, students explore collections of equivalent ratios in real-world contexts in Topic B. They build ratio tables and study their additive and multiplicative structure (**6.RP.A.3a**). Students continue to apply reasoning to solve ratio problems while they explore representations of collections of equivalent ratios and relate those representations to the ratio table (**6.RP.A.3**). Building on their experience with number lines, students represent collections of equivalent ratios with a double number line model. They relate ratio tables to equations using the value of a ratio defined in Topic A. Finally, students expand their experience with the coordinate plane (**5.G.A.1**, **5.G.A.2**) as they represent collections of equivalent ratios by plotting the pairs of values on the coordinate plane. The Mid-Module Assessment follows Topic B.

In Topic C, students build further on their understanding of ratios and the value of a ratio as they come to understand that a ratio of 5 miles to 2 hours corresponds to a rate of 2.5 miles per hour, where the *unit rate* is the numerical part of the rate, 2.5, and *miles per hour* is the newly formed unit of measurement of the rate (**6.RP.A.2**). Students solve unit rate problems involving unit pricing, constant speed, and constant rates of work (**6.RP.A.3b**). They apply their understanding of rates to situations in the real world. Students determine unit prices, use measurement conversions to comparison shop, and decontextualize constant speed and work situations to determine outcomes. Students combine their new understanding of rate to connect and revisit concepts of converting among different-sized standard measurement units (**5.MD.A.1**). They then expand upon this background as they learn to manipulate and transform units when multiplying and dividing quantities (**6.RP.A.3d**). Topic C culminates as students interpret and model real-world scenarios through the use of unit rates and conversions.

In the final topic of the module, students are introduced to percent and find percent of a quantity as a *rate per 100*. Students understand that N percent of a quantity has the same value as $\frac{N}{100}$ of that quantity. Students express a fraction as a percent and find a percent of a quantity in real-world contexts. Students learn to express a ratio using the language of percent and to solve percent problems by selecting from familiar representations, such as tape diagrams and double number lines or a combination of both (**6.RP.A.3c**). The End-of-Module Assessment follows Topic D.

Focus Standards

Understand ratio concepts and use ratio reasoning to solve problems.

- 6.RP.A.1** Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, “The ratio of wings to beaks in the bird house at the zoo was 2: 1, because for every 2 wings there was 1 beak.” “For every vote candidate A received, candidate C received nearly three votes.”*
- 6.RP.A.2** Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. *For example, “This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3/4$ cup of flour for each cup of sugar.” “We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger.”²*
- 6.RP.A.3** Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
- Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
 - Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*
 - Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.
 - Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

Foundational Standards

Use the four operations with whole numbers to solve problems.

- 4.OA.A.2** Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.³

²Expectations for unit rates in this grade are limited to non-complex fractions.

³See Glossary, Table 2.

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

- 5.NF.B.3** Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. *For example, interpret $3/4$ as the result of dividing 3 by 4, noting that $3/4$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $3/4$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?*

Convert like measurement units within a given measurement system.

- 5.MD.A.1** Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

Graph points on the coordinate plane to solve real-world and mathematical problems.

- 5.G.A.1** Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x -axis and x -coordinate, y -axis and y -coordinate).
- 5.G.A.2** Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

Focus Standards for Mathematical Practice

- MP.1** **Make sense of problems and persevere in solving them.** Students make sense of and solve real-world and mathematical ratio, rate, and percent problems using representations, such as tape diagrams, ratio tables, the coordinate plane, and double number line diagrams. They identify and explain the correspondences between the verbal descriptions and their representations and articulate how the representation depicts the relationship of the quantities in the problem. Problems include ratio problems involving the comparison of three quantities, multi-step changing ratio problems, using a given ratio to find associated ratios, and constant rate problems including two or more people or machines working together.
- MP.2** **Reason abstractly and quantitatively.** Students solve problems by analyzing and comparing ratios and unit rates given in tables, equations, and graphs. Students decontextualize a given constant speed situation, representing symbolically the quantities involved with the formula, distance = rate \times time.

- MP.5 Use appropriate tools strategically.** Students become proficient using a variety of representations that are useful in reasoning with rate and ratio problems, such as tape diagrams, double line diagrams, ratio tables, a coordinate plane, and equations. They then use judgment in selecting appropriate tools as they solve ratio and rate problems.
- MP.6 Attend to precision.** Students define and distinguish between ratio, the value of a ratio, a unit rate, a rate unit, and a rate. Students use precise language and symbols to describe ratios and rates. Students learn and apply the precise definition of percent.
- MP.7 Look for and make use of structure.** Students recognize the structure of equivalent ratios in solving word problems using tape diagrams. Students identify the structure of a ratio table and use it to find missing values in the table. Students make use of the structure of division and ratios to model 5 miles/2 hours as a quantity 2.5 mph.

Terminology

New or Recently Introduced Terms

- **Equivalent Ratios** (Two ratios $A:B$ and $C:D$ are *equivalent ratios* if there is a nonzero number c such that $C = cA$ and $D = cB$. For example, two ratios are equivalent if they both have values that are equal.)
- **Measurement of a Quantity** (A *measurement of a quantity* is a representation of that quantity as a multiple of a unit of measurement. The multiple is a number called the *measure* of the quantity. Examples include 3 *inches* or 5 *liters* or 7 *boys* with measures 3, 5, and 7, respectively.)
- **Percent** (One *percent* is the number $\frac{1}{100}$ and is written 1%. Percentages can be used as rates. For example, 30% of a quantity means $\frac{30}{100}$ times the quantity.)
- **Quantity (illustration)** (Examples of a *quantity* include a length, an area, a volume, a mass, a weight, a length of time, or a speed. It is an instance of a type of quantity.)
All quantities of the same type have the properties that (1) two quantities can be compared, (2) two quantities can be combined to get a new quantity of that same type, and (3) there always exists a quantity that is a multiple of any given quantity. These properties help define ways to measure quantities using a standard quantity called a unit of measurement.)
- **Rate (illustration)** (A *rate* is a quantity that describes a ratio relationship between two types of quantities. For example, $1.25 \frac{\text{miles}}{\text{hour}}$ is a rate that describes a ratio relationship between hours and miles: If an object is traveling at a constant $1.25 \frac{\text{miles}}{\text{hour}}$, then after 1 hour it has gone 1.25 miles, after 2 hours it has gone 2.50 miles, after 3 hours it has gone 3.75 miles, and so on. Rates differ from ratios in how they describe ratio relationships—rates are quantities and have the properties of quantities. For example, rates of the same type can be added together to get a new rate, as in $30 \frac{\text{miles}}{\text{hour}} + 20 \frac{\text{miles}}{\text{hour}} = 50 \frac{\text{miles}}{\text{hour}}$, whereas ratios cannot be added together.)

- **Ratio** (A *ratio* is an ordered pair of numbers which are not both zero. A ratio is denoted $A:B$ to indicate the order of the numbers—the number A is first and the number B is second.)
- **Ratio Relationship** (A *ratio relationship* is the set of all ratios that are equivalent ratios. A ratio such as $5:4$ can be used to describe the ratio relationship $\{1:\frac{4}{5}, \frac{5}{4}:1, 5:4, 10:8, 15:12, \dots\}$. Ratio language such as “5 miles for every 4 hours” can also be used to describe a ratio relationship. Ratio relationships are often represented by ratio tables, double number lines diagrams, and by equations and their graphs.)
- **Type of Quantity (illustration)** (Examples of *types of quantities* include lengths, areas, volumes, masses, weights, time, and (later) speeds.)
- **Unit of Measurement** (A *unit of measurement* is a choice of a quantity for a given type of quantity. Examples include 1 cm, 1 m, or 1 in. for lengths, 1 liter or 1 cm^3 for volumes, etc. But the choice could be arbitrary as well, such as the length between the vertical bars: |-----|.)
- **Unit Rate** (When a rate is written as a measurement (i.e., a number times a unit), the *unit rate* is the measure (i.e., the numerical part of the measurement). For example, when the rate of speed of an object is written as the measurement 1.25 mph, the number 1.25 is the unit rate.)
- **Value of a Ratio** (The *value of the ratio* $A:B$ is the quotient $\frac{A}{B}$ as long as B is not zero.)

Familiar Terms and Symbols⁴

- Convert
- Coordinate Plane
- Equation
- Tape Diagram

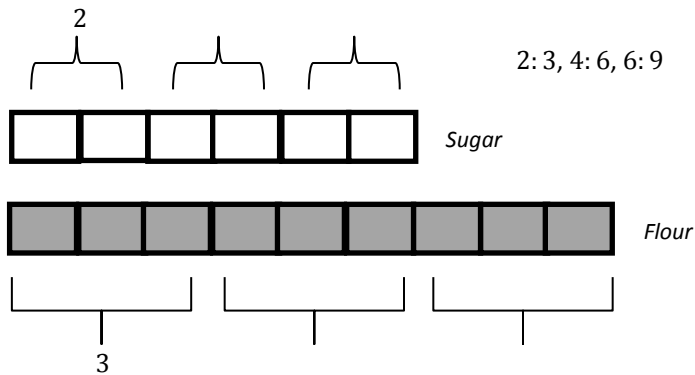
Suggested Tools and Representations

- Tape Diagrams (See example below.)
- Double Number Line Diagrams (See example below.)
- Ratio Tables (See example below.)
- Coordinate Plane (See example below.)

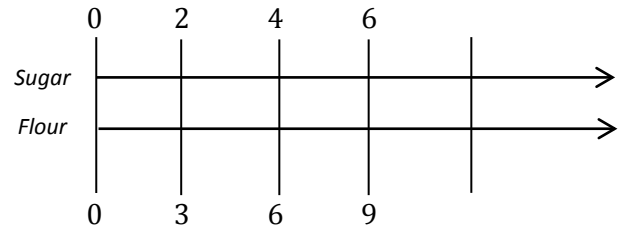
⁴These are terms and symbols students have seen previously.

*Representing Equivalent Ratios for a Cake Recipe
That Uses 2 Cups of Sugar for Every 3 Cups of Flour*

Tape Diagram



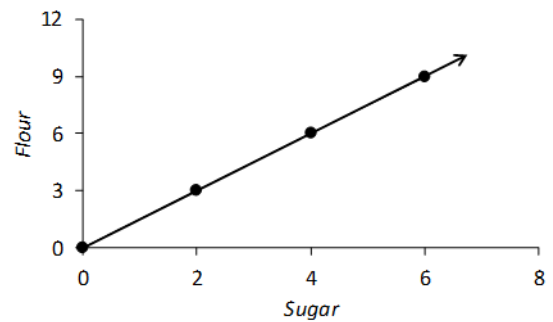
Double Number Line



Ratio Table

Sugar	Flour
2	3
4	6
6	9

Coordinate Plane



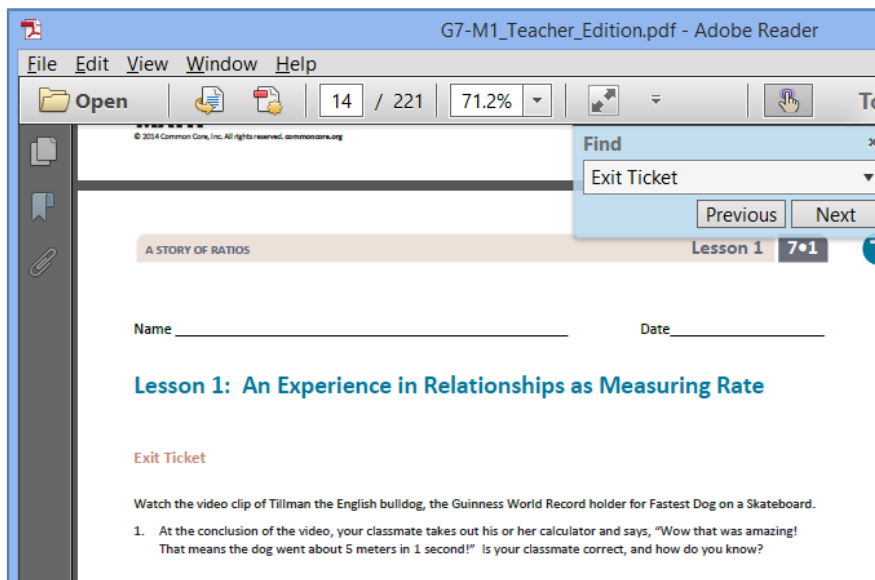
Preparing to Teach a Module

Preparation of lessons will be more effective and efficient if there has been an adequate analysis of the module first. Each module in *A Story of Ratios* can be compared to a chapter in a book. How is the module moving the plot, the mathematics, forward? What new learning is taking place? How are the topics and objectives building on one another? The following is a suggested process for preparing to teach a module.

Step 1: Get a preview of the plot.

- A: Read the Table of Contents. At a high level, what is the plot of the module? How does the story develop across the topics?
- B: Preview the module's Exit Tickets to see the trajectory of the module's mathematics and the nature of the work students are expected to be able to do.

Note: When studying a PDF file, enter "Exit Ticket" into the search feature to navigate from one Exit Ticket to the next.



Step 2: Dig into the details.

- A: Dig into a careful reading of the Module Overview. While reading the narrative, liberally reference the lessons and Topic Overviews to clarify the meaning of the text—the lessons demonstrate the strategies, show how to use the models, clarify vocabulary, and build understanding of concepts.
- B: Having thoroughly investigated the Module Overview, read through the Student Outcomes of each lesson (in order) to further discern the plot of the module. How do the topics flow and tell a coherent story? How do the outcomes move students to new understandings?

Step 3: Summarize the story.

Complete the Mid- and End-of-Module Assessments. Use the strategies and models presented in the module to explain the thinking involved. Again, liberally reference the lessons to anticipate how students who are learning with the curriculum might respond.

Preparing to Teach a Lesson

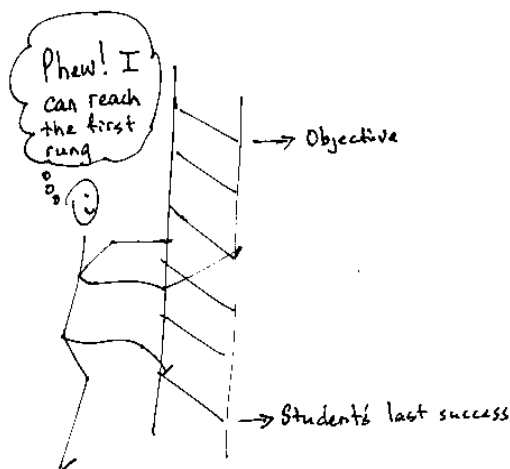
A three-step process is suggested to prepare a lesson. It is understood that at times teachers may need to make adjustments (customizations) to lessons to fit the time constraints and unique needs of their students. The recommended planning process is outlined below. Note: The ladder of Step 2 is a metaphor for the teaching sequence. The sequence can be seen not only at the macro level in the role that this lesson plays in the overall story, but also at the lesson level, where each rung in the ladder represents the next step in understanding or the next skill needed to reach the objective. To reach the objective, or the top of the ladder, all students must be able to access the first rung and each successive rung.

Step 1: Discern the plot.

- A: Briefly review the module’s Table of Contents, recalling the overall story of the module and analyzing the role of this lesson in the module.
- B: Read the Topic Overview related to the lesson, and then review the Student Outcome(s) and Exit Ticket of each lesson in the topic.
- C: Review the assessment following the topic, keeping in mind that assessments can be found midway through the module and at the end of the module.

Step 2: Find the ladder.

- A: Work through the lesson, answering and completing each question, example, exercise, and challenge.
- B: Analyze and write notes on the new complexities or new concepts introduced with each question or problem posed; these notes on the sequence of new complexities and concepts are the rungs of the ladder.
- C: Anticipate where students might struggle, and write a note about the potential cause of the struggle.
- D: Answer the Closing questions, always anticipating how students will respond.



Step 3: Hone the lesson.

Lessons may need to be customized if the class period is not long enough to do all of what is presented and/or if students lack prerequisite skills and understanding to move through the entire lesson in the time allotted. A suggestion for customizing the lesson is to first decide upon and designate each question, example, exercise, or challenge as either “Must Do” or “Could Do.”

- A: Select “Must Do” dialogue, questions, and problems that meet the Student Outcome(s) while still providing a coherent experience for students; reference the ladder. The expectation should be that the majority of the class will be able to complete the “Must Do” portions of the lesson within the allocated time. While choosing the “Must Do” portions of the lesson, keep in mind the need for a balance of dialogue and conceptual questioning, application problems, and abstract problems, and a balance between students using pictorial/graphical representations and abstract representations. Highlight dialogue to be included in the delivery of instruction so that students have a chance to articulate and consolidate understanding as they move through the lesson.

B: “Must Do” portions might also include remedial work as necessary for the whole class, a small group, or individual students. Depending on the anticipated difficulties, the remedial work might take on different forms as suggested in the chart below.

Anticipated Difficulty	“Must Do” Remedial Problem Suggestion
The first problem of the lesson is too challenging.	Write a short sequence of problems on the board that provides a ladder to Problem 1. Direct students to complete those first problems to empower them to begin the lesson.
There is too big of a jump in complexity between two problems.	Provide a problem or set of problems that bridge student understanding from one problem to the next.
Students lack fluency or foundational skills necessary for the lesson.	Before beginning the lesson, do a quick, engaging fluency exercise, such as a Rapid White Board Exchange or Sprint. Before beginning any fluency activity for the first time, assess that students have conceptual understanding of the problems in the set and that they are poised for success with the easiest problem in the set.
More work is needed at the concrete or pictorial level.	Provide manipulatives or the opportunity to draw solution strategies.
More work is needed at the abstract level.	Add a White Board Exchange of abstract problems to be completed toward the end of the lesson.

- C: “Could Do” problems are for students who work with greater fluency and understanding and can, therefore, complete more work within a given time frame.
- D: At times, a particularly complex problem might be designated as a “Challenge!” problem to provide to advanced students. Consider creating the opportunity for students to share their “Challenge!” solutions with the class at a weekly session or on video.
- E: If the lesson is customized, be sure to carefully select Closing questions that reflect such decisions and adjust the Exit Ticket if necessary.

Assessment Summary

Assessment Type	Administered	Format	Standards Addressed
Mid-Module Assessment Task	After Topic B	Constructed response with rubric	6.RP.A.1, 6.RP.A.3 (Stem Only), 6.RP.A.3a
End-of-Module Assessment Task	After Topic D	Constructed response with rubric	6.RP.A.1, 6.RP.A.2, 6.RP.A.3



Topic A

Representing and Reasoning About Ratios

6.RP.A.1, 6.RP.A.3a

Focus Standards:	6.RP.A.1	Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. <i>For example, “The ratio of wings to beaks in the bird house at the zoo was 2: 1, because for every 2 wings there was 1 beak.” “For every vote candidate A received, candidate C received nearly three votes.”</i>
	6.RP.A.3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. <ol style="list-style-type: none"> Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
Instructional Days:	8	
Lessons 1–2:	Ratios (S, E) ¹	
Lessons 3–4:	Equivalent Ratios (P, P)	
Lessons 5–6:	Solving Problems by Finding Equivalent Ratios (P, P)	
Lesson 7:	Associated Ratios and the Value of a Ratio (P)	
Lesson 8:	Equivalent Ratios Defined Through the Value of a Ratio (P)	

In Topic A, students are introduced to the concepts of ratios. Their previous experience solving problems involving multiplicative comparisons, such as *Max has three times as many toy cars as Jack (4.OA.A.2)*, serves as the conceptual foundation for understanding ratios as a multiplicative comparison of two or more numbers used in quantities or measurements (**6.RP.A.1**). In the first two lessons, students develop fluidity in using multiple forms of ratio language and ratio notation as they read about or watch video clips about ratio relationships and then discuss and model the described relationships. Students are prompted to think of, describe, and model ratio relationships from their own experience. Similarly, Lessons 3 and 4 explore the idea of equivalent ratios. Students read about or watch video clips about situations that call for establishing an equivalent ratio. Students discuss and model the situations to solve simple problems of finding one or more equivalent ratios.

¹Lesson Structure Key: **P**-Problem Set Lesson, **M**-Modeling Cycle Lesson, **E**-Exploration Lesson, **S**-Socratic Lesson

The complexity of problems increases as students are challenged to find values of quantities in a ratio given the total desired quantity or given the difference between the two quantities. *For example, If the ratio of boys to girls in the school is 2:3, find the number of girls if there are 300 more girls than boys.* As the first topic comes to a close, students develop a precise definition of the *value of a ratio* $a:b$, where $b \neq 0$, as the value $\frac{a}{b}$, applying previous understanding of fraction as division (**5.NF.B.3**). Students are then challenged to express their understanding of ratio equivalence using the newly defined term, value of a ratio. They conclude that equivalent ratios are ratios having the same value.



Lesson 1: Ratios

Student Outcomes

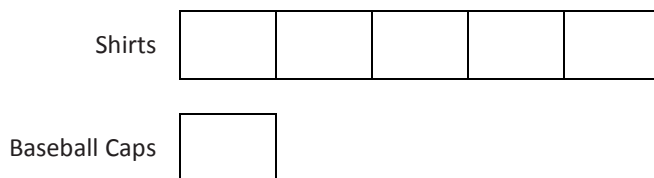
- Students understand that a *ratio* is an ordered pair of numbers which are not both zero. Students understand that a ratio is often used instead of describing the first number as a multiple of the second.
- Students use the precise language and notation of ratios (e.g., 3: 2, 3 to 2). Students understand that the order of the pair of numbers in a ratio matters and that the description of the ratio relationship determines the correct order of the numbers. Students conceive of real-world contextual situations to match a given ratio.

Lesson Notes

The first two lessons of this module develop students' understanding of the term *ratio*. A ratio is always a pair of numbers, such as 2: 3, and never a pair of quantities such as 2 cm: 3 sec. Keeping this straight for students requires teachers to use the term *ratio* correctly and consistently. Students are required to separately keep track of the units in a word problem. We refer to statements about quantities in word problems that define ratios as *ratio language* or *ratio relationship descriptions*. Typical examples of ratio relationship descriptions include 3 cups to 4 cups and 5 miles in 4 hours. The ratios for these ratio relationships are 3: 4 and 5: 4, respectively.

Tape diagrams may be unfamiliar to students. Making a clear connection between multiplicative comparisons and their representation with tape diagrams is essential to student understanding of ratios in this module. Creating and delivering brief opening exercises that demonstrate the use of tape diagrams, as well as providing fluency activities, such as Rapid Whiteboard Exchanges (RWBE), is highly suggested throughout the module. Students bridge their knowledge of multiplicative comparisons to ratio relationships in this lesson and through the rest of the module. An example of a connection between multiplicative comparisons and ratios is as follows:

Cameron has 5 shirts and 1 baseball cap. The multiplicative comparison is Cameron has 5 times as many shirts as he has baseball caps. This can be represented with a tape diagram:



Students are asked to determine the ratio relationship of the number of shirts Cameron has to the number of baseball caps he has. Using the tape diagram above, students see that for every 5 shirts Cameron has, he has 1 baseball cap, or the ratio of the number of shirts Cameron has to the number of baseball caps he has is 5: 1.

Classwork

Example 1 (15 minutes)

Read the example aloud.

Example 1

The coed soccer team has four times as many boys on it as it has girls. We say the ratio of the number of boys to the number of girls on the team is 4: 1. We read this as *four to one*.

- Let's create a table to show how many boys and how many girls could be on the team.

Create a table like the one shown below to show possibilities of the number of boys and girls on the soccer team. Have students copy the table into their student materials.

# of Boys	# of Girls	Total # of Players
4	1	5

- So, we would have four boys and one girl on the team for a total of five players. Is this big enough for a team?
 - Adult teams require 11 players, but youth teams may have fewer. There is no right or wrong answer; just encourage reflection on the question, thereby having students connect their math work back to the context.*
- What are some other ratios that show four times as many boys as girls, or a ratio of boys to girls of 4 to 1?
 - Have students add each ratio to their table.*

# of Boys	# of Girls	Total # of Players
4	1	5
8	2	10
12	3	15

- From the table, we can see that there are four boys for every one girl on the team.

Read the example aloud.

Suppose the ratio of the number of boys to the number of girls on the team is 3: 2.

Create a table like the one shown below to show possibilities of the number of boys and girls on the soccer team. Have students copy the table into their student materials.

# of Boys	# of Girls	Total # of Players
3	2	5

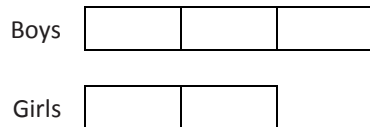
- What are some other team compositions where there are three boys for every two girls on the team?

# of Boys	# of Girls	Total # of Players
3	2	5
6	4	10
9	6	15

- I can't say there are 3 times as many boys as girls. What would my multiplicative value have to be? There are _____ as many boys as girls.

Encourage students to articulate their thoughts, guiding them to say there are $\frac{3}{2}$ as many boys as girls.

- Can you visualize $\frac{3}{2}$ as many boys as girls?
- Can we make a tape diagram (or bar model) that shows that there are $\frac{3}{2}$ as many boys as girls?



- Which description makes the relationship easier to visualize: saying the ratio is 3 to 2 or saying there are 3 halves as many boys as girls?
 - There is no right or wrong answer. Have students explain why they picked their choices.*

Example 2 (8 minutes): Class Ratios

Discussion

Direct students:

- Find the ratio of boys to girls in our class.
- Raise your hand when you know: What is the ratio of boys to girls in our class?
- How can we say this as a multiplicative comparison without using ratios? Raise your hand when you know.

Allow for choral response when all hands are raised.

- Write the ratio of number of boys to number of girls in your student materials under Example 2.
- Compare your answer with your neighbor's answer. Does everyone's ratio look exactly the same?

Allow for discussion of differences in what students wrote. Communicate the following in the discussions:

- It is ok to use either the colon symbol or the word *to* between the two numbers of the ratio.
- The ratio itself does not have units or descriptive words attached.
 - Raise your hand when you know: What is the ratio of number of girls to number of boys in our class?
 - Write the ratio in your student materials under Example 2.
 - Is the ratio of number of girls to number of boys the same as the ratio of number of boys to number of girls?
 - Unless in this case there happens to be an equal number of boys and girls, then no, the ratios are not the same. Indicate that order matters.*



- Is this an interesting multiplicative comparison for this class? Is it worth commenting on in our class? If our class had 15 boys and 5 girls, might it be a more interesting observation?

For the exercise below, choose a way for students to indicate that they identify with the first statement (e.g., standing up or raising a hand). After each pair of statements below, have students create a ratio of the number of students who answered yes to the first statement to the number of students who answered yes to the second statement verbally, in writing, or both. Consider following each pair of statements with a discussion of whether it seems like an interesting ratio to discuss. Or alternatively, when all of these examples are finished, ask students which ratio they found most interesting.

Students record a ratio for each of the following examples:

- You traveled out of state this summer.
- You did not travel out of state this summer.
- You have at least one sibling.
- You are an only child.
- Your favorite class is math.
- Your favorite class is not math.

Example 2: Class Ratios

Write the ratio of the number of boys to the number of girls in our class.

Write the ratio of the number of girls to the number of boys in our class.

Record a ratio for each of the examples the teacher provides.

- | | |
|--|--|
| 1. <u>Answers will vary. One example is 12:10.</u> | 2. <u>Answers will vary. One example is 10:12.</u> |
| 3. <u>Answers will vary. One example is 7:15.</u> | 4. <u>Answers will vary. One example is 15:7.</u> |
| 5. <u>Answers will vary. One example is 11:11.</u> | 6. <u>Answers will vary. One example is 11:11.</u> |

Exercise 1 (2 minutes)

Have students look around the classroom to find quantities to compare. Have students create written ratio statements that represent their ratios in one of the summary forms.

Exercise 1

My own ratio compares the number of students wearing jeans to the number of students not wearing jeans.

My ratio is 16:6.

Exercise 2 (10 minutes)

With a partner, students use words to describe a context that could be represented by each ratio given. Encourage students to be precise about the order in which the quantities are stated (emphasizing that order matters) and about the quantities being compared. That is, instead of saying the ratio of boys to girls, encourage them to say the ratio of the number of boys to the number of girls. After students develop the capacity to be very precise about the quantities in the

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ratio, it is appropriate for them to abbreviate their communication in later lessons. Just be sure their abbreviations still accurately convey the meaning of the ratio in the correct order.

Exercise 2

Using words, describe a ratio that represents each ratio below.

- a. 1 to 12 For every one year, there are twelve months.
- b. 12:1 For every twelve months, there is one year.
- c. 2 to 5 For every two non-school days in a week, there are five school days.
- d. 5 to 2 For every five female teachers I have, there are two male teachers.
- e. 10:2 For every ten toes, there are two feet.
- f. 2:10 For every two problems I can finish, there are ten minutes that pass.

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After completion, invite sharing and explanations of the chosen answers.

Point out the difference between ratios, such as, *for every one year, there are twelve months*, and *for every five female teachers I have, there are two male teachers*. The first type represents a constant relationship that will remain true as the number of years or months increases, and the second one is somewhat arbitrary and will not remain true if the number of teachers increases.

Closing (5 minutes)

Provide students with this description:

A **ratio** is an ordered pair of nonnegative numbers, which are not both zero. The ratio is denoted $A:B$ or A to B to indicate the order of the numbers. In this specific case, the number A is first, and the number B is second.

- What is a ratio? Can you verbally describe a ratio in your own words using this description?
 - *Answers will vary but should include the description that a ratio is an ordered pair of numbers, which are both not zero.*
- How do we write ratios?
 - *A colon B ($A:B$) or A to B.*
- What are two quantities you would love to have in a ratio of 5:2 but hate to have in a ratio of 2:5?
 - *Answers will vary. For example, I would love to have a ratio of the number of hours of play time to the number of hours of chores be 5:2, but I would hate to have a ratio of the number of hours of television time to the number of hours of studying be 2:5.*

**Lesson Summary**

A *ratio* is an ordered pair of numbers, which are not both zero.

A ratio is denoted $A : B$ to indicate the order of the numbers—the number A is first and the number B is second.

The order of the numbers is important to the meaning of the ratio. Switching the numbers changes the relationship. The description of the ratio relationship tells us the correct order for the numbers in the ratio.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 1: Ratios

Exit Ticket

1. Write a ratio for the following description: Kaleel made three times as many baskets as John during basketball practice.
2. Describe a situation that could be modeled with the ratio 4:1.
3. Write a ratio for the following description: For every 6 cups of flour in a bread recipe, there are 2 cups of milk.



Exit Ticket Sample Solutions

1. Write a ratio for the following description: Kaleel made three times as many baskets as John during basketball practice.
A ratio of 3: 1 or 3 to 1 can be used.
2. Describe a situation that could be modeled with the ratio 4: 1.
Answers will vary but could include the following: For every four teaspoons of cream in a cup of tea, there is one teaspoon of honey.
3. Write a ratio for the following description: For every 6 cups of flour in a bread recipe, there are 2 cups of milk.
A ratio of 6: 2 or 6 to 2 can be used, or students might recognize and suggest the equivalent ratio of 3: 1.

Problem Set Sample Solutions

1. At the sixth grade school dance, there are 132 boys, 89 girls, and 14 adults.
 - a. Write the ratio of the number of boys to the number of girls.
132: 89 or 132 to 89
 - b. Write the same ratio using another form ($A: B$ vs. A to B).
132 to 89 or 132: 89
 - c. Write the ratio of the number of boys to the number of adults.
132: 14 or 132 to 14
 - d. Write the same ratio using another form.
132 to 14 or 132: 14
2. In the cafeteria, 100 milk cartons were put out for breakfast. At the end of breakfast, 27 remained.
 - a. What is the ratio of the number of milk cartons taken to the total number of milk cartons?
73: 100 or 73 to 100
 - b. What is the ratio of the number of milk cartons remaining to the number of milk cartons taken?
27: 73 or 27 to 73



3. Choose a situation that could be described by the following ratios, and write a sentence to describe the ratio in the context of the situation you chose.

For example:

3: 2. When making pink paint, the art teacher uses the ratio 3: 2. For every 3 cups of white paint she uses in the mixture, she needs to use 2 cups of red paint.

- a. 1 to 2

For every one nose, there are two eyes (answers will vary).

- b. 29 to 30

For every 29 girls in the cafeteria, there are 30 boys (answers will vary).

- c. 52: 12

For every 52 weeks in the year, there are 12 months (answers will vary).



Lesson 2: Ratios

Student Outcomes

- Students reinforce their understanding that a ratio is an ordered pair of nonnegative numbers, which are not both zero. Students continue to learn and use the precise language and notation of ratios (e.g., 3:2, 3 to 2). Students demonstrate their understanding that the order of the pair of numbers in a ratio matters.
- Students create multiple ratios from a context in which more than two quantities are given. Students conceive of real-world contextual situations to match a given ratio.

Classwork

Exercise 1 (5 minutes)

Allow students time to complete the exercise. Students can work in small groups or pairs for the exercise.

Exercise 1

Come up with two examples of ratio relationships that are interesting to you.

- My brother watches twice as much television as I do. The ratio of number of hours he watches in a day to the number of hours I watch in a day is usually 2:1.*
- For every 2 chores my mom gives my brother, she gives 3 to me. The ratio is 2:3.*

Allow students to share by writing the examples on the board, being careful to include some of the verbal clues that indicate a ratio relationship: *to, for each, for every*.

- What are the verbal cues that tell us someone is talking about a ratio relationship?

Exploratory Challenge (30 minutes)

Have students read and study the description of the data in the chart provided in their student materials. Ask students to explain what the chart is about (if possible, without looking back at the description). This strategy encourages students to really internalize the information given as opposed to jumping right into the problem without knowing the pertinent information.

- Based on the survey, should the company order more pink fabric or more orange fabric?
- What is the ratio of the number of bolts of pink fabric to the number of bolts of orange fabric you think the company should order?
- Someone said 5 to 3, and another person said (or my friend said) it would be 3 to 5. Are those the same? Is a ratio of 3 to 5 the same as a ratio of 5 to 3?
- Write a statement that describes the ratio relationship of this 3 to 5 ratio that we have been talking about.

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Review the statements written by students, checking and reinforcing their understanding that the ordering of the words in the description of the ratio relationship is what determines the order of the numbers in the ratio.

Allow students to work individually or in pairs to complete Exercises 2 and 3 for this Exploratory Challenge.

Exploratory Challenge

A T-shirt manufacturing company surveyed teenage girls on their favorite T-shirt color to guide the company’s decisions about how many of each color T-shirt they should design and manufacture. The results of the survey are shown here.

Favorite T-shirt Colors of Teenage Girls Surveyed



Exercises for Exploratory Challenge

- Describe a ratio relationship, in the context of this survey, for which the ratio is 3: 5.
The number of girls who answered orange to the number of girls who answered pink.
- For each ratio relationship given, fill in the ratio it is describing.

Description of the Ratio Relationship (Underline or highlight the words or phrases that indicate the description is a ratio.)	Ratio
For <u>every</u> 7 white T-shirts they manufacture, they should manufacture 4 yellow T-shirts. The ratio of the number of white T-shirts <u>to</u> the number of yellow T-shirts should be ...	7: 4
For <u>every</u> 4 yellow T-shirts they manufacture, they should manufacture 7 white T-shirts. The ratio of the number of yellow T-shirts <u>to</u> the number of white T-shirts should be ...	4: 7
The ratio of the number of girls who liked a white T-shirt best <u>to</u> the number of girls who liked a colored T-shirt best was ...	7: 19
For <u>each</u> red T-shirt they manufacture, they should manufacture 4 blue T-shirts. The ratio of the number of red T-shirts <u>to</u> the number of blue T-shirts should be ...	1: 4
They should purchase 4 bolts of yellow fabric <u>for every</u> 3 bolts of orange fabric. The ratio of the number of bolts of yellow fabric <u>to</u> the number of bolts of orange fabric should be ...	4: 3
The ratio of the number of girls who chose blue or green as their favorite <u>to</u> the number of girls who chose pink or red as their favorite was ...	6: 6 <i>or</i> 1: 1
Three <u>out of every</u> 26 T-shirts they manufacture should be orange. The ratio of the number of orange T-shirts <u>to</u> the total number of T-shirts should be ...	3: 26

3. For each ratio given, fill in a description of the ratio relationship it could describe, using the context of the survey.

Description of the Ratio Relationship (Underline or highlight the words or phrases that indicate your example is a ratio.)	Ratio
<i>They should make 4 yellow T-shirts <u>for every</u> 3 orange T-shirts. The ratio of the number of yellow T-shirts <u>to</u> the number of orange T-shirts should be ...</i>	4 to 3
<i>They should make 3 orange T-shirts <u>for every</u> 4 blue T-shirts. The ratio of the number of orange T-shirts <u>to</u> the number of blue T-shirts should be ...</i>	3:4
<i><u>For every</u> 19 colored T-shirts, there should be 7 white T-shirts. The ratio of the number of colored T-shirts <u>to</u> the number of white T-shirts should be ...</i>	19:7
<i>7 <u>out of</u> 26 T-shirts should be white. The ratio of the number of white T-shirts <u>to</u> the number of total T-shirts should be ...</i>	7 to 26

If time permits, allow students to share some of their descriptions for the ratios in Exercise 3.

Closing (5 minutes)

- Are the ratios 2:5 and 5:2 the same? Why or why not?

Lesson Summary

- Ratios can be written in two ways: A to B or $A:B$.
- We describe ratio relationships with words, such as *to*, *for each*, *for every*.
- The ratio $A:B$ is not the same as the ratio $B:A$ (unless A is equal to B).

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 2: Ratios

Exit Ticket

Give two different ratios with a description of the ratio relationship using the following information:

There are 15 male teachers in the school. There are 35 female teachers in the school.

Exit Ticket Sample Solutions

Give two different ratios with a description of the ratio relationship using the following information:

There are 15 male teachers in the school. There are 35 female teachers in the school.

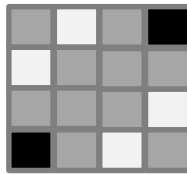
Possible solutions:

- *The ratio of the number of male teachers to the number of female teachers is 15: 35.*
- *The ratio of the number of female teachers to the number of male teachers is 35: 15.*
- *The ratio of the number of female teachers to the total number of teachers in the school is 35: 50.*
- *The ratio of the number of male teachers to the total number of teachers in the school is 15: 50.*

**Please note that some students may write other equivalent ratios as answers. For example, 3: 7 is equivalent to 15: 35.*

Problem Set Sample Solutions

1. Using the floor tiles design shown below, create 4 different ratios related to the image. Describe the ratio relationship, and write the ratio in the form $A : B$ or the form A to B .



For every 16 tiles, there are 4 white tiles.

The ratio of the number of black tiles to the number of white tiles is 2 to 4.

(Answers will vary.)

2. Billy wanted to write a ratio of the number of apples to the number of peppers in his refrigerator. He wrote 1: 3. Did Billy write the ratio correctly? Explain your answer.



Billy is incorrect. There are 3 apples and 1 pepper in the picture. The ratio of the number of apples to the number of peppers is 3: 1.



Lesson 3: Equivalent Ratios

Student Outcomes

- Students develop an intuitive understanding of equivalent ratios by using tape diagrams to explore possible quantities of each part when given the part-to-part ratio. Students use tape diagrams to solve problems when the part-to-part ratio is given and the value of one of the quantities is given.
- Students formalize a definition of equivalent ratios: Two ratios, $A : B$ and $C : D$, are equivalent ratios if there is a nonzero number c such that $C = cA$ and $D = cB$.

Classwork

Exercise 1 (5 minutes)

This exercise continues to reinforce students' ability to relate ratios to the real world, as practiced in Lessons 1 and 2. Provide students with time to think of a one-sentence story problem about a ratio.

Exercise 1

Write a one-sentence story problem about a ratio.

Answers will vary. The ratio of the number of sunny days to the number of cloudy days in this town is 3: 1.

Write the ratio in two different forms.

3: 1 and 3 to 1

Have students share their sentences with each other in pairs or trios. Ask a few students to share with the whole class.

Exercise 2 (15 minutes)

Ask students to read the problem and then describe in detail what the problem is about without looking back at the description, if possible. This strategy encourages students to really internalize the information given as opposed to jumping right into the problem without knowing the pertinent information.

- Let's represent this ratio in a table.

The Length of Shanni's Ribbon (in inches)	The Length of Mel's Ribbon (in inches)
7	3
14	6
21	9

- We can use a tape diagram to represent the ratio of the lengths of ribbon. Let's create one together.

Walk through the construction of the tape diagram with students as they record.

- How many units should we draw for Shanni’s portion of the ratio?
 - *Seven*
- How many units should we draw for Mel’s portion of the ratio?
 - *Three*

Exercise 2

Shanni and Mel are using ribbon to decorate a project in their art class. The ratio of the length of Shanni’s ribbon to the length of Mel’s ribbon is 7: 3.

Draw a tape diagram to represent this ratio.

Shanni

Mel

- What does each unit on the tape diagram represent?
 - *Allow students to discuss; they should conclude that they do not really know yet, but each unit represents some unit that is a length.*
- What if each unit on the tape diagrams represents 1 inch? What are the lengths of the ribbons?
 - *Shanni’s ribbon is 7 inches; Mel’s ribbon is 3 inches.*
- What is the ratio of the lengths of the ribbons?
 - *7: 3 (Make sure that students feel comfortable expressing the ratio itself as simply the pair of numbers 7: 3 without having to add units.)*
- What if each unit on the tape diagrams represents 2 meters? What are the lengths of the ribbons?
 - *Shanni’s ribbon is 14 meters; Mel’s ribbon is 6 meters.*
- How did you find that?

Scaffolding:
 If students do not see that each unit represents a given length, write the length of each unit within the tape diagram units, and have students add them to find the total.

Allow students to verbalize and record using a tape diagram.

- What is the ratio of the length of Shanni’s ribbon to the length of Mel’s ribbon now? (Students may disagree; some may say it is 14: 6, and others may say it is still 7: 3.)

Allow them to debate and justify their answers. If there is no debate, initiate one: A friend of mine told me the ratio would be (provide the one that no one said, either 7: 3 or 14: 6). Is she right?

- What if each unit represents 3 inches? What are the lengths of the ribbons? (Record. Shanni’s ribbon is 21 inches; Mel’s ribbon is 9 inches.) Why?
 - *7 times 3 equals 21; 3 times 3 equals 9.*
- If each of the units represents 3 inches, what is the ratio of the length of Shanni’s ribbon to the length of Mel’s ribbon?

Allow for discussion as needed.

- We just explored three different possibilities for the length of the ribbon; did the number of units in our tape diagrams ever change?
 - *No*
- What did these three ratios, 7: 3, 14: 6, 21: 9, all have in common?

Write the ratios on the board. Allow students to verbalize their thoughts without interjecting a definition. Encourage all to participate by asking questions of the class with respect to what each student says, such as, “Does that sound right to you?”

- Mathematicians call these ratios *equivalent*. What ratios can we say are equivalent to 7: 3?

Shanni and Mel are using ribbon to decorate a project in their art class. The ratio of the length of Shanni’s ribbon to the length of Mel’s ribbon is 7: 3.

Draw a tape diagram to represent this ratio.

<i>Shanni</i>	<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 14.28%;"></td> <td style="width: 14.28%;"></td> <td style="width: 14.28%;"></td> <td style="width: 14.28%;"></td> <td style="width: 14.28%;"></td> <td style="width: 14.28%;"></td> <td style="width: 14.28%;"></td> </tr> </table>								<i>7 inches</i>	
		<i>3 inches</i>								
<i>Mel</i>	<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 33.33%;"></td> <td style="width: 33.33%;"></td> <td style="width: 33.33%;"></td> </tr> </table>				<i>7: 3</i>					
<i>Shanni</i>	<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 14.28%;">2 m</td> <td style="width: 14.28%;">2 m</td> <td style="width: 14.28%;">2 m</td> <td style="width: 14.28%;">2 m</td> <td style="width: 14.28%;">2 m</td> <td style="width: 14.28%;">2 m</td> <td style="width: 14.28%;">2 m</td> </tr> </table>	2 m	2 m	2 m	2 m	2 m	2 m	2 m	<i>14 meters</i>	
2 m	2 m	2 m	2 m	2 m	2 m	2 m				
		<i>6 meters</i>								
<i>Mel</i>	<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 33.33%;">2 m</td> <td style="width: 33.33%;">2 m</td> <td style="width: 33.33%;">2 m</td> </tr> </table>	2 m	2 m	2 m	<i>14: 6</i>					
2 m	2 m	2 m								
<i>Shanni</i>	<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 14.28%;">3 in.</td> <td style="width: 14.28%;">3 in.</td> <td style="width: 14.28%;">3 in.</td> <td style="width: 14.28%;">3 in.</td> <td style="width: 14.28%;">3 in.</td> <td style="width: 14.28%;">3 in.</td> <td style="width: 14.28%;">3 in.</td> </tr> </table>	3 in.	3 in.	3 in.	3 in.	3 in.	3 in.	3 in.	<i>21 inches</i>	
3 in.	3 in.	3 in.	3 in.	3 in.	3 in.	3 in.				
		<i>9 inches</i>								
<i>Mel</i>	<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 33.33%;">3 in.</td> <td style="width: 33.33%;">3 in.</td> <td style="width: 33.33%;">3 in.</td> </tr> </table>	3 in.	3 in.	3 in.	<i>21: 9</i>					
3 in.	3 in.	3 in.								

Exercise 3 (8 minutes)

Work as a class or allow students to work independently first, and then go through as a class.

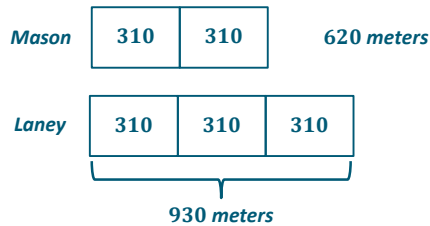
Exercise 3

Mason and Laney ran laps to train for the long-distance running team. The ratio of the number of laps Mason ran to the number of laps Laney ran was 2 to 3.

a. If Mason ran 4 miles, how far did Laney run? Draw a tape diagram to demonstrate how you found the answer.

	<p><i>4 miles</i></p>				
<i>Mason</i>	<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 50%;">2 mi.</td> <td style="width: 50%;">2 mi.</td> </tr> </table>	2 mi.	2 mi.		
2 mi.	2 mi.				
<i>Laney</i>	<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 33.33%;">2 mi.</td> <td style="width: 33.33%;">2 mi.</td> <td style="width: 33.33%;">2 mi.</td> </tr> </table>	2 mi.	2 mi.	2 mi.	<i>6 miles</i>
2 mi.	2 mi.	2 mi.			

- b. If Laney ran 930 meters, how far did Mason run? Draw a tape diagram to determine how you found the answer.



- c. What ratios can we say are equivalent to 2:3?

4:6 and 620:930

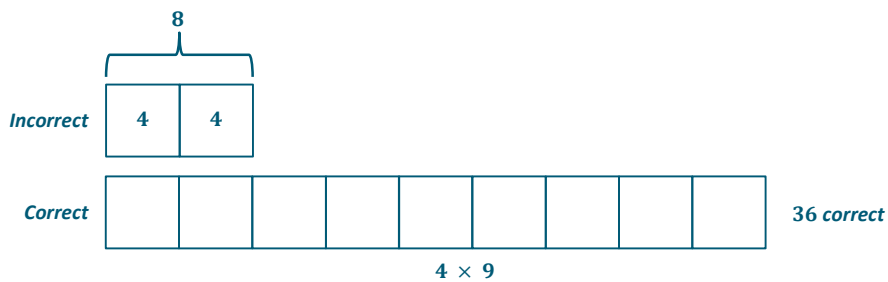
Exercise 4 (7 minutes)

Allow students to work the exercise independently and then compare their answers with a neighbor’s answer.

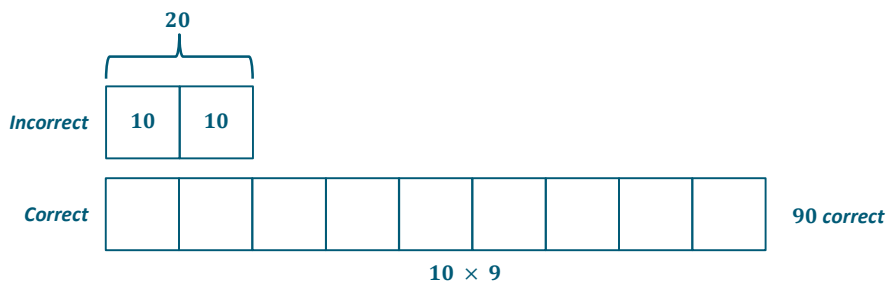
Exercise 4

Josie took a long multiple-choice, end-of-year vocabulary test. The ratio of the number of problems Josie got incorrect to the number of problems she got correct is 2:9.

- a. If Josie missed 8 questions, how many did she get correct? Draw a tape diagram to demonstrate how you found the answer.



- b. If Josie missed 20 questions, how many did she get correct? Draw a tape diagram to demonstrate how you found the answer.





c. What ratios can we say are equivalent to 2:9?
8:36 and 20:90

d. Come up with another possible ratio of the number Josie got incorrect to the number she got correct.

5	5
---	---

--	--	--	--	--	--	--	--	--	--

$5 \times 9 = 45$

10:45

e. How did you find the numbers?
Multiplied 5×2 and 5×9

f. Describe how to create equivalent ratios.
Multiply both numbers of the ratio by the same number (any number you choose).

Closing (5 minutes)

Ask students to share their answers to part (f); then, summarize by presenting the definition of equivalent ratios provided in the Lesson Summary below.

Note that if students do not have a sufficient grasp of algebra, they should not use the algebraic definition. It is acceptable to use only the second definition.

Lesson Summary

Two ratios $A:B$ and $C:D$ are *equivalent ratios* if there is a nonzero number c such that $C = cA$ and $D = cB$. For example, two ratios are equivalent if they both have values that are equal.

Ratios are equivalent if there is a nonzero number that can be multiplied by both quantities in one ratio to equal the corresponding quantities in the second ratio.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 3: Equivalent Ratios

Exit Ticket

Pam and her brother both open savings accounts. Each begin with a balance of zero dollars. For every two dollars that Pam saves in her account, her brother saves five dollars in his account.

- Determine a ratio to describe the money in Pam's account to the money in her brother's account.
- If Pam has 40 dollars in her account, how much money does her brother have in his account? Use a tape diagram to support your answer.
- Record the equivalent ratio.
- Create another possible ratio that describes the relationship between the amount of money in Pam's account and the amount of money in her brother's account.

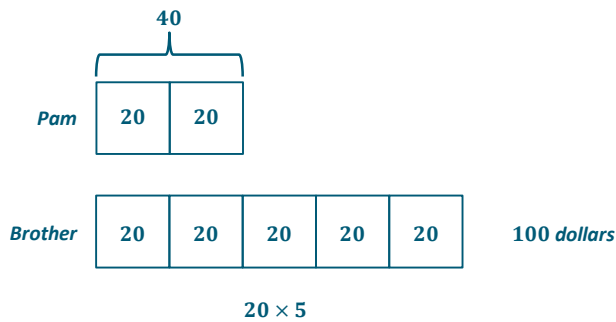
Exit Ticket Sample Solutions

Pam and her brother both open savings accounts. Each begin with a balance of zero dollars. For every two dollars that Pam saves in her account, her brother saves five dollars in his account.

- Determine a ratio to describe the money in Pam’s account to the money in her brother’s account.

2:5

- If Pam has 40 dollars in her account, how much money does her brother have in his account? Use a tape diagram to support your answer.



Pam’s brother has 100 dollars in his account.

- Record the equivalent ratio.

40:100

- Create another possible ratio that describes the relationship between the amount of money in Pam’s account and the amount of money in her brother’s account.

Answers will vary. 4:10, 8:20, etc.

Problem Set Sample Solutions

- Write two ratios that are equivalent to 1:1.

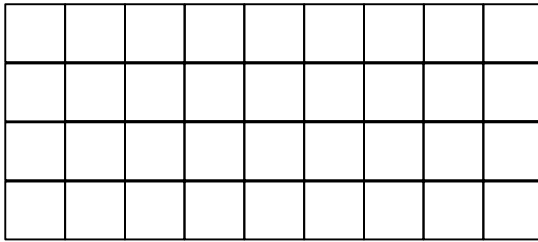
Answers will vary. 2:2, 50:50, etc.

- Write two ratios that are equivalent to 3:11.

Answers will vary. 6:22, 9:33, etc.

3.

- a. The ratio of the width of the rectangle to the height of the rectangle is 9 to 4.



- b. If each square in the grid has a side length of 8 mm, what is the width and height of the rectangle?

72 mm wide and 32 mm high

4. For a project in their health class, Jasmine and Brenda recorded the amount of milk they drank every day. Jasmine drank 2 pints of milk each day, and Brenda drank 3 pints of milk each day.

- a. Write a ratio of the number of pints of milk Jasmine drank to the number of pints of milk Brenda drank each day.

2:3

- b. Represent this scenario with tape diagrams.



- c. If one pint of milk is equivalent to 2 cups of milk, how many cups of milk did Jasmine and Brenda each drink? How do you know?

Jasmine drank 4 cups of milk, and Brenda drank 6 cups of milk. Since each pint represents 2 cups, I multiplied Jasmine's 2 pints by 2 and multiplied Brenda's 3 pints by 2.

- d. Write a ratio of the number of cups of milk Jasmine drank to the number of cups of milk Brenda drank.

4:6

- e. Are the two ratios you determined equivalent? Explain why or why not.

2:3 and 4:6 are equivalent because they represent the same value. The diagrams never changed, only the value of each unit in the diagram.



Lesson 4: Equivalent Ratios

Student Outcomes

- Given a ratio, students identify equivalent ratios. Students use tape diagrams and the description of equivalent ratios to determine if two ratios are equivalent.
- Students relate the nonzero number c in the description of equivalent ratios to the tape diagrams they have been using to find equivalent ratios.

Classwork

Example 1 (7 minutes)

Present Example 1 by reading it aloud or asking a student to read it aloud. Then encourage students to discuss what would need to be done. Guide students to a mathematically correct conclusion, and have them summarize their decisions.

Conclude by having students come up with the total number of students that would make Jasmine's statement true.

Example 1

The morning announcements said that two out of every seven sixth-grade students in the school have an overdue library book. Jasmine said, "That would mean 24 of us have overdue books!" Grace argued, "No way. That is way too high." How can you determine who is right?

You would have to know the total number of sixth-grade students, and then see if the ratio 24: total is equivalent to 2: 7.

$$\begin{array}{cc}
 2: 7 & 24: 84 \\
 \diagdown & \diagup \\
 \times 12 & \times 12
 \end{array}$$

- Let's look at the ratios we determined in Example 1. We found the ratios 2: 7 and 24: 84.
- How have we previously determined two sets of ratios to be equivalent?
 - Each number in the first ratio must be multiplied by the same nonzero number in order to determine the corresponding numbers in the second ratio.
- Let's test these two ratios to see if they are equivalent. Since the corresponding number to 2 in the second ratio is 24, what must we multiply 2 by to find 24?
 - 12
- We can determine from this that 12 is the nonzero number c that we will multiply each number in the first ratio by to determine the corresponding numbers in the second ratio.
- If we multiply 2 by 12, then following the description, we must also multiply 7 by 12. What is the product of 7×12 ?
 - 84

- Is 84 the number that corresponds to 7?
 - Yes

Allow students to finish the remaining problems independently.

Allow students to indicate their answers orally for each problem and debate with classmates when there are disagreements. If needed, step in and guide students to the correct reasoning process, ensuring all students come to understand how to use the description to determine equivalence.

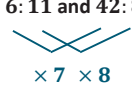
Exercise 1 (20 minutes)

Exercise 1

Decide whether or not each of the following pairs of ratios is equivalent.

- If the ratios are not equivalent, find a ratio that is equivalent to the first ratio.
- If the ratios are equivalent, identify the nonzero number, c , that could be used to multiply each number of the first ratio by in order to get the numbers for the second ratio.

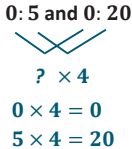
a. 6: 11 and 42: 88



Yes, the value, c , is _____

X No, an equivalent ratio would be 42: 77

b. 0: 5 and 0: 20



X Yes, the value, c , is 4

No, an equivalent ratio would be _____

Exercise 2 (8 minutes)

Exercise 2

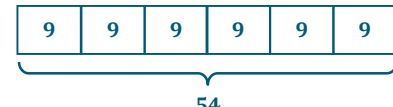
In a bag of mixed walnuts and cashews, the ratio of the number of walnuts to the number of cashews is 5: 6. Determine the number of walnuts that are in the bag if there are 54 cashews. Use a tape diagram to support your work. Justify your answer by showing that the new ratio you created of the number of walnuts to the number of cashews is equivalent to 5: 6.

Walnuts

9	9	9	9	9
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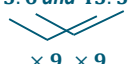
Cashews

9	9	9	9	9	9
---	---	---	---	---	---



54 divided by 6 equals 9.
5 times 9 equals 45.
There are 45 walnuts in the bag.
The ratio of the number of walnuts to the number of cashews is 45: 54. That ratio is equivalent to 5: 6.

5: 6 and 45: 54



Closing (5 minutes)

- How can we use the description of equivalent ratios to find an equivalent ratio?
- What do the numbers in the boxes of the tape diagram represent in terms of the ratios?
 - *Inside each of the boxes, the nonzero number c comes from the value of one unit in the tape diagram.*
- We can determine that to find an equivalent ratio, the nonzero number c must be the same in each box in the tape diagram. This can also be described as *constant*. If the number c is *constantly* the same number, then the ratios are equivalent. As in Exercise 4, the value of each unit is 9. It is constantly nine. We multiplied 5 by the *constant* 9 and multiplied 6 by the *constant* 9 to determine the equivalent ratio.

Lesson Summary**Recall the description:**

Two ratios $A : B$ and $C : D$ are *equivalent ratios* if there is a nonzero number c such that $C = cA$ and $D = cB$. For example, two ratios are equivalent if they both have values that are equal.

Ratios are equivalent if there is a nonzero number that can be multiplied by both quantities in one ratio to equal the corresponding quantities in the second ratio.

This description can be used to determine whether two ratios are equivalent.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 4: Equivalent Ratios

Exit Ticket

There are 35 boys in the sixth grade. The number of girls in the sixth grade is 42. Lonnie says that means the ratio of the number of boys in the sixth grade to the number of girls in the sixth grade is 5:7. Is Lonnie correct? Show why or why not.

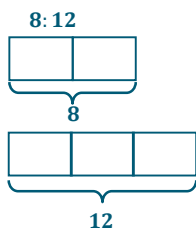
Exit Ticket Sample Solutions

There are 35 boys in the sixth grade. The number of girls in the sixth grade is 42. Lonnie says that means the ratio of the number of boys in the sixth grade to the number of girls in sixth grade is 5:7. Is Lonnie correct? Show why or why not.

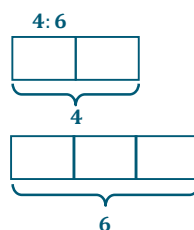
No, Lonnie is not correct. The ratios 5:7 and 35:42 are not equivalent. They are not equivalent because $5 \times 7 = 35$, but $7 \times 7 = 49$, not 42.

Problem Set Sample Solutions

1. Use diagrams or the description of equivalent ratios to show that the ratios 2:3, 4:6, and 8:12 are equivalent.



8 is 2 times 4; 12 is 3 times 4.
The constant number, c , is 4.

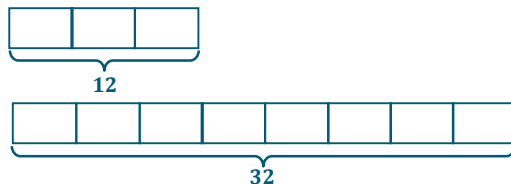


4 is 2 times 2; 6 is 3 times 2. The constant number, c , is 2.

2. Prove that 3:8 is equivalent to 12:32.

a. Use diagrams to support your answer.

12 is 3 times 4; 32 is 8 times 4.

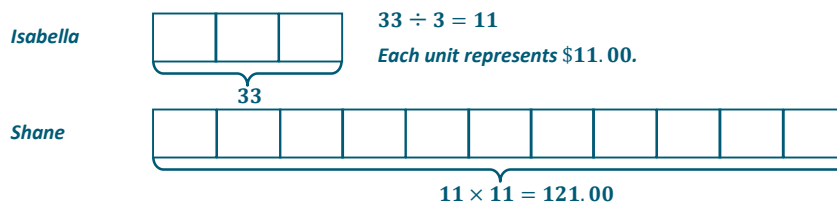


b. Use the description of equivalent ratios to support your answer.

Answers will vary. Descriptions should include multiplicative comparisons, such as 12 is 3 times 4 and 32 is 8 times 4. The constant number, c , is 4.

3. The ratio of Isabella's money to Shane's money is 3:11. If Isabella has \$33, how much money do Shane and Isabella have together? Use diagrams to illustrate your answer.

Isabella has \$33, and Shane has \$121. $\$33 + \$121 = \$154$. Together, Isabella and Shane have \$154.00.





Lesson 5: Solving Problems by Finding Equivalent Ratios

Student Outcomes

- Students use tape diagrams to find an equivalent ratio when given the part-to-part ratio and the total of those two quantities. Students use tape diagrams to find an equivalent ratio when given the part-to-part ratio and the difference between those two quantities.
- Students make the connection between the constant, c , in the definition of equivalent ratios and the value of the unit in the tape diagram used to solve ratio problems.

Classwork

Example 1 (10 minutes)

Provide students time to think about each question, and then elicit a class discussion for each question. Provide students opportunities to participate and ask questions.

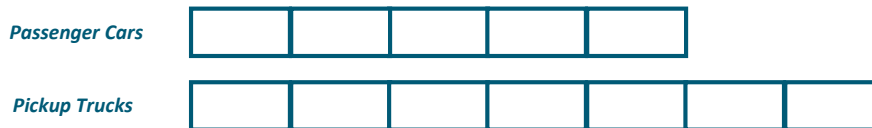
Example 1

A County Superintendent of Highways is interested in the numbers of different types of vehicles that regularly travel within his county. In the month of August, a total of 192 registrations were purchased for passenger cars and pickup trucks at the local Department of Motor Vehicles (DMV). The DMV reported that in the month of August, for every 5 passenger cars registered, there were 7 pickup trucks registered. How many of each type of vehicle were registered in the county in the month of August?

- a. Using the information in the problem, write four different ratios and describe the meaning of each.

The ratio of cars to trucks is 5: 7 and is a part-to-part ratio. The ratio of trucks to cars is 7: 5, and that is a part-to-part ratio. The ratio of cars to total vehicles is 5 to 12, and that is a part-to-whole ratio. The ratio of trucks to total vehicles is 7 to 12, and that is a part-to-whole ratio.

- b. Make a tape diagram that represents the quantities in the part-to-part ratios that you wrote.



- c. How many equal-sized parts does the tape diagram consist of?

12

- d. What total quantity does the tape diagram represent?

192 vehicles

e. What value does each individual part of the tape diagram represent?

Divide the total quantity into 12 equal-sized parts:

$$\frac{192}{12} = 16$$

f. How many of each type of vehicle were registered in August?

$$5 \cdot 16 = 80 \text{ passenger cars}$$

$$7 \cdot 16 = 112 \text{ pickup trucks}$$

Example 2 (10 minutes)

Find the values of the partial quantities in Example 2.

Example 2

The Superintendent of Highways is further interested in the numbers of commercial vehicles that frequently use the county’s highways. He obtains information from the Department of Motor Vehicles for the month of September and finds that for every 14 non-commercial vehicles, there were 5 commercial vehicles. If there were 108 more non-commercial vehicles than commercial vehicles, how many of each type of vehicle frequently use the county’s highways during the month of September?

Non-Commercial Vehicles



Commercial Vehicles



These 9 sections represent the “more than commercial vehicles,” which is 108.

To determine how many cars each section represents, divide 108 by 9 to get 12. Therefore, each section of the tape diagram represents 12 vehicles.

MP.5

Since every section of the tape diagram represents 12 vehicles, demonstrate how to calculate the number of each type of vehicle.

168 non-commercial vehicles and 60 commercial vehicles

Exercises (16 minutes)

In pairs or small groups, students complete the following problems. After students are given time to work, have groups explain their answers.

Exercises

1. The ratio of the number of people who own a smartphone to the number of people who own a flip phone is 4: 3. If 500 more people own a smartphone than a flip phone, how many people own each type of phone?

2, 000 people own a smartphone, and 1, 500 people own a flip phone.



2. Sammy and David were selling water bottles to raise money for new football uniforms. Sammy sold 5 water bottles for every 3 water bottles David sold. Together they sold 160 water bottles. How many did each boy sell?

Sammy sold 100 water bottles, and David sold 60 water bottles.

3. Ms. Johnson and Ms. Siple were folding report cards to send home to parents. The ratio of the number of report cards Ms. Johnson folded to the number of report cards Ms. Siple folded is 2:3. At the end of the day, Ms. Johnson and Ms. Siple folded a total of 300 report cards. How many did each person fold?

Ms. Johnson folded 120 report cards, and Ms. Siple folded 180 report cards.

4. At a country concert, the ratio of the number of boys to the number of girls is 2:7. If there are 250 more girls than boys, how many boys are at the concert?

There are 100 boys at the country concert.

Closing (4 minutes)

- Explain how tape diagrams can be helpful in solving ratio word problems.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 5: Solving Problems by Finding Equivalent Ratios

Exit Ticket

When Carla looked out at the school parking lot, she noticed that for every 2 minivans, there were 5 other types of vehicles. If there are 161 vehicles in the parking lot, how many of them are not minivans?

Exit Ticket Sample Solution

When Carla looked out at the school parking lot, she noticed that for every 2 minivans, there were 5 other types of vehicles. If there are 161 vehicles in the parking lot, how many of them are not minivans?

5 out of 7 vehicles are not minivans. $7 \times 23 = 161$. So, $5 \times 23 = 115$. 115 of the vehicles are not minivans.

Problem Set Sample Solutions

1. Last summer, at *Camp Okey-Fun-Okey*, the ratio of the number of boy campers to the number of girl campers was 8: 7. If there were a total of 195 campers, how many boy campers were there? How many girl campers?

104 boys and 91 girls are at Camp Okey-Fun-Okey.

2. The student-to-faculty ratio at a small college is 17: 3. The total number of students and faculty is 740. How many faculty members are there at the college? How many students?

111 faculty members and 629 students are at the college.

3. The Speedy Fast Ski Resort has started to keep track of the number of skiers and snowboarders who bought season passes. The ratio of the number of skiers who bought season passes to the number of snowboarders who bought season passes is 1: 2. If 1, 250 more snowboarders bought season passes than skiers, how many snowboarders and how many skiers bought season passes?

1, 250 skiers bought season passes, and 2, 500 snowboarders bought season passes.

4. The ratio of the number of adults to the number of students at the prom has to be 1: 10. Last year there were 477 more students than adults at the prom. If the school is expecting the same attendance this year, how many adults have to attend the prom?

53 adults have to be at the prom to keep the 1: 10 ratio.



Lesson 6: Solving Problems by Finding Equivalent Ratios

Student Outcomes

- Students use tape diagrams to solve problems when given a ratio between two quantities and a change to those quantities that changes the ratio.

Classwork

Exercise 1 (10 minutes)

Lead the completion of Exercise 1, as outlined. Start by asking students to read the problem and then describe the problem in detail without having to look back at the problem. This technique helps students process what they have read before attempting to model the problem.

- Any suggestions on how to start the problem?
 - Answers will vary.
- Use tape diagrams to model the occupied rooms and unoccupied rooms on Sunday night.

Provide students time to make their own tape diagrams.

The total number of occupied rooms is 432, and there are 6 sections on the tape diagram. So, each section represents 72 rooms.

- How can we use this information to answer the question?
 - Answers will vary.

After students share their thoughts, model how to solve the problem.

Exercises

1. The Business Direct Hotel caters to people who travel for different types of business trips. On Saturday night there is not a lot of business travel, so the ratio of the number of occupied rooms to the number of unoccupied rooms is 2: 5. However, on Sunday night the ratio of the number of occupied rooms to the number of unoccupied rooms is 6: 1 due to the number of business people attending a large conference in the area. If the Business Direct Hotel has 432 occupied rooms on Sunday night, how many unoccupied rooms does it have on Saturday night?

<p><u>Saturday</u></p> <p><i>Occupied Rooms</i></p> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <p><i>Unoccupied Rooms</i></p> <div style="border: 1px solid black; width: 300px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 300px; height: 20px; margin-bottom: 5px;"></div>	<p><u>Sunday</u></p> <p><i>Occupied Rooms</i></p> <div style="border: 1px solid black; width: 300px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 300px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 300px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 300px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 300px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 300px; height: 20px; margin-bottom: 5px;"></div>
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There were 360 unoccupied rooms on Saturday night.

Remind students that the total number of rooms in the hotel remains the same. Explain to students that there are still seven sections on the tape diagram, but they are just distributed between occupied and unoccupied rooms differently. Therefore, each section still represents 72 rooms.

Exercises 2–7 (25 minutes)

Have students work in small groups to solve each problem. Assign each group a problem to share with the class. Leave about 7–10 minutes to allow groups to present to the class.

2. Peter is trying to work out by completing sit-ups and push-ups in order to gain muscle mass. Originally, Peter was completing five sit-ups for every three push-ups, but then he injured his shoulder. After the injury, Peter completed the same number of repetitions as he did before his injury, but he completed seven sit-ups for every one push-up. During a training session after his injury, Peter completed eight push-ups. How many push-ups was Peter completing before his injury?

Peter was completing 24 push-ups before his injury.

3. Tom and Rob are brothers who like to make bets about the outcomes of different contests between them. Before the last bet, the ratio of the amount of Tom's money to the amount of Rob's money was 4: 7. Rob lost the latest competition, and now the ratio of the amount of Tom's money to the amount of Rob's money is 8: 3. If Rob had \$280 before the last competition, how much does Rob have now that he lost the bet?

Rob has \$120.

4. A sporting goods store ordered new bikes and scooters. For every 3 bikes ordered, 4 scooters were ordered. However, bikes were way more popular than scooters, so the store changed its next order. The new ratio of the number of bikes ordered to the number of scooters ordered was 5: 2. If the same amount of sporting equipment was ordered in both orders and 64 scooters were ordered originally, how many bikes were ordered as part of the new order?

80 bikes were ordered as part of the new order.

5. At the beginning of Grade 6, the ratio of the number of advanced math students to the number of regular math students was 3: 8. However, after taking placement tests, students were moved around changing the ratio of the number of advanced math students to the number of regular math students to 4: 7. How many students started in regular math and advanced math if there were 92 students in advanced math after the placement tests?

There were 69 students in advanced math and 184 students in regular math before the placement tests.

6. During first semester, the ratio of the number of students in art class to the number of students in gym class was 2: 7. However, the art classes were really small, and the gym classes were large, so the principal changed students' classes for second semester. In second semester, the ratio of the number of students in art class to the number of students in gym class was 5: 4. If 75 students were in art class second semester, how many were in art class and gym class first semester?

There were 30 students in art class and 105 students in gym class during first semester.

7. Jeanette wants to save money, but she has not been good at it in the past. The ratio of the amount of money in Jeanette's savings account to the amount of money in her checking account was 1: 6. Because Jeanette is trying to get better at saving money, she moves some money out of her checking account and into her savings account. Now, the ratio of the amount of money in her savings account to the amount of money in her checking account is 4: 3. If Jeanette had \$936 in her checking account before moving money, how much money does Jeanette have in each account after moving money?

Jeanette has \$624 in her savings account and \$468 in her checking account after moving money.

Closing (5 minutes)

- What advice would you have for a friend who missed class today and needed to do the Problem Set?
 - *If a problem has a ratio that changes, it is best to do one tape diagram for the before and another for the after so you can visualize the change.*

Lesson Summary

When solving problems in which a ratio between two quantities changes, it is helpful to draw a *before* tape diagram and an *after* tape diagram.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 6: Solving Problems by Finding Equivalent Ratios

Exit Ticket

Students surveyed boys and girls separately to determine which sport was enjoyed the most. After completing the boy survey, it was determined that for every 3 boys who enjoyed soccer, 5 boys enjoyed basketball. The girl survey had a ratio of the number of girls who enjoyed soccer to the number of girls who enjoyed basketball of 7:1. If the same number of boys and girls were surveyed, and 90 boys enjoy soccer, how many girls enjoy each sport?



Exit Ticket Sample Solutions

Students surveyed boys and girls separately to determine which sport was enjoyed the most. After completing the boy survey, it was determined that for every 3 boys who enjoyed soccer, 5 boys enjoyed basketball. The girl survey had a ratio of the number of girls who enjoyed soccer to the number of girls who enjoyed basketball of 7:1. If the same number of boys and girls were surveyed, and 90 boys enjoy soccer, how many girls enjoy each sport?

The girl survey would show that 210 girls enjoy soccer, and 30 girls enjoy basketball.

Problem Set Sample Solutions

1. Shelley compared the number of oak trees to the number of maple trees as part of a study about hardwood trees in a woodlot. She counted 9 maple trees to every 5 oak trees. Later in the year there was a bug problem, and many trees died. New trees were planted to make sure there were the same number of trees as before the bug problem. The new ratio of the number of maple trees to the number of oak trees is 3:11. After planting new trees, there were 132 oak trees. How many more maple trees were in the woodlot before the bug problem than after the bug problem? Explain.

There were 72 more maple trees before the bug problem than after because there were 108 maples trees before the bug problem and 36 maple trees after the bug problem.

2. The school band is comprised of middle school students and high school students, but it always has the same maximum capacity. Last year the ratio of the number of middle school students to the number of high school students was 1:8. However, this year the ratio of the number of middle school students to the number of high school students changed to 2:7. If there are 18 middle school students in the band this year, how many fewer high school students are in the band this year compared to last year? Explain.

There are 9 fewer high school students in the band this year when compared to last year because last year there were 72 high school students in the band, and this year there are only 63 high school students in the band.



Lesson 7: Associated Ratios and the Value of a Ratio

Student Outcomes

- Students understand the relationship between ratios and fractions. Students describe the fraction $\frac{A}{B}$ associated with the ratio $A : B$ as the value of the ratio A to B .
- Students understand that when given a ratio $A : B$, different ratios can be formed from the numbers A and B . For example, $B : A$, $A : (A + B)$, and $B : (A + B)$ are associated with the same ratio relationship.

Classwork

Example 1 (2 minutes)

Direct students to select an answer to the question posed by Example 1 in their student materials.

Example 1


Which of the following correctly models that the number of red gumballs is $\frac{5}{3}$ the number of white gumballs?


a.	Red	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	b.	Red	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	White	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		White	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
c.	Red	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	d.	Red	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	White	<input type="checkbox"/> <input type="checkbox"/>		White	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Poll students, and host a discussion encouraging students to express their reasoning about their choices. Ideally, students can come to a consensus that (b) is the correct answer without teacher direction. Provide an additional example if needed before moving on.

Example 2 (5 minutes)

Example 2
 The duration of two films are modeled below.

Film A 

Film B 

a. The ratio of the length of Film A to the length of Film B is 5:7.

b. The length of Film A is $\frac{\boxed{5}}{\boxed{7}}$ of the length of Film B.

c. The length of Film B is $\frac{\boxed{7}}{\boxed{5}}$ of the length of Film A.

Exercise 1 (10 minutes)

Have students work the following problem independently and then compare their answers with a neighbor’s answer. Encourage discussion among pairs of students or among students who arrived at different answers.

Exercise 1
 Sammy and Kaden went fishing using live shrimp as bait. Sammy brought 8 more shrimp than Kaden brought. When they combined their shrimp they had 32 shrimp altogether.

a. How many shrimp did each boy bring?
Kaden brought 12 shrimp. Sammy brought 20 shrimp.

b. What is the ratio of the number of shrimp Sammy brought to the number of shrimp Kaden brought?
20:12

c. Express the number of shrimp Sammy brought as a fraction of the number of shrimp Kaden brought.
 $\frac{20}{12}$

d. What is the ratio of the number of shrimp Sammy brought to the total number of shrimp?
20:32

e. What fraction of the total shrimp did Sammy bring?
 $\frac{20}{32}$



Exercise 2 (20 minutes)

Exercise 2

A food company that produces peanut butter decides to try out a new version of its peanut butter that is extra crunchy, using twice the number of peanut chunks as normal. The company hosts a sampling of its new product at grocery stores and finds that 5 out of every 9 customers prefer the new extra crunchy version.

- a. Let's make a list of ratios that might be relevant for this situation.
 - i. The ratio of number preferring new extra crunchy to total number surveyed is 5 to 9.
 - ii. The ratio of number preferring regular crunchy to the total number surveyed is 4 to 9.
 - iii. The ratio of number preferring regular crunchy to number preferring new extra crunchy is 4 to 5.
 - iv. The ratio of number preferring new extra crunchy to number preferring regular crunchy is 5 to 4.

- b. Let's use the value of each ratio to make multiplicative comparisons for each of the ratios we described here.
 - i. The number preferring new extra crunchy is $\frac{5}{9}$ of the total number surveyed.
 - ii. The number preferring regular crunchy is $\frac{4}{9}$ of the total number surveyed.
 - iii. The number preferring regular crunchy is $\frac{4}{5}$ of those preferring new extra crunchy.
 - iv. The number preferring new extra crunchy is $\frac{5}{4}$ of those preferring regular crunchy.

- c. If the company is planning to produce 90,000 containers of crunchy peanut butter, how many of these containers should be the new extra crunchy variety, and how many of these containers should be the regular crunchy peanut butter? What would be helpful in solving this problem? Does one of our comparison statements above help us?

The company should produce 50,000 containers of new crunchy peanut butter and 40,000 containers of regular crunchy peanut butter.

Discuss whether it is appropriate to assume that the company will still sell the same amount of regular crunchy peanut butter or whether the 90,000 containers will simply be split between the two kinds of peanut butter.

- What would be helpful in solving this problem? Does one of our comparison statements above help us?

Guide students to the recognition that if we assume 90,000 is the total number of containers sold for both types, then the number of new extra crunchy containers should be $\frac{5}{9}$ of that number.

Allow students to try solving the following three scenarios:

Try these next scenarios:

- d. If the company decides to produce 2,000 containers of regular crunchy peanut butter, how many containers of new extra crunchy peanut butter would it produce?
2,500 new extra crunchy peanut butter containers

- e. If the company decides to produce 10,000 containers of new extra crunchy peanut butter, how many containers of regular crunchy peanut butter would it produce?
8,000 regular crunchy peanut butter containers

- f. If the company decides to only produce 3,000 containers of new extra crunchy peanut butter, how many containers of regular crunchy peanut butter would it produce?

2,400 regular crunchy peanut butter containers

Closing (3 minutes)

- Given the ratio $A:B$, if $B \neq 0$, then the value of the ratio is the quotient $\frac{A}{B}$.
- Make up a ratio.
- Find the value of that ratio.

Lesson Summary

For a ratio $A:B$, we are often interested in the associated ratio $B:A$. Further, if A and B can both be measured in the same unit, we are often interested in the associated ratios $A:(A+B)$ and $B:(A+B)$.

For example, if Tom caught 3 fish and Kyle caught 5 fish, we can say:

- The ratio of the number of fish Tom caught to the number of fish Kyle caught is 3:5.
- The ratio of the number of fish Kyle caught to the number of fish Tom caught is 5:3.
- The ratio of the number of fish Tom caught to the total number of fish the two boys caught is 3:8.
- The ratio of the number of fish Kyle caught to the total number of fish the two boys caught is 5:8.

For the ratio $A:B$, where $B \neq 0$, the value of the ratio is the quotient $\frac{A}{B}$.

For example: For the ratio 6:8, the value of the ratio is $\frac{6}{8}$ or $\frac{3}{4}$.

Exit Ticket (5 minutes)

Name _____

Date _____

Lesson 7: Associated Ratios and the Value of a Ratio

Exit Ticket

Alyssa's extended family is staying at the lake house this weekend for a family reunion. She is in charge of making homemade pancakes for the entire group. The pancake mix requires 2 cups of flour for every 10 pancakes.

- Write a ratio to show the relationship between the number of cups of flour and the number of pancakes made.
- Determine the value of the ratio.
- Use the value of the ratio to fill in the following two multiplicative comparison statements.
 - The number of pancakes made is _____ times the amount of cups of flour needed.
 - The amount of cups of flour needed is _____ of the number of pancakes made.
- If Alyssa has to make 70 pancakes, how many cups of flour will she have to use?

Exit Ticket Sample Solutions

Alyssa's extended family is staying at the lake house this weekend for a family reunion. She is in charge of making homemade pancakes for the entire group. The pancake mix requires 2 cups of flour for every 10 pancakes.

1. Write a ratio to show the relationship between the number of cups of flour and the number of pancakes made.

2:10

2. Determine the value of the ratio.

$$\frac{2}{10} = \frac{1}{5}$$

3. Use the value of the ratio to make a multiplicative comparison statement.

- a. The number of pancakes made is 5 times the number of cups of flour needed.
- b. The number of cups of flour needed is $\frac{1}{5}$ of the number of pancakes made.

4. If Alyssa has to make 70 pancakes, how many cups of flour will she have to use?

Alyssa will have to use 14 cups of flour.

Problem Set Sample Solutions

1. Maritza is baking cookies to bring to school and share with her friends on her birthday. The recipe requires 3 eggs for every 2 cups of sugar. To have enough cookies for all of her friends, Maritza determined she would need 12 eggs. If her mom bought 6 cups of sugar, does Maritza have enough sugar to make the cookies? Why or why not?

Maritza will NOT have enough sugar to make all the cookies because she needs 8 cups of sugar and only has 6 cups of sugar.

2. Hamza bought 8 gallons of brown paint to paint his kitchen and dining room. Unfortunately, when Hamza started painting, he thought the paint was too dark for his house, so he wanted to make it lighter. The store manager would not let Hamza return the paint but did inform him that if he used $\frac{1}{4}$ of a gallon of white paint mixed with 2 gallons of brown paint, he would get the shade of brown he desired. If Hamza decided to take this approach, how many gallons of white paint would Hamza have to buy to lighten the 8 gallons of brown paint?

Hamza would need 1 gallon of white paint to make the shade of brown he desires.



Lesson 8: Equivalent Ratios Defined Through the Value of a Ratio

Student Outcomes

- Students understand the value of the ratio $A:B$ is the quotient $\frac{A}{B}$ as long as B is not zero. They understand that if two ratios are equivalent, then their values are the same (when they have values). Students use the value of a ratio to solve ratio problems in a real-world context.
- Students use the value of a ratio in determining whether two ratios are equivalent.

Classwork

Exercise 1 (10 minutes)

Recall that when given a ratio $A:B$, where $B \neq 0$, we call the quotient, $\frac{A}{B}$, the value of the ratio.

Exercise 1

Circle any equivalent ratios from the list below.

Ratio: 1:2

Ratio: 5:10

Ratio: 6:16

Ratio: 12:32

Revisit this when discussing the value of the equivalent ratios.

Find the value of the following ratios, leaving your answer as a fraction, but rewrite the fraction using the largest possible unit.

Ratio: 1:2 Value of the Ratio: $\frac{1}{2}$

Ratio: 5:10 Value of the Ratio: $\frac{1}{2}$

Ratio: 6:16 Value of the Ratio: $\frac{3}{8}$

Ratio: 12:32 Value of the Ratio: $\frac{3}{8}$

What do you notice about the value of the equivalent ratios?

The value of the ratio is the same for equivalent ratios.



- Note that 1: 2 is not the same ratio as 5: 10, so we do not say they are equal. The ratios are not the same, but their values are equal. Would this always be the case? Would the values of equivalent ratios always be equal?
 - *Answers will vary. Some students may come to the conclusion that the values of equivalent ratios are always equal. However, some students may not be convinced at this point that all equivalent ratios will also have the same value of the ratio.*

Exercise 2 (10 minutes)

Exercise 2

Here is a theorem: If $A: B$ with $B \neq 0$ and $C: D$ with $D \neq 0$ are equivalent, then they have the same value: $\frac{A}{B} = \frac{C}{D}$.

This is essentially stating that if two ratios are equivalent, then their values are the same (when they have values).

Can you provide any counterexamples to the theorem above?

Allow students to try this in pairs. Observe the progress of students and question students' counterexamples. Ask for further clarification or proof that the two ratios are equivalent but do not have the same value. If students still think they have discovered a counterexample, share the example with the class and discuss why it is not a counterexample.

Ask entire class if anyone thought of a counterexample. If students share examples, have others explain why they are not counterexamples. Then discuss why there are no possible counterexamples to the given theorem. It is important for students to understand that the theorem is always true, so it is not possible to come up with a counterexample.

Exercise 3 (18 minutes)

Allow students 8 minutes to work on this exercise and 10 minutes to present and discuss.

Exercise 3

Taivon is training for a duathlon, which is a race that consists of running and cycling. The cycling leg is longer than the running leg of the race, so while Taivon trains, he rides his bike more than he runs. During training, Taivon runs 4 miles for every 14 miles he rides his bike.

- a. Identify the ratio associated with this problem and find its value.

The ratio of the number of miles he ran to the number of miles he cycled is 4: 14, and the value of the ratio is $\frac{2}{7}$. The ratio of the number of miles he cycled to the number of miles he ran is 14: 4, and the value of the ratio is $\frac{7}{2}$.

Use the value of each ratio to solve the following.

- b. When Taivon completed all of his training for the duathlon, the ratio of total number of miles he ran to total number of miles he cycled was 80: 280. Is this consistent with Taivon's training schedule? Explain why or why not.

This is consistent because the ratio of the number of miles he ran to the number of miles he cycled, 80: 280, has the value of $\frac{2}{7}$ which is the same value as the ratio 4: 14.

- c. In one training session, Taivon ran 4 miles and cycled 7 miles. Did this training session represent an equivalent ratio of the distance he ran to the distance he cycled? Explain why or why not.

This training session does not represent an equivalent ratio of the distance he ran to the distance he cycled because the value of the ratio in this instance is $\frac{4}{7}$, which is not equal to $\frac{2}{7}$.

MP.1 Select a couple of students, and allow them to present their solutions and explain their reasoning one at a time.

Closing (2 minutes)

- How is the value of a ratio related to the ratio?

Lesson Summary

The *value of the ratio* $A : B$ is the quotient $\frac{A}{B}$ as long as B is not zero.

If two ratios are equivalent, then their values are the same (when they have values).

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 8: Equivalent Ratios Defined Through the Value of a Ratio

Exit Ticket

You created a new playlist, and 100 of your friends listened to it and shared if they liked the new playlist or not. Nadhii said the ratio of the number of people who liked the playlist to the number of people who did not like the playlist is 75:25. Dylan said that for every three people who liked the playlist, one person did not.

Do Nadhii and Dylan agree? Prove your answer using the values of the ratios.

Exit Ticket Sample Solutions

You created a new playlist, and 100 of your friends listened to it and shared if they liked the new playlist or not. Nadhii said the ratio of the number of people who liked the playlist to the number of people who did not like the playlist is 75:25. Dylan said that for every three people who liked the playlist, one person did not.

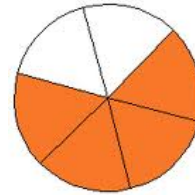
Do Nadhii and Dylan agree? Prove your answer using the values of the ratios.

Dylan and Nadhii agree. The value of both of their ratios is equivalent, so their ratios are also equivalent.

Problem Set Sample Solutions

1. The ratio of the number of shaded sections to the number of unshaded sections is 4 to 2. What is the value of the ratio of the number of shaded pieces to the number of unshaded pieces?

$$\frac{4}{2} = \frac{2}{1} \text{ or } 2$$



2. Use the value of the ratio to determine which ratios are equivalent to 7:15.

- 21:45
- 14:45
- 3:5
- 63:135

Both (a) and (d) are equivalent to 7:15.

3. Sean was at batting practice. He swung 25 times but only hit the ball 15 times.

- a. Describe and write more than one ratio related to this situation.

Ratio of the number of hits to the total number of swings is 15:25.

Ratio of the number hits to the number of misses is 15:10.

Ratio of the number of misses to the number of hits is 10:15.

Ratio of the number of misses to the total number of swings is 10:25.

- b. For each ratio you created, use the value of the ratio to express one quantity as a fraction of the other quantity.

The number of hits is $\frac{15}{25}$ or $\frac{3}{5}$ of the total number of swings.

The number of hits is $\frac{15}{10}$ or $\frac{3}{2}$ the number of misses.

The number of misses is $\frac{10}{15}$ or $\frac{2}{3}$ the number of hits.

The number of misses is $\frac{10}{25}$ or $\frac{2}{5}$ of the total number of swings.

- c. Make up a word problem that a student can solve using one of the ratios and its value.

If Sean estimates he will take 10 swings in his next game, how many hits would he expect to get, assuming his ratio of hits-to-swings does not change.

4. Your middle school has 900 students. $\frac{1}{3}$ of students bring their lunch instead of buying lunch at school. What is the value of the ratio of the number of students who do bring their lunch to the number of students who do not?



300 students bring lunch 600 students buy lunch

First, I created a tape diagram. In the tape diagram, $\frac{1}{3}$ of students bring their lunch instead of buying lunch at school. I determined that 300 students bring their lunch, leaving 600 students who buy their lunch. One unit of the tape diagram represents 300, and 2 units of the tape diagram represent 600. This creates a ratio of 1:2. As such, the value of the ratio of the number of students who bring their lunch to the number of students who buy their lunch is $\frac{1}{2}$.



Topic B

Collections of Equivalent Ratios

6.RP.A.3a

Focus Standard:	6.RP.A.3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. <ol style="list-style-type: none"> Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
Instructional Days:	7	
	Lesson 9:	Tables of Equivalent Ratios (P) ¹
	Lesson 10:	The Structure of Ratio Tables—Additive and Multiplicative (E)
	Lesson 11:	Comparing Ratios Using Ratio Tables (P)
	Lesson 12:	From Ratio Tables to Double Number Line Diagrams (P)
	Lesson 13:	From Ratio Tables to Equations Using the Value of the Ratio (P)
	Lesson 14:	From Ratio Tables, Equations, and Double Number Line Diagrams to Plots on the Coordinate Plane (S)
	Lesson 15:	A Synthesis of Representations of Equivalent Ratio Collections (E)

With the concept of ratio equivalence formally defined, students explore collections of equivalent ratios in real-world contexts in Topic B. In Lessons 9 and 10, students build ratio tables and study and articulate their additive and multiplicative structure (**6.RP.A.3a**). In Lesson 11, students answer comparative questions about two distinct ratios using reasoning with ratio tables. Students continue to apply reasoning to solve ratio problems while they explore other representations of collections of equivalent ratios and relate those representations to their experience working with the ratio table (**6.RP.A.3**).

¹Lesson Structure Key: **P**-Problem Set Lesson, **M**-Modeling Cycle Lesson, **E**-Exploration Lesson, **S**-Socratic Lesson

Building on their experience with number lines, students represent collections of equivalent ratios with a double number line model in Lesson 12. In Lesson 13, they relate ratio tables to equations using the value of a ratio defined in Topic A. Finally, students expand their experience with the coordinate plane (**5.G.A.1**, **5.G.A.2**) as they represent collections of equivalent ratios by plotting the pairs of values on the coordinate plane in Lesson 14. In the final lesson of this topic, students begin to synthesize their experience of the various representations by working a variety of ratio problems and choosing the representation that best represents their thinking. They continue to apply their understanding of the representations as they apply them to rate and percent problems in Topics C and D.



Lesson 9: Tables of Equivalent Ratios

Student Outcomes

- Students understand that a ratio is often used to describe the relationship between the amount of one quantity and the amount of another quantity as in the cases of mixtures or constant rates.
- Students understand that a *ratio table* is a table of equivalent ratios. Students use ratio tables to solve problems.

Lesson Notes

The approach of this lesson, and those that follow, is for the teacher to model the use of tables in problem solving. There is no need to engage in an explanation of why or how tables are useful; simply modeling their use in this lesson, examining their structure in the next lesson, and repeatedly using them for problem solving in the remaining lessons of the topic should sufficiently promote tables as a tool for problem solving with collections of equivalent ratios.

Classwork

Example 1 (10 minutes)

Example 1

To make paper mache, the art teacher mixes water and flour. For every two cups of water, she needs to mix in three cups of flour to make the paste.

Find equivalent ratios for the ratio relationship 2 cups of water to 3 cups of flour. Represent the equivalent ratios in the table below:

Cups of Water	Cups of Flour	
2	3	2:3
4	6	2:3
6	9	2:3
8	12	2:3
10	15	2:3



- What does this ratio mean? For every 2 cups of water, there are 3 cups of flour.
 - *Every time we have a set of two cups of water, we need to have a set of three cups of flour.*
- Why is it worded, “for every 2 cups of water, there are 3 cups of flour”?
 - *This suggests that we might be doing that action repeatedly, adding 2 cups of water and 3 cups of flour.*
- Why would I do it more than once?
 - *There are times that batches need to be larger than using 2 cups of water and 3 cups of flour.*
- (Create a table on the board and label the columns.) Can we list all of the possible recipes for this mixture in order in a table? Let’s start with the ratio that uses the smallest whole numbers. Is there an equivalent ratio that uses smaller whole numbers than the ratio 2 to 3?
 - *No*
- Then let’s make 2 cups of water and 3 cups of flour our first entry.
- What would the next possibility be if we were using only whole numbers? I don’t want to skip over any of my options here.
 - *For every 4 cups of water, there are 6 cups of flour.*

Continue to guide students to create the table shown.

MP.7

- What is the value of each ratio in the table?
 - $\frac{2}{3}$
- Is that what we expected? Should the value of all of these ratios be equal to each other?
 - *Yes*
- What we have created here is a ratio table, a table in which all of the values of the ratios are equivalent to one another.
- What kinds of questions could we answer with the data in our table? Can anyone think of a question we might have had at the start of this problem that this table could help us answer?
 - *Answers will vary, but students should include ratios and associated ratios in their answer.*

Example 2 (5 minutes)

Example 2

Javier has a new job designing websites. He is paid at a rate of \$700 for every 3 pages of web content that he builds. Create a ratio table to show the total amount of money Javier has earned in ratio to the number of pages he has built.

Total Pages Built	3	6	9	12	15	18	21	24
Total Money Earned	700	1,400	2,100	2,800	3,500	4,200	4,900	5,600

Javier is saving up to purchase a used car that costs \$4,200. How many web pages will Javier need to build before he can pay for the car?

Javier will need to build 18 web pages in order to pay for the car.



- Is there an equivalent ratio to $700 : 3$ that uses smaller whole numbers?
 - *No*
- So we'll start our table with the entry 3 pages built and \$700 earned.
- Go ahead and fill in the table without skipping over any possible ratios. Use only whole numbers in the table.

Allow 5 to 10 minutes for each of the next two exercises. If students can only finish one of them, that is alright. Alternatively, if students finish both exercises quickly, extend the lesson by either: (a) allowing students to present their table on the board and asking students if they notice any patterns within the table or (b) presenting a partially completed table on the board and asking students to create their own real-world situation and word problem that could go with it.

Exercise 1 (10 minutes)

Exercise 1

Spraying plants with cornmeal juice is a natural way to prevent fungal growth on the plants. It is made by soaking cornmeal in water, using two cups of cornmeal for every nine gallons of water. Complete the ratio table to answer the questions that follow.

Cups of Cornmeal	Gallons of Water
2	9
4	18
6	27
8	36
10	45

- a. How many cups of cornmeal should be added to 45 gallons of water?
10 cups of cornmeal should be added to 45 gallons of water.
- b. Paul has only 8 cups of cornmeal. How many gallons of water should he add if he wants to make as much cornmeal juice as he can?
Paul should add 36 gallons of water.
- c. What can you say about the values of the ratios in the table?
The values of the ratios are equivalent.

Exercise 2 (10 minutes)

Exercise 2

James is setting up a fish tank. He is buying a breed of goldfish that typically grows to be 12 inches long. It is recommended that there be 1 gallon of water for every inch of fish length in the tank. What is the recommended ratio of gallons of water per full-grown goldfish in the tank?

Complete the ratio table to help answer the following questions:

Number of Fish	Gallons of Water
1	12
2	24
3	36
4	48
5	60

- a. What size tank (in gallons) is needed for James to have 5 full-grown goldfish?

James needs a tank that holds 60 gallons of water in order to have 5 full-grown goldfish.

- b. How many full-grown goldfish can go in a 40-gallon tank?

3 full-grown goldfish can go in a 40-gallon tank.

- c. What can you say about the values of the ratios in the table?

The values of the ratios are equivalent.

Closing (5 minutes)

- When creating a ratio table, what does each pair of values represent?
 - Each pair of values represents a ratio that is equivalent to all the other ratios in the table and describes the ratio relationship of two quantities.*
- Can anyone think of a situation where you have seen a ratio table other than here in class?
 - The back of a pancake mix box*
- Can you think of an example of a table of numbers you've seen that was not a ratio table? If you can't think of one that you've seen, see if you can make one up to match a real-world situation.

Lesson Summary

A ratio table is a table of pairs of numbers that form equivalent ratios.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 9: Tables of Equivalent Ratios

Exit Ticket

A father and his young toddler are walking along the sidewalk. For every 3 steps the father takes, the son takes 5 steps just to keep up. What is the ratio of the number of steps the father takes to the number of steps the son takes? Add labels to the columns of the table, and place the ratio into the first row of data. Add equivalent ratios to build a ratio table.

What can you say about the values of the ratios in the table?

Exit Ticket Sample Solutions

A father and his young toddler are walking along the sidewalk. For every 3 steps the father takes, the son takes 5 steps just to keep up. What is the ratio of the number of steps the father takes to the number of steps the son takes? Add labels to the columns of the table, and place the ratio into the first row of data. Add equivalent ratios to build a ratio table.

<i>Number of Steps the Father Takes</i>	<i>Number of Steps the Son Takes</i>
3	5
6	10
9	15
12	20
15	25
18	30

What can you say about the values of the ratios in the table?

The values of the ratios in the table should all be equal since the ratios in the table are equivalent.

Problem Set Sample Solutions

Assume each of the following represents a table of equivalent ratios. Fill in the missing values. Then choose one of the tables, and create a real-world context for the ratios shown in the table.

1.

4	11
8	22
12	33
16	44
20	55
24	66

2.

5	7
10	14
15	21
20	28
25	35
30	42

3.

3	17
6	34
9	51
12	68
15	85
18	102

Context provided will vary.



Lesson 10: The Structure of Ratio Tables—Additive and Multiplicative

Student Outcomes

- Students identify both the additive and multiplicative structure of a ratio table and use the structure to make additional entries in the table.
- Students use ratio tables to solve problems.

Classwork

Exploratory Challenge (35 minutes)

Exploratory Challenge

Imagine that you are making a fruit salad. For every quart of blueberries you add, you would like to put in 3 quarts of strawberries. Create three ratio tables that show the amounts of blueberries and strawberries you would use if you needed to make fruit salad for greater numbers of people.

Table 1 should contain amounts where you have added fewer than 10 quarts of blueberries to the salad.

Table 2 should contain amounts of blueberries between and including 10 and 50 quarts.

Table 3 should contain amounts of blueberries greater than or equal to 100 quarts.

Student answers may vary. Here are possible solutions:

Table 1	
Quarts of Blueberries	Quarts of Strawberries
1	3
2	6
3	9
4	12
5	15

Table 2	
Quarts of Blueberries	Quarts of Strawberries
10	30
20	60
30	90
40	120
50	150

Table 3	
Quarts of Blueberries	Quarts of Strawberries
100	300
200	600
300	900
400	1,200
500	1,500

The answers to the questions will depend on the variation of the table that students have created.

- a. Describe any patterns you see in the tables. Be specific in your descriptions.

The value in the second column is always three times as much as the corresponding value in the first column. In the first table, the entries in the first column increase by 1, and the entries in the second column increase by 3. In the second table, the entries in the first column increase by 10, and the entries in the second column increase by 30. In the third table, the entries in the first column increase by 100, and the entries in the second column increase by 300.

b. How are the amounts of blueberries and strawberries related to each other?
The amount of strawberries is always three times the amount of blueberries. Students could also respond that the ratio of the number of quarts of blueberries to the number of quarts of strawberries is always equivalent to 1:3.

c. How are the values in the Blueberries column related to each other?
Answers will vary. However, students could use the chart paper and write on the table to see the patterns. Most tables should have addition repeating throughout.

d. How are the values in the Strawberries column related to each other?
Answers will vary. However, students could use the chart paper and write on the table to see the patterns. Most tables should have addition repeating throughout.

e. If we know we want to add 7 quarts of blueberries to the fruit salad in Table 1, how can we use the table to help us determine how many strawberries to add?
We could extend our table until we get to 7 in the blueberry column.

f. If we know we used 70 quarts of blueberries to make our salad, how can we use a ratio table to find out how many quarts of strawberries were used?
We could start with the ratio 1:3 that was given in the description and then multiply by ten to get 10 and 30. These would be the first values in our table. Then, we would count up by tens in the Blueberries column and count up by 30's in the Strawberries column.

Students create the three ratio tables on the student pages. Have index cards ready that say Table 1, Table 2, and Table 3 to hand out to students so that students can place the assigned table on chart paper (15 minutes). After the charts are created, have students focus on how they created the tables and discuss the structure of the tables with a partner or small group. After students have had a chance to work, pull the class together as a whole group for a discussion about the structure of the tables and how the tables are related. Use the questions below to guide the discussion.

MP.7

- How are all three of the tables related?
 - *Each table represents the same ratio of the number of quarts of blueberries to the number of quarts of strawberries, which is 1:3.*
- What operation(s) did you use to determine the values for quarts of blueberries and quarts of strawberries?
 - *Adding or multiplying (Have students elaborate where they used each operation.)*
- How is the number of quarts of strawberries related to the number of quarts of blueberries?
 - *The number of quarts of strawberries is always three times the number of quarts of blueberries, or the number of quarts of blueberries is one-third the number of quarts of strawberries. Students could also respond that the ratio of the number of quarts of blueberries to the number of quarts of strawberries is always equivalent to 1:3.*

B		S
1	x 3 =	3
2	x 3 =	6
3	x 3 =	9
4	x 3 =	12

Students write directly on the chart paper to check and see whether this is true for every entry in each table. Extend this question to ask students why the rows have the same ratio of the number of quarts of blueberries to the number of quarts of strawberries (or why the rows do not have the same ratio, if a mistake was made) or if the answer makes sense.

- How are the amounts of blueberries related to each other in the table?
 - *Answers will vary. Students should notice that there is a pattern in the blueberries column. The paper that each group of students made could be different so how they created the pattern will vary. However, students could use the chart paper and write on the table to see the patterns. Most tables should have addition repeating throughout.*

	B	S
+10	10	30
+10	20	60
+10	30	90
	40	120

How are the amounts of strawberries related to each other in the table?

	B	S
	10	30
	20	60
	30	90
	40	120

MP.7

Extend this question to further ask students how the two patterns are related to each other.

	B	S
+10	10	30
+10	20	60
+10	30	90
	40	120

- The change in the amount of blueberries compared to the change in the amount of strawberries is 10 to 30 or 1 to 3, the same ratio we started with.
- If we know we want to add 7 quarts of blueberries in Table 1, how can we use the table to help us get the amount of strawberries needed?
 - *We could extend our table until we got to seven in the blueberries column.*

MP.7

- What if we were making enough fruit salad to serve a large number of people and added 70 quarts of blueberries? How could we create a table to find the value for strawberries?
 - *We could start with the ratio 1: 3 that was given in the description and then multiply by ten to get 10 and 30. These would be the first values in our table. Then, we would count up by tens in the Blueberries column and count up by 30's in the Strawberries column.*

Exercise 1

Students examine tables that were made incorrectly and make comments on what was done wrong when making the tables. Students also note the ratio that was used to create the ratio table and then create a correct table.

Exercise 1

The following tables were made incorrectly. Find the mistakes that were made, create the correct ratio table, and state the ratio that was used to make the correct ratio table.

a.

Hours	Pay in Dollars
3	24
5	40
7	52
9	72

Hours	Pay in Dollars
3	24
5	40
7	56
9	72

Ratio 1: 8 (Solutions may vary.)

b.

Blue	Yellow
1	5
4	8
7	13
10	16

Blue	Yellow
1	5
4	20
7	35
10	50

Ratio 1: 5 (Solutions may vary.)

Hours	Pay in Dollars
3	24
5	40
7	52
9	72

Students should be able to note that the entry (7, 52) is incorrect. It should be (7, 56).

Students should also note that each entry should have a ratio of 1 to 8 showing that 1 hour pays \$8.

Blue	Yellow
1	5
4	8
7	13
10	16

Students may notice that each of the entries has a different ratio. The problem with this table is that the same amount was added repeatedly to both the Blue column and the Yellow column. Because the first ratio is 1: 5, to get a ratio of 4: 20, we would add three to the Blue column and fifteen to the Yellow column. Adding three to the Blue column and then adding fifteen to the Yellow column creates a ratio of 1: 5, just what we started with.

Closing (5 minutes)

Questions to Review:

- In a vertically oriented ratio table, how are the values across the rows related?
 - *The values across the rows form a ratio of $A : B$. So, the value of the second column will be determined by multiplying the value in the first column by $\frac{B}{A}$, and the value of the first column will be determined by multiplying the value in the second column by $\frac{A}{B}$.*
- In a vertically oriented ratio table, how are the values related as we move down a column?
 - *The values in the column depend on how the table was created, but they could be increasing by the same sum or by the same multiple. For example, the values in the first column could be increasing by 5 each time. So, the values could go from 6, 11, 16, 21, 26, etc. or the numbers could be formed by multiplying. In other words, the values could go from 6, 12, 24, 48, etc. if the values were multiplied by 2 each time.*
- Is there a way to use addition to figure out the next row in a ratio table?
 - *I can use the ratio to help me use addition to get the next row. For example, if the ratio of $A : B$ is 2 : 5, I can add 2 to the value in the first column and add 5 to the value in the second column to get the next row in the table. I cannot just add the same thing to both the values in the first and second columns.*
- Is there a way to use multiplication to figure out the next row in a ratio table?
 - *If I use multiplication to get the next row in the table, I need to multiply both the values in the first column and the values in the second column by the same number. So, if the original row is (4, 5), and I want to multiply by 3 to get the next row, I would multiply 4×3 and 5×3 to get a row that is (12, 15). Unlike the addition method, I would do the same thing to both the values in the first column and the values in the second column.*

Lesson Summary

Ratio tables are constructed in a special way.

Each pair of values in the table will be equivalent to the same ratio.

red	white
3	12
6	24
12	48
21	84

$$6 : 24 \qquad 21 : 84$$

$$1 : 4 \qquad 1 : 4$$

Repeated addition or multiplication can be used to create a ratio table.

The values in the first column can be multiplied by a constant value to get the values in the second column.

red	white
3 $\times 4$	12
6 $\times 4$	24
12 $\times 4$	48
21 $\times 4$	84

By just adding a certain number to the first entry of a ratio in the first column and adding the same number to the second entry in the second column, the new ratio formed is generally not equivalent to the original ratio. Instead, the numbers added to the entries must be related to the ratio used to make the table. However, if the entries in one column are multiplied by a certain number, multiplying the entries in the other column by the same number creates equivalent ratios.

red	white
3	12
6	24
12	48
21	84

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 10: The Structure of Ratio Tables—Additive and Multiplicative

Exit Ticket

Show more than one way you could use the structure of the table to find the unknown value. Fill in the unknown values.

Number of Weeks	Amount of Money in Account
2	\$350
4	\$700
6	\$1,050
8	
10	

Exit Ticket Sample Solutions

Show more than one way you could use the structure of the table to find the unknown value. Fill in the unknown values.

Number of Weeks	Amount of Money in Account
2	\$350
4	\$700
6	\$1,050
8	\$1,400
10	\$1,750

I can add two to the weeks each time to get the next number. I can add \$350 to the money to get the next values.

In the rows, we have 2: 350, which is equal to 1: 175. So the money is 175 times larger than the week. I can just multiply the week by 175 to get the amount of money in the account.

The ratio used to create the table was 1: 175.

Problem Set Sample Solutions

1.

- a. Create a ratio table for making lemonade with a lemon juice-to-water ratio of 1: 3. Show how much lemon juice would be needed if you use 36 cups of water to make lemonade.

Lemon Juice (cups)	Water (cups)
1	3
2	6
3	9
4	12
12	36

12 cups of lemon juice would be needed if 36 cups of water is used.

- b. How is the value of the ratio used to create the table?

The value of the ratio is $\frac{1}{3}$. If we know the amount of lemon juice, we can multiply that amount by 3 to get the amount of water. If we know the amount of water, we can multiply that amount by $\frac{1}{3}$ (or divide by 3) to get the amount of lemon juice.

2. Ryan made a table to show how much blue and red paint he mixed to get the shade of purple he will use to paint the room. He wants to use the table to make larger and smaller batches of purple paint.

Blue	Red
12	3
20	5
28	7
36	9

- a. What ratio was used to create this table? Support your answer.

The ratio of the amount of blue paint to the amount of red paint is 4: 1. I know this because 12: 3, 20: 5, 28: 7, and 36: 9 are all equivalent to 4: 1.



- b. How are the values in each row related to each other?

In each row, the amount of red paint is $\frac{1}{4}$ times the amount of blue paint, or the amount of blue paint is 4 times the amount of red paint.

- c. How are the values in each column related to each other?

The values in the columns are increasing using the ratio. Since the ratio of the amount of blue paint to the amount of red paint is 4:1, we have used 4×2 : 1×2 , or 8:2, and repeatedly added to form the table. 8 was added to the entries in the blue column while 2 was added to the entries in the red column.



Lesson 11: Comparing Ratios Using Ratio Tables

Student Outcomes

- Students solve problems by comparing different ratios using two or more ratio tables.

Classwork

Example 1 (10 minutes)

Allow students time to complete the example. If time permits, allow student volunteers to come to the board and explain their solutions. Students will be asked to complete two questions.

Example 1

Create four equivalent ratios (2 by scaling up and 2 by scaling down) using the ratio 30 to 80.

There are various possible answers.

Some examples of scaling down are 3: 8, 6: 16, 9: 24, 12: 32, 15: 40, 18: 48, 21: 56, 24: 64, and 27: 72.

Some examples of scaling up are 60: 160, 90: 240, 120: 320, etc.

Write a ratio to describe the relationship shown in the table.

Hours	Number of Pizzas Sold
2	16
5	40
6	48
10	80

The ratio used to create the table is 1: 8, which means that there are 8 pizzas being sold every hour.

Exercise 1 (10 minutes)

Students work in small groups or with partners for the exercise. Show the examples of three students and their texting speeds. Tables are provided in the student materials showing different numbers of words being texted by different students at different times. Display these tables to have a visual representation to use during discussion. Have students discuss possible ways of using the tables to figure out who can text the fastest.

Exercise 1

The following tables show how many words each person can text in a given amount of time. Compare the rates of texting for each person using the ratio table.

Michaela

Minutes	3	5	7	9
Words	150	250	350	450



Jenna

Minutes	2	4	6	8
Words	90	180	270	360

Maria

Minutes	3	6	9	12
Words	120	240	360	480

Michaela texts the fastest because she texts 50 words per minute, next is Jenna who texts 45 words per minute, and last is Maria who texts 40 words per minute.

While students are discussing the tables, ask the following:

- How can we compare the texting rates?
 - *Answers will vary. Students should see that comparing the girls' texting rates using the table can be a struggle because there is not a common time for all three tables.*
- Even though there is not a time that is common to all three tables, is it still possible to use the tables to determine which girl has the fastest texting rate and which has the slowest?
 - *Answers will vary. Sample Response: I could compare the first and third tables by comparing the words at 3 and 9 minutes. I could compare the second and third tables by comparing the words at 6 minutes.*
- If you used ratios to compare, what do the ratios mean in the context of this problem?
 - *The ratios show how many words each person can text in one minute.*
- How can we use the ratios to help us compare the texting rates of the three girls?
 - *We can find the values of the ratios and then put them in order to see who is fastest and slowest.*
- Why can't I just pick the student who has the largest number of words at the end of the table? (This question is meant to help students with a common misconception.)
 - *The times (minutes) are not equal in all tables. The ratio of words to minutes needs to be used to compare the texting rates.*
- If there were a fourth person, Max, who can text 55 words per minute, how could we create a table to show his texting speed? (This question is to help prepare the class for the next exercise and to review concepts learned in previous lessons.)
 - *The entries in the Minutes row would go up by 1 as the entries in the Words row goes up by 55.*

Complete the table so that it shows Max has a texting rate of 55 words per minute.

Max

Minutes	1	2	3	4
Words	55	110	165	220

Exercise 2 (10 minutes): Making Juice (Comparing Juice to Water)

Students work with a partner or in a small group. Students follow the set of instructions that leads them through examples and asks them questions to help them dig deeper. The questions ask students to compare the ratio of water to juice for a variety of beverages. Students can also find the value of the ratio in order to determine which juice has a higher water-to-juice ratio.

Exercise 2: Making Juice (Comparing Juice to Water)

a. The tables below show the comparison of the amount of water to the amount of juice concentrate (JC) in grape juice made by three different people. Whose juice has the greatest water-to-juice concentrate ratio, and whose juice would taste strongest? Be sure to justify your answer.

Franca's juice has the greatest amount of water in comparison to juice concentrate, followed by Milton, and then Laredo. Because Laredo's juice has the least amount of water in comparison to juice concentrate, his juice would taste the strongest.

Laredo's Juice		
Water	JC	Total
12	4	16
15	5	20
21	7	28
45	15	60

Franca's Juice		
Water	JC	Total
10	2	12
15	3	18
25	5	30
40	8	48

Milton's Juice		
Water	JC	Total
8	2	10
16	4	20
24	6	30
40	10	50

Put the juices in order from the juice containing the most water to the juice containing the least water.

Franca, Milton, Laredo

Discussing what these ratios mean and what the values of the ratios look like will help give meaning to the problem for students who are struggling. Students should see that the value of the water-to-juice concentrate ratio for Franca's juice is greater than the value of the water-to-juice concentrate ratio for Laredo's and Milton's juices.

Explain how you used the values in the table to determine the order.

- Laredo makes his juice by combining three cups of water for every one cup of juice concentrate.*
- Franca makes her juice by combining five cups of water for every one cup of juice concentrate.*
- Milton makes his juice by combining four cups of water for every one cup of juice concentrate.*

What ratio was used to create each table?

Laredo 3: 1, Franca 5: 1, Milton 4: 1

Explain how the ratio could help you compare the juices.

Answers will vary.

As you visit the groups or partners as they are working, discuss the third column in the table. Some students may have compared using the total as well.

The next question does not have equal values in the columns for all three tables, so other reasoning will need to be used to solve the problems.

Laredo's Juice		
Water	JC	Total
12	2	14
18	3	21
30	5	35
42	7	49

Franca's Juice		
Water	JC	Total
15	6	21
20	8	28
35	14	49
50	20	70

Milton's Juice		
Water	JC	Total
16	6	22
24	9	33
40	15	55
64	24	88

Students may use the ratios to compare the data.

Struggling students, and even average students, may be challenged when comparing these ratios. By finding the value of the ratios, it will be easier for students to compare the data. It should be fairly obvious that Laredo has the juice with the most water compared to juice concentrate. If students use the tables to compare Franca's ratio of the amount of water to the amount of juice concentrate with Milton's ratio of the amount of water to the amount of juice concentrate, they can look for numbers the columns have in common.

- b. The next day, each of the three people made juice again, but this time they were making apple juice. Whose juice has the greatest water-to-juice concentrate ratio, and whose juice would taste the strongest? Be sure to justify your answer.

Laredo's Juice		
Water	JC	Total
12	2	14
18	3	21
30	5	35
42	7	49

Franca's Juice		
Water	JC	Total
15	6	21
20	8	28
35	14	49
50	20	70

Milton's Juice		
Water	JC	Total
16	6	22
24	9	33
40	15	55
64	24	88

Put the juices in order from the strongest apple taste to the weakest apple taste.

Franca, Milton, Laredo

Explain how you used the values in the table to determine the order.

Answers will vary.

- Based on the data in the tables, Milton added more water to his juice than Franca added to her juice. So, the order of the juice with the strongest apple taste to the weakest apple taste is Franca, Milton, Laredo.

Students may use the ratios to get equal amounts of water and then compare the amounts of juice concentrate, or students may use the ratios to get equal amounts of juice concentrate and then compare the amounts of water.

$$5:2 \text{ -----} \rightarrow 5 \times 8:2 \times 8 \text{ -----} \rightarrow 40:16$$

$$8:3 \text{ -----} \rightarrow 8 \times 5:3 \times 5 \text{ -----} \rightarrow 40:15$$

Now we can compare and see that Franca's juice has more juice concentrate compared to water than Milton's juice.

Students also have the option of comparing the values of the ratios to see which value is greater. Then they can compare $\frac{15}{6}$ to $\frac{16}{6}$ and see that the value of Milton's ratio is larger than the value of Franca's ratio.

MP.7

What ratio was used to create each table?

Laredo: 6: 1

Franca: 5: 2

Milton: 8: 3

Explain how the ratio could help you compare the juices.

Answers will vary.

How was this problem different than the grape juice questions in part (a)?

Answers will vary.

- c. Max and Sheila are making orange juice. Max has mixed 15 cups of water with 4 cups of juice concentrate. Sheila has made her juice by mixing 8 cups of water with 3 cups of juice concentrate. Compare the ratios of juice concentrate to water using ratio tables. State which beverage has a higher juice concentrate-to-water ratio.

Max

JC	4	8	12
Water	15	30	45

Sheila

JC	3	6	9
Water	8	16	24

Sheila has a higher juice concentrate-to-water ratio because she mixed 12 cups of juice concentrate to only 32 cups of water. Max's juice would be more watery because he would have 45 cups of water with the 12 cups of juice concentrate.

- d. Victor is making recipes for smoothies. His first recipe calls for 2 cups of strawberries and 7 cups of other ingredients. His second recipe says that 3 cups of strawberries are combined with 9 cups of other ingredients. Which smoothie recipe has more strawberries compared to other ingredients? Use ratio tables to justify your answer.

Recipe 2 has more strawberries compared to other ingredients.

Recipe 1

Strawberries	2	4	6
Other	7	14	21

Recipe 2

Strawberries	3	6	9
Other	9	18	27

Recipe 2 has more strawberries compared to the other ingredients. When comparing 6 cups of strawberries, there were fewer other ingredients added in Recipe 2 than in Recipe 1.

MP.7

Students who are struggling can use the value of the ratio to compare the data. However, in parts (c) and (d), struggling students may need to see the comparison of part to whole or get equal amounts of water in part (c) and *other* in part (d) to make sense of the problem. If students use this comparison, they may want to use multiplication instead of adding to make the table. For example, in part (d), students may want to see how many strawberries would be needed when 63 cups of other ingredients are added.

2: 7 becomes 18 to 63.

3: 9 becomes 21 to 63.

This might be an easier way for students to see that there are more strawberries in Recipe 2.

While students are working, circulate and ask students to share their solving strategies. It is important to also ask students to prove their claims. If a student has simply written that one beverage has a higher amount of water per juice than the other, ask the student to prove or explain how the answer was determined. Students share how they have compared the values in the table.

Closing (10 minutes)

- Today we used ratio tables to compare two ratios that were not equivalent and answered questions about which situation would reach a given level first. Can anyone think of another way to compare two different ratios?
 - *The value of a ratio might be useful because then we could determine which ratio had the larger or smaller value.*

Lesson Summary

Ratio tables can be used to compare two ratios.

Look for equal amounts in a row or column to compare the second amount associated with it.

3	6	12	30
7	14	28	70

10	25	30	45
16	40	48	72

The values of the tables can also be extended in order to get comparable amounts. Another method would be to compare the values of the ratios by writing the values of the ratios as fractions and then using knowledge of fractions to compare the ratios.

When ratios are given in words, creating a table of equivalent ratios helps in comparing the ratios.

12: 35 compared to 8: 20

Quantity 1	12	24	36	48
Quantity 2	35	70	105	140

Quantity 1	8	56
Quantity 2	20	140

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 11: Comparing Ratios Using Ratio Tables

Exit Ticket

Beekeepers sometimes supplement the diet of honey bees with sugar water to help promote colony growth in the spring and help the bees survive through fall and winter months. The tables below show the amount of water and the amount of sugar used in the Spring and in the Fall.

Spring Sugar Water Mixture	
Sugar (cups)	Water (cups)
6	4
15	10
18	12
27	18

Fall Sugar Water Mixture	
Sugar (cups)	Water (cups)
4	2
10	5
14	7
30	15

Write a sentence that compares the ratios of the number of cups of sugar to the number of cups of water in each table.

Explain how you determined your answer.



Exit Ticket Sample Solutions

Beekeepers sometimes supplement the diet of honey bees with sugar water to help promote colony growth in the spring and help the bees survive through fall and winter months. The tables below show the amount of water and the amount of sugar used in the Spring and in the Fall.

Spring Sugar Water Mixture	
Sugar (cups)	Water (cups)
6	4
15	10
18	12
27	18

Fall Sugar Water Mixture	
Sugar (cups)	Water (cups)
4	2
10	5
14	7
30	15

Write a sentence that compares the ratios of the number of cups of sugar to the number of cups of water in each table.

The value of the ratio for the Spring sugar water is $\frac{1.5}{1}$, while the value of the ratio of the Fall sugar water is $\frac{2}{1}$. Therefore, the Fall sugar water mixture has more sugar mixed in for every cup of water added to the mixture than the Spring sugar water mixture.

Explain how you determined your answer.

Spring: $\frac{6}{4} = \frac{3}{2} = \frac{1.5}{1}$

Fall: $\frac{4}{2} = \frac{2}{1}$

Problem Set Sample Solutions

1. Sarah and Eva were swimming.

a. Use the ratio tables below to determine who the faster swimmer is.

Sarah

Time (min)	3	5	12	17
Distance (meters)	75	125	300	425

Eva

Time (min)	2	7	10	20
Distance (meters)	52	182	260	520

Eva is the faster swimmer because she swims 26 meters in 1 minute, which is faster than Sarah who swims 25 meters in 1 minute.

b. Explain the method that you used to determine your answer.

Answers will vary.

2. A 120 lb. person would weigh about 20 lb. on the earth's moon. A 150 lb. person would weigh about 28 lb. on Io, a moon of Jupiter. Use ratio tables to determine which moon would make a person weigh the most.

Answers will vary. A person on Io will weigh more than a person on our moon.



Lesson 12: From Ratio Tables to Double Number Line

Diagrams

Student Outcomes

- Students create equivalent ratios using a ratio table and represent these ratios on a double number line diagram.
- Students extend and use a double number line diagram to solve ratio problems related to the real world.

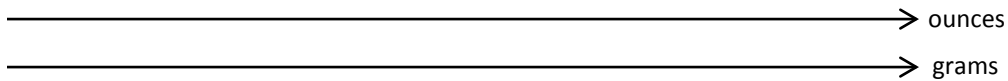
Lesson Notes

Be aware that double number line diagrams may be unfamiliar to students. Creating and delivering brief opening exercises that demonstrate the use of double number line diagrams, as well as providing fluency activities, such as Rapid Whiteboard Exchanges (RWBE), is highly suggested throughout the rest of this module. Students employ double number line diagrams to understand the equivalence of two related numbers. Generally, double number line diagrams are often chosen when two different units are being compared. An example of a double number line diagram is as follows:

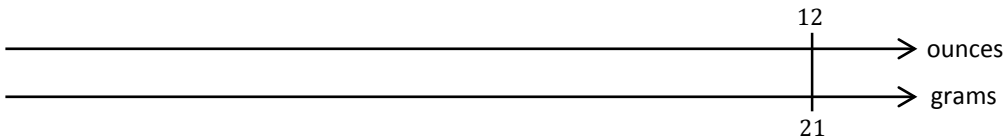
A 12 oz. bottle of sport drink contains 21 g of sugar. If Claudia wants the maximum number of grams of sugar she drinks to be 7 g, how many ounces of the sport drink can she have?

(Note that there are two different units being compared: grams and ounces. They are not equivalent, as one gram is not the same as one ounce. Since this is true, students employ tape diagrams to find equivalence between unlike units).

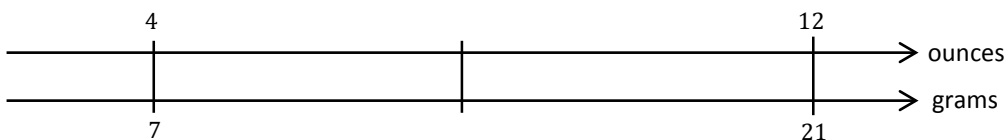
Students begin by constructing one number line to represent the number of ounces and then constructing another number line directly beneath the original line to represent the number of grams.



Students determine how to label the diagram based on the information in the problem. Since there are 21 g of sugar in 12 oz. of sports drink, the equivalency can be represented directly on the double number line diagram.



This represents that for every 12 oz. of sports drink, there are 21 g of sugar. Students determine the amount of sports drink they can have if they can only drink 7 g of sugar. Students can represent 7 on the double number line diagram by dividing 21 by 3. Since they divided 21 by 3, they must also divide 12 by 3, which results in 4 oz.



Classwork

Exercise 1 (5 minutes)

Recall of prior knowledge—Ratio Tables (See attached ratio cards.)

MP.2

Each student is given a card with a ratio on it. Students move around the room in search of other students who have ratios that are equivalent to theirs. Students with equivalent ratios form a group and create a ratio table, which contains all of the equivalent ratios. As students present their ratio tables, the student audience determines the accuracy of the groups’ formations, as well as the accuracy of their tables. Circulate around the room as a facilitator, guiding students who are having trouble. Collect cards and direct students back to their seats once the groups are completed.

Scaffolding:

Differentiate the exercise by choosing certain cards for each student. For example, a ratio of 2: 1 may be easier for a struggling learner to conceptualize, while a ratio of $3\frac{1}{2}: 2$ may be more challenging.

Exercise 2 (7 minutes)

A guided whole-group discussion occurs as outlined below. Students are given time to think about and discuss the following questions independently or with their peers and then contribute to the whole-group discussion.

Scaffolding:

For more support, or to provide more information on this topic to support all learners’ needs, refer to Teacher Notes—More Information on Soda and Sugar for video and news-related links.

Exercise 2

The amount of sugary beverages Americans consume is a leading health concern. For a given brand of cola, a 12 oz. serving of cola contains about 40 g of sugar. Complete the ratio table, using the given ratio to find equivalent ratios.

Cola (ounces)	6	12	18
Sugar (grams)	20	40	60

Answers may vary but are found by either multiplying or dividing both 12 and 40 by the same number.

Exercise 3 (7 minutes)

Exercise 3

A 1 L bottle of cola contains approximately 34 fluid ounces. How many grams of sugar would be in a 1 L bottle of the cola? Explain and show how to arrive at the solution.

Cola (ounces)	6	12	18	24	30	36
Sugar (grams)	20	40	60	80	100	120

MP.3

Students may use different approaches. Some students may decide to extend their tables but may realize that they do not easily arrive at 34 for the ounces of cola when finding equivalent ratios. After adequate time, have students/groups present their predictions and methods to the class.

MP.1

When eliciting students’ responses, ask probing questions as the opportunity arises (e.g., “So are you telling me that since 34 oz. is between 30 and 36 oz., the answer will be between 100 and 120 g of sugar?” “Is it closer to 100 or 120? How do you know?” “Will the answer be a whole number? Why or why not?” “Can you express your answer as a mixed number?”).

- What are some of the challenges we face when using a table for this type of problem?
 - 34 is not a multiple of 6, and we are counting by 6's for the ounces of cola and by 20's for grams of sugar.

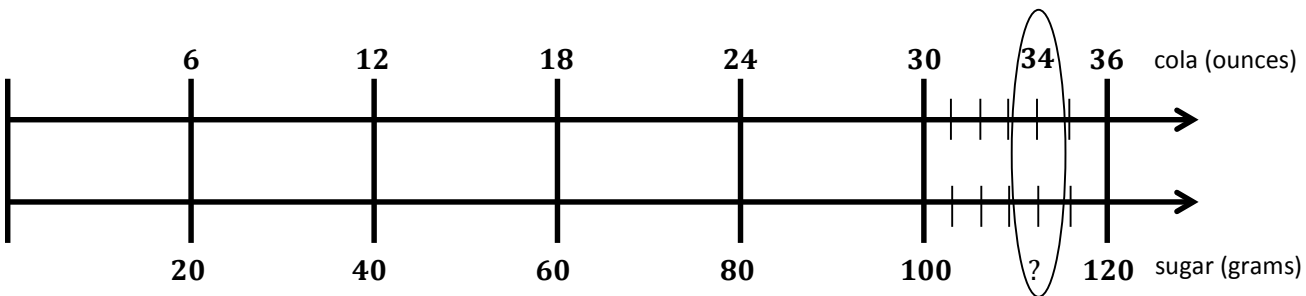
Example 1 (9 minutes)

MP.5

Whole group instruction continues with a teacher-led discussion (with an illustration) on using a double number line diagram to arrive at the answer for Example 1. This problem requires two different number lines since we are comparing ounces and grams, which are not the same units (1 gram is not equivalent to 1 ounce). Students record the following illustration on the double number line reproducible.

Scaffolding:

Use the following fluency exercise to reinforce understanding: Students can practice skip-counting aloud for each number line to understand the concept of scale.



- What is the scale we are using on each number line?
 - 6 for cola and 20 for sugar

Show on the cola number line that 34 oz. is $\frac{4}{6}$, or $\frac{2}{3}$, of the way between 30 and 36. The answer for grams of sugar will be $\frac{4}{6}$, or $\frac{2}{3}$, of the way between 100 and 120. Since the intervals are by 20, to determine the answer, find $\frac{2}{3}$ of 20 and add it to 100. Students may choose to use $\frac{4}{6}$ instead of $\frac{2}{3}$.

Elicit student volunteers to show the math process and work using each of the two fractions. Students should see that the answers will be the same regardless of which fraction was used.

$$\frac{2}{3} \times \frac{20}{1} = \frac{40}{3} = 13\frac{2}{6} = 13\frac{1}{3}$$

OR

$$\frac{4}{6} \times \frac{20}{1} = \frac{80}{6} = 13\frac{2}{6} = 13\frac{1}{3}$$

$$100 + 13\frac{1}{3} = 113\frac{1}{3}$$

$$100 + 13\frac{1}{3} = 113\frac{1}{3}$$

113 $\frac{1}{3}$ g of sugar

113 $\frac{1}{3}$ g of sugar

Exercise 4 (7 minutes)

Exercise 4

A school cafeteria has a restriction on the amount of sugary drinks available to students. Drinks may not have more than 25 g of sugar. Based on this restriction, what is the largest size cola (in ounces) the cafeteria can offer to students?

My estimate is between 6 and 12 oz. but closer to 6 ounces. I need to find $\frac{1}{4}$ of 6 and add it to 6.

$$\frac{1}{4} \times \frac{6}{1} = \frac{6}{4} = 1\frac{1}{2}$$

$$6 + 1\frac{1}{2} = 7\frac{1}{2}$$

A $7\frac{1}{2}$ oz. cola is the largest size that the school cafeteria can offer to students.

After students have ample time to create their double number line diagram and answer the question, encourage students to present their thought process to the class.

Exercise 5 (time permitting)

Exercise 5

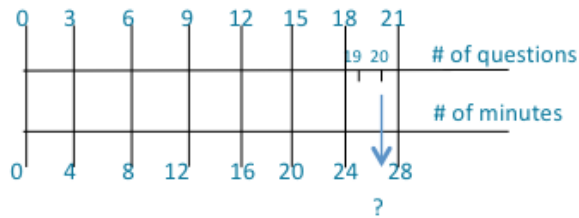
Shontelle solves three math problems in four minutes.

a. Use this information to complete the table below.

Number of Questions	3	6	9	12	15	18	21	24	27	30
Number of Minutes	4	8	12	16	20	24	28	32	36	40

- b. Shontelle has soccer practice on Thursday evening. She has a half hour before practice to work on her math homework and to talk to her friends. She has 20 math skill-work questions for homework, and she wants to complete them before talking with her friends. How many minutes will Shontelle have left after completing her math homework to talk to her friends?

Use a double number line diagram to support your answer, and show all work.



step 1: $\frac{2}{3} \times 4 = \frac{8}{3} = 2\frac{2}{3}$

step 2: $24 + 2\frac{2}{3} = 26\frac{2}{3}$

step 3: $30 - 26\frac{2}{3} = 3\frac{1}{3}$

Shontelle can talk to her friends for $3\frac{1}{3}$ minutes.

Closing (5 minutes)

Have students complete the 3-2-1 Activity.

- Name three different ways you can represent a group of equivalent ratios.
 - *Ratio table, tape diagram, double number line diagrams*
- Share two things you learned about double number line diagrams.
- Tell one thing you want to know more about from today’s lesson.

Lesson Summary

A **double number line** is a representation of a ratio relationship using a pair of parallel number lines. One number line is drawn above the other so that the zeros of each number line are aligned directly with each other. Each ratio in a ratio relationship is represented on the double number line by always plotting the first entry of the ratio on one of the number lines and plotting the second entry on the other number line so that the second entry is aligned with the first entry.

Exit Ticket (5 minutes)

Additional Teacher Notes

More Information on Soda and Sugar:

Video: <http://www.cnn.com/2013/01/14/health/coke-obesity>

Video: http://www.teachertube.com/viewVideo.php?video_id=13788

<http://www.sugarstacks.com/beverages.htm>



Name _____

Date _____

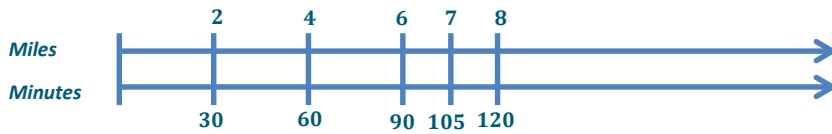
Lesson 12: From Ratio Tables to Double Number Line Diagrams

Exit Ticket

Kyra is participating in a fundraiser walk-a-thon. She walks 2 miles in 30 minutes. If she continues to walk at the same rate, determine how many minutes it will take her to walk 7 miles. Use a double number line diagram to support your answer.

Exit Ticket Sample Solution

Kyra is participating in a fundraiser walk-a-thon. She walks 2 miles in 30 minutes. If she continues to walk at the same rate, determine how many minutes it will take her to walk 7 miles. Use a double number line diagram to support your answer.



It will take Kyra 105 minutes to walk 7 miles.

Problem Set Sample Solutions

1. While shopping, Kyla found a dress that she would like to purchase, but it costs \$52.25 more than she has. Kyla charges \$5.50 an hour for babysitting. She wants to figure out how many hours she must babysit to earn \$52.25 to buy the dress. Use a double number line to support your answer.

9.5 hours

2. Frank has been driving at a constant speed for 3 hours, during which time he traveled 195 miles. Frank would like to know how long it will take him to complete the remaining 455 miles, assuming he maintains the same constant speed. Help Frank determine how long the remainder of the trip will take. Include a table or diagram to support your answer.

7 hours



7 to 4	28:16	$3\frac{1}{2}$ to 2	35:20
3 to 8	30:80	6 to 16	12:32
5 to 1	45:9	15 to 3	$2\frac{1}{2}$ to $\frac{1}{2}$



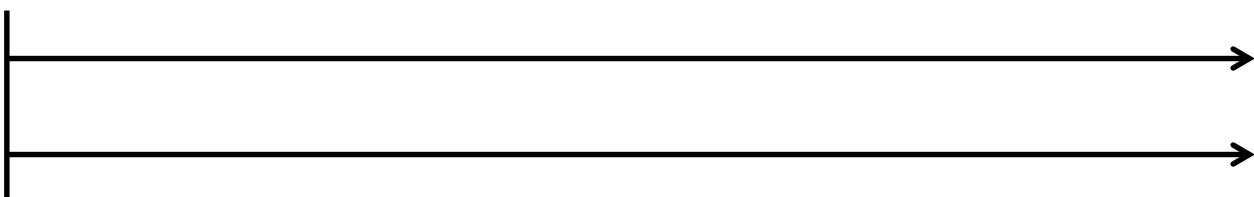
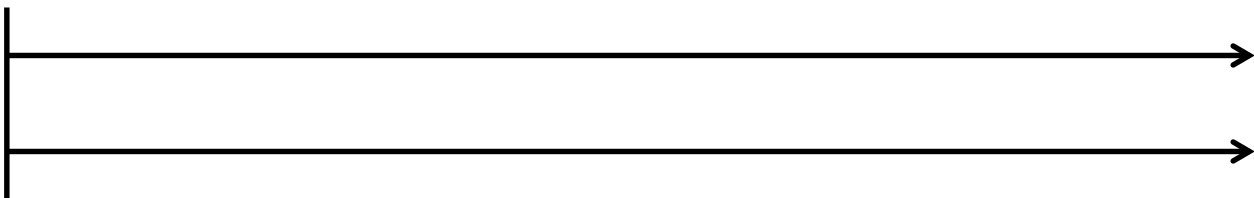
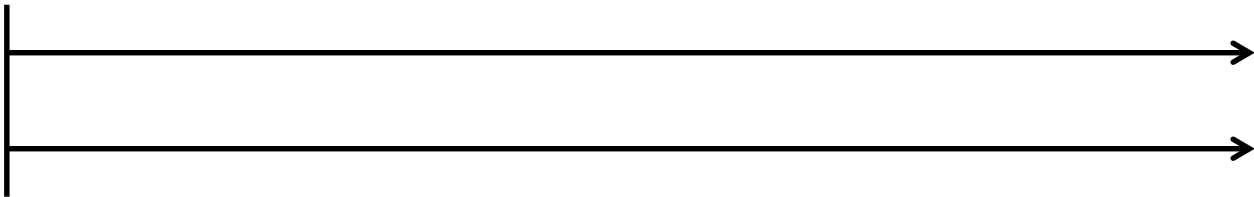
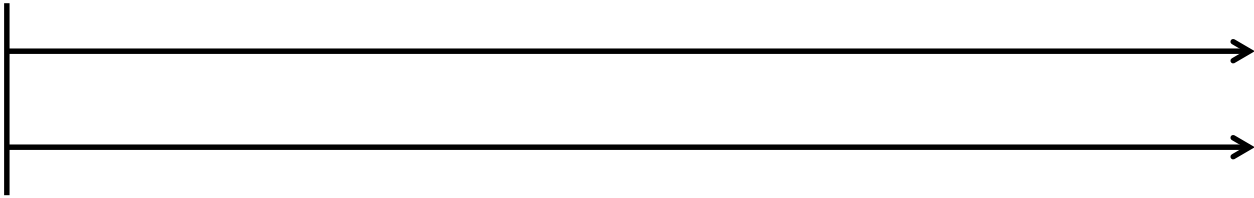
3 to 4	9:16	$1\frac{1}{2}$ to 2	15:20
3 to 6	30:60	1 to 2	4:8
2 to 1	44:22	18:9	1 to $\frac{1}{2}$



1 to 6	8:48	6 to 36	5:30
9 to 4	36:16	3 to $\frac{4}{3}$	18:8
7 to 6	42:36	21 to 8	$3\frac{1}{2}$ to 3



Double Number Line Reproducible





Lesson 13: From Ratio Tables to Equations Using the Value of a Ratio

Student Outcomes

- Students restate a ratio in terms of its value; for example, if the ratio of length A to length B is 3:5 (in the same units), students state that *length A is $\frac{3}{5}$ of length B , length B is $\frac{5}{3}$ of length A , length A is $\frac{3}{8}$ of the total length, and length B is $\frac{5}{8}$ of the total length.*
- Students use the value of the ratio to problem-solve by writing and solving equations.

Classwork

Exercise 1–3 (35 minutes)

Exercise 1

Each student is given a pre-made linking cube model consisting of one red cube and three yellow cubes to be used as a model for the scenario below.

Exercise 1

Jorge is mixing a special shade of orange paint. He mixed 1 gallon of red paint with 3 gallons of yellow paint.

Based on this ratio, which of the following statements are true?

- $\frac{3}{4}$ of a 4-gallon mix would be yellow paint.
True
- Every 1 gallon of yellow paint requires $\frac{1}{3}$ gallon of red paint.
True
- Every 1 gallon of red paint requires 3 gallons of yellow paint.
True
- There is 1 gallon of red paint in a 4-gallon mix of orange paint.
True
- There are 2 gallons of yellow paint in an 8-gallon mix of orange paint.
False

Use the space below to determine if each statement is true or false.

Scaffolding:

Linking cubes should be available for each learner. They give a color-coded manipulative model that makes the abstract story problem tangible. The cubes can be combined to give a concrete model of the chart.

Allow students to discuss each question with a partner or group. When the class comes back together as a whole group, each group is responsible for explaining to the class *one* of the statements and whether the group feels the statement is true or false and why. (The first four statements are true while the fifth statement is false. To be made true, the fifth statement should read “There are 6 gallons of yellow paint in an 8 gallon mix of orange paint.”)

Exercise 2

Exercise 2
Based on the information on red and yellow paint given in Exercise 1, complete the table below.

Red Paint (<i>R</i>)	Yellow Paint (<i>Y</i>)
1	3
2	6
3	9
4	12
5	15

MP.7

Students should be encouraged to combine their linking cubes with those of a partner to model the ratio given in the second row of the table. Students should find a third partner to model the ratio given in the third row, etc.

Facilitate and lead the discussion (if necessary) to point out that we can extend the table to show total gallons.

Red Paint (<i>R</i>)	Yellow Paint (<i>Y</i>)	Relationship
1	3	$3 = 1 \times 3$
2	6	$6 = 2 \times 3$
3	9	$9 = 3 \times 3$
4	12	$12 = 4 \times 3$
5	15	$15 = 5 \times 3$

Use the table to identify the relationship between two quantities as an intermediate step in creating an equation that models that relationship.

Here is a possible conversation that could be used to help students see the relationships:

- What information is given in the table?
 - *The table gives the number of gallons of red paint and the number of gallons of yellow paint.*
- In what context would someone use this information?
 - *This information would be useful to anyone who had a need to paint a surface and also had to mix his own paint, such as a painting contractor who prefers to mix custom colors for high-end clients.*
- We need to interpret what this table means. If I use 5 gallons of red paint, how many gallons of yellow paint would I need?
 - *I would need 15 gallons of yellow paint.*
- How is the amount of yellow paint related to the amount of red paint?
 - *The amount of yellow paint is always 3 times as much as the amount of red paint.*

- Is that true for all of the entries?
 - Yes
- Now imagine that we want to make orange paint to cover an entire wing of our school, and we have 100 gallons of red paint. How could we figure out how many gallons of yellow paint to use?
 - *We could multiply 100 by 3.*
- Now we want to write this as an equation. You have told me that I can take all the values in the first column and multiply by three to get the values in the second column. When we were given 4 gallons of red paint, we knew we would need $3 \cdot 4$ gallons of yellow paint. What if we were given R gallons of red paint, how many gallons of yellow paint would we need? So, Y , the number of gallons of yellow paint, would equal...?
 - *3 times R*
- How would we write this equation?

To get to these steps, students might need a little guidance. Help by pointing out the variables given in the table, and ask them to write what R must be multiplied by to get Y .

- $Y = 3R$
- We were trying to find out how much yellow paint we needed given the amount of red paint. Is the formula related to the value of the ratio of the number of gallons of yellow paint to the number of gallons of red paint?
 - *The ratio of the number of gallons of yellow paint to the number of gallons of red paint is 3:1; the value of the ratio is $\frac{3}{1}$.*
- What if we wanted an equation to tell us how much red paint to use if we are given the amount of yellow paint? How can we use the amount of yellow paint to determine the amount of red paint needed?
 - *Divide by three or multiply by $\frac{1}{3}$.*
- What is the ratio of the number of gallons of red paint to the number of gallons of yellow paint?
 - *The ratio is 1:3 or 1 to 3, and the value of the ratio is $\frac{1}{3}$.*
- How can I use this information to write the equation?
 - *We would take the Y -value and divide by 3; in other words, multiply by $\frac{1}{3}$. So, the equation would be $R = \frac{1}{3}Y$.*

MP.2

Some suggestions for discussion questions:

- In this case, the ratio of the number of gallons of red paint to the number of gallons of yellow paint is 1:3. What if the ratio were changed to 1:4? What would this mean in the context of our paint problem?
 - *We would use one gallon of red paint for every four gallons of yellow paint.*
- Can we still use the equation we created earlier? What would the new equation be?
 - *No. The new equation would be $Y = 4 \cdot R$*

Scaffolding:

The connection to the multiplication table should be elicited: rows 1 and 3 show the relationship in this ratio. Students might also find that equivalent fractions can be seen this way.

- How can we use the ratio to write the equation?
 - *There will be 4 times as much yellow paint as there is red paint. The 4 tells us what to multiply the number of gallons of red paint by to find the number of gallons of yellow paint.*
- What if the ratio were 1: 7? What would the new equation be?
 - $Y = 7 \cdot R$

Exercise 3

Students can try the first question on their own, or discuss the question if students need further instructions with the concept. Otherwise, students start the exercise on their own, in partners, or in small groups.

- Jorge now plans to mix red paint and blue paint to create purple paint. The color of purple he has decided to make combines red paint and blue paint in the ratio 4: 1. If Jorge can only purchase paint in one gallon containers, construct a ratio table for all possible combinations for red and blue paint that will give Jorge no more than 25 gallons of purple paint.
- Write an equation that will let Jorge calculate the amount of red paint he will need for any given amount of blue paint.
- Write an equation that will let Jorge calculate the amount of blue paint he will need for any given amount of red paint.
- If Jorge has 24 gallons of red paint, how much blue paint will he have to use to create the desired color of purple?
- If Jorge has 24 gallons of blue paint, how much red paint will he have to use to create the desired color of purple?

MP.5 Allow students to make a table or drawing.

- Remember that we sometimes use variables to represent numbers. Let's use B and R for the amounts of blue paint and red paint, respectively.
- No matter how much blue paint I use, I need 4 times as much red paint. So, for one gallon of blue paint, I need (1×4) 4 gallons of red paint. That is a ratio of 1: 4. The value of the ratio is $\frac{1}{4}$.
- Where do we see the ratio in the equations?
 - *We determine the amount of red paint by multiplying the unknown amount of blue paint by 4. So, for every 1 gallon of blue paint, we need 4 gallons of red paint. To determine the amount of blue paint, we need to find $\frac{1}{4}$ of the amount of red paint.*

Scaffolding:

The connection to the multiplication table should be elicited: columns 1 and 4 show the relationship in this ratio.

Exercise 3

- a. Jorge now plans to mix red paint and blue paint to create purple paint. The color of purple he has decided to make combines red paint and blue paint in the ratio 4: 1. If Jorge can only purchase paint in one gallon containers, construct a ratio table for all possible combinations for red and blue paint that will give Jorge no more than 25 gallons of purple paint.

Blue (B)	Red (R)	Relationship
1	4	$4 = 1 \times 4$
2	8	$8 = 2 \times 4$
3	12	$12 = 3 \times 4$
4	16	$16 = 4 \times 4$
5	20	$20 = 5 \times 4$

$$R = 4B$$

$$B = \frac{1}{4}R$$

Write an equation that will let Jorge calculate the amount of red paint he will need for any given amount of blue paint.

$$R = 4B$$

Write an equation that will let Jorge calculate the amount of blue paint he will need for any given amount of red paint.

$$B = \frac{1}{4}R$$

If Jorge has 24 gallons of red paint, how much blue paint will he have to use to create the desired color of purple?

Jorge will have to use 6 gallons of blue paint.

If Jorge has 24 gallons of blue paint, how much red paint will he have to use to create the desired color of purple?

Jorge will have to use 96 gallons of red paint.

- b. Using the same relationship of red to blue from above, create a table that models the relationship of the three colors blue, red, and purple (total) paint. Let B represent the number of gallons of blue paint, let R represent the number of gallons of red paint, and let T represent the total number of gallons of (purple) paint. Then write an equation that models the relationship between the blue paint and the total amount of paint, and answer the questions.

Blue (B)	Red (R)	Total Paint (T)
1	4	5
2	8	10
3	12	15
4	16	20
5	20	25

Equation: $T = 5B$

Value of the ratio of total paint to blue paint: $\frac{5}{1}$

How is the value of the ratio related to the equation?

The value of the ratio is used to determine the total paint value by multiplying it with the blue paint value.

Continue to allow students time to work on the remainder of the problems. While working with students, be sure to remind them of the value of the ratio and how it is used to make the equation.

Exercise 4

During a particular U.S. Air Force training exercise, the ratio of the number of men to the number of women was 6: 1. Use the ratio table provided below to create at least two equations that model the relationship between the number of men and the number of women participating in this training exercise.

Women (W)	Men (M)
1	6
2	12
3	18
4	24
5	30

Equations:

$$M = 6W$$

$$W = \left(\frac{1}{6}\right)M$$

$$\frac{M}{W} = 6$$

$$\frac{W}{M} = \frac{1}{6}$$

Scaffolding:

The connection to the multiplication table should be elicited: Columns 1 and 6 show the relationship in this ratio.

If 200 women participated in the training exercise, use one of your equations to calculate the number of men who participated.

I can substitute 200 for the value of women and multiply by 6, the value of the ratio, to get the number of men. There would be 1,200 men participating in the training exercise.

Exercise 5

Malia is on a road trip. During the first five minutes of Malia’s trip, she sees 18 cars and 6 trucks. Assuming this ratio of cars to trucks remains constant over the duration of the trip, complete the ratio table using this comparison. Let T represent the number of trucks she sees, and let C represent the number of cars she sees.

Trucks (T)	Cars (C)
1	3
3	9
6	18
12	36
20	60

What is the value of the ratio of the number of cars to the number of trucks?

$$\frac{3}{1}$$

What equation would model the relationship between cars and trucks?

$$C = 3T \text{ and } T = \left(\frac{1}{3}\right)C$$

At the end of the trip, Malia had counted 1,254 trucks. How many cars did she see?

$$C = 1,254 \cdot 3; C = 3,762 \text{ cars}$$

Exercise 6

Kevin is training to run a half-marathon. His training program recommends that he run for 5 minutes and walk for 1 minute. Let R represent the number of minutes running, and let W represent the number of minutes walking.

Minutes Running (R)	5	10	20	40	50
Minutes Walking (W)	1	2	4	8	10

What is the value of the ratio of the number of minutes walking to the number of minutes running?

$$\frac{1}{5}$$

What equation could you use to calculate the minutes spent walking if you know the minutes spent running?

$$W = \frac{1}{5}R; \text{ Answers will vary.}$$

Closing (5 minutes)

MP.5

Have students explain the relationship between the ratio and the equation. Students can include examples, tables, equations, or other representations to justify their reasoning.

Lesson Summary

The value of a ratio can be determined using a ratio table. This value can be used to write an equation that also represents the ratio.

Example:

1	4
2	8
3	12
4	16

The multiplication table can be a valuable resource to use in seeing ratios. Different rows can be used to find equivalent ratios.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 13: From Ratio Tables to Equations Using the Value of a Ratio

Exit Ticket

A carpenter uses four nails to install each shelf. Complete the table to represent the relationship between the number of nails (N) and the number of shelves (S). Write the ratio that describes the number of nails per number of shelves. Write as many different equations as you can that describe the relationship between the two quantities.

Shelves (S)	Nails (N)
1	4
2	
	12
	16
5	



Exit Ticket Sample Solutions

A carpenter uses four nails to install each shelf. Complete the table to represent the relationship between the number of nails (N) and the number of shelves (S). Write the ratio that describes the number of nails per number of shelves. Write as many different equations as you can that describe the relationship between the two quantities.

Shelves (S)	Nails (N)
1	4
2	8
3	12
4	16
5	20

$$\left(\frac{N}{S}\right) = \left(\frac{4}{1}\right)$$

Equations:

$$N = 4S$$

$$S = \left(\frac{1}{4}\right)N$$

Problem Set Sample Solutions

A cookie recipe calls for 1 cup of white sugar and 3 cups of brown sugar.

Make a table showing the comparison of the amount of white sugar to the amount of brown sugar.

White Sugar (W)	Brown Sugar (B)
1	3
2	6
3	9
4	12
5	15

- Write the value of the ratio of the amount of white sugar to the amount of brown sugar.

$$\frac{1}{3}$$

- Write an equation that shows the relationship of the amount of white sugar to the amount of brown sugar.

$$B = 3W \text{ or } W = \frac{1}{3}B$$

- Explain how the value of the ratio can be seen in the table.

The values in the first row show the values in the ratio. The ratio of the amount of brown sugar to the amount of white sugar is 3:1. The value of the ratio is $\frac{3}{1}$.

- Explain how the value of the ratio can be seen in the equation.

The amount of brown sugar is represented as B in the equation. The amount of white sugar is represented as W . The value is represented because the amount of brown sugar is three times as much as the amount of white sugar, or $B = 3W$.



Using the same recipe, compare the amount of white sugar to the amount of total sugars used in the recipe.

Make a table showing the comparison of the amount of white sugar to the amount of total sugar.

White Sugar (W)	Total Sugar (T)
1	4
2	8
3	12
4	16
5	20

5. Write the value of the ratio of the amount of total sugar to the amount of white sugar.

$$\frac{4}{1}$$

6. Write an equation that shows the relationship of total sugar to white sugar.

$$T = 4W$$



Lesson 14: From Ratio Tables, Equations, and Double Number Line Diagrams to Plots on the Coordinate Plane

Student Outcomes

- Students associate with each ratio $A:B$ the ordered pair (A,B) and plot it in the x - y coordinate plane.
- Students represent ratios in ratio tables, equations, and double number line diagrams and then represent those ratios in the coordinate plane.

Lesson Notes

This lesson serves as a means for students to associate ratios with ordered pairs and plot the ordered pairs in the x - y coordinate plane. Students graph collected data on the coordinate plane. Collected data falls within two categories: discrete data and continuous data. Discrete data is a set of data values with unconnected data points and often represents data that is countable and often finite. In this lesson, students represent non-integer data on the coordinate plane using points that are not connected with a ray. Continuous data can represent an unlimited selection of data and include integers. The lesson starts with an example that uses data that is continuous, allowing students to connect the data points with a ray. Students are able to navigate through the graph in order to analyze data, predict values, and find missing values based on the ratio relationship. A student is not required to know the vocabulary of collected data, nor is collected data part of the outcomes of the lesson. The information provided is for reference.

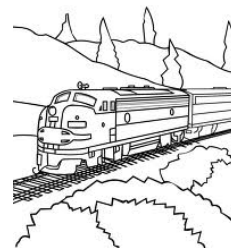
Classwork

Representing ratios: Using knowledge from previous lessons in this module, students work together in predetermined groups to complete the table to satisfy the missing values, create a double number line diagram to support the values, and develop an equation to support the values. Pose the following scenario:

Kelli is traveling by train with her soccer team from Yonkers, NY to Morgantown, WV for a tournament. The distance between Yonkers and Morgantown is 400 miles. The total trip will take 8 hours. The train schedule is provided below:

Leaving Yonkers, NY	
Destination	Distance
Allentown, PA	100 miles
Carlisle, PA	200 miles
Berkeley Springs, WV	300 miles
Morgantown, WV	400 miles

Leaving Morgantown, WV	
Destination	Distance
Berkeley Springs, WV	100 miles
Carlisle, PA	200 miles
Allentown, PA	300 miles
Yonkers, NY	400 miles



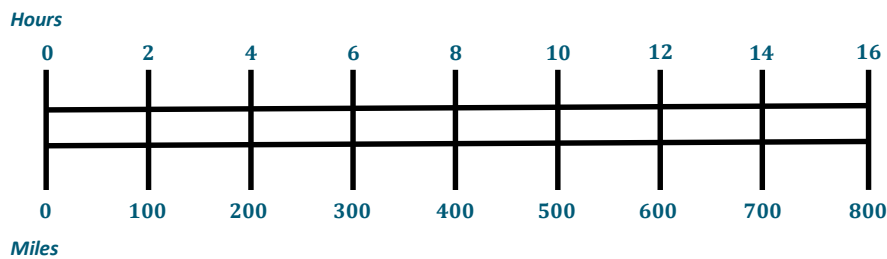
Exercises (10 minutes)

Exercises

1. Create a table to show the time it will take Kelli and her team to travel from Yonkers to each town listed in the schedule assuming that the ratio of the amount of time traveled to the distance traveled is the same for each city. Then, extend the table to include the cumulative time it will take to reach each destination on the ride home.

Hours	Miles
2	100
4	200
6	300
8	400
10	500
12	600
14	700
16	800

2. Create a double number line diagram to show the time it will take Kelli and her team to travel from Yonkers to each town listed in the schedule. Then, extend the double number line diagram to include the cumulative time it will take to reach each destination on the ride home. Represent the ratio of the distance traveled on the round trip to the amount of time taken with an equation.



Using the information from the double number line diagram, how many miles would be traveled in one hour?

50

How do you know?

If the train is moving at a constant speed, half of 2 hours is 1 hour, and half of 100 miles is 50 miles.

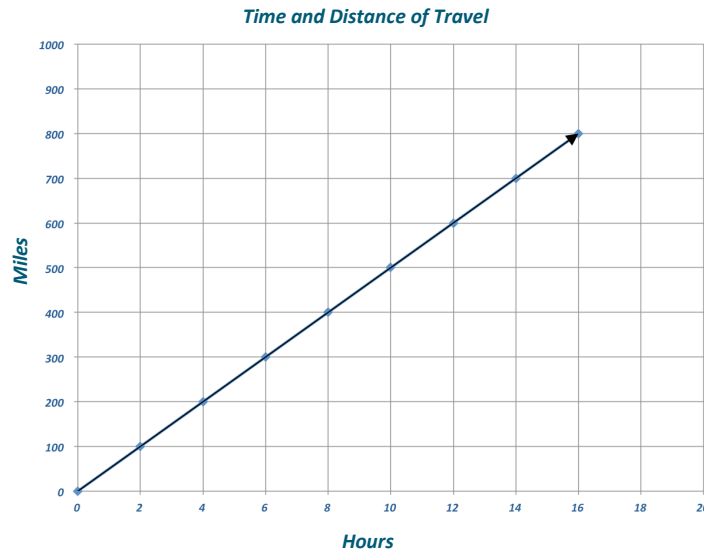
Example 1 (25 minutes)

Example 1

Dinner service starts once the train is 250 miles away from Yonkers. What is the minimum time the players will have to wait before they can have their meal?

Hours	Miles	Ordered Pairs
2	100	(2, 100)
4	200	(4, 200)
6	300	(6, 300)
8	400	(8, 400)
10	500	(10, 500)
12	600	(12, 600)
14	700	(14, 700)
16	800	(16, 800)

The minimum time is 5 hours.



Discussion

Elicit prior knowledge of the coordinate plane from Grade 5, where students plotted points using ordered pairs of numbers identified as coordinates, identified x - and y -axes, and determined how to travel along the axes based upon the ordered pairs.

Display the completed table and coordinate plane. Should materials be available, students can use sticky dots to aid in plotting points on large gridded chart paper.

Have students determine the following through questioning and discussion:

- We use the horizontal and vertical axes to measure quantities.
- In most cases, time is what is placed on the horizontal axis.
- How should we label this axis?
 - *Hours* (Label.)
- Which quantity will we measure using the vertical axis, time or distance?
 - *Distance*
- How should we label this axis?
 - *Miles* (Label.)
- Let's create the intervals for the x -axis. The data is increasing by two each time, but there is enough room to count by 1 for each interval.

Create the intervals on the x -axis.

- Now let's look at the intervals for the y -axis. The data is increasing by 100, so we will use 100 as the interval on the y -axis.

Create the intervals on the y -axis.

- How can I show the relationship between hours and distance on the coordinate plane?
 - *Travel first from the origin using the x -coordinate (the hours). Next, travel from the x -coordinate up the y -axis the value of the y -coordinate (miles).*

Guide students through the following activity to ensure students understand that an ordered pair can be graphed on a plane. Students should also understand how far the train traveled during a given time period and how long it took for the train to travel a given distance.

Have students locate the ordered pair (4, 600) on the coordinate plane.

- What does this point represent in the context of distance and time?
 - *The train traveled 600 miles in 4 hours.*

Have students locate the ordered pair (7, 500) on the coordinate plane.

- How far did the train travel in 7 hours?
 - *The train traveled 500 miles in 7 hours.*

Have students locate the ordered pair (15, 750) on the coordinate plane.

- How many hours does it take the train to travel 750 miles?
 - *The train has traveled 750 miles in 15 hours.*

Elicit student responses to create and then place the ordered pairs from the table on the coordinate plane. Allow students to individually model placement of ordered pairs on the coordinate plane, coming to the instructional area and explaining in detail the reasoning behind their placement of the point.

- What do you notice about the arrangement of the points on the coordinate plane?
 - *They appear to be in a line.*

Model how to connect the ordered pairs to the origin with a line and arrow.

- What do you think having an ordered pair of (0,0) means since we drew the line to the origin?
 - *Zero hours after the trip began the train has traveled zero miles.*
- Using this graph, we can determine how many hours the team will have to wait before being served dinner.
- What information do we know?
 - *Dinner is served at mile 250.*
- Where can we find 250 miles on our graph?

Students take time to think and share their thoughts with a partner. One pair of students comes to the instructional area and shares their thoughts with the class.

- Model how to draw a horizontal line from 100 miles on the y -axis to the line representing the relationship between hours and miles.
- If I draw a vertical line down, at what hour will I intersect the x -axis?
 - *2 hours*

- What do you notice?
 - *It takes 2 hours to travel 100 miles.*
- What would happen if I drew a horizontal line from 200 miles on the y -axis to the line representing the relationship between hours and miles and then drew a vertical line down to the x -axis?
 - *We will intersect the x -axis at 4 hours.*

Draw a horizontal line from 250 miles on the y -axis to the line representing the relationship between hours and miles.

Draw a vertical line down to the x -axis.

- What do you notice?
 - *We intersect the x -axis halfway between 4 hours and 6 hours.*
- What is the midpoint of the intervals between 4 hours and 6 hours?
 - *5 hours*
- How many hours will the team have to wait to be served dinner?
 - *5 hours*
- Check with the table and the following equation:

$$\text{Miles} = 50 \times \text{hours}$$

$$\text{Miles} = 50 \times 5$$

$$250 = 250$$

Closing (5 minutes)

- Why would you choose to use a graph to represent a ratio?
 - Answers will vary but should include consideration that reading a graph can be more efficient than creating a table to determine missing values.

Lesson Summary

A ratio table, equation, or double number line diagram can be used to create ordered pairs. These ordered pairs can then be graphed on a coordinate plane as a representation of the ratio.

Example:

Equation: $y = 3x$

x	y
0	0
1	3
2	6
3	9

→

Ordered Pairs
 (x, y)
 $(0, 0)$
 $(1, 3)$
 $(2, 6)$
 $(3, 9)$

→

Exit Ticket (5 minutes)

Name _____

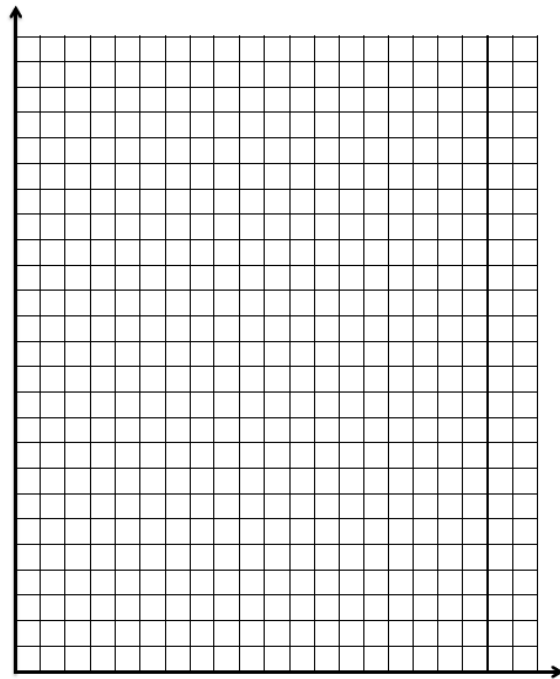
Date _____

Lesson 14: From Ratio Tables, Equations, and Double Number Line Diagrams to Plots on the Coordinate Plane

Exit Ticket

Dominic works on the weekends and on vacations from school mowing lawns in his neighborhood. For every lawn he mows, he charges \$12. Complete the table. Then determine ordered pairs, and create a labeled graph.

Lawns	Charge (in dollars)	Ordered Pairs
2		
4		
6		
8		
10		



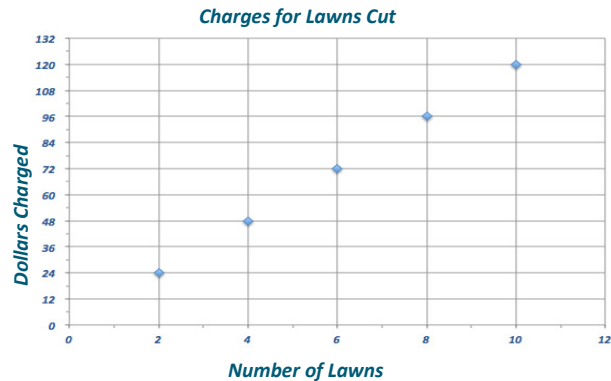
- How many lawns will Dominic need to mow in order to make \$240?
- How much money will Dominic make if he mows 9 lawns?

Exit Ticket Sample Solutions

Dominic works on the weekends and on vacations from school mowing lawns in his neighborhood. For every lawn he mows, he charges \$12.

Complete the table. Then determine ordered pairs, and create a labeled graph.

Lawns	Charge (in dollars)	Ordered Pairs
2	24	(2, 24)
4	48	(4, 48)
6	72	(6, 72)
8	96	(8, 96)
10	120	(10, 120)



1. How many lawns will Dominic need to mow in order to make \$240?

20 lawns

2. How much money will Dominic make if he mows 9 lawns?

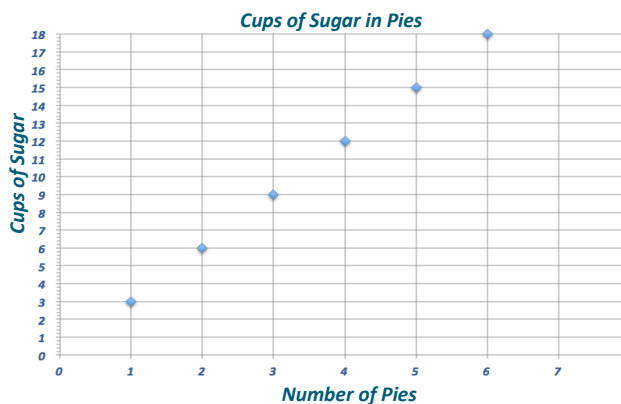
\$108

Problem Set Sample Solutions

1. Complete the table of values to find the following:

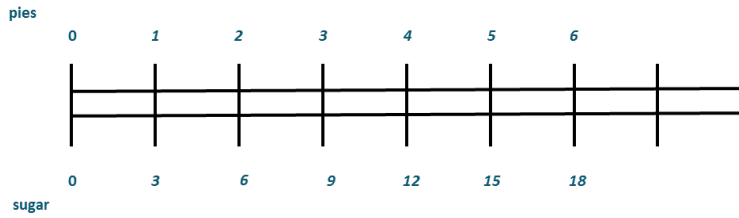
Find the number of cups of sugar needed if for each pie Karrie makes, she has to use 3 cups of sugar.

Pies	Cups of Sugar
1	3
2	6
3	9
4	12
5	15
6	18



Use a graph to represent the relationship.

Create a double number line diagram to show the relationship.

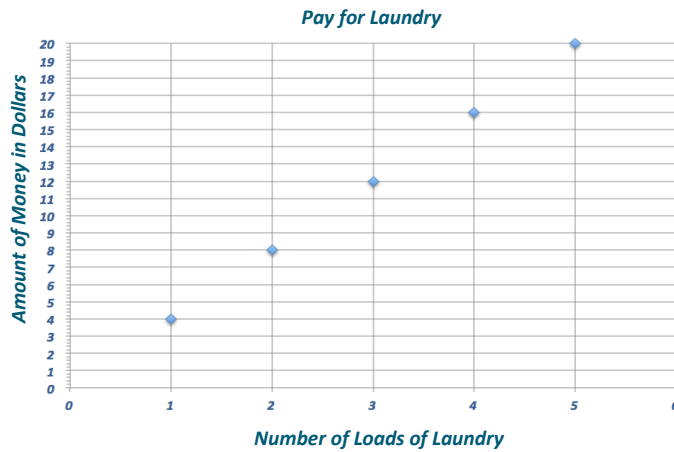


2. Write a story context that would be represented by the ratio 1:4.

Answers will vary. Example: Kendra’s mom pays her four dollars for every load of laundry she washes and dries.

Complete a table of values for this equation and graph.

Loads of Laundry	Amount of Money She Earned in Dollars
1	4
2	8
3	12
4	16
5	20





Lesson 15: A Synthesis of Representations of Equivalent Ratio Collections

Student Outcomes

- Students associate with each ratio $A:B$ the ordered pair (A, B) and plot it in the x - y coordinate plane.
- Given a ratio table, students plot the ratios in the plane and observe that they lie on a line through the origin. Students conclude that the coordinates in the line satisfy $y = kx$, where k is the value of an associated ratio.

Classwork

Exploratory Challenge

Based on their previous knowledge from earlier lessons in this module, and working in predetermined groups, students complete Exercises 1–7 independently with ample time to share their collaboration with the entire class.

Exploratory Challenge

At the end of this morning's news segment, the local television station highlighted area pets that need to be adopted. The station posted a specific website on the screen for viewers to find more information on the pets shown and the adoption process. The station producer checked the website two hours after the end of the broadcast and saw that the website had 24 views. One hour after that, the website had 36 views.

Exercise 1 (3 minutes)

Exercise 1

Create a table to determine how many views the website probably had one hour after the end of the broadcast based on how many views it had two and three hours after the end of the broadcast. Using this relationship, predict how many views the website will have 4, 5, and 6 hours after the end of the broadcast.

Hours	Views
1	12
2	24
3	36
4	48
5	60
6	72



Exercise 2 (2 minutes)

Exercise 2

What is the constant number, c , that makes these ratios equivalent?

12

Using an equation, represent the relationship between the number of views, v , the website received and the number of hours, h , after this morning's news broadcast.

$$v = 12h$$

Exercise 3 (2 minutes)

Exercise 3

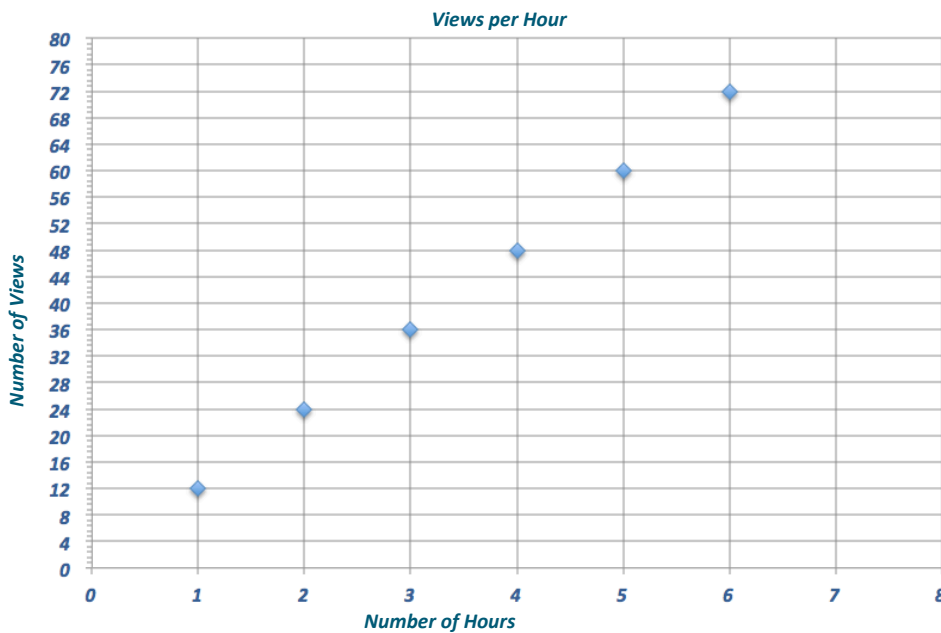
Use the table created in Exercise 1 to identify sets of ordered pairs that can be graphed.

(1, 12), (2, 24), (3, 36), (4, 48), (5, 60), (6, 72)

Exercise 4 (5 minutes)

Exercise 4

Use the ordered pairs you created to depict the relationship between hours and number of views on a coordinate plane. Label your axes and create a title for the graph. Do the points you plotted lie on a line?



Exercise 5 (8 minutes)

Exercise 5

Predict how many views the website will have after twelve hours. Use at least two representations (e.g., tape diagram, table, double number line diagram) to justify your answer.

Hours	Views
1	12
2	24
3	36
4	48
5	60
6	72
7	84
8	96
9	108
10	120
11	132
12	144

Hours

Views

Hours

Views

Exercise 6 (10 minutes)

Exercise 6

Also on the news broadcast, a chef from a local Italian restaurant demonstrated how he makes fresh pasta daily for his restaurant. The recipe for his pasta is below:

- 3 eggs, beaten
- 1 teaspoon salt
- 2 cups all-purpose flour
- 2 tablespoons water
- 2 tablespoons vegetable oil

Determine the ratio of the number of tablespoons of water to the number of eggs.

2:3

Provided the information in the table below, complete the table to determine ordered pairs. Use the ordered pairs to graph the relationship of the number of tablespoons of water to the number of eggs.

Tablespoons of Water	Number of Eggs
2	3
4	6
6	9
8	12
10	15
12	18

(2, 3)

(4, 6)

(6, 9)

(8, 12)

(10, 15)

(12, 18)

Pasta Recipe

What would you have to do to the graph in order to find how many eggs would be needed if the recipe was larger and called for 16 tablespoons of water?

Extend the graph.

Demonstrate on your graph.

How many eggs would be needed if the recipe called for 16 tablespoons of water?

24

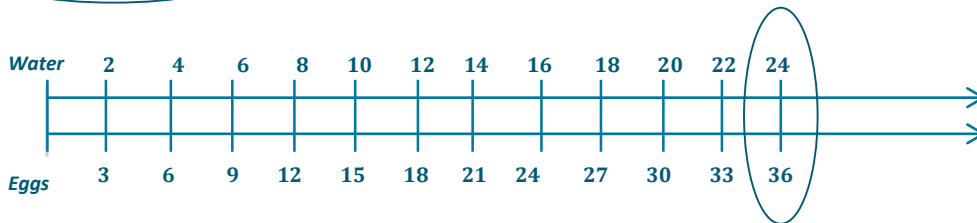
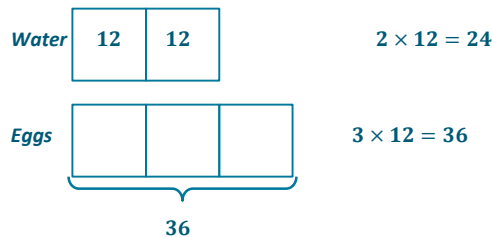
Exercise 7 (5 minutes)

Exercise 7

Determine how many tablespoons of water will be needed if the chef is making a large batch of pasta and the recipe increases to 36 eggs. Support your reasoning using at least one diagram you find applies best to the situation, and explain why that tool is the best to use.

Answers may vary but should include reasoning for each tool. For example, extending the table/double number line diagram because values were already given to find the pattern or using a tape diagram to determine the equivalent ratios.

Tablespoons of Water	Number of Eggs
2	3
4	6
6	9
8	12
10	15
12	18
14	21
16	24
18	27
20	30
22	33
24	36



Closing (5 minutes)

Finish any leftover student discussion and presentation.

- Describe the advantages and disadvantages of using each of the representations of equivalent ratios: table, double number line diagram, equation, and graph.
 - *Answers will vary but should include the following: tables allow for organization and prediction of unknown values; double number line diagrams help make visible that there are many, even infinitely many, pairs of numbers in the same ratio; an equation is an efficient way to understand the relationship between the first value and the second value and allows us to simply multiply or divide to find any equivalent ratio; a graph is a visual way to immediately see the relationship between two values.*

Lesson Summary

There are several ways to represent the same collection of equivalent ratios. These include ratio tables, tape diagrams, double number line diagrams, equations, and graphs on coordinate planes.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 15: A Synthesis of Representations of Equivalent Ratio Collections

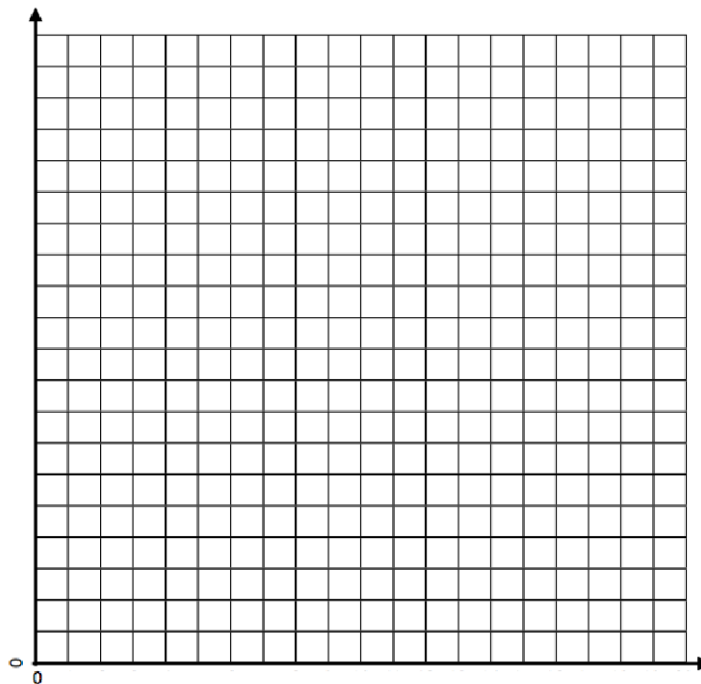
Exit Ticket

Jen and Nikki are making bracelets to sell at the local market. They determined that each bracelet would have eight beads and two charms.

Complete the table below to show the ratio of the number of charms to the number of beads.

Charms	2	4	6	8	10
Beads	8				

Create ordered pairs from the table, and plot the pairs on the graph below. Label the axes of the graph, and provide a title.



Exit Ticket Sample Solutions

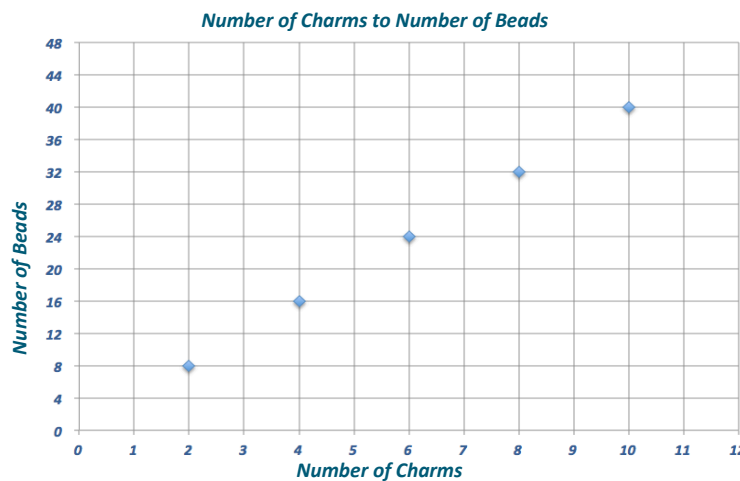
Jen and Nikki are making bracelets to sell at the local market. They determined that each bracelet would have eight beads and two charms.

Complete the table below to show the ratio of the number of charms to the number of beads.

Charms	2	4	6	8	10
Beads	8	16	24	32	40

Create ordered pairs from the table, and plot the pairs on the graph below. Label the axes of the graph, and provide a title.

- (2, 8)
- (4, 16)
- (6, 24)
- (8, 32)
- (10, 40)



Problem Set Sample Solutions

- The producer of the news station posted an article about the high school’s football championship ceremony on a new website. The website had 500 views after four hours. Create a table to show how many views the website would have had after the first, second, and third hours after posting, if the website receives views at the same rate. How many views would the website receive after 5 hours?

Hours	Views
1	125
2	250
3	375
4	500
5	625

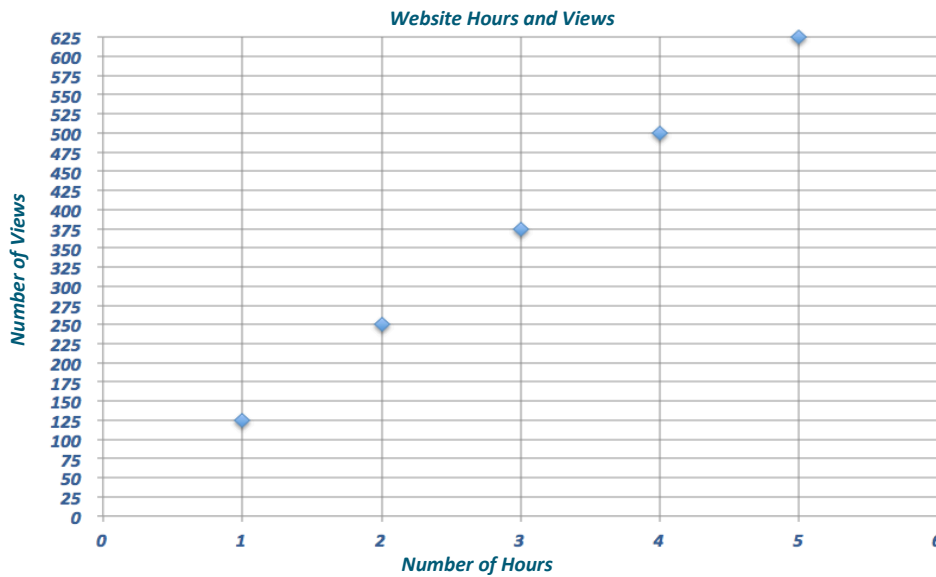
- Write an equation that represents the relationship from Problem 1. Do you see any connections between the equations you wrote and the ratio of the number of views to the number of hours?

$125h = v$

3. Use the table in Problem 1 to make a list of ordered pairs that you could plot on a coordinate plane.

$(1, 125)$, $(2, 250)$, $(3, 375)$, $(4, 500)$, $(5, 625)$

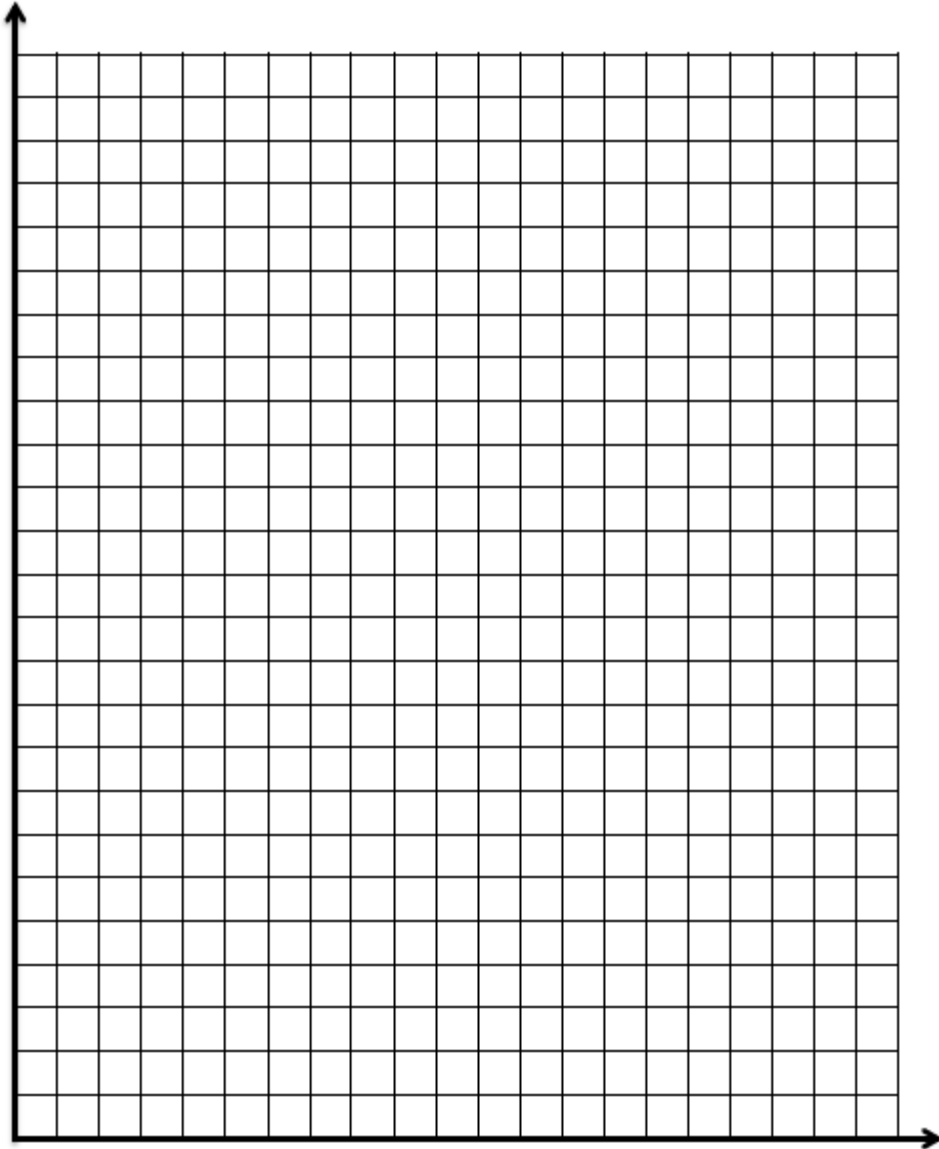
4. Graph the ordered pairs on a coordinate plane. Label your axes and create a title for the graph.



5. Use multiple tools to predict how many views the website would have after 12 hours.

Answers may vary but could include all representations from the module. The correct answer is 1,500 views.

Graph Reproducible



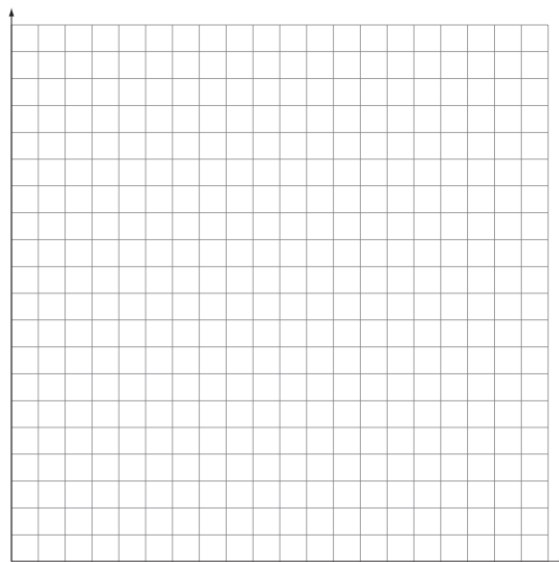
Name _____

Date _____

1. The most common women’s shoe size in the U.S. is reported to be an $8\frac{1}{2}$. A shoe store uses a table like the one below to decide how many pairs of size $8\frac{1}{2}$ shoes to buy when it places a shoe order from the shoe manufacturers.

Total Number of Pairs of Shoes Being Ordered	Number of Pairs of Size $8\frac{1}{2}$ to Order
50	8
100	16
150	24
200	32

- a. What is the ratio of the number of pairs of size $8\frac{1}{2}$ shoes the store orders to the total number of pairs of shoes being ordered?
- b. Plot the values from the table on a coordinate plane. Label the axes. Then use the graph to find the number of pairs of size $8\frac{1}{2}$ shoes the store orders for a total order of 125 pairs of shoes.



2. Wells College in Aurora, New York was previously an all-girls college. In 2005, the college began to allow boys to enroll. By 2012, the ratio of boys to girls was 3 to 7. If there were 200 *more girls than boys* in 2012, how many boys were enrolled that year? Use a table, graph, or tape diagram to justify your answer.
3. Most television shows use 13 minutes of every hour for commercials, leaving the remaining 47 minutes for the actual show. One popular television show wants to change the ratio of commercial time to show time to be 3:7. Create two ratio tables, one for the normal ratio of commercials to programming and another for the proposed ratio of commercials to programming. Use the ratio tables to make a statement about which ratio would mean fewer commercials for viewers watching 2 hours of television.

A Progression Toward Mastery					
Assessment Task Item		STEP 1 Missing or incorrect answer and little evidence of reasoning or application of mathematics to solve the problem.	STEP 2 Missing or incorrect answer but evidence of some reasoning or application of mathematics to solve the problem.	STEP 3 A correct answer with some evidence of reasoning or application of mathematics to solve the problem, OR an incorrect answer with substantial evidence of solid reasoning or application of mathematics to solve the problem.	STEP 4 A correct answer supported by substantial evidence of solid reasoning or application of mathematics to solve the problem.
1	a 6.RP.A.1 6.RP.A.3a	Student provides an incorrect ratio and does not reflect an associated ratio. Student does not display an understanding of determining ratio using a ratio table.	Student provides an associated ratio, such as 25:4. It may or may not be expressed in the smallest unit possible. Student shows evidence of understanding how to determine a ratio from a ratio table but lacks attentiveness to the precision for which the ratio is being asked.	Student provides the correct ratio, 4:25, but has expressed using a larger unit, such as 8:50. The notation or wording of the ratio statement may have minor errors.	Student provides the correct ratio, 4:25. The notation and/or wording of the ratio statement are correct.
	b 6.RP.A.1 6.RP.A.3a	Student does not produce a graph, or the graph does not accurately depict the pairs from the table. Student is unable to answer the question correctly.	Student depicts a graph, but the graph contains more than one error in its depiction, such as not going through the given points or not labeling the axes. Student may or may not answer the question correctly.	Student depicts a graph, but the graph contains a minor error in its depiction, such as not accurately plotting the given points or not labeling the axes. Student answers the question correctly or incorrectly, but the graph depicts the correct answer.	Student depicts the graph correctly, including plotting the given points and labeling the axes. Student answers the question correctly, and the answer is represented in the graph.

2	6.RP.A.3 (Stem Only)	Student is unable to answer the question. Student is not able to accurately depict the ratio of boys to girls or does not show evidence of moving beyond that basic depiction.	Student depicts the ratio of boys to girls and shows some evidence of using the depiction to solve the problem but is unable to come to a correct answer. The answer is either incomplete or incorrect.	Student is able to choose a depiction of the ratio and to incorporate the other information given into the depiction but makes an error in arriving at the answer.	Student is able to choose a depiction of the ratio of boys to girls and incorporate into the depiction the additional information of the difference between the number of girls and the number of boys. Student is able to use the depiction to arrive at the correct answer.
3	6.RP.A.3a	Student is unable to complete the two tables or is unable to fill in at least one row in each table. Student is unable to compose a reasonably accurate comparison of which option would be better for viewers.	Student constructs ratio tables with at least one entry in each table and demonstrates some reasoning in making a statement of comparison, even if the statement does not match the table entries.	Student makes two ratio tables with at least two entries in each table. There is one or more errors in the entries of the table. Student is able to make a statement of comparison of which option is better for viewers based on the entries provided in the table.	Student makes two ratio tables with at least two entries in each table. The student is able to make an accurate comparison of which option is better for viewers and relate the comparison to a 2-hour show using accurate grade-level language.

Name _____

Date _____

1. The most common women’s shoe size in the U.S. is reported to be an $8\frac{1}{2}$. A shoe store uses a table like the one below to decide how many pairs of size $8\frac{1}{2}$ shoes to buy when it places a shoe order from the shoe manufacturers.

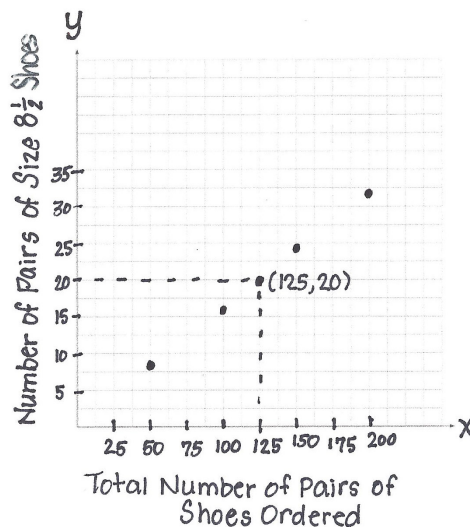
Total Number of Pairs of Shoes Being Ordered	Number of Pairs of Size $8\frac{1}{2}$ to Order
50	8
100	16
150	24
200	32

- a. What is the ratio of the number of pairs of size $8\frac{1}{2}$ shoes the store orders to the total number of pairs of shoes being ordered?

The ratio of size $8\frac{1}{2}$ shoes to the total number

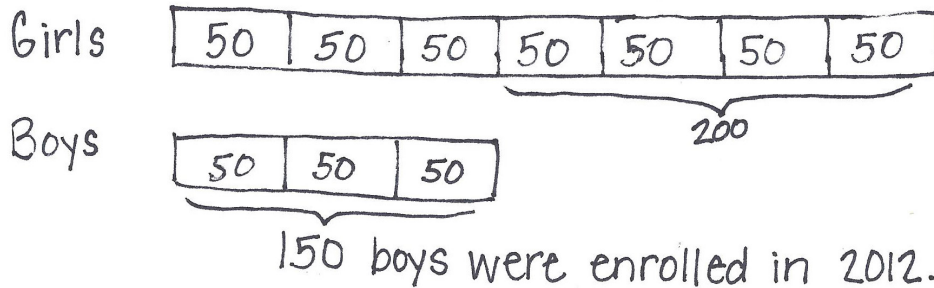
The ratio of the number of pairs of size $8\frac{1}{2}$ shoes to the total number of pairs of shoes ordered is 4:25

- b. Plot the values from the table on a coordinate plane. Label the axes. Then use the graph to find the number of pairs of size $8\frac{1}{2}$ shoes the store orders for a total order of 125 pairs of shoes.



They should order 20 pairs of size $8\frac{1}{2}$ shoes if the total order is 125 pairs of shoes.

2. Wells College in Aurora, New York was previously an all-girls college. In 2005, the college began to allow boys to enroll. By 2012, the ratio of boys to girls was 3 to 7. If there were 200 more girls than boys in 2012, how many boys were enrolled that year? Use a table, graph, or tape diagram to justify your answer.



3. Most television shows use 13 minutes of every hour for commercials, leaving the remaining 47 minutes for the actual show. One popular television show wants to change the ratio of commercial time to show time to be 3:7. Create two ratio tables, one for the normal ratio of commercials to programming and another for the proposed ratio of commercials to programming. Use the ratio tables to make a statement about which ratio would mean fewer commercials for viewers watching 2 hours of television.

<u>Normal</u>			<u>Changed</u>		
Total Time	Commercial Time	Show Time	Total Time	Commercial Time	Show Time
60	13	47	10	3	7
120	26	94	60	18	42
			120	36	84

The normal way is better for viewers. In a 2 hour show, the normal way uses 26 minutes for commercials, but the proposed way would use 36 minutes for commercials.



Topic C

Unit Rates

6.RP.A.2, 6.RP.A.3b, 6.RP.A.3d

Focus Standards:	6.RP.A.2	Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. <i>For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3/4$ cup of flour for each cup of sugar." "We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger."</i>
	6.RP.A.3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. <ul style="list-style-type: none"> b. Solve unit rate problems including those involving unit pricing and constant speed. <i>For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?</i> d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.
Instructional Days:	8	
	Lesson 16:	From Ratios to Rates (E) ¹
	Lesson 17:	From Rates to Ratios (S)
	Lesson 18:	Finding a Rate by Dividing Two Quantities (M)
	Lessons 19–20:	Comparison Shopping—Unit Price and Related Measurement Conversions (P, E)
	Lessons 21–22:	Getting the Job Done—Speed, Work, and Measurement Units (P, E)
	Lesson 23:	Problem Solving Using Rates, Unit Rates, and Conversions (S)

¹Lesson Structure Key: P-Problem Set Lesson, M-Modeling Cycle Lesson, E-Exploration Lesson, S-Socratic Lesson

In Topic C, students apply their understanding of ratios and the *value of a ratio* as they come to understand that a ratio relationship of 5 miles to 2 hours corresponds to a rate of 2.5 miles per hour, where the unit rate is the numerical part of the rate, 2.5, and miles per hour is the newly formed unit of measurement of the rate (**6.RP.A.2**). Throughout Topic C, students continue to make use of the representations and diagrams of Topics A and B as they investigate the concepts of this topic within the context of real-world rate problems. In Lesson 16, students develop their vocabulary and conceptual understanding of rate as they work through and discuss problems that require expressing simple ratios as rates using phrases such as ‘per’, ‘for each’ and ‘for every’. In Lesson 17, students reinforce their understanding as they see problems for the first time where the ratio relationship is expressed in rate form. Students are asked to verbalize and depict the underlying ratio relationship as a collection of equivalent ratios.

In Lesson 18, students generalize the process for finding a rate and define the term *unit rate* relating it to the *value of a ratio*. In the remaining lessons of Topic C, students solve unit rate problems involving unit pricing, constant speed, and constant rates of work (**6.RP.A.3b**). They combine their new understanding of rate to connect and revisit concepts of converting among different-sized standard measurement units (**5.MD.A.1**). They then expand upon this background as they learn to manipulate and transform units when multiplying and dividing quantities (**6.RP.A.3d**). In Lessons 19–20, students are conscientious consumers, and comparison shop by comparing unit prices and converting measurement units as needed. For instance, when comparing a 10-ounce bag of salad that sells for \$2.25 to a 1-pound bag of salad that retails for \$3.50, students recognize that in addition to finding a unit price, they must convert pounds to ounces for an accurate comparison.

In Lessons 21–22, students conduct real-world simulations that generate rates related to speed and work. In doing so, students begin to view math as a tool for solving real-life problems. Topic C concludes with Lesson 23, in which students draw upon their experiences in previous modeling lessons to demonstrate their ability to problem-solve using rates, unit rates, and conversions.



Lesson 16: From Ratios to Rates

Student Outcomes

- Students associate a description of a ratio relationship, such as “5 miles for every 2 hours,” to a new quantity, “2.5 miles/hour,” called a *rate*.
- Given a ratio, students precisely identify the associated rate. They identify the unit rate and the rate unit.

Classwork

Ratios can be transformed to rates and unit rates.

Example (5 minutes): Introduction to Rates and Unit Rates

Students complete the problem individually. Encourage students to use prior knowledge of equivalent ratios. Discuss answers and methods after a few minutes of student work time.

Example: Introduction to Rates and Unit Rates

Diet cola was on sale last week; it cost \$10 for every 4 packs of diet cola.

- a. How much do 2 packs of diet cola cost?

<i>Packs of Diet Cola</i>	4	2
<i>Total Cost</i>	10	5

2 packs of diet cola cost \$5.00.

- b. How much does 1 pack of diet cola cost?

<i>Packs of Diet Cola</i>	2	1
<i>Total Cost</i>	5	2.50

1 pack of diet cola costs \$2.50.

After answers have been discussed, use this example to identify the new terms.

Rate: Ratio relationship given by “\$10 for every 4 packs of diet cola” can be written as the *rate* “2.5 dollars/pack.”

Unit Rate: The *unit rate* is 2.5 because it is the value of the ratio.

Rate Unit: The *rate unit* is dollars/pack of diet cola because it costs 2.5 dollars for every 1 pack of diet cola.

Now that the new terms have been introduced, use these vocabulary words throughout the lesson.

Exploratory Challenge (25 minutes)

Students may work in pairs or small groups to discuss different methods of solving examples. Encourage them to show or explain their thinking as much as possible. Take note of different ways groups are solving problems. After providing time for groups to solve the problems, have different groups present their findings and explain the methods they used to solve each problem.

Exploratory Challenge

- a. Teagan went to Gamer Realm to buy new video games. Gamer Realm was having a sale: \$65 for 4 video games. He bought 3 games for himself and one game for his friend, Diego, but Teagan does not know how much Diego owes him for the one game. What is the unit price of the video games? What is the rate unit?

The unit price is \$16.25; the rate unit is dollars/video game.

- b. Four football fans took turns driving the distance from New York to Oklahoma to see a big game. Each driver set the cruise control during his or her portion of the trip, enabling him or her to travel at a constant speed. The group changed drivers each time they stopped for gas and recorded their driving times and distances in the table below.

Fan	Distance (miles)	Time (hours)
Andre	208	4
Matteo	456	8
Janaye	300	6
Greyson	265	5

Use the given data to answer the following questions.

- i. What two quantities are being compared?

The two quantities being compared are distance and time, which are measured in miles and hours.

- ii. What is the ratio of the two quantities for Andre’s portion of the trip? What is the associated rate?

Andre’s ratio: 208:4 Andre’s rate: 52 miles per hour

- iii. Answer the same two questions in part (ii) for the other three drivers.

Matteo’s ratio: 456:8 Matteo’s rate: 57 miles per hour

Janaye’s ratio: 300:6 Janaye’s rate: 50 miles per hour

Greyson’s ratio: 265:5 Greyson’s rate: 53 miles per hour

- iv. For each driver in parts (ii) and (iii), circle the unit rate, and put a box around the rate unit.

Scaffolding:

If one of these drivers had been chosen to drive the entire distance,

- Which driver would have gotten them to the game in the shortest time? Approximately how long would this trip have taken?
- Which driver would have gotten them to the game in the greatest amount of time? Approximately how long would this trip have taken?

- c. A publishing company is looking for new employees to type novels that will soon be published. The publishing company wants to find someone who can type at least 45 words per minute. Dominique discovered she can type at a constant rate of 704 words in 16 minutes. Does Dominique type at a fast enough rate to qualify for the job? Explain why or why not.

<i>Minutes</i>	1	2	4	8	16
<i>Words</i>	44	88	176	352	704

Dominique does not type at a fast enough rate because she only types 44 words per minute.

Scaffolding:

Part (c) could be extended to ask students to figure out how many words Dominique needed to type in the 20 minutes to be able to qualify.

Closing (10 minutes)

Describe additional questions:

- What are some examples of rates?
- What are some examples of unit rates?

Lesson Summary

A *rate* is a quantity that describes a ratio relationship between two types of quantities.

For example, 15 miles/hour is a rate that describes a ratio relationship between hours and miles: If an object is traveling at a constant 15 miles/hour, then after 1 hour it has gone 15 miles, after 2 hours it has gone 30 miles, after 3 hours it has gone 45 miles, and so on.

When a rate is written as a measurement, the *unit rate* is the measure (i.e., the numerical part of the measurement). For example, when the rate of speed of an object is written as the measurement 15 miles/hour, the number 15 is the unit rate. The unit of measurement is miles/hour, which is read as “miles per hour.”

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 16: From Ratios to Rates

Exit Ticket

Angela enjoys swimming and often swims at a steady pace to burn calories. At this pace, Angela can swim 1,700 meters in 40 minutes.

a. What is Angela's unit rate?

b. What is the rate unit?



Exit Ticket Sample Solutions

Angela enjoys swimming and often swims at a steady pace to burn calories. At this pace, Angela can swim 1,700 meters in 40 minutes.

- a. What is Angela's unit rate?

42.5

- b. What is the rate unit?

Meters per minute

Problem Set Sample Solutions

The Scott family is trying to save as much money as possible. One way to cut back on the money they spend is by finding deals while grocery shopping; however, the Scott family needs help determining which stores have the better deals.

1. At Grocery Mart, strawberries cost \$2.99 for 2 lb., and at Baldwin Hills Market strawberries are \$3.99 for 3 lb.

- a. What is the unit price of strawberries at each grocery store? If necessary, round to the nearest penny.

Grocery Mart: \$1.50 per pound (1.495 rounded to the nearest penny)

Baldwin Hills Market: \$1.33 per pound

- b. If the Scott family wanted to save money, where should they go to buy strawberries? Why?

Possible Answer: The Scott family should go to Baldwin Hills Market because the strawberries cost less money there than at Grocery Mart.

2. Potatoes are on sale at both Grocery Mart and Baldwin Hills Market. At Grocery Mart, a 5 lb. bag of potatoes cost \$2.85, and at Baldwin Hills Market a 7 lb. bag of potatoes costs \$4.20. Which store offers the best deal on potatoes? How do you know? How much better is the deal?

Grocery Mart: \$0.57 per pound

Baldwin Hills Market: \$0.60 per pound

Grocery Mart offers the best deal on potatoes because potatoes cost \$0.03 less per pound at Grocery Mart when compared to Baldwin Hills Market.



Lesson 17: From Rates to Ratios

Student Outcomes

- Given a rate, students find ratios associated with the rate, including a ratio where the second term is one and a ratio where both terms are whole numbers.
- Students recognize that all ratios associated to a given rate are equivalent because they have the same value.

Classwork

Given a rate, you can calculate the unit rate and associated ratios. Recognize that all ratios associated with a given rate are equivalent because they have the same value.

Example 1 (4 minutes)

Example 1

Write each ratio as a rate.

- a. The ratio of miles to the number of hours is 434 to 7.

Miles to hour: 434:7

Student responses: $\frac{434 \text{ miles}}{7 \text{ hours}} = 62 \text{ miles/hour}$

- b. The ratio of the number of laps to the number of minutes is 5 to 4.

Laps to minute: 5:4

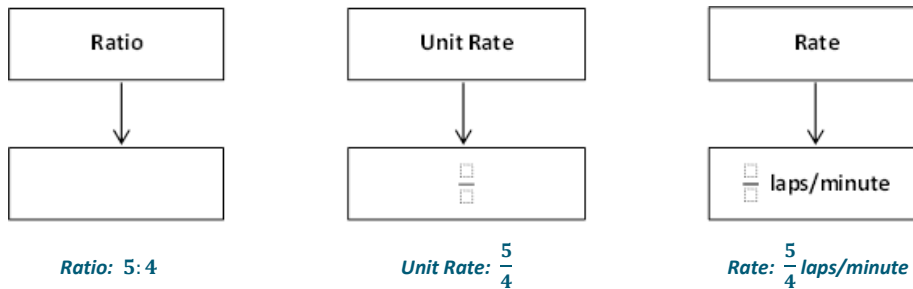
Student responses: $\frac{5 \text{ laps}}{4 \text{ minutes}} = \frac{5}{4} \text{ laps/min}$

Example 2 (15 minutes)

Demonstrate how to change a ratio to a unit rate then to a rate by recalling information students learned the previous day. Use Example 1, part (b).

Example 2

- a. Complete the model below using the ratio from Example 1, part (b).



Rates to Ratios: Guide students to complete the next flow map where the rate is given. Students identify the unit rate and ratio.

b. Complete the model below now using the rate listed below.

<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Ratio</div> <div style="text-align: center; margin: 5px 0;">↓</div> <div style="border: 1px solid black; height: 60px; width: 100%;"></div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Unit Rate</div> <div style="text-align: center; margin: 5px 0;">↓</div> <div style="border: 1px solid black; height: 60px; width: 100%;"></div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Rate</div> <div style="text-align: center; margin: 5px 0;">↓</div> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">6 ft/sec</div>
<p><i>Ratios: Answers may vary</i> 6: 1, 60: 10, 12: 2, etc.</p>	<p><i>Unit Rate: 6</i></p>	

Discussion

- Will everyone have the same exact ratio to represent the given rate? Why or why not?
 - *Possible Answer: Not everyone's ratios will be exactly the same because there are many different equivalent ratios that could be used to represent the same rate.*
- What are some different examples that could be represented in the ratio box?
 - *Answers will vary: All representations represent the same rate: 12: 2, 18: 3, 24: 4.*
- Will everyone have the same exact unit rate to represent the given rate? Why or why not?
 - *Possible Answer: Everyone will have the same unit rate for two reasons. First, the unit rate is the value of the ratio, and each ratio only has one value. Second, the second quantity of the unit rate is always 1, so the rate will be the same for everyone.*
- Will everyone have the same exact rate when given a unit rate? Why or why not?
 - *Possible Answer: No, a unit rate can represent more than one rate. A rate of $\frac{18}{3}$ feet/second has a unit rate of 6 feet/second.*

Examples 3–6 (20 minutes)

Students work on one problem at a time. Have students share their reasoning. Provide opportunities for students to share different methods on how to solve each problem.

Examples 3–6

3. Dave can clean pools at a constant rate of $\frac{3}{5}$ pools/hour.

a. What is the ratio of the number of pools to the number of hours?

3: 5



b. How many pools can Dave clean in 10 hours?

Pools

2	2	2
---	---	---

 = 6 pools

Hours

2	2	2	2	2
---	---	---	---	---

 = 10 hours

Dave can clean 6 pools in 10 hours.

c. How long does it take Dave to clean 15 pools?

Pools

5	5	5
---	---	---

 = 15 pools

Hours

5	5	5	5	5
---	---	---	---	---

 = 25 hours

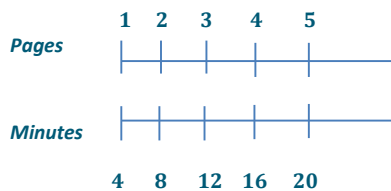
It will take Dave 25 hours to clean 15 pools.

4. Emeline can type at a constant rate of $\frac{1}{4}$ pages/minute.

a. What is the ratio of the number of pages to the number of minutes?

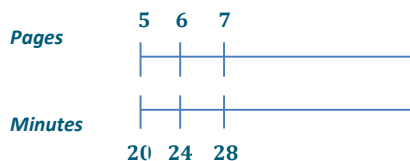
1:4

b. Emeline has to type a 5-page article but only has 18 minutes until she reaches the deadline. Does Emeline have enough time to type the article? Why or why not?



No, Emeline will not have enough time because it will take her 20 minutes to type a 5-page article.

c. Emeline has to type a 7-page article. How much time will it take her?



It will take Emeline 28 minutes to type a 7-page article.

5. Xavier can swim at a constant speed of $\frac{5}{3}$ meters/second.

a. What is the ratio of the number of meters to the number of seconds?

5:3



- b. Xavier is trying to qualify for the National Swim Meet. To qualify, he must complete a 100-meter race in 55 seconds. Will Xavier be able to qualify? Why or why not?

Meters	Seconds
5	3
10	6
100	60

Xavier will not qualify for the meet because he would complete the race in 60 seconds.

- c. Xavier is also attempting to qualify for the same meet in the 200-meter event. To qualify, Xavier would have to complete the race in 130 seconds. Will Xavier be able to qualify in this race? Why or why not?

Meters	Seconds
100	60
200	120

Xavier will qualify for the meet in the 200 meter race because he would complete the race in 120 seconds.

6. The corner store sells apples at a rate of 1.25 dollars per apple.

- a. What is the ratio of the amount in dollars to the number of apples?

1.25:1

- b. Akia is only able to spend \$10 on apples. How many apples can she buy?

8 apples

- c. Christian has \$6 in his wallet and wants to spend it on apples. How many apples can Christian buy?

Christian can buy 4 apples and would spend \$5.00. Christian cannot buy 5 apples because it would cost \$6.25, and he only has \$6.00.

Closing (2 minutes)

- Explain the similarities and differences between rate, unit rate, rate unit, and ratio.

Lesson Summary

A rate of $\frac{2}{3}$ gal/min corresponds to the unit rate of $\frac{2}{3}$ and also corresponds to the ratio 2:3.

All ratios associated with a given rate are equivalent because they have the same value.

Exit Ticket (4 minutes)



Name _____

Date _____

Lesson 17: From Rates to Ratios

Exit Ticket

Tiffany is filling her daughter's pool with water from a hose. She can fill the pool at a rate of $\frac{1}{10}$ gallons/second.

Create at least three equivalent ratios that are associated with the rate. Use a double number line to show your work.

Exit Ticket Sample Solutions

Tiffany is filling her daughter's pool with water from a hose. She can fill the pool at a rate of $\frac{1}{10}$ gallons/second.

Create at least three equivalent ratios that are associated with the rate. Use a double number line to show your work.

Answers will vary.

Problem Set Sample Solutions

1. Once a commercial plane reaches the desired altitude, the pilot often travels at a cruising speed. On average, the cruising speed is 570 miles/hour. If a plane travels at this cruising speed for 7 hours, how far does the plane travel while cruising at this speed?

3,990 miles

2. Denver, Colorado often experiences snowstorms resulting in multiple inches of accumulated snow. During the last snow storm, the snow accumulated at $\frac{4}{5}$ inch/hour. If the snow continues at this rate for 10 hours, how much snow will accumulate?

8 inches



Lesson 18: Finding a Rate by Dividing Two Quantities

Student Outcomes

- While there is no physical way to divide two different quantities like (5 miles)/(2 hours), students make use of the structure of division and ratios to model (5 miles)/(2 hours) as a quantity 2.5 mph. Interpreting a rate as a division of two quantities, or better yet a fraction, is the first step toward converting measurement units using rates later in the module and dimensional analysis in high school. Students use this interpretation of a rate in word problems when multiplying a rate by a quantity, as in $\left(5 \frac{\text{gal}}{\text{min}}\right) \cdot (10 \text{ min}) = \frac{5 \text{ gal}}{1 \cancel{\text{min}}} \cdot 10 \cancel{\text{min}} = 50 \text{ gal}$.

Materials

- Stations—Set up six workstations around the classroom, identifying each with a number from 1 to 6.
- Countdown timer

Classwork

Mathematical Modeling Exercises (12 minutes)

Mathematical Modeling Exercises

- At Fun Burger, the Burger Master can make hamburgers at a rate of 4 burgers/minute. In order to address the heavy volume of customers, he needs to continue at this rate for 30 minutes. If he continues to make hamburgers at this pace, how many hamburgers will the Burger Master make in 30 minutes?

$$4 \frac{\text{burgers}}{\text{minute}} \times 30 \text{ minutes} = 120 \text{ burgers}$$

If the Burger Master can make four burgers in one minute, he can make 120 burgers in 30 minutes.

Model how to solve the exercise as students take notes. Students can be part of the discussion on how to solve each problem, but the teacher should be modeling the process.

- At what rate does the Burger Master make hamburgers?
- How long does the Burger Master make hamburgers?
- Multiply the rate by the amount of time the Burger Master works.
- Answer the question asked in the problem.

- Chandra is an editor at the New York Gazette. Her job is to read each article before it is printed in the newspaper. If Chandra can read 10 words/second, how many words can she read in 60 seconds?

$$10 \frac{\text{words}}{\text{second}} \times 60 \text{ seconds} = 600 \text{ words}$$

If Chandra can read 10 words in 1 second, then she can read 600 words in 60 seconds.



Model how to solve the exercise as students take notes. Ask for student volunteers to explain each step.

- At what rate does Chandra read?
- How long does Chandra have to read?
- Multiply the unit rate by the amount of time Chandra reads.
- Answer the question asked in the problem.

Exercises (18 minutes—3 minutes per station)

Students work in groups to complete station work.

Station One: Helena works for a publishing firm. She is considered an average typist and can type 52 words/minute. If she continues at this rate, how many words would Helena type in 4 minutes?

Station Two: Jaxon test-drives cars for a car company. Part of his job is to test the cruise control on a testing course. On his last test drive, Jaxon set the cruise control at 48 miles/hour and drove for 2 hours. How many miles did Jaxon drive?

Station Three: To train for an upcoming marathon, Alvin runs 9 miles a day. If Alvin runs 9 miles every day for 30 days, how many total miles will he run?

Station Four: A library just hired Brittany to write reviews on different books. The job requires Brittany to read 3 books/week. If Brittany reads at this pace for 12 weeks, how many books will she read?

Station Five: Notebooks are on sale for 4 notebooks/dollar. Mrs. Day wants to buy notebooks for her students but only has \$12 to spend. How many notebooks can Mrs. Day buy?

Station Six: Kevin hopes to earn a college basketball scholarship. To improve his shooting skills, Kevin shoots 50 baskets/day. If Kevin shoots 50 baskets every day for 60 days, how many shots would Kevin take?

Exercises

Use the table below to write down your work and answers for the stations.

- | | |
|----|---|
| 1. | <i>If Helena types at a constant rate of 52 words/minute, she can type 208 words in 2 minutes.</i> |
| 2. | <i>If Jaxon drives at a constant rate of 48 miles/hour, he can drive 96 miles in 2 hours.</i> |
| 3. | <i>If Alvin runs 9 miles every day for 30 days, he would run a total of 270 miles.</i> |
| 4. | <i>If Brittany is required to read 3 books/week, she would read 36 books in 12 weeks.</i> |
| 5. | <i>If notebooks are on sale for 4 notebooks/dollar, then Mrs. Day can buy 48 notebooks for \$12.</i> |
| 6. | <i>If Kevin continues to shoot 50 baskets/day for 60 days, he would shoot a total of 3,000 baskets.</i> |

**Closing (10 minutes)**

Discuss solutions for each station. Students show how they solved each problem. Allow time for questions.

Lesson Summary

We can convert measurement units using rates. The information can be used to further interpret the problem. Here is an example:

$$\left(5 \frac{\text{gal}}{\text{min}}\right) \cdot (10 \text{ min}) = \frac{5 \text{ gal}}{1 \cancel{\text{min}}} \cdot 10 \cancel{\text{min}} = 50 \text{ gal}$$

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 18: Finding a Rate by Dividing Two Quantities

Exit Ticket

Alejandra drove from Michigan to Colorado to visit her friend. The speed limit on the highway is 70 miles/hour. If Alejandra's combined driving time for the trip was 14 hours, how many miles did Alejandra drive?

Exit Ticket Sample Solutions

Alejandra drove from Michigan to Colorado to visit her friend. The speed limit on the highway is 70 miles/hour. If Alejandra's combined driving time for the trip was 14 hours, how many miles did Alejandra drive?

980 miles

Problem Set Sample Solutions

1. Enguun earns \$17 per hour tutoring student-athletes at Brooklyn University.
 - a. If Enguun tutored for 12 hours this month, how much money did she earn this month?
\$204
 - b. If Enguun tutored for 19.5 hours last month, how much money did she earn last month?
\$331.50

2. The Piney Creek Swim Club is preparing for the opening day of the summer season. The pool holds 22,410 gallons of water, and water is being pumped in at 540 gallons per hour. The swim club has its first practice in 42 hours. Will the pool be full in time? Explain your answer.

Yes, the pool will be full of water in time for the first practice because 22,680 gallons of water can be pumped in 42 hours at a rate of 540 gallons per hour. Since 22,680 gallons is more water than the pool needs, we know that the swim club will have enough water.



Lesson 19: Comparison Shopping—Unit Price and Related Measurement Conversions

Student Outcomes

- Students solve problems by analyzing different unit rates given in tables, equations, and graphs.

Materials

- Matching activity cut and prepared for groups

Classwork

Analyze tables, graphs, and equations in order to compare rates.

Examples 1–2 (10 minutes): Creating Tables from Equations

- Let’s fill in the labels for each table as shown in the completed table below.
- If we have 1 cup of blue paint, how many cups of red paint would we have? (Model where these values go on the table.)
- If we have 2 cups of blue paint, how many cups of red paint would we have? (Model where these values go on the table.)

Examples 1–2: Creating Tables from Equations

- The ratio of cups of blue paint to cups of red paint is 1: 2, which means for every cup of blue paint, there are two cups of red paint. In this case, the equation would be $\text{red} = 2 \times \text{blue}$, or $r = 2b$, where b represents the amount of blue paint and r represents the amount of red paint. Make a table of values.

<i>Cups of Blue Paint</i>	1	2	3	4
<i>Cups of Red Paint</i>	2	4	6	8

Follow this line of questioning for a few more values.

- Examine the table, and identify the unit rate.
 - 2
- Where do you see this value in the equation?
 - The unit rate is represented in the equation as the value by which the cups of blue paint are being multiplied.

2. Ms. Siple is a librarian who really enjoys reading. She can read $\frac{3}{4}$ of a book in one day. This relationship can be represented by the equation $\text{days} = \frac{3}{4} \text{ books}$, which can be written as $d = \frac{3}{4}b$, where b is the number of books and d is the number of days.

<i>Number of Books</i>	1	2	3	4
<i>Number of Days</i>	$\frac{3}{4}$	$\frac{6}{4}$ or $1\frac{1}{2}$	$\frac{9}{4}$ or $2\frac{1}{4}$	$\frac{12}{4}$ or 3

Encourage students to fill in the table on their own. If students need more assistance, teachers can ask leading questions similar to those above.

Have students recognize the unit rate in the table and the equation, so they can later identify the unit rate in equations without creating a table.

Example 3 (13 minutes): Matching

Match an equation, table, and graph that represent the same unit rate. Students work individually or in pairs.

Cut apart the data representations at the end of the lesson and supply each student-pair with a set.

Exercises (12 minutes)

Students work on problems individually. Encourage students to explain their thinking.

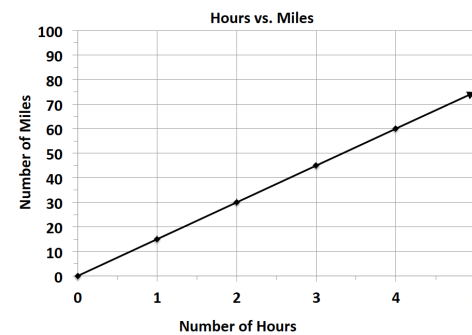
Exercises

1. Bryan and ShaNiece are both training for a bike race and want to compare who rides his or her bike at a faster rate. Both bikers use apps on their phones to record the time and distance of their bike rides. Bryan’s app keeps track of his route on a table, and ShaNiece’s app presents the information on a graph. The information is shown below.

Bryan:

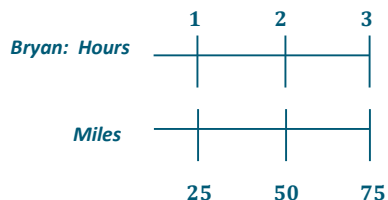
Number of Hours	0	3	6
Number of Miles	0	75	150

ShaNiece:



MP.2

a. At what rate does each biker travel? Explain how you arrived at your answer.

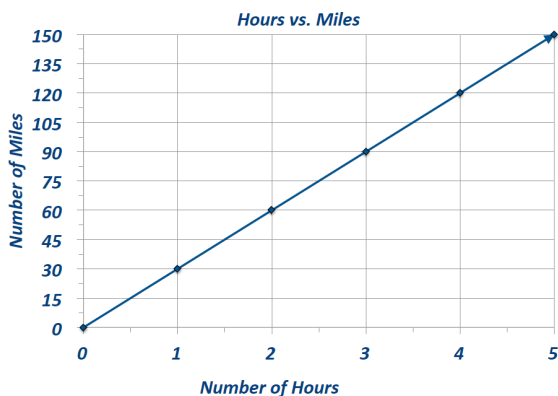


Bryan travels at a rate of 25 miles per hour. The double number line had to be split in 3 equal sections. That's how I got 25; $(25 + 25 + 25) = 75$.

ShaNiece travels at 15 miles per hour. I know this by looking at the point $(1, 15)$ on the graph.

The 1 represents the number of hours, and the 15 represents the number of miles.

b. ShaNiece wants to win the bike race. Make a new graph to show the speed ShaNiece would have to ride her bike in order to beat Bryan.



The graph shows ShaNiece traveling at a rate of 30 miles per hour, which is faster than Bryan's rate.

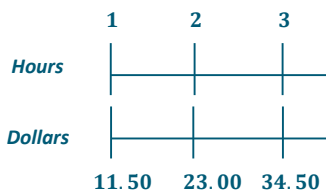
2. Braylen and Tyce both work at a department store and are paid by the hour. The manager told the boys they both earn the same amount of money per hour, but Braylen and Tyce did not agree. They each kept track of how much money they earned in order to determine if the manager was correct. Their data is shown below.

Braylen: $m = 10.50h$, where h represents the number of hours worked, and m represents the amount of money Braylen was paid.

Tyce:

Number of Hours	0	3	6
Money in Dollars	0	34.50	69

a. How much did each person earn in one hour?



Tyce earned \$11.50 per hour. Braylen earned \$10.50 per hour.

MP.2

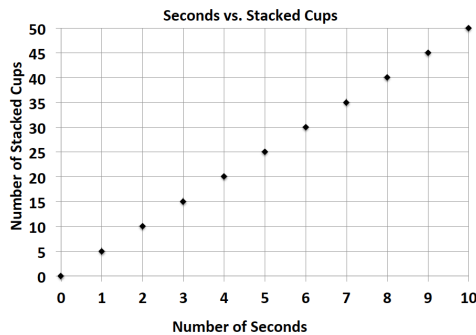
MP.2

b. Was the manager correct? Why or why not?

The manager was not correct because Tyce earned \$1 more than Braylen in one hour.

3. Claire and Kate are entering a cup stacking contest. Both girls have the same strategy: Stack the cups at a constant rate so that they do not slow down at the end of the race. While practicing, they keep track of their progress, which is shown below.

Claire:



Kate: $c = 4t$, where t represents the amount of time in seconds, and c represents the number of stacked cups.

a. At what rate does each girl stack her cups during the practice sessions?

Claire stacks cups at a rate of 5 cups per second. Kate stacks cups at a rate of 4 cups per second.

b. Kate notices that she is not stacking her cups fast enough. What would Kate’s equation look like if she wanted to stack cups faster than Claire?

Answers will vary. $c = 6t$, where t represents the time in seconds, and c represents the number of cups stacked.

Closing (5 minutes)

Students share their answers to the exercises and answer the following questions:

- How do you identify the unit rate in a table, graph, and equation?
- Why was the unit rate instrumental when comparing rates?

Lesson Summary

When comparing rates and ratios, it is best to find the unit rate.

Comparing unit rates can happen across tables, graphs, and equations.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 19: Comparison Shopping—Unit Price and Related Measurement Conversions

Exit Ticket

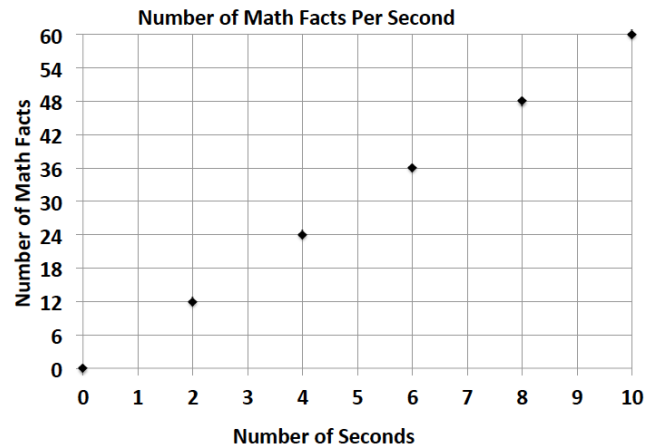
Kiara, Giovanni, and Ebony are triplets and always argue over who can answer basic math facts the fastest. After completing a few different math fact activities, Kiara, Giovanni, and Ebony record their data, which is shown below.

Kiara: $m = 5t$, where t represents the time in seconds, and m represents the number of math facts completed.

Giovanni:

Seconds	5	10	15
Math Facts	20	40	60

Ebony:



1. What is the math fact completion rate for each student?

2. Who would win the argument? How do you know?

Exit Ticket Sample Solutions

Kiara, Giovanni, and Ebony are triplets and always argue over who can answer basic math facts the fastest. After completing a few different math fact activities, Kiara, Giovanni, and Ebony recorded their data, which is shown below.

Kiara: $m = 5t$, where t represents the time in seconds, and m represents the number of math facts completed

Giovanni:

Seconds	5	10	15
Math Facts	20	40	60

1. What is the math fact completion rate for each student?

Kiara: 5 math facts/second

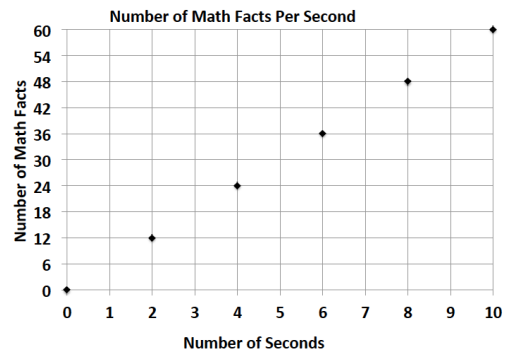
Giovanni: 4 math facts/second

Ebony: 6 math facts/second

2. Who would win the argument? How do you know?

Ebony would win the argument because when comparing the unit rates of the three triplets, Ebony completes math facts at the fastest rate.

Ebony:



Problem Set Sample Solutions

Victor was having a hard time deciding which new vehicle he should buy. He decided to make the final decision based on the gas efficiency of each car. A car that is more gas efficient gets more miles per gallon of gas. When he asked the manager at each car dealership for the gas mileage data, he received two different representations, which are shown below.

Vehicle 1: Legend

Gallons of Gas	4	8	12
Number of Miles	72	144	216

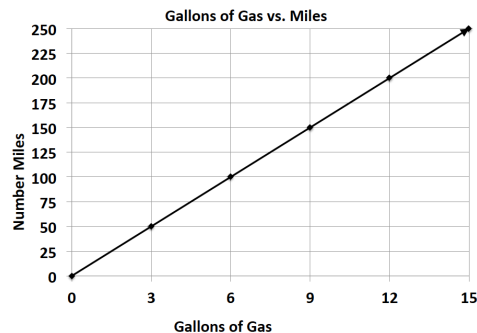
1. If Victor based his decision only on gas efficiency, which car should he buy? Provide support for your answer.

Victor should buy the Legend because it gets 18 miles per gallon of gas, and the Supreme only gets $16\frac{2}{3}$ miles per gallon. Therefore, the Legend is more gas efficient.

2. After comparing the Legend and the Supreme, Victor saw an advertisement for a third vehicle, the Lunar. The manager said that the Lunar can travel about 289 miles on a tank of gas. If the gas tank can hold 17 gallons of gas, is the Lunar Victor's best option? Why or why not?

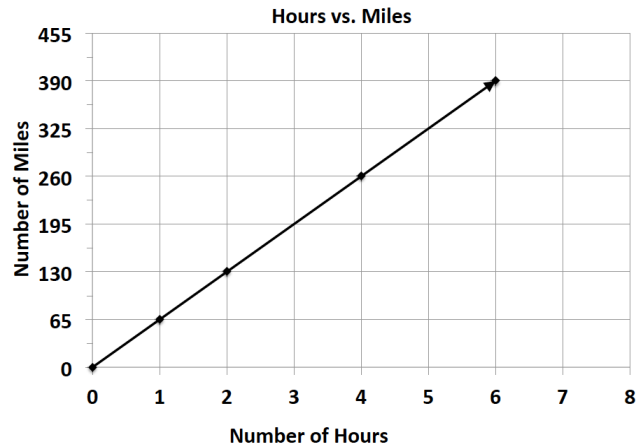
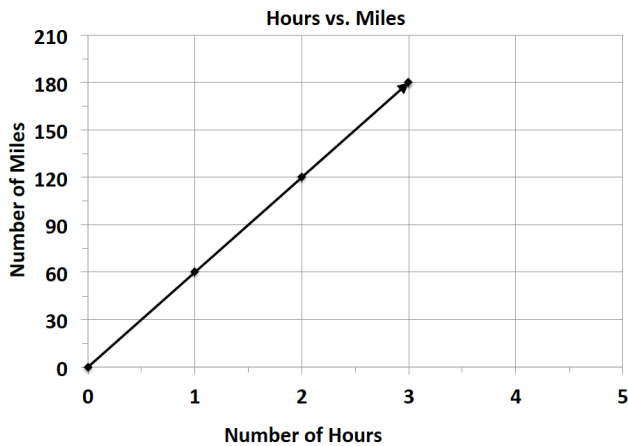
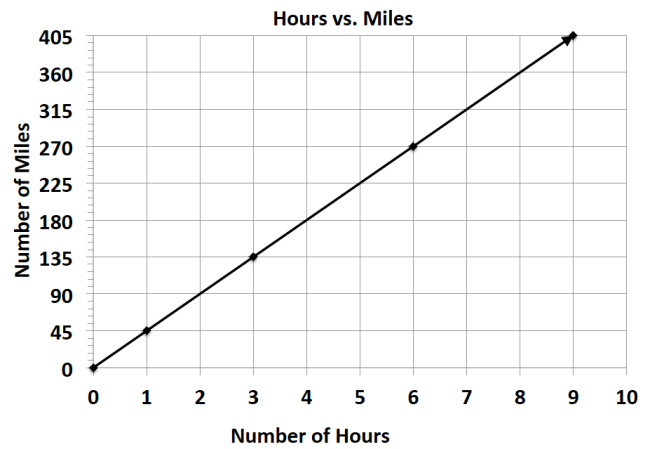
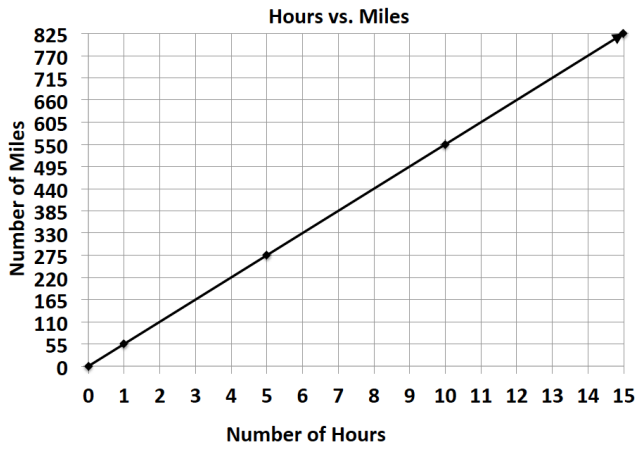
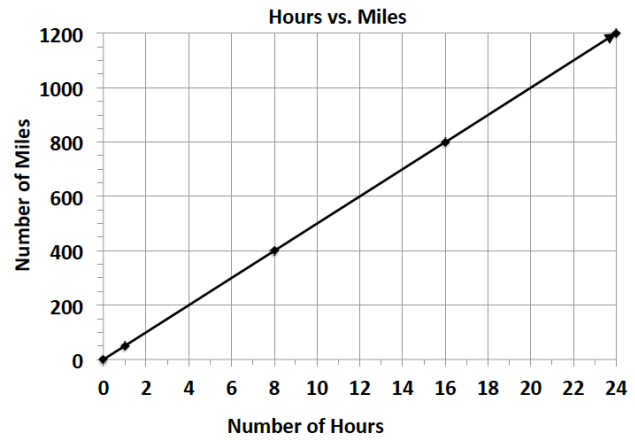
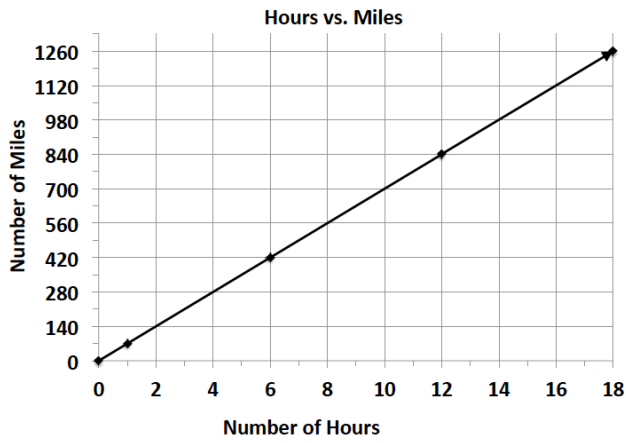
The Lunar is not a better option than the Legend because the Lunar only gets 17 miles per gallon, and the Legend gets 18 miles per gallon. Therefore, the Legend is still the best option.

Vehicle 2: Supreme





Example 3 Template





$m = 65h$	$m = 45h$	$m = 55h$																														
$m = 70h$	$m = 50h$	$m = 60h$																														
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td><i>h</i></td><td>0</td><td>2</td><td>4</td><td>6</td></tr> <tr><td><i>m</i></td><td>0</td><td>130</td><td>260</td><td>390</td></tr> </table>	<i>h</i>	0	2	4	6	<i>m</i>	0	130	260	390	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td><i>h</i></td><td>0</td><td>3</td><td>6</td><td>9</td></tr> <tr><td><i>m</i></td><td>0</td><td>135</td><td>270</td><td>405</td></tr> </table>	<i>h</i>	0	3	6	9	<i>m</i>	0	135	270	405	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td><i>h</i></td><td>0</td><td>5</td><td>10</td><td>15</td></tr> <tr><td><i>m</i></td><td>0</td><td>275</td><td>550</td><td>825</td></tr> </table>	<i>h</i>	0	5	10	15	<i>m</i>	0	275	550	825
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Lesson 20: Comparison Shopping—Unit Price and Related Measurement Conversions

Student Outcomes

- Students solve problems by analyzing different unit rates given in words, tables, equations, and graphs.

Classwork

An activity will be completed in order to gain confidence in comparing rates in tables, graphs, and equations.

Example 1 (5 minutes): Notes from Exit Ticket

Discuss the results of the Exit Ticket from the day before. Make sure students are able to interpret rates and unit rates given information in tables, graphs, and equations.

Example 1: Notes from Exit Ticket

Take notes from the discussion in the space provided below.

Notes:

Exploratory Challenge (30 minutes)

Have students work on the following exercises in pairs or individually. Tell students that this information was introduced in the previous lesson, so this is an opportunity for extra practice.

Allow students to use calculators and remind them to round any answers dealing with money to the nearest penny.

MP.2

Walk around the room while students are working to check for understanding. If the teacher is not confident with students' skills after the previous lesson, these questions can be completed one at a time with a discussion after each problem.

If problems are not done one at a time, provide students time to share their answers and their methods of arriving at an answer. This time can also be used for students to ask any questions they may have.

Exploratory Challenge

- a. Mallory is on a budget and wants to determine which cereal is a better buy. A 10-ounce box of cereal costs \$2.79, and a 13-ounce box of the same cereal costs \$3.99.
 - i. Which box of cereal should Mallory buy?
Because the 10-ounce box costs about 28 cents per ounce, and the 13-ounce box costs about 31 cents per ounce, Mallory should buy the 10-ounce box of cereal.
 - ii. What is the difference between the two unit prices?
The 10-ounce box of cereal would be preferred because it is 3 cents cheaper per ounce.
- b. Vivian wants to buy a watermelon. Kingston’s Market has 10-pound watermelons for \$3.90, but the Farmer’s Market has 12-pound watermelons for \$4.44.
 - i. Which market has the best price for watermelon?
The Farmer’s Market has the best price for watermelons.
 - ii. What is the difference between the two unit prices?
The 12-pound watermelon is a better deal because it is 2 cents cheaper per pound.
- c. Mitch needs to purchase soft drinks for a staff party. He is trying to figure out if it is cheaper to buy the 12-pack of soda or the 20-pack of soda. The 12-pack of soda costs \$3.99, and the 20-pack of soda costs \$5.48.
 - i. Which pack should Mitch choose?
20-pack of soda for \$5.48
 - ii. What is the difference in cost between single cans of soda from each of the two packs?
The difference in cost between single cans from each pack is 6 cents.
- d. Mr. Steiner needs to purchase 60 AA batteries. A nearby store sells a 20-pack of AA batteries for \$12.49 and a 12-pack of the same batteries for \$7.20.
 - i. Would it be less expensive for Mr. Steiner to purchase the batteries in 20-packs or 12-packs?
He should purchase five 12-packs of batteries for \$7.20 for a total cost of \$36.00.
 - ii. What is the difference between the costs of one battery from each pack?
The difference between the costs of one battery is 2 cents.
- e. The table below shows the amount of calories Mike burns as he runs.

Number of Miles Ran	3	6	9	12
Number of Calories Burned	360	720	1,080	1,440

Fill in the missing part of the table.

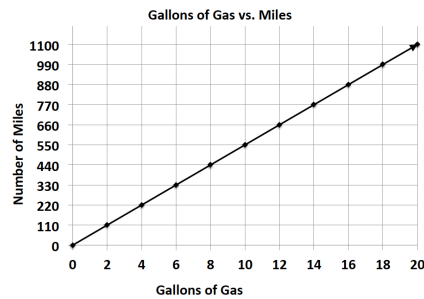
MP.2

- f. Emilio wants to buy a new motorcycle. He wants to compare the gas efficiency for each motorcycle before he makes a purchase. The dealerships presented the data below.

Sports Motorcycle:

Number of Gallons of Gas	5	10	15	20
Number of Miles	287.5	575	862.5	1,150

Leisure Motorcycle:

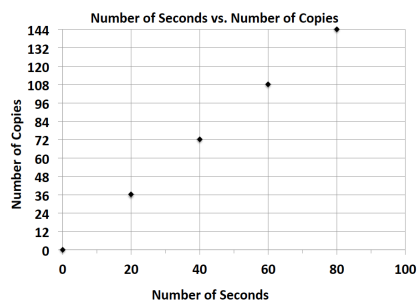


Which motorcycle is more gas efficient and by how much?

The sports motorcycle gets 2.5 more miles per gallon of gas.

- g. Milton Middle School is planning to purchase a new copy machine. The principal has narrowed the choice to two models: SuperFast Deluxe and Quick Copies. He plans to purchase the machine that copies at the fastest rate. Use the information below to determine which copier the principal should choose.

SuperFast Deluxe:



Quick Copies:

$c = 1.5t$
(where t represents the amount of time in seconds, and c represents the number of copies)

SuperFast Deluxe

- h. Elijah and Sean are participating in a walk-a-thon. Each student wants to calculate how much money he would make from his sponsors at different points of the walk-a-thon. Use the information in the tables below to determine which student would earn more money if they both walked the same distance. How much more money would that student earn per mile?

Elijah's Sponsor Plan:

Number of Miles Walked	7	14	21	28
Money Earned in Dollars	35	70	105	140

Sean's Sponsor Plan:

Number of Miles Walked	6	12	18	24
Money Earned in Dollars	33	66	99	132

Sean earns 50 cents more than Elijah every mile.

MP.2

- i. Gerson is going to buy a new computer to use for his new job and also to download movies. He has to decide between two different computers. How many more kilobytes does the faster computer download in one second?

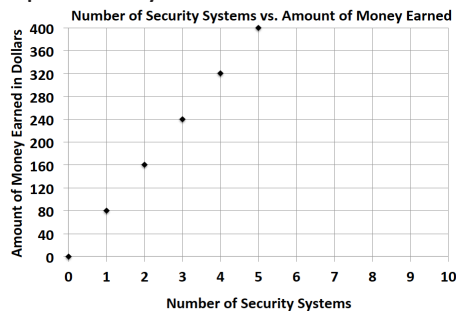
Choice 1: The rate of download is represented by the following equation: $k = 153t$, where t represents the amount of time in seconds, and k represents the number of kilobytes.

Choice 2: The rate of download is represented by the following equation: $k = 150t$, where t represents the amount of time in seconds, and k represents the number of kilobytes.

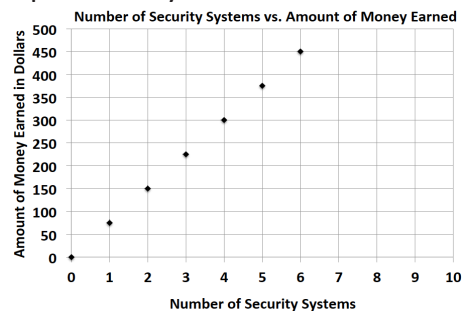
Choice 1 downloads 3 more kilobytes per second than Choice 2.

- j. Zyearaye is trying to decide which security system company he will make more money working for. Use the graphs below that show Zyearaye’s potential commission rate to determine which company will pay Zyearaye more commission. How much more commission would Zyearaye earn by choosing the company with the better rate?

Superior Security:



Top Notch Security:



Superior Security would pay \$5 more per security system sold than Top Notch Security.

- k. Emilia and Miranda are sisters, and their mother just signed them up for a new cell phone plan because they send too many text messages. Using the information below, determine which sister sends the most text messages. How many more text messages does this sister send per week?

Emilia:

Number of Weeks	3	6	9	12
Number of Text Messages	1,200	2,400	3,600	4,800

Miranda: $m = 410w$, where w represents the number of weeks, and m represents the number of text messages.

Miranda sends 10 more text messages per week than Emilia.

MP.2

Closing (5 minutes)

- What did all of the problems we solved today have in common?
 - *Each involved using unit rates, although the information was provided in different forms.*

Lesson Summary

Unit Rate can be located in tables, graphs, and equations.

- **Table**—the unit rate is the value of the first quantity when the second quantity is 1.
- **Graphs**—the unit rate is the value of r at the point $(1, r)$.
- **Equation**—the unit rate is the constant number in the equation. For example, the unit rate in $r = 3b$ is 3.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 20: Comparison Shopping—Unit Price and Related Measurement Conversions

Exit Ticket

Value Grocery Mart and Market City are both having a sale on the same popular crackers. McKayla is trying to determine which sale is the better deal. Using the given table and equation, determine which store has the better deal on crackers? Explain your reasoning. (Remember to round your answers to the nearest penny.)

Value Grocery Mart:

Number of Boxes of Crackers	3	6	9	12
Cost (in dollars)	5	10	15	20

Market City:

$c = 1.75b$, where c represents the cost in dollars, and b represents the number of boxes of crackers.



Exit Ticket Sample Solutions

Value Grocery Mart and Market City are both having a sale on the same popular crackers. McKayla is trying to determine which sale is the better deal. Using the given table and equation, determine which store has the better deal on crackers. Explain your reasoning. (Remember to round your answers to the nearest penny.)

Value Grocery Mart:

Number of Boxes of Crackers	3	6	9	12
Cost (in dollars)	5	10	15	20

Market City:

$c = 1.75b$, where c represents the cost in dollars, and b represents the number of boxes of crackers.

Value Grocery Mart is better because one box of crackers would cost \$1.67. One box of crackers at Market City would cost \$1.75, which is a little more expensive than Value Grocery Mart.

Problem Set Sample Solutions

The table below shows the amount of money Gabe earns working at a coffee shop.

Number of Hours Worked	3	6	9	12
Money Earned (in dollars)	40.50	81.00	121.50	162.00

- How much does Gabe earn per hour?

Gabe earns \$13.50 per hour.

- Jordan is another employee at the same coffee shop. He has worked there longer than Gabe and earns \$3 more per hour than Gabe. Complete the table below to show how much Jordan earns.

Hours Worked	4	8	12	16
Money Earned (in dollars)	66	132	198	264

- Serena is the manager of the coffee shop. The amount of money she earns is represented by the equation $m = 21h$, where h is the number of hours Serena works, and m is the amount of money she earns. How much more money does Serena make an hour than Gabe? Explain your thinking.

21 – 13.5 = 7.50, so Serena makes \$7.50 per hour more than Gabe.

- Last month, Jordan received a promotion and became a manager. He now earns the same amount as Serena. How much more money does he earn per hour now that he is a manager than he did before his promotion? Explain your thinking.

Jordan now makes the same amount as Serena, which is \$21 an hour. Jordan previously made \$16.50 an hour, so 21 – 16.50 = 4.50. Therefore, Jordan will make an additional \$4.50 an hour now that he is a manager.



Lesson 21: Getting the Job Done—Speed, Work, and Measurement Units

Student Outcomes

- Students use rates between measurements to convert measurement in one unit to measurement in another unit. They manipulate and transform units appropriately when multiplying or dividing quantities.

Lesson Notes

Prior to this lesson, a measurement center should be made available to students. By allowing all students to handle all the various items, they gain a real sense of each measure and its relationship to the others.

Measurement Center Materials: rulers (centimeter and inches), meter sticks, yard sticks, measuring tapes; kilogram, gram, and milligram masses; liter box, liter bottle, or liter graduated cylinder, eyedropper (for milliliter); ounce and pound weights; cup, pint, quart, and gallon containers

Materials: copies of conversion charts, calculators

Vocabulary: length, mass, weight, capacity, metric system, U.S. customary system, kilo-, deci-, centi-, milli-

Conversion tables contain ratios that can be used to convert units of length, weight, or capacity. You must multiply the given number by the ratio that compares the two units.

Classwork

It may be helpful to copy the vocabulary terms on one side of a handout and the conversion charts on the other. Distribute these to each student. Pair the students for the first two examples.

Opening Exercise (5 minutes)

Opening Exercise

Identify the ratios that are associated with conversions between feet, inches, and yards.

12 inches = 1 foot; the ratio of inches to feet is 12:1.

1 foot = 12 inches; the ratio of feet to inches is 1:12.

3 feet = 1 yard; the ratio of feet to yards is 3:1.

1 yard = 3 feet; the ratio of yards to feet is 1:3.



Example 1 (10 minutes)

- Conversion tables are really ratio tables that can be used to convert units of length, weight, or capacity (and other units, too). You must multiply the given number by the ratio that compares the two units.
- Work with your partner to find out how many feet are in 48 inches. Make a ratio table that compares feet and inches. Use the conversion rate of 12 inches per foot or $\frac{1}{12}$ foot per inch.

Allow students to solve the problem using the conversion chart. When all groups finish, make clear that they can multiply 48 by $\frac{1}{12}$ or divide 48 by 12. The result is 4 feet either way.

Example 1

Work with your partner to find out how many feet are in 48 inches. Make a ratio table that compares feet and inches.

Use the conversion rate of 12 inches per foot or $\frac{1}{12}$ foot per inch.

$$\frac{1 \text{ foot}}{12 \text{ inches}} \times \frac{48 \text{ inches}}{1} = \frac{1 \times 48}{12 \times 1} \text{ feet} = \frac{48}{12} \text{ feet} = 4 \text{ feet}$$

48 inches equals 4 feet.

Example 2 (10 minutes)

Example 2

How many grams are in 6 kilograms? Again, make a record of your work before using the calculator. The rate would be 1,000 grams per kg. The unit rate would be 1,000.

$$\frac{6}{1} \times \frac{1000}{1} = \frac{6 \times 1000}{1 \times 1} = 6000$$

$$\frac{6 \text{ kilograms}}{1} \times \frac{1000 \text{ grams}}{1 \text{ kilograms}} = \frac{6 \times 1000}{1 \times 1} \text{ grams} = 6000 \text{ grams}$$

There are 6,000 grams in 6 kilograms.

Exercises (10 minutes)

Exercise 1

How many cups are in 5 quarts? As always, make a record of your work before using the calculator. The rate would be 4 cups per quart. The unit rate would be 4.

$$\frac{5}{1} \times \frac{4}{1} = \frac{5 \times 4}{1 \times 1} = 20$$

$$\frac{5 \text{ quarts}}{1} \times \frac{4 \text{ cups}}{1 \text{ quart}} = \frac{5 \times 4}{1 \times 1} \text{ cups} = 20 \text{ cups}$$

There are 20 cups in 5 quarts.

Exercise 2

How many quarts are in 10 cups?

$$10 \text{ cups} \cdot \frac{1 \text{ quart}}{4 \text{ cups}} = \frac{10}{4} \text{ quarts} = \frac{5}{2} \text{ quarts} = 2\frac{1}{2} \text{ quarts}$$

Closing (5 minutes)

- In Exercise 2, what if the problem was set up this way: $10 \text{ cups} \times \frac{4 \text{ cups}}{1 \text{ quart}} = 40 \text{ quarts}$. What is wrong with that set up?
 - *If the conversion factor is flipped upside down, the units will not cancel, and the number won't make sense.*

Lesson Summary

Conversion tables contain ratios that can be used to convert units of length, weight, or capacity. You must multiply the given number by the ratio that compares the two units.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 21: Getting the Job Done—Speed, Work, and Measurement Units

Exit Ticket

Jill and Erika made 4 gallons of lemonade for their lemonade stand. How many quarts did they make? If they charge \$2.00 per quart, how much money will they make if they sell it all?



Exit Ticket Sample Solutions

Jill and Erika made 4 gallons of lemonade for their lemonade stand. How many quarts did they make? If they charge \$2.00 per quart, how much money will they make if they sell it all?

The conversion rate is 4 quarts per gallon.

$$\frac{4 \text{ quarts}}{1 \text{ gallon}} \cdot 4 \text{ gallons} = \frac{4 \cdot 4}{1} \text{ quarts} = 16 \text{ quarts}$$

$$16 \text{ quarts} \times \frac{2 \text{ dollars}}{1 \text{ quart}} = 32 \text{ dollars in sales}$$

Problem Set Sample Solutions

1. 7 ft. = 84 in.

2. 100 yd. = 300 ft.

3. 25 m = 2,500 cm

4. 5 km = 5,000 m

5. 96 oz. = 6 lb.

6. 2 mi. = 10,560 ft.

7. 2 mi. = 3,520 yd.

8. 32 fl. oz. = 4 c.

9. 1,500 mL = 1.5 L

10. 6 g = 6,000 mg

11. Beau buys a 3-pound bag of trail mix for a hike. He wants to make one-ounce bags for his friends with whom he is hiking. How many one-ounce bags can he make?

48 bags

12. The maximum weight for a truck on the New York State Thruway is 40 tons. How many pounds is this?

80,000 lb.

13. Claudia's skis are 150 centimeters long. How many meters is this?

1.5 m



14. Claudia's skis are 150 centimeters long. How many millimeters is this?

1,500 mm

15. Write your own problem, and solve it. Be ready to share the question tomorrow.

Answers will vary.

U.S. Customary Length	Conversion
Inch (in.)	$1 \text{ in.} = \frac{1}{12} \text{ ft.}$
Foot (ft.)	$1 \text{ ft.} = 12 \text{ in.}$
Yard (yd.)	$1 \text{ yd.} = 3 \text{ ft.}$ $1 \text{ yd.} = 36 \text{ in.}$
Mile (mi.)	$1 \text{ mi.} = 1,760 \text{ yd.}$ $1 \text{ mi.} = 5,280 \text{ ft.}$

Metric Length	Conversion
Centimeter (cm)	$1 \text{ cm} = 10 \text{ mm}$
Meter (m)	$1 \text{ m} = 100 \text{ cm}$ $1 \text{ m} = 1,000 \text{ mm}$
Kilometer (km)	$1 \text{ km} = 1,000 \text{ m}$

U.S. Customary Weight	Conversion
Pound (lb.)	$1 \text{ lb.} = 16 \text{ oz.}$
Ton (T.)	$1 \text{ T.} = 2,000 \text{ lb.}$

Metric Capacity	Conversion
Liter (L)	$1 \text{ L} = 1,000 \text{ ml}$
Kiloliter (kL)	$1 \text{ kL} = 1,000 \text{ L}$

U.S. Customary Capacity	Conversion
Cup (c.)	$1 \text{ c.} = 8 \text{ fluid ounces}$
Pint (pt.)	$1 \text{ pt.} = 2 \text{ c.}$
Quart (qt.)	$1 \text{ qt.} = 4 \text{ c.}$ $1 \text{ qt.} = 2 \text{ pt.}$ $1 \text{ qt.} = 32 \text{ fluid ounces}$
Gallon (gal.)	$1 \text{ gal.} = 4 \text{ qt.}$ $1 \text{ gal.} = 8 \text{ pt.}$ $1 \text{ gal.} = 16 \text{ c.}$ $1 \text{ gal.} = 128 \text{ fluid ounces}$

Metric Mass	Conversion
Gram (g)	$1 \text{ g} = 1,000 \text{ mg}$
Kilogram (kg)	$1 \text{ kg} = 1,000 \text{ g}$



Lesson 22: Getting the Job Done—Speed, Work, and Measurement Units

Student Outcomes

- Students decontextualize a given speed situation, representing symbolically the quantities involved with the formula distance = rate · time.

Materials

- Stopwatches
- 50-foot measured course
- Calculators

Lesson Notes

Vocabulary: distance, rate, time, $d = r \cdot t$, $r = \frac{d}{t}$

Classwork

If an object is moving at a constant rate of speed for a certain amount of time, it is possible to find how far the object went by multiplying the rate and the time. In mathematical language, we say, distance = rate · time.

Exploratory Challenge

Students will make measurements of distance and time during this lesson and will calculate speed. When using a stopwatch, the teacher can decide whether to round to the nearest second or tenth of a second. If desired, multiple trials can be measured and results averaged.

Opening Exercise (2 minutes)

- How many seconds are in 1 minute?
 - 60 seconds
- Can you verbalize this relationship?
 - For every 60 seconds, there is 1 minute.
- Here are two different ways (display for students):

$$\frac{60 \text{ seconds}}{1 \text{ minute}} \text{ and } 60 \frac{\text{seconds}}{\text{minute}}$$

- Are these the same values?
 - *Allow for discussion.*
- The first representation states that for every 60 seconds, there is 1 minute. Is that what the second representation states? I read this as “60 seconds per minute.” Knowing what we learned previously in Lessons 1 and 2, “per” and “for every” are verbal representations of a ratio, so they mean the same thing.

Example 1 (15 minutes)

Measure out a 50-foot course in the hallway (or shorter in the classroom). Have student volunteers use a stopwatch to measure the time it takes to have others walk the distance. Also, ask a fast runner to run the course as fast as he or she can.

- *I wonder how fast you were moving.* In this exercise, we know the distance (in feet) and time (in seconds), and we must find the speed, which is the rate of distance traveled per unit of time. This will be expressed in feet per second for this activity.
- Many people like to use the $d = r \cdot t$ formula, substitute in the values for rate and time, and then multiply. Would you agree that $r = \frac{d}{t}$?

Remind students that $12 = 3 \cdot 4$, $3 = \frac{12}{4}$, and $4 = \frac{12}{3}$ are all related and can be an anchor in relating $d = r \cdot t$ and $r = \frac{d}{t}$. Substitute the values to test if needed.

MP.2

Ask students to substitute the runner’s distance and time into the equation and solve for the rate of speed. Also, substitute the runner’s time and distance into the equation to find his or her rate of speed.

Example 1

Walker: Substitute the walker’s distance and time into the equation and solve for the rate of speed.

distance = rate · time

$$d = r \cdot t$$

Hint: Consider the units that you want to end up with. If you want to end up with the rate (feet/second), then divide the distance (feet) by time (seconds).

Runner: Substitute the runner’s time and distance into the equation to find the rate of speed.

distance = rate · time

$$d = r \cdot t$$

Here is a sample of student work using 8 seconds as an example:

$d = r \cdot t$ and $r = \frac{d}{t}$; Distance: 50 feet; Time: 8 seconds

$$r = \frac{50 \text{ ft}}{8 \text{ sec}} = 6.25 \frac{\text{ft}}{\text{sec}}$$

MP.5
&
MP.6

It might be important to discuss the desired precision of each measurement and the limitations to precision inherent in the tools used (e.g., 50-foot race course measured to the nearest inch and time measured to the nearest hundredth of a second on the stopwatch). Measurements are, by their nature, never exact. Also, when arriving at an answer, it should be expressed with a degree of precision appropriate for the context of the problem.

Example 2 (15 minutes)

Example 2

Part 1: Chris Johnson ran the 40-yard dash in 4.24 seconds. What is the rate of speed? Round any answer to the nearest hundredth.

distance = rate · time

$$d = r \cdot t$$

$$d = r \cdot t \text{ and } r = \frac{d}{t}; r = \frac{40 \text{ yd}}{4.24 \text{ sec}} \approx 9.43 \frac{\text{yd}}{\text{sec}}$$

Part 2: In Lesson 21, we converted units of measure using unit rates. If the runner were able to run at a constant rate, how many yards would he run in an hour? This problem can be solved by breaking it down into two steps. Work with a partner, and make a record of your calculations.

- a. How many yards would he run in one minute?

$$9.43 \frac{\text{yards}}{\text{second}} \cdot 60 \frac{\text{seconds}}{\text{minute}} = 565.80 \text{ yards in one minute}$$

- b. How many yards would he run in one hour?

$$565.80 \frac{\text{yards}}{\text{minute}} \cdot 60 \frac{\text{minutes}}{\text{hour}} = 33\,948 \text{ yards in one hour}$$

We completed that problem in two separate steps, but it is possible to complete this same problem in one step. We can multiply the yards per second by the seconds per minute, then by the minutes per hour.

$$9.43 \frac{\text{yards}}{\text{second}} \cdot 60 \frac{\text{seconds}}{\text{minute}} \cdot 60 \frac{\text{minutes}}{\text{hour}} = 33\,948 \text{ yards in one hour}$$

Cross out any units that are in both the numerator and denominator in the expression because these cancel each other out.

Part 3: How many miles did the runner travel in that hour? Round your response to the nearest tenth.

$$33\,948 \frac{\text{yards}}{\text{hour}} \cdot \frac{1 \text{ mile}}{1760 \text{ yards}} \approx 19.3 \text{ miles per hour}$$

Cross out any units that are in both the numerator and denominator in the expression because they cancel out.

MP.1

Exercises (5 minutes): Road Trip

Exercise 1

I drove my car on cruise control at 65 miles per hour for 3 hours without stopping. How far did I go?

$$d = r \cdot t$$

$$d = \underline{\hspace{1cm}} \frac{\text{miles}}{\text{hour}} \cdot \underline{\hspace{1cm}} \text{ hours}$$

$$d = 65 \frac{\text{miles}}{\text{hour}} \cdot 3 \text{ hours}$$

Cross out any units that are in both the numerator and denominator in the expression because they cancel out.

$$d = \underline{\hspace{1cm}} \text{ miles}$$

$$d = 195 \text{ miles}$$

Exercise 2

On the road trip, the speed limit changed to 50 miles per hour in a construction zone. Traffic moved along at a constant rate (50 mph), and it took me 15 minutes (0.25 hours) to get through the zone. What was the distance of the construction zone? (Round your response to the nearest hundredth of a mile.)

$$d = r \cdot t$$

$$d = \underline{\hspace{1cm}} \frac{\text{miles}}{\text{hour}} \cdot \underline{\hspace{1cm}} \text{ hours}$$

$$d = 50 \frac{\text{miles}}{\text{hour}} \cdot 0.25 \text{ hour}$$

$$d = 12.50 \text{ miles}$$

Closing (3 minutes)

- Describe the relationship between distance, rate, and time. State this relationship as many different ways as you can. How does each of these representations differ? How are they alike?
 - We can find distance if we know the rate and time using the formula/equation

$$d = r \cdot t.$$
 - We can find the rate if we know the distance and the time using the formula/equation

$$r = \frac{d}{t}.$$

Lesson Summary

Distance, rate, and time are related by the formula $d = r \cdot t$.

Knowing any two of the values allows the calculation of the third.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 22: Getting the Job Done—Speed, Work, and Measurement Units

Exit Ticket

Franny took a road trip to her grandmother’s house. She drove at a constant speed of 60 miles per hour for 2 hours. She took a break and then finished the rest of her trip driving at a constant speed of 50 miles per hour for 2 hours. What was the total distance of Franny’s trip?



Exit Ticket Sample Solutions

Franny took a road trip to her grandmother's house. She drove at a constant speed of 60 miles per hour for 2 hours. She took a break and then finished the rest of her trip driving at a constant speed of 50 miles per hour for 2 hours. What was the total distance of Franny's trip?

$$d = 60 \frac{\text{miles}}{\text{hour}} \cdot 2 \text{ hours} = 120 \text{ miles}$$

$$d = 50 \frac{\text{miles}}{\text{hour}} \cdot 2 \text{ hours} = 100 \text{ miles}$$

$$120 \text{ miles} + 100 \text{ miles} = 220 \text{ miles}$$

Problem Set Sample Solutions

1. If Adam's plane traveled at a constant speed of 375 miles per hour for six hours, how far did the plane travel?

$$d = r \cdot t$$

$$d = \frac{375 \text{ miles}}{1 \text{ hour}} \times 6 \text{ hours} = 2250 \text{ miles}$$

2. A Salt Marsh Harvest Mouse ran a 360 centimeter straight course race in 9 seconds. How fast did it run?

$$r = \frac{d}{t}$$

$$r = \frac{360 \text{ centimeters}}{9 \text{ seconds}} = 40 \frac{\text{cm}}{\text{sec}}$$

3. Another Salt Marsh Harvest Mouse took 7 seconds to run a 350 centimeter race. How fast did it run?

$$r = \frac{d}{t}$$

$$r = \frac{350 \text{ centimeters}}{7 \text{ seconds}} = 50 \frac{\text{cm}}{\text{sec}}$$

4. A slow boat to China travels at a constant speed of 17.25 miles per hour for 200 hours. How far was the voyage?

$$d = r \cdot t$$

$$d = \frac{17.25 \text{ miles}}{1 \text{ hour}} \times 200 \text{ hours} = 3450 \text{ miles}$$

5. The Sopwith Camel was a British, First World War, single-seat, biplane fighter introduced on the Western Front in 1917. Traveling at its top speed of 110 mph in one direction for $2\frac{1}{2}$ hours, how far did the plane travel?

$$d = r \cdot t$$

$$d = \frac{110 \text{ miles}}{1 \text{ hour}} \times 2.5 \text{ hours} = 275 \text{ miles}$$



6. A world-class marathon runner can finish 26.2 miles in 2 hours. What is the rate of speed for the runner?

$$r = \frac{d}{t}$$

$$r = \frac{26.2 \text{ miles}}{2 \text{ hours}} = 13.1 \text{ mph or } 13.1 \frac{\text{mi}}{\text{h}}$$

7. Banana slugs can move at 17 cm per minute. If a banana slug travels for 5 hours, how far will it travel?

$$d = r \cdot t$$

$$d = \frac{17 \text{ cm}}{1 \text{ min}} \times 300 \text{ min} = 5100 \text{ cm}$$



Lesson 23: Problem Solving Using Rates, Unit Rates, and Conversions

Student Outcomes

- Students solve constant rate work problems by calculating and comparing unit rates.

Materials

- Calculators

Classwork

- If work is being done at a constant rate by one person, and at a different constant rate by another person, both rates can be converted to their unit rates and then compared directly.
- “Work” can include jobs done in a certain time period, rates of running or swimming, etc.

Example 1 (10 minutes): Fresh-Cut Grass

- In the last lesson, we learned about constant speed problems. Today we will be learning about constant rate work problems. Think for a moment about what a *constant rate work* problem might be.

Allow time for speculation and sharing of possible interpretations of what the lesson title might mean. Student responses should be summarized by the following:

- *Constant rate work problems let us compare two unit rates to see which situation is faster or slower.*
- In Lesson 18, we found a rate by dividing two quantities. Recall how to do this.
 - *To find a unit rate, divide the numerator by the denominator.*
- Did it matter which quantity was in the numerator and which quantity was in the denominator?
 - *Yes. To find the unit rate, it is important to have specific quantities in the numerator and denominator based on the rate unit.*
- Did the two quantities have to be two different units?
 - *Yes*
- Suppose that on a Saturday morning you can cut 3 lawns in 5 hours, and your friend can cut 5 lawns in 8 hours. Your friend claims he is working faster than you. Who is cutting lawns at a faster rate? How do you find out?
 - *Divide the numerator by the denominator to find the unit rate.*



- Again, does it matter which quantity is represented in the numerator and which quantity is represented in the denominator?
 - Yes. To find the amount of lawns per hour, or the rate unit of $\frac{\text{lawns}}{\text{hour}}$, the amount of lawns cut must be represented in the numerator, and the amount of time in hours must be represented in the denominator.
- What is 3 divided by 5?
 - 0.6
- How should you label the problem?
 - The same way it is presented. Here “lawns” remains in the numerator, and “hours” remains in the denominator.
- How should the unit rate and rate unit look when it is written completely?
 - $\frac{3 \text{ lawns}}{5 \text{ hours}} = \frac{0.6 \text{ lawns}}{1 \text{ hour}}$
- How should it be read?
 - If I can cut 3 lawns in 5 hours, that equals $\frac{3}{5}$ lawns in one hour. If a calculator is used, that will be a unit rate of six-tenths. The rate unit is lawn per hour.
- What is the unit rate of your friend’s lawn cutting?
 - My friend is cutting $\frac{5}{8}$ lawns in an hour.

$$\frac{5 \text{ lawns}}{8 \text{ hours}} = \frac{0.625 \text{ lawns}}{1 \text{ hour}}$$
- How is this interpreted?
 - If my friend cuts 5 lawns in 8 hours, the unit rate is 0.625.
- Compare the two unit rates $\frac{3}{5}$ and $\frac{5}{8}$.
 - $\frac{24}{40} < \frac{25}{40}$ My friend is a little faster, but only $\frac{1}{40}$ of a lawn per hour, so it is very close. The unit rates have corresponding decimals 0.6 and 0.625.

Example 1: Fresh-Cut Grass

Suppose that on a Saturday morning you can cut 3 lawns in 5 hours, and your friend can cut 5 lawns in 8 hours. Who is cutting lawns at a faster rate?

$$\frac{3 \text{ lawns}}{5 \text{ hours}} = \frac{\quad \text{lawns}}{1 \text{ hour}}$$

$$\frac{5 \text{ lawns}}{8 \text{ hours}} = \frac{\quad \text{lawns}}{1 \text{ hour}}$$

$\frac{24}{40} < \frac{25}{40}$ My friend is a little faster but only $\frac{1}{40}$ of a lawn per hour, so it is very close. The unit rates have corresponding decimals 0.6 and 0.625.



Example 2 (9 minutes): Restaurant Advertising

- Next, suppose you own a restaurant. You want to do some advertising, so you hire 2 students to deliver take-out menus around town. One student, Darla, delivers 350 menus in 2 hours, and another student, Drew, delivers 510 menus in 3 hours. You promise a \$10 bonus to the fastest worker since time is money in the restaurant business. Who gets the bonus?
- How should the unit rates and the rate units look when they are written completely?
 - $\frac{350 \text{ menus}}{2 \text{ hours}} = \frac{175 \text{ menus}}{1 \text{ hour}}$, $\frac{510 \text{ menus}}{3 \text{ hours}} = \frac{170 \text{ menus}}{1 \text{ hour}}$
- Compare the unit rates for each student. Who works faster at the task and gets the bonus cash?
 - *Darla's unit rate is $\frac{175 \text{ menus}}{1 \text{ hour}}$ and Drew's unit rate is $\frac{170 \text{ menus}}{1 \text{ hour}}$. Since Darla is able to deliver 5 more menus an hour than Drew, she should get the bonus.*
- Will the unit labels in the numerator and denominator always match in the work rates we are comparing?
 - Yes.

Example 2: Restaurant Advertising

$\frac{\text{— menus}}{\text{— hours}} = \frac{\text{— menus}}{1 \text{ hour}}$	$\frac{\text{— menus}}{\text{— hours}} = \frac{\text{— menus}}{1 \text{ hour}}$
$\frac{350 \text{ menus}}{2 \text{ hours}} = \frac{175 \text{ menus}}{1 \text{ hour}}$	$\frac{510 \text{ menus}}{3 \text{ hours}} = \frac{170 \text{ menus}}{1 \text{ hour}}$

Set up a problem for the student that does not keep the units in the same arrangement:

$\frac{350 \text{ menus}}{2 \text{ hours}} = \frac{175 \text{ menus}}{1 \text{ hour}}$	$\frac{3 \text{ hours}}{510 \text{ menus}} = \frac{1 \text{ hour}}{170 \text{ menus}}$
--	--

- What happens if they do not match and one is inverted?
 - *It will be difficult to compare the rates. We would have to say 175 menus would be delivered per hour by Darla, and it would take an hour for Drew to deliver 170 menus. Mixing up the units makes the explanations awkward.*
- Will time always be in the denominator?
 - Yes
- Do you always divide the numerator by the denominator to find the unit rate?
 - Yes



Example 3 (9 minutes): Survival of the Fittest

- Which runs faster: a cheetah that can run 60 feet in 4 seconds or gazelle that can run 100 feet in 8 seconds?

Example 3: Survival of the Fittest

$\frac{\text{_____ feet}}{\text{_____ seconds}} = \frac{\text{_____ feet}}{1 \text{ second}}$ $\frac{60 \text{ feet}}{4 \text{ seconds}} = \frac{15 \text{ feet}}{1 \text{ second}}$	$\frac{\text{_____ feet}}{\text{_____ seconds}} = \frac{\text{_____ feet}}{1 \text{ second}}$ $\frac{100 \text{ feet}}{8 \text{ seconds}} = \frac{12.5 \text{ feet}}{1 \text{ second}}$
--	---

The cheetah runs faster.

Example 4 (7 minutes): Flying Fingers

- What if the units of time are not the same in the two rates? What will this mean for the rate units? The secretary in the main office can type 225 words in 3 minutes, while the computer teacher can type 105 words in 90 seconds. Can we still compare the unit rates? Who types at a faster rate?

Ask half of the class to solve this problem using words per minute and the other half using words per second. Ask for a volunteer from each group to display and explain their solutions.

Example 4: Flying Fingers

$\frac{225 \text{ words}}{3 \text{ minutes}} = \frac{75 \text{ words}}{1 \text{ minute}}$	$\frac{105 \text{ words}}{1.5 \text{ minutes}} = \frac{70 \text{ words}}{1 \text{ minute}}$
---	---

The secretary types faster.

$\frac{225 \text{ words}}{180 \text{ seconds}} = \frac{1.25 \text{ words}}{1 \text{ second}}$	$\frac{105 \text{ words}}{90 \text{ seconds}} = \frac{1.166667 \text{ words}}{1 \text{ second}}$
---	--

The secretary types faster.

- Do we have to convert one time unit?
 - Yes
- What will happen if we do not convert one time unit so that they match?
 - We cannot compare the rates. It is not easy to tell which is faster: 70 words per minute or 1.25 words per second.*
- Does it matter which one you change?
 - No. Either change 90 seconds to 1.5 minutes or change 3 minutes to 180 seconds, as long as the rate units are the same when you are finished.*
- Can you choose the one that makes the problem easier for you?
 - Yes
- Is there an advantage in choosing one method over the other?
 - Changing seconds to minutes avoids repeating decimals.*
- Looking back on our work so far what is puzzling you? What questions do you have?

- Describe how this type of problem is similar to unit pricing problems.
 - *Unit pricing problems use division and so do work rate problems.*
- Describe how work problems are different than unit price problems.
 - *Unit price problems always have cost in the numerator; work rate problems always have time in the denominator.*

Closing (5 minutes)

- Rate problems, including constant rate problems, always count or measure something happening per unit of time. The time is always in the denominator.
- Sometimes the units of time in the denominators of the rates being compared are not the same. One must be converted to the other before calculating the unit rate of each.

Lesson Summary

- **Rate problems, including constant rate problems, always count or measure something happening per unit of time. The time is always in the denominator.**
- **Sometimes the units of time in the denominators of the rates being compared are not the same. One must be converted to the other before calculating the unit rate of each.**

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 23: Problem Solving Using Rates, Unit Rates, and Conversions

Exit Ticket

A sixth-grade math teacher can grade 25 homework assignments in 20 minutes.

Is he working at a faster rate or slower rate than grading 36 homework assignments in 30 minutes?



Exit Ticket Sample Solutions

A sixth-grade math teacher can grade 25 homework assignments in 20 minutes.

Is he working at a faster rate or slower rate than grading 36 homework assignments in 30 minutes?

$$\frac{25 \text{ assignments}}{20 \text{ minutes}} = \frac{1.25 \text{ assignments}}{1 \text{ minute}} \qquad \frac{36 \text{ assignments}}{30 \text{ minutes}} = \frac{1.2 \text{ assignments}}{1 \text{ minute}}$$

It is faster to grade 25 assignments in 20 minutes.

Problem Set Sample Solutions

1. Who walks at a faster rate: someone who walks 60 feet in 10 seconds or someone who walks 42 feet in 6 seconds?

$$\frac{60 \text{ feet}}{10 \text{ seconds}} = 6 \frac{\text{feet}}{\text{second}}$$

$$\frac{42 \text{ feet}}{6 \text{ seconds}} = 7 \frac{\text{feet}}{\text{second}} \rightarrow \text{Faster}$$

2. Who walks at a faster rate: someone who walks 60 feet in 10 seconds or someone who takes 5 seconds to walk 25 feet? Review the lesson summary before answering!

$$\frac{60 \text{ feet}}{10 \text{ seconds}} = 6 \frac{\text{feet}}{\text{second}} \rightarrow \text{Faster}$$

$$\frac{25 \text{ feet}}{5 \text{ seconds}} = 5 \frac{\text{feet}}{\text{second}}$$

3. Which parachute has a slower decent: a red parachute that falls 10 feet in 4 seconds or a blue parachute that falls 12 feet in 6 seconds?

$$\text{Red: } \frac{10 \text{ feet}}{4 \text{ seconds}} = 2.5 \frac{\text{feet}}{\text{second}}$$

$$\text{Blue: } \frac{12 \text{ feet}}{6 \text{ seconds}} = 2 \frac{\text{feet}}{\text{second}} \rightarrow \text{Slower}$$

4. During the winter of 2012–2013, Buffalo, New York received 22 inches of snow in 12 hours. Oswego, New York received 31 inches of snow over a 15-hour period. Which city had a heavier snowfall rate? Round your answers to the nearest hundredth.

$$\frac{22 \text{ inches}}{12 \text{ hours}} = 1.83 \frac{\text{inches}}{\text{hour}}$$

$$\frac{31 \text{ inches}}{15 \text{ hours}} = 2.07 \frac{\text{inches}}{\text{hour}} \rightarrow \text{Heavier}$$



5. A striped marlin can swim at a rate of 70 miles per hour. Is this a faster or slower rate than a sailfish, which takes 30 minutes to swim 40 miles?

Marlin: 70 mph → Slower

Sailfish:

$$\frac{40 \text{ miles}}{30 \text{ minutes}} \times \frac{60 \text{ minutes}}{1 \text{ hour}} = \frac{2400 \text{ miles}}{30 \text{ hour}} = 80 \text{ mph}$$

6. One math student, John, can solve 6 math problems in 20 minutes while another student, Juaquine, can solve the same 6 math problems at a rate of 1 problem per 4 minutes. Who works faster?

$$\frac{6 \text{ problems}}{20 \text{ minutes}} = 0.3 \frac{\text{problems}}{\text{minute}} \rightarrow \text{Faster}$$

$$\frac{1 \text{ problem}}{4 \text{ minutes}} = 0.25 \frac{\text{problems}}{\text{minute}}$$



Topic D

Percent

6.RP.A.3c

Focus Standard:	6.RP.A.3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.
Instructional Days:	6	
Lesson 24:	Percent and Rates per 100 (P) ¹	
Lesson 25:	A Fraction as a Percent (P)	
Lesson 26:	Percent of a Quantity (P)	
Lessons 27–29:	Solving Percent Problems (P, P, E)	

In the first lesson of Topic D, students are introduced to percent and then find percent of a quantity as a rate per 100. Students understand that N percent of a quantity has the same value as $\frac{N}{100}$ of that quantity. In Lessons 24 and 25, students express a fraction as a percent and find a percent of a quantity in real-world contexts. In Lessons 26–28, students learn to express ratio using the language of percent and to solve percent problems selecting from familiar representations, such as tape diagrams and double number line diagrams or combinations of both (**6.RP.A.3c**).

¹Lesson Structure Key: **P**-Problem Set Lesson, **M**-Modeling Cycle Lesson, **E**-Exploration Lesson, **S**-Socratic Lesson



Lesson 24: Percent and Rates per 100

Student Outcomes

- Students understand that percents are related to part-to-whole ratios and rates where the whole is 100.
- Students model percents and write a percent as a fraction over 100 or a decimal to the hundredths place.

Classwork

Example 1 (5 minutes)

Begin class with a discussion to gather prior knowledge and to show a relationship to real-world applications.

- Imagine that you are shopping. You want to purchase an item for \$100, but today it is 20% off. What does this mean?
 - *It means that \$20 out of every \$100 dollars will be subtracted from the total.*
- How can this situation be modeled?
 - *We could use a tape diagram that represents \$100 divided into ten sections of \$10. Two of the sections represent the discount, and eight of the sections represent the amount paid for the item. It could also be shown on a 10×10 grid, where 20 of the squares represent the discount, and 80 squares represent the amount paid.*
- How are percent problems related to the types of problems we have been working with involving ratios and rates?
 - *Answers will vary depending on prior knowledge. Some students may see that 20% of \$100 is \$20 off. Other students may see that we are trying to find part of a whole.*

Use the following website on a projector to visually explore percents in a 10×10 grid model.

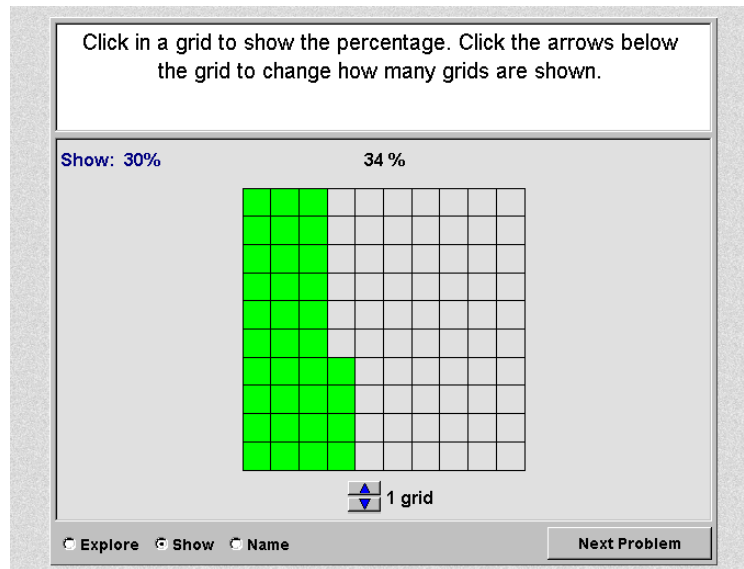
http://nlvm.usu.edu/en/nav/frames_asid_333_g_3_t_1.html?from_category_g_3_t_1.html

Click the explore button on the website to be able to show 20%. This provides students with the visual for making the connection that 20% means 20 out of 100.

- What does this grid show?
 - *100 blocks*
- How many are shaded in?
 - *20 blocks*
- How many are not shaded in?
 - *80 blocks*
- How can we use this model to help us think through 20% off of \$100?
 - *From the grid, I can see that when I save 20%, I am paying 80% of the original value.*

Now they can see that since each block represents \$1, they would be saving the 20 and spending the 80 when a \$100 item is 20% off the original price.

Here is an example of what the website will look like:



If time allows, add more grids to model percents greater than 100% so that students further build an understanding.

Exercises 1–2 (8 minutes)

Solve the following two exercises with student input in order to model the process of working with percents. Students will need coloring utensils in order to complete the remaining activities.

Exercise 1

B	B	G	G	G	G	G	P	P	P
B	B	G	G	G	G	G	P	P	P
B	B	G	G	G	G	G	P	P	P
B	B	G	G	G	G	G	P	P	P
B	B	G	G	G	G	G	P	P	P
B	B	B	G	G	G	G	P	P	P
B	B	B	G	G	G	G	P	P	P
B	B	B	G	G	G	G	P	P	P
B	B	B	G	G	G	G	P	P	P

Robb’s Fruit Farm consists of 100 acres on which three different types of apples grow. On 25 acres, the farm grows Empire apples. McIntosh apples grow on 30% of the farm. The remainder of the farm grows Fuji apples. Shade in the grid below to represent the portion of the farm each apple type occupies. Use a different color for each type of apple. Create a key to identify which color represents each type of apple.

	Color Key	Part-to-Whole Ratio
Empire	<u>Black (B)</u>	<u>25:100</u>
McIntosh	<u>Purple (P)</u>	<u>30:100</u>
Fuji	<u>Green (G)</u>	<u>45:100</u>



Exercise 2

The shaded portion of the grid below represents the portion of a granola bar remaining.

What percent does each block of granola bar represent?

1% of the granola bar

What percent of the granola bar remains?

80%

What other ways can we represent this percent?

$\frac{80}{100}$, $\frac{8}{10}$, $\frac{4}{5}$, $\frac{16}{20}$, $\frac{32}{40}$, $\frac{64}{80}$, 0.8

0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

In this example, the teacher can discuss how 0.01 is related to $\frac{1}{100}$ and 1%. There are many examples that could be used to represent this percent in the last question. Students should list several examples.

Exercises 3–6 (15 minutes)

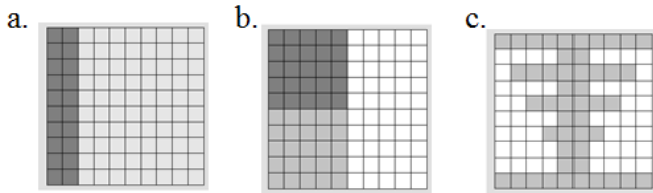
In predetermined pairs or groups, students solve the remaining problems.

Circulate around the room. Students may have varying answers for several questions in the practice. There is more than one possible answer for several questions to spark conversation between pairs or small groups.

For example, the second 10 × 10 grid used two different colors, so students could compare colored to total: light gray to total, dark gray to total. In addition, when they are asked to describe the different scenarios, some may use part-to-part ratios while others may use part-to-whole. This is a good time for a discussion on how part-to-part can lead to part-to-whole. In addition, it is important to remember that percents are out of a total 100, so consider asking students which form of the ratio is most helpful for getting a percent.

A percent is just another way to show the part-to-whole ratio for each picture.

Exercise 3



- a. For each figure shown, represent the gray shaded region as a percent of the whole figure. Write your answer as a decimal, fraction, and percent.

Picture (a)	Picture (b)	Picture (c)
<p>20% is shaded darker than the rest, 0.20, $\frac{20}{100}$</p>	<p>Answers will vary. Sample answer (colored compared to total): 50%, 0.50, $\frac{50}{100}$ (Students could also compare darker shading to total, lighter shading to total, light shading to darker shading, darker shading to lighter shading, etc.)</p>	<p>48%, 0.48, $\frac{48}{100}$</p>

- b. What ratio is being modeled in each picture?

Picture (a): Answers will vary. One example is the ratio of darker gray to the total is 20 to 100.

Picture (b): 50 to 100, or a correct answer for whichever description they chose.

Picture (c): The ratio of gray to the total is 48 to 100.



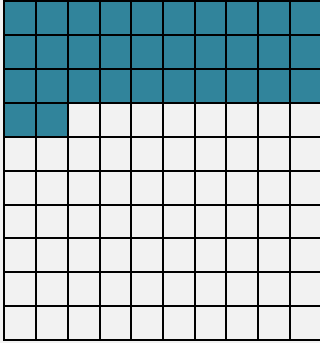
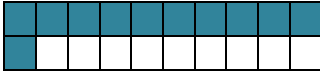


- c. How are the ratios and percents related?

Answers will vary.

Exercise 4

Each relationship below compares the shaded portion (or part) to the entire figure (the whole). Complete the table.

Percentage	Decimal	Fraction	Ratio	Model
6%	0.06	$\frac{6}{100}$	6:100	

60%	0.6	$\frac{60}{100}, \frac{6}{10}$	60:100	
600%	6	$\frac{600}{100} = \frac{6}{1}$	6:1	
32%	0.32	$\frac{32}{100}$	32:100	
55%	0.55	$\frac{55}{100}, \frac{11}{20}$	11:20	
90%	0.9	$\frac{9}{10}$	9:10	
70%	0.7	$\frac{7}{10}, \frac{70}{100}$	7:10	

Exercise 5

Mr. Brown shares with the class that 70% of the students got an A on the English vocabulary quiz. If Mr. Brown has 100 students, create a model to show how many of the students received an A on the quiz.



$$70\% \rightarrow \frac{70}{100} = \frac{7}{10}$$

What fraction of the students received an A on the quiz?

$$\frac{7}{10} \text{ or } \frac{70}{100}$$

How could we represent this amount using a decimal?

0.7 or 0.70

How are the decimal, the fraction, and the percent all related?

The decimal, fraction, and percent all show 70 out of 100.

Exercise 6

Marty owns a lawn mowing service. His company, which consists of three employees, has 100 lawns to mow this week. Use the 10 × 10 grid to model how the work could have been distributed between the three employees.

Students choose how they want to separate the workload. The answers will vary. Below is a sample response.

G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B
G	G	G	P	P	P	P	P	B	B

Worker	Percentage	Fraction	Decimal
Employee 1 (G)	30%	$\frac{30}{100}$	0.30
Employee 2 (P)	50%	$\frac{50}{100}$	0.50
Employee 3 (B)	20%	$\frac{20}{100}$	0.20

Closing (12 minutes)

Students present their work. Each group presents a problem or a part of a problem in order for all groups to respond.

Students complete this closing activity.

- What are three things you learned about in this lesson?
- Share two ways that you can write 2%.
- What is one thing that you still want to know about from the lesson?

Lesson Summary

One percent is the number $\frac{1}{100}$ and is written as 1%.

Percentages can be used as rates. For example, 30% of a quantity means $\frac{30}{100}$ times the quantity.

We can create models of percents. One example would be to shade a 10×10 grid. Each square in a 10×10 grid represents 1% or 0.01.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 24: Percent and Rates per 100

Exit Ticket

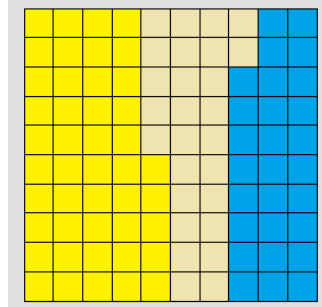
One hundred offices need to be painted. The workers choose between yellow, blue, or beige paint. They decide that 45% of the offices will be painted yellow; 28% will be painted blue, and the remaining offices will be painted beige. Create a model that shows the percent of offices that will be painted each color. Write the amounts as decimals and fractions.

Color	%	Fraction	Decimal
Yellow			
Blue			
Beige			

Exit Ticket Sample Solutions

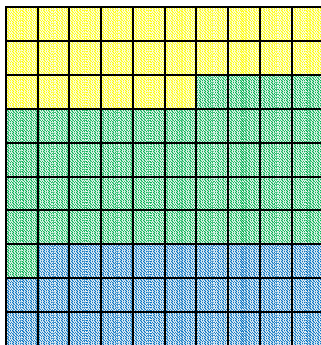
One hundred offices need to be painted. The workers choose between yellow, blue, or beige paint. They decide that 45% of the offices will be painted yellow; 28% will be painted blue, and the remaining offices will be painted beige. Create a model that shows the percent of offices that will be painted each color. Write the amounts as decimals and fractions.

Color	%	Fraction	Decimal
Yellow	45	$\frac{45}{100}$	0.45
Blue	28	$\frac{28}{100}$	0.28
Beige	27	$\frac{27}{100}$	0.27



Problem Set Sample Solutions

1. Marissa just bought 100 acres of land. She wants to grow apple, peach, and cherry trees on her land. Color the model to show how the acres could be distributed for each type of tree. Using your model, complete the table.



Tree	Percentage	Fraction	Decimal
Apple	26%	$\frac{26}{100}$	0.26
Peach	45%	$\frac{45}{100}$	0.45
Cherry	29%	$\frac{29}{100}$	0.29

Apple–Yellow, Peach– Green, Cherry–Blue

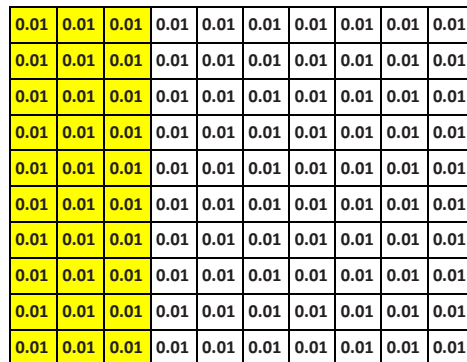
2. After renovations on Kim’s bedroom, only 30 percent of one wall is left without any décor. Shade the grid below to represent the space that is left to decorate.

a. What does each block represent?

Each block represents $\frac{1}{100}$ of the total wall.

b. What percent of this wall has been decorated?

30%





Lesson 25: A Fraction as a Percent

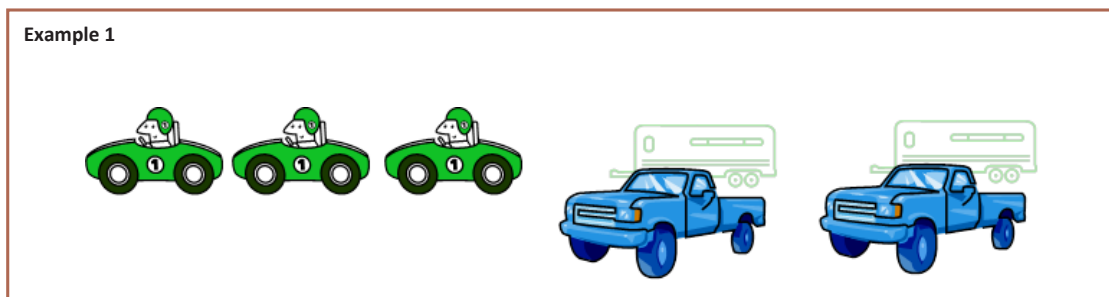
Student Outcomes

- Students write a fraction and a decimal as a percent of a whole quantity and write a percent of a whole quantity as a fraction or decimal.

Classwork

Example 1 (5 minutes)

Have students discuss the image with a partner. First, students should create two ratios that describe the images. Then, students should use the ratios to help them discuss and work through the two claims. Students place answers in the box provided on the student pages.



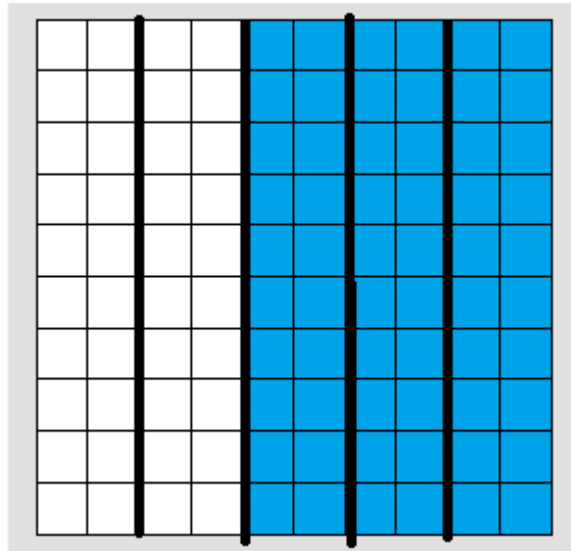
- Create two ratios that accurately describe the picture.
 - Part-to-Whole: Car to Whole 3:5, 3 to 5 or Truck to Whole 2:5, 2 to 5*

Note that some students may write part-to-part ratios. When the class comes back together, this could be a good time to discuss why a part-to-whole ratio is more useful when comparing statements that include percents. Students may need to be reminded that percents are a form of a part-to-whole comparison where the whole is 100.

Sam says 50% of the vehicles are cars. Give three different reasons or models that prove or disprove Sam's statement. Models can include tape diagrams, 10×10 grids, double number lines, etc.

- $\frac{3}{5} = \frac{60}{100} \rightarrow 60\% \text{ are cars.}$
-
- $50\% = \frac{50}{100} = \frac{1}{2}$ $5 \times \frac{1}{2} = \frac{5}{2} = 2\frac{1}{2}$ *There are more than $2\frac{1}{2}$ cars.*

Another example of a possible model used is a 10×10 grid. It can be used to visually show students that 3 out of 5 is not the same as 50 out of 100.



At this point, students are given a chance to share some of their ideas on percent. Help to mold the discussion so students see that percentages are based on part-to-whole ratios.

- 50% means 50 out of 100, which is equivalent to 1 out of 2 that would have to be cars. In other words, half of the vehicles would have to be cars.

During the discussion, explore the three following questions:

How is the fraction of cars related to the percent?
 $\frac{3}{5}$ is equal to $\frac{60}{100}$. Since percents are out of 100, the two are equivalent.

Use a model to prove that the fraction and percent are equivalent.

A number line from 0 to 100 with major ticks every 20 units. A fraction bar below it is divided into 5 equal parts, labeled 0 to 5. The number 60 on the number line and the number 3 on the fraction bar are circled in blue.

$\frac{3}{5} = 60\%$

What other fractions or decimals also represent 60%?
 $\frac{3}{5} = \frac{6}{10} = \frac{9}{15} = \frac{12}{20} = \frac{15}{25} = 0.6$

Example 2 (10 minutes)

Example 2

A survey was taken that asked participants whether or not they were happy with their job. An overall score was given. 300 of the participants were unhappy while 700 of the participants were happy with their job. Give a part-to-whole fraction for comparing happy participants to the whole. Then write a part-to-whole fraction of the unhappy participants to the whole. What percent were happy with their job, and what percent were unhappy with their job?

Happy	$\frac{700}{1,000}$	70%	Unhappy	$\frac{300}{1,000}$	30%
	<hr style="width: 80%; margin: 0 auto;"/>	<hr style="width: 80%; margin: 0 auto;"/>		<hr style="width: 80%; margin: 0 auto;"/>	<hr style="width: 80%; margin: 0 auto;"/>
	Fraction	Percent		Fraction	Percent

Create a model to justify your answer.

Have students write a fraction to represent the number of people that are happy with their job compared to the total.

$$\frac{\text{number of people who said they were happy(part)}}{\text{total number of people questioned (whole)}} = \frac{700}{1000} = \frac{70}{100} = 70\%$$

Students should also see that 30% were unhappy.

- Why is it helpful to write this fraction with a denominator of 100?
 - *Percent refers to the number per 100.*
- How would we represent this as a decimal?
 - $0.70 = 0.7$
- How can you model this question using a double number line?

Students can simply give a verbal description of the number line because it is so similar to the tape diagram.

The same reasoning could be used to create double number line graphs with percents on one line and the values being used on the other.

The two questions are meant to help show students that fractions with denominators other than 100 can also represent a percent. Before letting students work on the exercises, it is important to review how to identify the percent that a fraction represents.

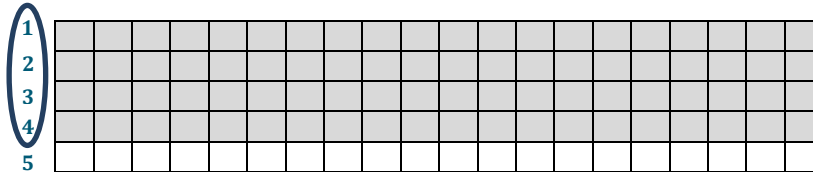
- We can scale up or scale down to get 100 as a denominator.
- What if the denominator is not a multiple or a factor of 100? What would we do now? For example, what if I ate $\frac{1}{8}$ of a pizza and wanted to know what percent of the pizza I ate. How would I calculate this?
 - *I can change a fraction to a decimal by dividing.*

Exercises (20 minutes): Group/Partner/Independent Practice

Students work on the practice problems where they are asked to convert from fraction to decimal to percent. In addition, they are asked to use models to help prove some of their answers. Consider having 10×10 grids ready for some students to use for these questions. A reproducible has been provided for you.

Exercise 1

Renita claims that a score of 80% means that she answered $\frac{4}{5}$ of the problems correctly. She drew the following picture to support her claim.:



Is Renita correct?

Yes

Why or why not?

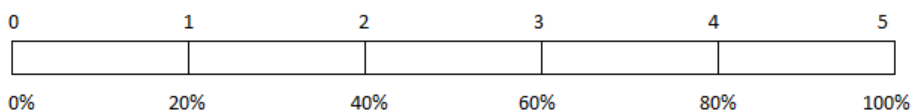
$$\frac{4}{5} = \frac{40}{50} = \frac{80}{100} \rightarrow 80\%$$

How could you change Renita’s picture to make it easier for Renita to see why she is correct or incorrect?

I could change her picture so that there is a percent scale down the right side showing 20%, 40%, etc. I could also change the picture so that there are ten strips with eight shaded.

Exercise 2

Use the diagram to answer the following questions.



80% is what fraction of the whole quantity?

$$\frac{4}{5}$$

$\frac{1}{5}$ is what percent of the whole quantity?

20%

50% is what fraction of the whole quantity?

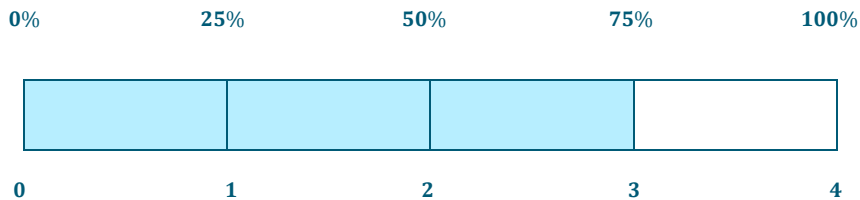
$$2\frac{1}{2} \text{ or } \frac{2.5}{5} = \frac{25}{50}$$

1 is what percent of the whole quantity?

$$1 = \frac{5}{5} \quad \text{This would be 100\%.}$$

Exercise 3

Maria completed $\frac{3}{4}$ of her workday. Create a model that represents what percent of the workday Maria has worked.



She has completed 75% of the workday.

What percent of her workday does she have left?

25%

How does your model prove that your answer is correct?

My model shows that $\frac{3}{4} = 75\%$ and that the $\frac{1}{4}$ she has left is the same as 25%.

Exercise 4

Matthew completed $\frac{5}{8}$ of his workday. What decimal would also describe the portion of the workday he has finished?

$$5 \div 8 = 0.625 \text{ or } \frac{5}{8} \text{ of } 100\% = 62.5\%$$

How can you use the decimal to get the percent of the workday Matthew has completed?

$\frac{5}{8}$ is the same as 0.625. This is 625 thousandths or $\frac{625}{1,000}$. If I divide both the numerator and denominator by ten, I can see that $\frac{625}{1,000} = \frac{62.5}{100}$.

Before students solve Exercise 3, have students go back to the previous examples and write the percent and fraction as a decimal. Then have them work with fractions, like $\frac{5}{8}$.

Some students may have difficulty writing a decimal given as thousandths as a fraction.

Exercise 5

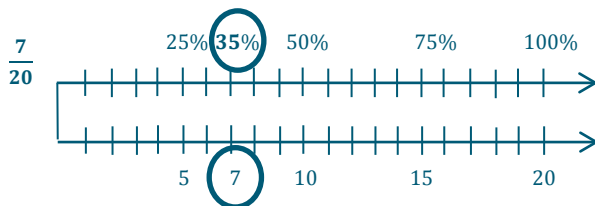
Complete the conversions from fraction to decimal to percent.

Fraction	Decimal	Percent
$\frac{1}{8}$	0.125	12.5%
$\frac{7}{20}$	0.35	35%
$\frac{84.5}{100} = \frac{845}{1000}$	0.845	84.5%
$\frac{32.5}{100} = \frac{325}{1000}$	0.325	32.5%
$\frac{2}{25}$	0.08	8%

Exercise 6

Choose one of the rows from the conversion table in Exercise 5, and use models to prove your answers. (Models could include a 10×10 grid, a tape diagram, a double number line, etc.)

Answers will vary. One possible solution is shown:



$$\frac{7}{20} = \frac{35}{100} = 0.35 \rightarrow 35\%$$

Closing (5 minutes)

Choose different pairs or small groups to post diagrams and explain how the diagram helped them to see the relationship between the fractions, percents, and decimals. If possible, it may be helpful to choose groups that have used two different models and compare the two. Students could draw on a blank overhead or have pre-made grids and tape diagrams that they can fill in on an interactive white board or a document camera.

Lesson Summary

Fractions, decimals, and percentages are all related.

To change a fraction to a percentage, you can scale up or scale down so that 100 is in the denominator.

Example:

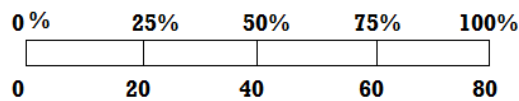
$$\frac{9}{20} = \frac{9 \times 5}{20 \times 5} = \frac{45}{100} = 45\%$$

There may be times when it is more beneficial to convert a fraction to a percent by first writing the fraction in decimal form.

Example:

$$\frac{5}{8} = 0.625 = 62.5 \text{ hundredths} = 62.5\%$$

Models, like tape diagrams and number lines, can also be used to model the relationships.



The diagram shows that $\frac{20}{80} = 25\%$.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 25: A Fraction as a Percent

Exit Ticket

Show all the necessary work to support your answer.

1. Convert 0.3 to a fraction and a percent.

2. Convert 9% to a fraction and a decimal.

3. Convert $\frac{3}{8}$ to a decimal and a percent.

Exit Ticket Sample Solutions

Show all the necessary work to support your answer.

1. Convert 0.3 to a fraction and a percent.

$$\frac{3}{10} = \frac{30}{100}, 30\%$$

2. Convert 9% to a fraction and a decimal.

$$\frac{9}{100}, 0.09$$

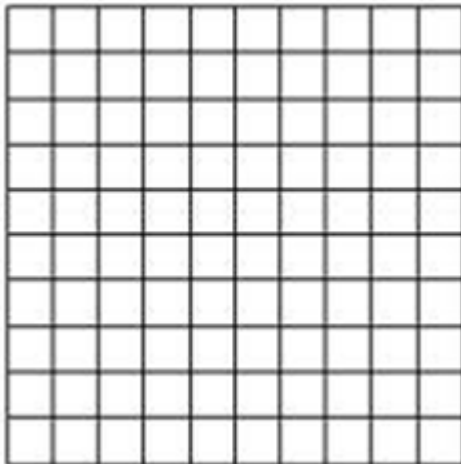
3. Convert $\frac{3}{8}$ to a decimal and a percent.

$$0.375 = \frac{375}{1000} = \frac{37.5}{100} = 37.5\%$$

Problem Set Sample Solutions

1. Use the 10×10 grid to express the fraction $\frac{11}{20}$ as a percent.

Students should shade 55 of the squares in the grid. They might divide it into 5 sections of 20 each and shade in 11 of the 20.



2. Use a tape diagram to relate the fraction $\frac{11}{20}$ to a percent.

Answers will vary.



3. How are the diagrams related?

Both show that $\frac{11}{20}$ is the same as $\frac{55}{100}$.

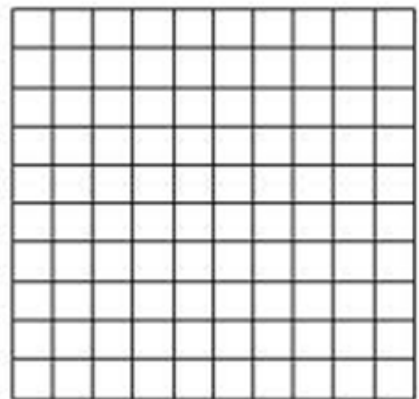
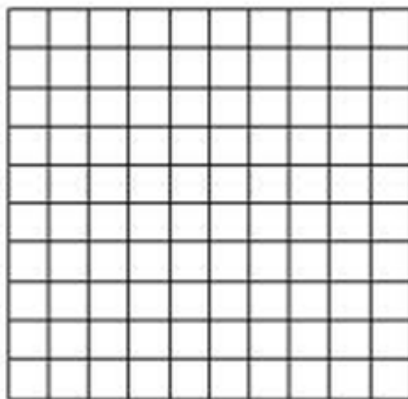
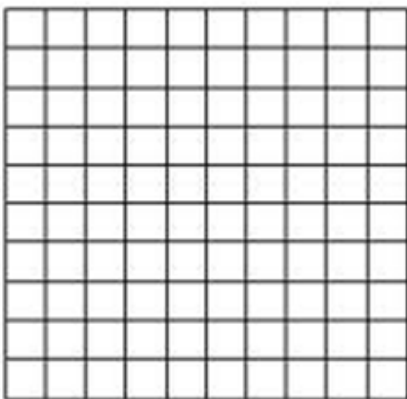
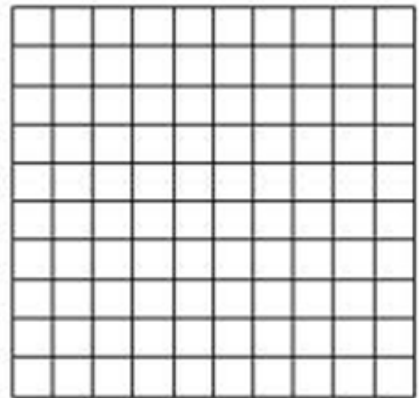
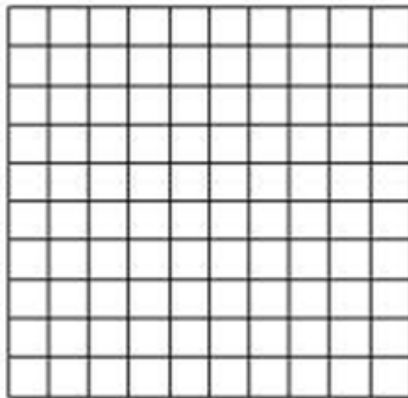
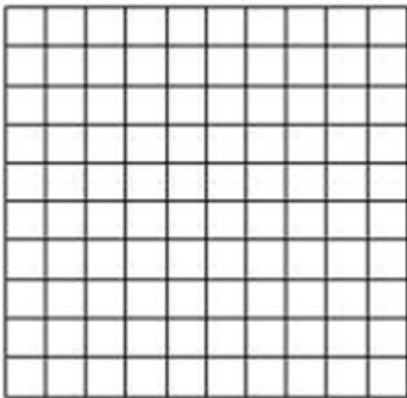
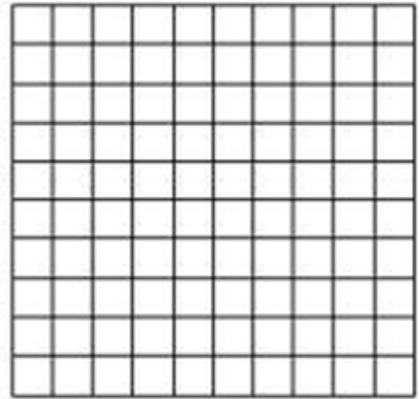
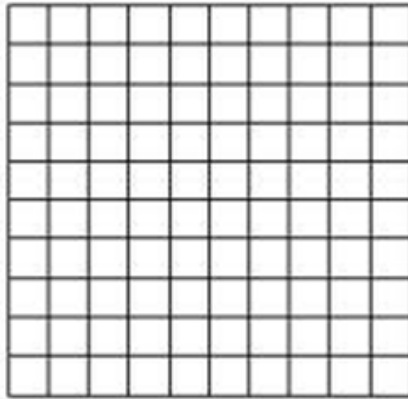
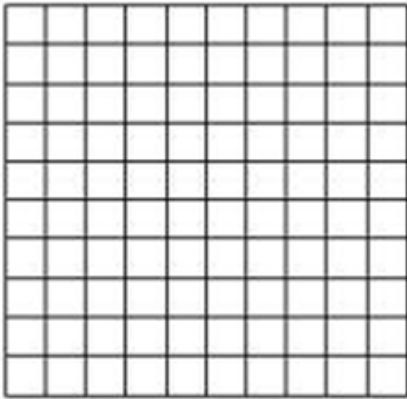
4. What decimal is also related to the fraction?

0.55

5. Which diagram is the most helpful for converting the fraction to a decimal? _____ Explain why.

Answers will vary according to student preferences.

10 × 10 Grid Reproducible





Lesson 26: Percent of a Quantity

Student Outcomes

- Students find the percent of a quantity. Given a part and the percent, students solve problems involving finding the whole.

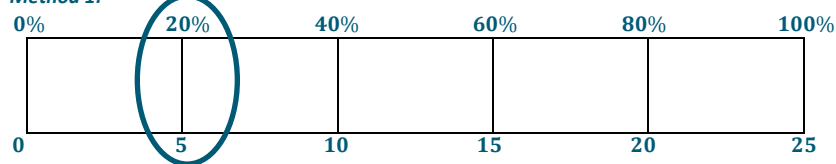
Classwork

Example 1 (5 minutes)

Example 1

Five of the 25 girls on Alden Middle School's soccer team are seventh-grade students. Find the percentage of seventh graders on the team. Show two different ways of solving for the answer. One of the methods must include a diagram or picture model.

Method 1:



Method 2:

$$\frac{5}{25} = \frac{1}{5} = \frac{20}{100} = 20\%$$

Students take time to make their own diagram or model and discuss with a partner. Students review the work they completed in Lesson 25. If they make a tape diagram, they begin by deciding to divide the tape diagram into 5 equal rectangles. Each rectangle represents 5 girls. From there they divide the 100% into 5 equal sections.

If time permits, students share the model they chose and explain why it did or did not help them solve the problem.

Students need to come to the conclusion that $\frac{5}{25} = \frac{20}{100}$, which is the same as 20%.

Note: Students who are struggling may need help figuring out which model to use and how to divide up the diagram. Help them think through the different options. Would it make sense to count by 5's, 10's, 20's, 25's, etc.?

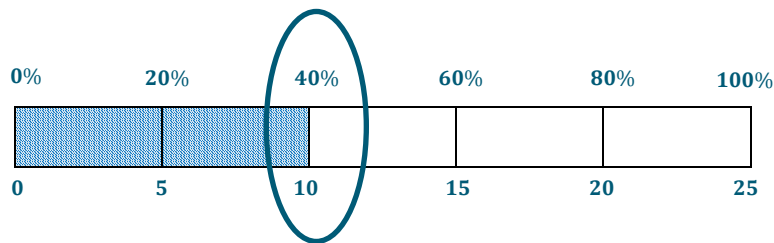
Example 2 (5 minutes)

Example 2

Of the 25 girls on the Alden Middle School soccer team, 40% also play on a travel team. How many of the girls on the middle school team also play on a travel team?

One method: $40\% = \frac{40}{100} = \frac{10}{25}$. Therefore, 10 of the 25 girls are also on the travel team.

Another method: Use of tape diagram shown below.



10 of the girls also play on a travel team.

Example 3 (5 minutes)

Example 3

The Alden Middle School girls' soccer team won 80% of its games this season. If the team won 12 games, how many games did it play? Solve the problem using at least two different methods.

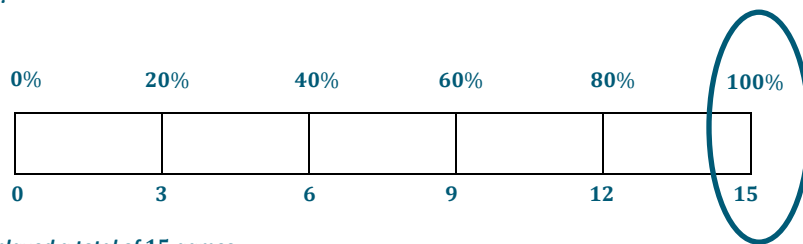
Method 1:

$$80\% = \frac{80}{100} = \frac{8}{10} = \frac{4}{5}$$

$$\frac{4 \times 3 \rightarrow 12}{5 \times 3 \rightarrow 15}$$

15 total games

Method 2:



The girls played a total of 15 games.

Exercises (20 minutes)

At this time, the students break out into pairs or small groups to solve the problems.

Exercises

1. There are 60 animal exhibits at the local zoo. What percent of the zoo’s exhibits does each animal class represent?

Exhibits by Animal Class	Number of Exhibits	Percent of the Total Number of Exhibits
Mammals	30	$\frac{30}{60} = \frac{5}{10} = \frac{50}{100} = 50\%$
Reptiles & Amphibians	15	$\frac{15}{60} = \frac{3}{12} = \frac{1}{4} = \frac{25}{100} = 25\%$
Fish & Insects	12	$\frac{12}{60} = \frac{2}{10} = \frac{20}{100} = 20\%$
Birds	3	$\frac{3}{60} = \frac{1}{20} = \frac{5}{100} = 5\%$

2. A sweater is regularly \$32. It is 25% off the original price this week.

- a. Would the amount the shopper saved be considered the part, whole, or percent?

It would be the part because the \$32 is the whole amount of the sweater, and we want to know the part that was saved.

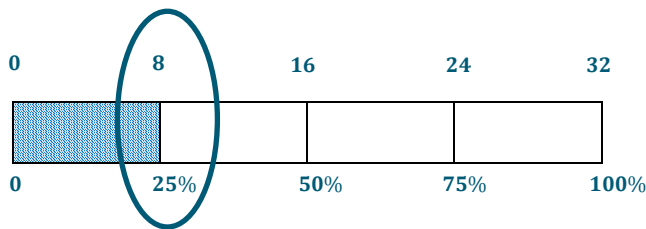
- b. How much would a shopper save by buying the sweater this week? Show two methods for finding your answer.

Method 1:

$$25\% = \frac{25}{100} = \frac{1}{4}$$

$$32 \times \frac{1}{4} = \$8 \text{ saved}$$

Method 2:



The shopper would save \$8.

3. A pair of jeans was 30% off the original price. The sale resulted in a \$24 discount.

- a. Is the original price of the jeans considered the whole, part, or percent?

The original price is the whole.

b. What was the original cost of the jeans before the sale? Show two methods for finding your answer.

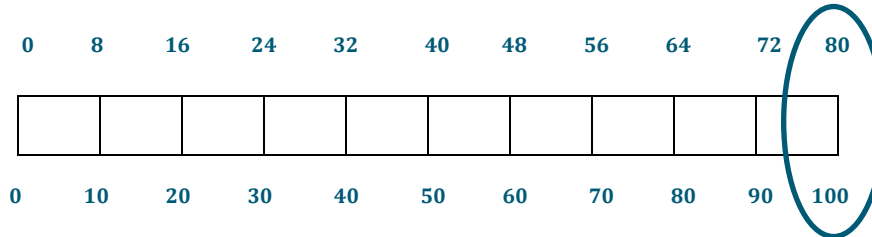
Method 1:

$$30\% = \frac{30}{100} = \frac{3}{10}$$

$$\frac{3 \times 8}{10 \times 8} = \frac{24}{80}$$

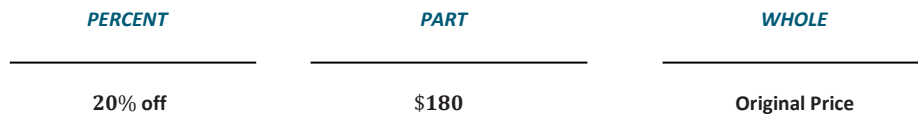
The original cost was \$80.

Method 2:



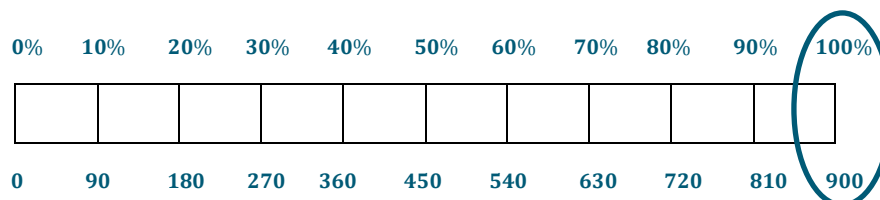
4. Purchasing a TV that is 20% off will save \$180.

a. Name the different parts with the words: PART, WHOLE, PERCENT.



b. What was the original price of the TV? Show two methods for finding your answer.

Method 1:



Method 2:

$$20\% = \frac{20}{100}$$

$$\frac{20 \times 9}{100 \times 9} = \frac{180}{900}$$

The original price was \$900.

**Closing (5 minutes)**

- Describe additional questions.
- Discuss the main differences in solving strategies.
- Were there times when you preferred to use one method over another method?
- How did the steps change when you were given the part instead of the total?

Lesson Summary

Models and diagrams can be used to solve percent problems. Tape diagrams, 10×10 grids, double number line diagrams, and others can be used in a similar way to using them with ratios to find the percent, the part, or the whole.

Exit Ticket (5 minutes)

Exit Ticket Sample Solutions

1. Find 40% of 60 using two different strategies, one of which must include a pictorial model or diagram.

$40\% \text{ of } 60 \quad 40\% = \frac{40}{100} = \frac{4}{10} = \frac{24}{60} \quad 40\% \text{ of } 60 \text{ is } 24.$

0 6 12 18 24 30 36 42 48 54 60
0 10 20 30 40 50 60 70 80 90 100

2. 15% of an amount is 30. Calculate the whole amount using two different strategies, one of which must include a pictorial model.

$15\% = \frac{15}{100} = \frac{30}{200}$

The whole quantity is 200.

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

Problem Set Sample Solutions

1. What is 15% of 60? Create a model to prove your answer.

9

2. If 40% of a number is 56, what was the original number?

140

3. In a 10×10 grid that represents 800, one square represents 8.
Use the grids below to represent 17% and 83% of 800.

17%

17% of 800 is 136.

83%

83% of 800 is 664.



Lesson 27: Solving Percent Problems

Student Outcomes

- Students find the percent of a quantity. Given a part and the percent, students solve problems involving finding the whole.

Classwork

Example (10 minutes)

Example

Solve the following three problems.

Write the words PERCENT, WHOLE, or PART under each problem to show which piece you were solving for.

$60\% \text{ of } 300 = \underline{\quad 180 \quad}$	$60\% \text{ of } \underline{\quad 500 \quad} = 300$	$60 \text{ out of } 300 = \underline{\quad 20 \quad}\%$
$\frac{60 \times 3}{100 \times 3} = \frac{\underline{180}}{300}$	$\frac{60 \times 5}{100 \times 5} = \frac{\underline{300}}{500}$	$\frac{60 \div 3}{300 \div 3} = \frac{\underline{20}}{100}$
PART	WHOLE	PERCENT

How did your solving method differ with each problem?

Solutions will vary. A possible answer may include: When solving for the part, I need to find the missing number in the numerator. When solving for the whole, I solve for the denominator. When I solve for the percent, I need to find the numerator when the denominator is 100.

- What are you trying to find in each example?
 - Part, whole, percent
- How are the problems different from each other?
 - Answers will vary.
- How are the problems alike?
 - Answers will vary.

Take time to discuss the clues in each problem including the placement of the word “of.” The word “of” lets students know which piece of information is the whole amount compared to the part. In the first example, 60% of 300 tells us that we are looking for part of 300. Therefore, 300 is the whole. In the second example where 60% of 500 is 300, 300 is the part, and 500 is the whole. In the third example, 60 out of 300 tells us that now, 60 is the part, and 300 is the whole. Structure the conversation around the part-whole relationship.



- In the first question, what is 60% of 300?
 - *Students should understand that $\frac{60}{100}$ is the same ratio as $\frac{\text{unknown number}}{300}$ to determine an answer of 180.*
- In this case, is 180 the part or the whole?
 - *180 is the part. It is part of 300.*
- In the second question, we are given 60% of some value equals 300 $\rightarrow \frac{60}{100} = \frac{300}{?}$. What is that value?
 - 500
- In this case, is 500 the part or the whole? What about 300? Is that a part or the whole?
 - *500 is the whole, and 300 is the part.*
- In the third question, we are asked, 60 out of 300 equals what percent $\rightarrow \frac{60}{300} = \frac{?}{100}$. What percent is that?
 - *The percent is 20%.*
- In this case, is 300 the part or the whole?
 - *300 is the whole.*

Exercise (20 minutes)

At this time, students break out into pairs or small groups to solve the problem.

Exercise

Use models, such as 10×10 grids, ratio tables, tape diagrams, or double number line diagrams, to solve the following situation.

Priya is doing her back-to-school shopping. Calculate all of the missing values in the table below, rounding to the nearest penny, and calculate the total amount Priya will spend on her outfit after she receives the indicated discounts.

	Shirt (25% discount)	Pants (30% discount)	Shoes (15% discount)	Necklace (10% discount)	Sweater (20% discount)
Original Price	\$44	\$50	\$60	\$20	\$35
Amount of Discount	\$11	\$15	\$9	\$2	\$7



What is the total cost of Priya's outfit?

Shirt $25\% = \frac{25}{100} = \frac{1}{4} = \frac{11}{44}$ *The discount is \$11. The cost of the shirt is \$33 because* $\$44 - \$11 = \$33$.

Pants $30\% = \frac{30}{100} = \frac{15}{50}$ *The original price is \$50. The price of the pants is \$35 because* $\$50 - \$15 = \$35$.

Shoes $15\% = \frac{15}{100} = \frac{3}{20} = \frac{9}{60}$ *The original price is \$60. The cost of the shoes is \$51 because* $\$60 - \$9 = \$51$.

Necklace $10\% = \frac{1}{10} = \frac{2}{20}$ *The discount is \$2. The cost of the necklace is \$18 because* $\$20 - \$2 = \$18$.

Sweater $20\% = \frac{20}{100} = \frac{1}{5} = \frac{7}{35}$ *The original price is \$35. The cost of the sweater is \$28 because* $\$35 - \$7 = \$28$.

The total outfit would cost the following: $\$33 + \$35 + \$51 + \$18 + \$28 = \165 .

Closing (10 minutes)

Give students time to share samples of how they solved the problem and describe the methods they chose to use when solving.

Lesson Summary

Percent problems include the part, whole, and percent. When one of these values is missing, we can use tables, diagrams, and models to solve for the missing number.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 27: Solving Percent Problems

Exit Ticket

Jane paid \$40 for an item after she received a 20% discount. Jane's friend says this means that the original price of the item was \$48.

a. How do you think Jane's friend arrived at this amount?

b. Is her friend correct? Why or why not?



Exit Ticket Sample Solutions

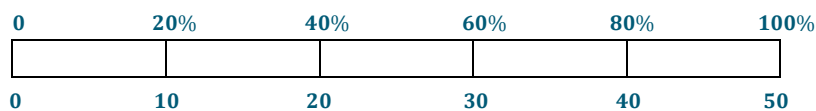
Jane paid \$40 for an item after she received a 20% discount. Jane's friend says this means that the original price of the item was \$48.

- a. How do you think Jane's friend arrived at this amount?

Jane's friend found that 20% of 40 is 8. Then she added \$8 to the sale price: $40 + 8 = 48$. Then she determined that the original amount was \$48.

- b. Is her friend correct? Why or why not?

Jane's friend was incorrect. Because Jane saved 20%, she paid 80% of the original amount, so that means that 40 is 80% of the original amount.



The original amount of the item was \$50.

Problem Set Sample Solutions

1. Mr. Yoshi has 75 papers. He graded 60 papers, and he had a student teacher grade the rest. What percent of the papers did each person grade?

Mr. Yoshi graded 80% of the papers, and the student teacher graded 20%.

2. Mrs. Bennett has graded 20% of her 150 students' papers. How many papers does she still need to finish grading?

Mrs. Bennett has graded 30 papers. $150 - 30 = 120$. Mrs. Bennett has 120 papers left to grade.



Lesson 28: Solving Percent Problems

Student Outcomes

- Given a part and the percent, students find the percent of a quantity and solve problems involving finding the whole.

Classwork

Example (5 minutes)

Read the questions from the example one by one.

Example

If an item is discounted 20%, the sale price is what percent of the original price?

$$100 - 20 = 80$$

80%

If the original price of the item is \$400, what is the dollar amount of the discount?

$$20\% = \frac{20}{100} = \frac{2}{10}$$

$$400 \times \frac{2}{10} = \frac{800}{10} = \$80$$

\$80 discount

How much is the sale price?

$$80\% = \frac{80}{100} = \frac{8}{10}$$

$$400 \times \frac{8}{10} = \frac{3200}{10} = \$320, \text{ or } 400 - 80 = \$320$$

\$320 sale price

- What are some different ways that we can solve this question?
 - Answers will vary. Some students may draw diagrams that they can share with the class. Others may have found the value by finding equivalent fractions or by multiplying a quantity by the percent written as a fraction.

Be sure to discuss different models that could be used.

Exercise (20 minutes)

Have students work in pairs or small groups to solve the problems. Students are given the sale price and the percent that was saved. They need to come up with the original price.

Students should create models in order to prove that their answers are correct.

Exercise

The following items were bought on sale. Complete the missing information in the table.

Item	Original Price	Sale Price	Amount of Discount	Percent Saved	Percent Paid
Television	\$1000	\$800	\$200	20%	80%
Sneakers	\$80	\$60	\$20	25%	75%
Video Games	\$60	\$54	\$6	10%	90%
MP3 Player	\$86	\$51.60	\$34.40	40%	60%
Book	\$14.00	\$11.20	\$2.80	20%	80%
Snack Bar	\$2.00	\$1.70	\$0.30	15%	85%

Closing (10 minutes)

- Have students showcase some of the models used to solve the problems. One possible way to showcase the work, if time allows, would be to hang the work on the walls and have students do a gallery walk to view the diagrams. Ask students how they could check their work.
 - *The answers may vary according to which values are given and which values are missing. Students may mention that the discount and the sale price should add to be the original amount. The percents should add to 100%. They could solve the problem using the answer to see if they can work back to a given amount.*

Lesson Summary

Percent problems include the part, whole, and percent. When one of these values is missing, we can use tables, diagrams, and models to solve for the missing number.

Exit Ticket (10 minutes)



Name _____

Date _____

Lesson 28: Solving Percent Problems

Exit Ticket

1. Write one problem using a dollar amount of \$420 and a percent of 40%. Provide the solution to your problem.

2. The sale price of an item is \$160 after a 20% discount. What was the original price of the item?

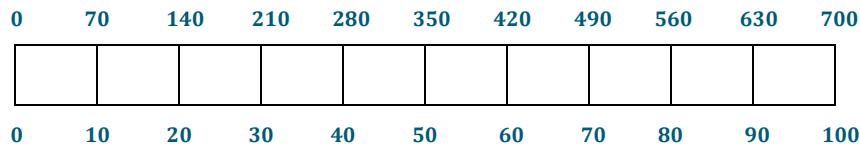
Exit Ticket Sample Solutions

1. Write one problem using a dollar amount of \$420 and a percent of 40%. Provide the solution to your problem.

Answers will vary.

Problems that include \$420 as the sale price should include \$700 as the original. Because 40% is saved, 60% is paid of the original. Therefore, the original price is \$700.

Problems that include \$420 as the original price and a 40% discount should include \$252 as a sale price. Below is an example of a tape diagram that could be included in the solution.



2. The sale price of an item is \$160 after a 20% off discount. What was the original price of the item?

Because the discount was 20%, the purchase price was 80% of the original.

$$80\% = \frac{80}{100} = \frac{160}{200}$$

The original price was \$200.

Problem Set Sample Solutions

1. The Sparkling House Cleaning Company has cleaned 28 houses this week. If this number represents 40% of the total number of houses the company is contracted to clean, how many total houses will the company clean by the end of the week?

70 houses

2. Joshua delivered 30 hives to the local fruit farm. If the farmer has paid to use 5% of the total number of Joshua's hives, how many hives does Joshua have in all?

600 hives



Lesson 29: Solving Percent Problems

Student Outcomes

- Students find the percent of a quantity.
- Given a part and the percent, students solve problems involving finding the whole.

Classwork

Exploratory Challenges (25 minutes): Group/Partner

Students explore what it means to have 10%. Students recognize the equivalence between 10%, $\frac{10}{100}$, and $\frac{1}{10}$ and use this relationship to quickly calculate 10% of different quantities. Being able to calculate 10% of a quantity can be an efficient tool or strategy when calculating other percents.

Exploratory Challenge 1

Claim: To find 10% of a number, all you need to do is move the decimal to the left once.

Use at least one model to solve each problem (e.g., tape diagram, table, double number line diagram, 10×10 grid).

- a. Make a prediction. Do you think the claim is true or false? _____ Explain why.

Answers will vary. One could think the claim is true because 10% as a fraction is $\frac{1}{10}$. The same thing happens when one divides by 10 or multiplies by $\frac{1}{10}$. A student may think the claim is false because it depends on what whole amount represents the number from which the percentage is taken.

- b. Determine 10% of 300. 30

$$300 \times \frac{1}{10} = \frac{300}{10} = 30$$

- c. Find 10% of 80. 8

$$80 \times \frac{1}{10} = \frac{80}{10} = 8$$

- d. Determine 10% of 64. 6.4

$$64 \times \frac{1}{10} = 6.4$$

- e. Find 10% of 5. $\frac{1}{2}$

$$5 \times \frac{1}{10} = \frac{5}{10} = \frac{1}{2}$$

- f. 10% of 480 is 48.

- g. 10% of 60 is 6.

$$6 \times 10 = 60$$

48	48	48	48	48	48	48	48	48	48	48
----	----	----	----	----	----	----	----	----	----	----

$$48 \times 10 = 480$$

- h. Gary read 34 pages of a 340 pages book. What percent did he read?

$$\frac{34 \div 34}{340 \div 34} = \frac{1}{10} = \frac{10}{100} = 10\%$$

- i. Micah read 16 pages of his book. If this is 10% of the book, how many pages are in the book?

$$\frac{10}{100} = \frac{1 \times 16}{10 \times 16} = \frac{16}{160}$$

There are 160 pages in the book.

- j. Using the solutions to the problems above, what conclusions can you make about the claim?

The claim is true. When I find 10% of a number, I am really finding $\frac{1}{10}$ of the amount or dividing by 10, which is the same as what occurred when I moved the decimal point in the number one place to the left.

- Using the solutions to the problems above, what conclusions can you make about the claim?
 - *Answers will vary. However, students are required to share what is mathematically happening when the decimal is moved over once to help make connections to why it works. Students may relate back to using place value and regrouping with the concept of decimals.*

Students read a claim that two separate discounts give the same results as the sum of the two discounts taken off the original price at the same time. Students need to conclude that they are not the same because the second discount is being taken off a new amount not the original price.

Exploratory Challenge 2

Claim: If an item is already on sale, and then there is another discount taken off the sale price, this is the same as taking the sum of the two discounts off the original price.

Use at least one model to solve each problem (e.g., tape diagram, table, double number line diagram, 10×10 grid).

- a. Make a prediction. Do you think the claim is true or false? _____ Explain.

The answer is false. They will be different because when two discounts are taken off, the second discount is taken off a new amount.

- b. Sam purchased 3 games for \$140 after a discount of 30%. What was the original price?



Sale price: \$140

Discount: \$60

\$200 is the original price.

- c. If Sam had used a 20% off coupon and opened a frequent shopper discount membership to save 10%, would the games still have a total of \$140?

$$20\% = \frac{20}{100} = \frac{2}{10}$$

$$\$200 \times \frac{2}{10} = \frac{\$400}{10} = \$40 \text{ saved. The price after the coupon is } \$160.$$

$$10\% = \frac{10}{100} = \frac{1}{10}$$

$$\$160 \times \frac{1}{10} = \frac{\$160}{10} = \$16 \text{ saved. The price after the coupon and discount membership is } \$144.$$

No, the games would now total \$144.



- d. Do you agree with the claim? NO Explain why or why not. Create a new example to help support your claim.

When two discounts are taken off, the shopper pays more than if both were added together and taken off.

Example:

\$100 original price

20%:

$$100 \times \frac{2}{10} = \frac{200}{10} = 20 \text{ saved}$$

$$\$100 - \$20 = \$80 \text{ sale price}$$

Two 10% off discounts:

$$100 \times \frac{1}{10} = \frac{100}{10} = 10$$

$$90 \times \frac{1}{10} = \frac{90}{10} = 9$$

$$\$100 - \$10 - \$9 = \$81 \text{ sale price}$$

Closing (15 minutes)

Give students time to share samples of how they solved the problem. Take time to point out similarities in the different models. Ask students to reflect on which models they like to use most and why.

Lesson Summary

Percent problems have three parts: whole, part, percent.

Percent problems can be solved using models such as ratio tables, tape diagrams, double number line diagrams, and 10×10 grids.

Exit Ticket (5 minutes)



Name _____

Date _____

Lesson 29: Solving Percent Problems

Exit Ticket

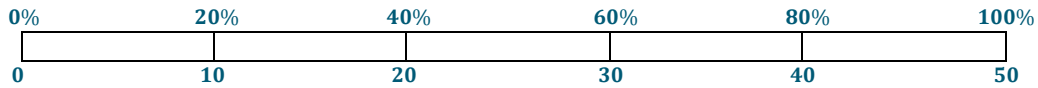
Angelina received two discounts on a \$50 pair of shoes. The discounts were taken off one after the other. If she paid \$30 for the shoes, what was the percent discount for each coupon? Is there only one answer to this question?



Exit Ticket Sample Solutions

Angelina received two discounts on a \$50 pair of shoes. The discounts were taken off one after the other. If she paid \$30 for the shoes, what was the percent discount for each coupon? Is there only one answer to this question?

Original Price \$50



20% off \$50 = \$10 discount. After a 20% off discount, the new price would be \$40.

25% off \$40 = \$10 discount. After a 25% off discount, the new price would be \$30.

Therefore, the two discounts could be 20% off and then 25%.

This is not the only answer. She could have also saved 25% and then 20%.

Problem Set Sample Solutions

- Henry has 15 lawns mowed out of a total of 60 lawns. What percent of the lawns does Henry still have to mow?
75% of the lawns still need to be mowed.
- Marissa got an 85% on her math quiz. She had 34 questions correct. How many questions were on the quiz?
There were 40 questions on the quiz.
- Lucas read 30% of his book containing 480 pages. What page is he going to read next?
30% is 144 pages, so he will read page 145 next.

Name _____

Date _____

- Jasmine has taken an online boating safety course and is now completing her end-of-course exam. As she answers each question, the progress bar at the bottom of the screen shows what portion of the test she has finished. She has just completed Question 16, and the progress bar shows she is 20% complete. How many total questions are on the test? Use a table, diagram, or equation to justify your answer.

- Alisa hopes to play beach volleyball in the Olympics someday. She has convinced her parents to allow her to set up a beach volleyball court in their backyard. A standard beach volleyball court is approximately 26 feet by 52 feet. She figures that she will need the sand to be one foot deep. She goes to the hardware store to shop for sand and sees the following signs on pallets containing bags of sand.



- What is the rate that Brand A is selling for? Give the rate and then specify the unit rate.

- b. Which brand is offering the better value? Explain your answer.
- c. Alisa uses her cell phone to search how many pounds of sand is required to fill 1 cubic foot and finds the answer is 100 pounds. Choose one of the brands and compute how much it will cost Alisa to purchase enough sand to fill the court. Identify which brand was chosen as part of your answer. Use the volume formula, $V = l \times w \times h$, to determine your answer.

3. Loren and Julie have different part-time jobs after school. They are both paid at a constant rate of dollars per hour. The tables below show Loren and Julie's total income (amount earned) for working a given amount of time.

Loren

Hours	2	4	6	8	10	12	14	16	18
Dollars	18	36	54	72	90	108			162

Julie

Hours	3	6	9	12	15	18	21	24	27
Dollars	36		108	144	180	216		288	324

- a. Find the missing values in the two tables above.
- b. Who makes more per hour? Justify your answer.
- c. Write how much Julie makes as a rate. What is the unit rate?

- d. How much money would Julie earn for working 16 hours?
- e. What is the ratio between how much Loren makes per hour and how much Julie makes per hour?
- f. Julie works $\frac{1}{12}$ hours/dollar. Write a one or two-sentence explanation of what this rate means. Use this rate to find how long it takes for Julie to earn \$228.

4. Your mother takes you to your grandparents' house for dinner. She drives 60 minutes at a constant speed of 40 miles per hour. She reaches the highway, quickly speeds up, and drives for another 30 minutes at constant speed of 70 miles per hour.
- How far did you and your mother travel altogether?
 - How long did the trip take?
 - Your older brother drove to your grandparents' house in a different car but left from the same location at the same time. If he traveled at a constant speed of 60 miles per hour, explain why he would reach your grandparents' house first. Use words, diagrams, or numbers to explain your reasoning.

A Progression Toward Mastery

Assessment Task Item		STEP 1 Missing or incorrect answer and little evidence of reasoning or application of mathematics to solve the problem.	STEP 2 Missing or incorrect answer but evidence of some reasoning or application of mathematics to solve the problem.	STEP 3 A correct answer with some evidence of reasoning or application of mathematics to solve the problem, OR an incorrect answer with substantial evidence of solid reasoning or application of mathematics to solve the problem.	STEP 4 A correct answer supported by substantial evidence of solid reasoning or application of mathematics to solve the problem.
1	6.RP.A.3c	Student is unable to depict the problem using a table, diagram, or equation, and student either answers incorrectly or does not answer the question at all.	Student depicts the problem using a table, diagram, or equation, but has significant errors in the reasoning or calculations, leading to an incorrect answer.	Student is able to answer the question correctly, but is not able to explain the reasoning process with an accurate depiction using a table, diagram, or equation. OR Student gives an accurate depiction of the problem but makes a minor calculation or articulation error in arriving at the answer.	Student gives an accurate depiction of the problem with a table, diagram, or equation and connects that depiction to a correct answer to the question.
2	a 6.RP.A.2 6.RP.A.3d	Student is unable to answer the question. Student is not able to accurately represent the rate or unit rate for Brand A. The student shows no evidence of moving beyond that representation.	Student is able to accurately represent the rate for Brand A but is unable to determine the unit rate. The student is unable to apply the unit rate to further questioning in the problem.	Student correctly provides the unit rate as 12, but the work lacks connection to the original problem of 60 lb. per \$5.	Student correctly provides the rate as 12 pounds per dollar and the unit rate is given as 12.

	<p>b</p> <p>6.RP.A.2 6.RP.A.3d</p>	<p>Student is unable to answer the question. Student is not able to accurately represent the rate or unit rate for Brand B and shows no evidence of moving beyond that representation.</p>	<p>Student is able to accurately represent the rate for Brand B but is unable to apply the unit rate in comparison to the unit rate of Brand A.</p>	<p>Student accurately represents the unit rate of Brand B as 12.5 lb. per \$1 and compares the unit rate to being more than Brand A. However, the student does not make connections to the problem and does not determine that Brand B is a better deal because it gives more sand than Brand A.</p>	<p>Student accurately represents both unit rates of Brand A and Brand B. The student determines Brand B is a better unit rate and relates the unit rates to the problem.</p>
	<p>c</p> <p>6.RP.A.2 6.RP.A.3d</p>	<p>Student does not answer the question correctly. The total number of cubic feet is not found. The rate of 100 lb./1 ft. is not used to determine the total pounds of sand, and the unit rate of the cost of either A or B is not used to determine the total cost of the project.</p>	<p>Student determines the total number of cubic feet. The rates to find the total pounds of sand needed are not used or are miscalculated. The unit rate of the cost of A or B is not used to determine the total cost of the project or is miscalculated.</p>	<p>Student accurately determines the number of cubic feet needed for the project. The rate of 100 lb./1 ft. is accurately calculated to determine the total pounds of sand needed; however, the rate of \$1/the unit rate of A or B to determine the final cost is miscalculated.</p>	<p>Student accurately determines the total cubic feet needed and the total pounds of sand needed and uses the appropriate rate to determine the final cost of the project. The student uses labels accurately to support the reasoning of the final answer.</p>
3	<p>a</p> <p>6.RP.A.1 6.RP.A.2 6.RP.A.3a 6.RP.A.3b</p>	<p>Student is unable to answer the question. The values are not placed in either table, or incorrect values are provided.</p>	<p>Student is able to provide two to three correct values to portions of the tables but does not support the answers mathematically.</p>	<p>Student is able to provide correct values for three to four portions of the tables but does not support the answers mathematically.</p>	<p>Student is able to provide correct values for all portions of the tables. The student provides reasoning for the answers using additive patterns and unit rate conversion.</p>
	<p>b</p> <p>6.RP.A.1 6.RP.A.2 6.RP.A.3a 6.RP.A.3b</p>	<p>Student does not calculate the hourly rate of either Loren or Julie correctly or does not answer the question. The rates to determine a final answer are not compared.</p>	<p>Student does not correctly calculate the hourly rate of either Loren or Julie and is unable to compare the rates and determine which girl made more money per hour.</p>	<p>Student correctly calculates the hourly rate of each girl but does not compare the rates to determine which made more money per hour.</p>	<p>Student accurately answers the question and justifies the reasoning through comparison of the hourly rates.</p>
	<p>c</p> <p>6.RP.A.1 6.RP.A.2 6.RP.A.3a 6.RP.A.3b</p>	<p>Student is unable to answer the question. The rate or the unit rate is not accurately determined. The student does not make connections to the values in the table.</p>	<p>Student references values from the table (e.g., \$36/3 hrs.) but does not express the values as a rate or a unit rate.</p>	<p>Student correctly determines the rate of Julie’s pay as \$12 for every hour but does not determine the unit rate to be 12.</p>	<p>Student accurately answers the question by representing the unit rate as 12 and by referencing the values from the table.</p>

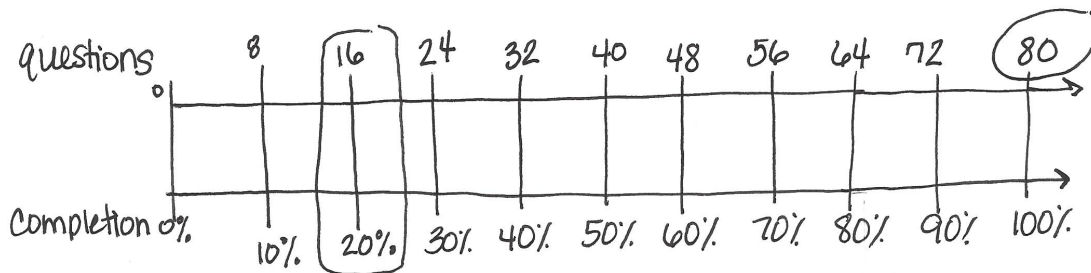
	<p>d</p> <p>6.RP.A.1 6.RP.A.2 6.RP.A.3a 6.RP.A.3b</p>	<p>Student is unable to answer the question. The correct rate with the number of hours is not accurately computed. OR Student does not attempt the problem.</p>	<p>Student does not accurately compute the correct rate with the number of hours but is proficient in the process to find the correct answer.</p>	<p>Student computes the correct rate with the number of hours. The student finds the total amount of money Julie made in 16 hours. Student work lacks labeling and clear sequence in solving.</p>	<p>Student accurately derives the correct amount of money Julie made in 16 hours. Student uses the correct rate, and the work is labeled in order to justify the reasoning. Student’s work is in logical progression.</p>
	<p>e</p> <p>6.RP.A.1 6.RP.A.2 6.RP.A.3a 6.RP.A.3b</p>	<p>Student is unable to answer the question. The correct rate of pay for one or both of the girls is not found.</p>	<p>Student is able to compute the accurate rate of pay for the girls but does not compare to determine which girl made more money per hour.</p>	<p>Student accurately computes the rate of pay for each girl and accurately compares the pay in ratio form. Student does not derive a simplified ratio from the rates of pay.</p>	<p>Student answers the problem accurately, with labels, and simplifies the final answer.</p>
	<p>f</p> <p>6.RP.A.1 6.RP.A.2 6.RP.A.3a 6.RP.A.3b</p>	<p>Student explains what the rate means in the problem but does not accurately find the answer.</p>	<p>Student explains the meaning of the rate in detail using conversions but makes errors when deriving the plan to solve. <i>Example: The answer is not indicative of understanding cancellation of units and finds \$19 instead of 19 hours.</i></p>	<p>Student provides a lucid explanation with conversions and support. The student may multiply by minute conversion and find a final answer of 1,140 minutes instead of 19 hours.</p>	<p>Student answers the problem with precision and coherent explanation of what the rate means. Calculations are accurate, and the final answer is supported and justified through appropriate labeling.</p>
<p>4</p>	<p>a</p> <p>6.RP.A.3b</p>	<p>Student is unable to answer the problem accurately. Student is not able to apply the rates to determine the number of miles.</p>	<p>Student is able to show intent to multiply the rate by the time to find the miles but computes incorrectly.</p>	<p>Student multiplies the rates appropriately to the time for each section of the trip. The number of separate miles is found, but student does not combine them for a total number of miles for the trip. OR Student shows understanding of the concept but makes computation errors.</p>	<p>Student completes the entire problem accurately with appropriate labels. Student is able to derive a total distance with no computation errors.</p>

	<p>b</p> <p>6.RP.A.3b</p>	<p>Student does not complete the problem or answers with an incorrect response.</p>	<p>Student uses information from the original problem to determine the addends but computes the total incorrectly.</p>	<p>Student uses information from the original problem to determine addends and computes the sum correctly but does not report the correct unit.</p>	<p>Student uses information from the original problem to determine addends and computes the sum correctly. Student labels work appropriately and converts the minutes into hours.</p>
	<p>c</p> <p>6.RP.A.3b</p>	<p>Student does not use a diagram, words, or numbers to support the answer or uses the diagram inappropriately. Student does not answer the problem with an accurate response.</p>	<p>Student provides an accurate response but does not utilize a diagram, words, or numbers to support the answer.</p>	<p>Student provides a correct answer and uses only words or numbers to support the answer.</p>	<p>Student uses appropriate diagrams, words, and numbers to support the accurate answer.</p>

Name _____

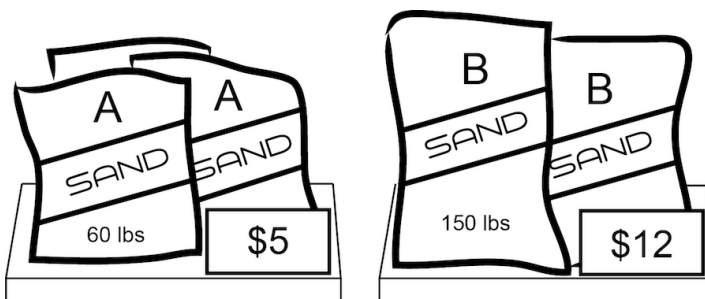
Date _____

1. Jasmine has taken an online boating safety course and is now completing her end-of-course exam. As she answers each question, the progress bar at the bottom of the screen shows what portion of the test she has finished. She has just completed Question 16, and the progress bar shows she is 20% complete. How many total questions are on the test? Use a table, diagram, or equation to justify your answer.



There are 80 questions on the test.

2. Alisa hopes to play beach volleyball in the Olympics someday. She has convinced her parents to allow her to set up a beach volleyball court in their backyard. A standard beach volleyball court is approximately 26 feet by 52 feet. She figures that she will need the sand to be one foot deep. She goes to the hardware store to shop for sand and sees the following signs on pallets containing bags of sand.



- a. What is the rate that Brand A is selling for? Give the rate and then specify the unit rate.

$$\text{Brand A } \frac{60 \text{ lbs.}}{5 \text{ dollar}} = \frac{12 \text{ lbs}}{1 \text{ dollar}} = 12 \text{ unit rate}$$

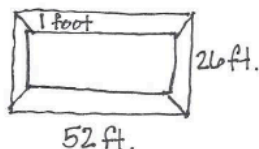
b. Which brand is offering the better value? Explain your answer.

$$\text{Brand B } \frac{150 \text{ lbs.}}{12 \text{ dollar}} = \frac{12.5 \text{ lbs.}}{1 \text{ dollar}} = 12.5$$

Brand A is selling sand at a rate of 12 lbs per dollar. Brand B is selling at a rate of 12.5 lbs. per dollar. Brand B offers a better value because it gives more sand per dollar.

c. Alisa uses her cell phone to search how many pounds of sand is required to fill 1 cubic foot and finds the answer is 100 pounds. Choose one of the brands and compute how much it will cost Alisa to purchase enough sand to fill the court. Identify which brand was chosen as part of your answer. Use the volume formula, $V = l \times w \times h$, to determine your answer.

Brand A



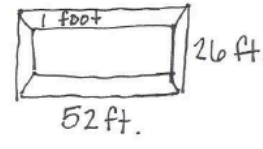
52 ft. x 26 ft. x 1 ft. =
1,352 ft³

1,352 ft³ x 100 $\frac{\text{lbs.}}{\text{ft.}^3}$ =
135,200 lbs.

135,200 lbs. x $\frac{1}{12} \frac{\text{dollars}}{\text{lb.}}$ =
\$ 11,266.67

Alisa would need \$ 11,266.67.

Brand B



52 ft. x 26 ft. x 1 ft. =
1,352 ft³

1,352 ft³ x 100 $\frac{\text{lbs.}}{\text{ft.}^3}$ =
135,200 lbs.

135,200 lbs. x $\frac{1}{12.5} \frac{\text{dollars}}{\text{lb.}}$ =
\$ 10,816

Alisa would need \$ 10,816.

3. Loren and Julie have different part-time jobs after school. They are both paid at a constant rate of dollars per hour. The tables below show Loren and Julie’s total income (amount earned) for working a given amount of time.

Loren

Hours	2	4	6	8	10	12	14	16	18
Dollars	18	36	54	72	90	108	126	144	162

$$\begin{array}{r} 108 \\ + 18 \\ \hline 126 \end{array} \quad \begin{array}{r} 126 \\ + 18 \\ \hline 144 \end{array}$$

Julie

Hours	3	6	9	12	15	18	21	24	27
Dollars	36	72	108	144	180	216	252	288	324

- a. Find the missing values in the two tables above.

$$\begin{array}{r} 216 \\ + 36 \\ \hline 252 \end{array} \quad \begin{array}{r} 252 \\ + 36 \\ \hline 288 \end{array}$$

$$\begin{array}{r} 36 \\ + 36 \\ \hline 72 \end{array}$$

ratio $3:36 = 1:12$
 so, $6:72$

- b. Who makes more per hour? Justify your answer.

$$\text{Loren} - \frac{18 \text{ dollars}}{2 \text{ hour}} = 9 \frac{\text{dollars}}{\text{hour}}$$

$$\text{Julie} - \frac{36 \text{ dollars}}{3 \text{ hour}} = 12 \frac{\text{dollars}}{\text{hour}}$$

Loren Julie
 $9 < 12$
 Julie makes more per hour.

- c. Write how much Julie makes as a rate. What is the unit rate?

Julie $3:36 \rightarrow 1:12$
 $\$12$ per hour
 unit rate - $12 \frac{\text{dollars}}{\text{hour}}$

- d. How much money would Julie earn for working 16 hours?

$$\frac{12 \text{ dollars}}{1 \text{ hour}} \times 16 \text{ hours} = 12 \text{ dollars} \times 16 = 192 \text{ dollars}$$

Julie earns \$192 for working 16 hours.

- e. What is the ratio between how much Loren makes per hour and how much Julie makes per hour?

$$\begin{array}{l} \text{Loren} - 9 \frac{\text{dollars}}{\text{hour}} \\ \text{Julie} - 12 \frac{\text{dollars}}{\text{hour}} \end{array}$$

$$9:12 \rightarrow 3:4$$

- f. Julie works $\frac{1}{12}$ hours/dollar. Write a one or two-sentence explanation of what this rate means. Use this rate to find how long it takes for Julie to earn \$228.

To earn one dollar, Julie has to work $\frac{1}{12}$ hour, or 5 minutes.

$$\frac{\frac{1}{12} \text{ hours}}{1 \text{ dollars}} \times 228 \text{ dollars} = \frac{1}{12} \text{ hour} \times 228 = 19 \text{ hours}$$

$$\begin{array}{r} 19 \\ 12 \overline{)228} \\ \underline{-12} \\ 108 \\ \underline{-108} \\ 0 \end{array}$$

4. Your mother takes you to your grandparents' house for dinner. She drives 60 minutes at a constant speed of 40 miles per hour. She reaches the highway, quickly speeds up, and drives for another 30 minutes at constant speed of 70 miles per hour.
- a. How far did you and your mother travel altogether?

$$1 \text{ hour} \times 40 \frac{\text{miles}}{\text{hour}} = 1 \times 40 \text{ miles} = 40 \text{ miles}$$

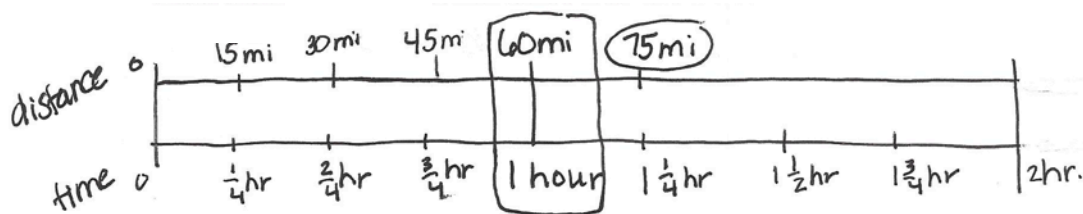
$$0.5 \text{ hour} \times 70 \frac{\text{miles}}{\text{hour}} = 0.5 \times 70 \text{ miles} = 35 \text{ miles}$$

$$40 \text{ miles} + 35 \text{ miles} = 75 \text{ miles}$$

- b. How long did the trip take?

$$60 \text{ minutes} + 30 \text{ minutes} = 90 \text{ minutes or } 1\frac{1}{2} \text{ hours.}$$

- c. Your older brother drove to your grandparents' house in a different car but left from the same location at the same time. If he traveled at a constant speed of 60 miles per hour, explain why he would reach your grandparents' house first. Use words, diagrams, or numbers to explain your reasoning.



The trip is 75 miles long. If he travels 60 miles in 1 hour, it will take him $1\frac{1}{4}$ or 1.25 hours to get there.

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Algebra I • Module 1

Relationships Between Quantities and Reasoning with Equations and Their Graphs

OVERVIEW

By the end of Grade 8, students have learned to solve linear equations in one variable and have applied graphical and algebraic methods to analyze and solve systems of linear equations in two variables. Now, students are introduced to nonlinear equations and their graphs. Students formalize their understanding of equivalent algebraic expressions and begin their study of polynomial expressions. Further, they learn that there are some actions that, when applied to the expressions on both sides of an equal sign, will not result in an equation with the same solution set as the original equation. Finally, they encounter problems that induce the full modeling cycle, as it is described in the Common Core Learning Standards for Mathematics.

In Topic A, students explore the main functions that they will work with in Algebra I: linear, quadratic, and exponential. The goal is to introduce students to these functions by having them make graphs of situations (usually based upon time) in which the functions naturally arise (**A-CED.A.2**). As they graph, they reason abstractly and quantitatively as well as choose and interpret units to solve problems related to the graphs they create (**N-Q.A.1, N-Q.A.2, N-Q.A.3**).

In middle school, students applied the properties of operations to add, subtract, factor, and expand expressions (**6.EE.A.3, 6.EE.A.4, 7.EE.A.1, 8.EE.A.1**). Now, in Topic B, students use the structure of expressions to define what it means for two algebraic expressions to be equivalent. In doing so, they discern that the commutative, associative, and distributive properties help link each of the expressions in the collection together, even if the expressions look very different themselves (**A-SSE.A.2**). They learn the definition of a polynomial expression and build fluency in identifying and generating polynomial expressions as well as adding, subtracting, and multiplying polynomial expressions (**A-APR.A.1**). The Mid-Module Assessment follows Topic B.

Throughout middle school, students practice the process of solving linear equations (**6.EE.B.5, 6.EE.B.7, 7.EE.B.4, 8.EE.C.7**) and systems of linear equations (**8.EE.C.8**). Now, in Topic C, instead of just solving equations, they formalize descriptions of what they learned before (variable, solution sets, etc.) and are able to explain, justify, and evaluate their reasoning as they strategize methods for solving linear and nonlinear equations (**A-REI.A.1, A-REI.B.3, A-CED.A.4**). Students take their experience solving systems of linear equations further as they prove the validity of the addition method, learn a formal definition for the graph of an equation and use it to explain the reasoning of solving systems graphically, and represent the solution to systems of linear inequalities graphically (**A-CED.A.3, A-REI.C.5, A-REI.C.6, A-REI.D.10, A-REI.D.12**).

In Topic D, students are formally introduced to the modeling cycle (see page 61 of the CCLS) through problems that can be solved by creating equations and inequalities in one variable, systems of equations, and graphing (**N-Q.A.1, A-SSE.A.1, A-CED.A.1, A-CED.A.2, A-REI.B.3**). The End-of-Module Assessment follows Topic D.

Focus Standards

Reason quantitatively and use units to solve problems.

- N-Q.A.1** Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.*
- N-Q.A.2²** Define appropriate quantities for the purpose of descriptive modeling.*
- N-Q.A.3** Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.*

Interpret the structure of expressions.

- A-SSE.A.1** Interpret expressions that represent a quantity in terms of its context.*
- Interpret parts of an expression, such as terms, factors, and coefficients.
 - Interpret complicated expressions by viewing one or more of their parts as a single entity. *For example, interpret $P(1 + r)n$ as the product of P and a factor not depending on P .*
- A-SSE.A.2** Use the structure of an expression to identify ways to rewrite it. *For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.*

Perform arithmetic operations on polynomials.

- A-APR.A.1** Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.

Create equations that describe numbers or relationships.

- A-CED.A.1³** Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.**
- A-CED.A.2** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.*
- A-CED.A.3** Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. *For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.**

²This standard will be assessed in Algebra I by ensuring that some modeling tasks (involving Algebra I content or securely held content from Grades 6-8) require the student to create a quantity of interest in the situation being described.

³In Algebra I, tasks are limited to linear, quadratic, or exponential equations with integer exponents.

- A-CED.A.4** Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *For example, rearrange Ohm's law $V = IR$ to highlight resistance R .*[★]

Understand solving equations as a process of reasoning and explain the reasoning.

- A-REI.A.1** Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

Solve equations and inequalities in one variable.

- A-REI.B.3** Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.

Solve systems of equations.

- A-REI.C.5** Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.
- A-REI.C.6**⁴ Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.

Represent and solve equations and inequalities graphically.

- A-REI.D.10** Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).
- A-REI.D.12** Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

⁴Tasks have a real-world context. In Algebra I, tasks have hallmarks of modeling as a mathematical practice (less defined tasks, more of the modeling cycle, etc.).

Foundational Standards

Apply and extend previous understandings of numbers to the system of rational numbers.

- 6.NS.C.7** Understand ordering and absolute value of rational numbers.
- Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret $-3 > -7$ as a statement that -3 is located to the right of -7 on a number line oriented from left to right.*
 - Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write $-3^{\circ}\text{C} > -7^{\circ}\text{C}$ to express the fact that -3°C is warmer than -7°C .*

Apply and extend previous understandings of arithmetic to algebraic expressions.

- 6.EE.A.3** Apply the properties of operations to generate equivalent expressions. *For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$.*
- 6.EE.A.4** Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for.*

Reason about and solve one-variable equations and inequalities.

- 6.EE.B.5** Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
- 6.EE.B.6** Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
- 6.EE.B.7** Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all nonnegative rational numbers.
- 6.EE.B.8** Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.

Use properties of operations to generate equivalent expressions.

- 7.EE.A.1** Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
- 7.EE.A.2** Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. *For example, $a + 0.05a = 1.05a$ means that “increase by 5%” is the same as “multiply by 1.05.”*

Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

- 7.EE.B.3** Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. *For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional $1/10$ of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar $9\frac{3}{4}$ inches long in the center of a door that is $27\frac{1}{2}$ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.*
- 7.EE.B.4** Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
- Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p , q , and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. *For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?*
 - Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p , q , and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. *For example: As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.*

Work with radicals and integer exponents.

- 8.EE.A.1** Know and apply the properties of integer exponents to generate equivalent numerical expressions. *For example, $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$.*
- 8.EE.A.2** Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational.

Analyze and solve linear equations and pairs of simultaneous linear equations.

- 8.EE.C.7** Solve linear equations in one variable.
- Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).
 - Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.
- 8.EE.C.8** Analyze and solve pairs of simultaneous linear equations.
- Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.
 - Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. *For example, $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because $3x + 2y$ cannot simultaneously be 5 and 6.*
 - Solve real-world and mathematical problems leading to two linear equations in two variables. *For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.*

Focus Standards for Mathematical Practice

- MP.1** **Make sense of problems and persevere in solving them.** Students are presented with problems that require them to try special cases and simpler forms of the original problem to gain better understanding of the problem.
- MP.2** **Reason abstractly and quantitatively.** Students analyze graphs of non-constant rate measurements and reason from the shape of the graphs to infer what quantities are being displayed and consider possible units to represent those quantities.
- MP.3** **Construct viable arguments and critique the reasoning of others.** Students reason about solving equations using *if-then* moves based on equivalent expressions and properties of equality and inequality. They analyze when an *if-then* move is not reversible.
- MP.4** **Model with mathematics.** Students have numerous opportunities in this module to solve problems arising in everyday life, society, and the workplace from modeling bacteria growth to understanding the federal progressive income tax system.
- MP.6** **Attend to precision.** Students formalize descriptions of what they learned before (variables, solution sets, numerical expressions, algebraic expressions, etc.) as they build equivalent expressions and solve equations. Students analyze solution sets of equations to determine processes (e.g., squaring both sides of an equation) that might lead to a solution set that differs from that of the original equation.

- MP.7 Look for and make use of structure.** Students reason with and about collections of equivalent expressions to see how all the expressions in the collection are linked together through the properties of operations. They discern patterns in sequences of solving equation problems that reveal structures in the equations themselves: $2x + 4 = 10$, $2(x - 3) + 4 = 10$, $2(3x - 4) + 4 = 10$, etc.
- MP.8 Look for and express regularity in repeated reasoning.** After solving many linear equations in one variable (e.g., $3x + 5 = 8x - 17$), students look for general methods for solving a generic linear equation in one variable by replacing the numbers with letters: $ax + b = cx + d$. They have opportunities to pay close attention to calculations involving the properties of operations, properties of equality, and properties of inequality as they find equivalent expressions and solve equations, noting common ways to solve different types of equations.

Terminology

New or Recently Introduced Terms

- **Algebraic Expression** (An *algebraic expression* is either: (1) a numerical symbol or a variable symbol or (2) the result of placing previously generated algebraic expressions into the two blanks of one of the four operators ($(_) + (_)$, $(_) - (_)$, $(_) \times (_)$, $(_) \div (_)$) or into the base blank of an exponentiation with an exponent that is a rational number.)
- **Constant Term of a Polynomial in Standard Form** (The *constant term* is the value of the numerical expression found by substituting 0 into all the variable symbols of the polynomial, namely a_0 .)
- **Degree of a Monomial** (The *degree of a nonzero monomial* is the sum of the exponents of the variable symbols that appear in the monomial.)
- **Degree of a Polynomial in Standard Form** (The *degree of a polynomial in standard form* is the highest degree of the terms in the polynomial, namely n .)
- **Equivalent Algebraic Expressions** (Two algebraic expressions are *equivalent* if we can convert one expression into the other by repeatedly applying the commutative, associative, and distributive properties and the properties of rational exponents to components of the first expression.)
- **Equivalent Numerical Expressions** (Two numerical expressions are *equivalent* if they evaluate to the same number.)
- **Graph of an Equation in Two Variables** (The set of all points in the coordinate plane that are solutions to an equation in two variables is called the *graph of the equation*.)
- **Leading Term and Leading Coefficient of a Polynomial in Standard Form** (The term $a_n x^n$ is called the *leading term*, and a_n is called the *leading coefficient*.)
- **Monomial** (A *monomial* is a polynomial expression generated using only the multiplication operator ($_ \times _$). Monomials are products whose factors are numerical expressions or variable symbols.)
- **Numerical Expression** (A *numerical expression* is an algebraic expression that contains only numerical symbols (no variable symbols) and that evaluates to a single number.)
- **Numerical Symbol** (A *numerical symbol* is a symbol that represents a specific number.)

- **Piecewise Linear Function** (Given a finite number of non-overlapping intervals on the real number line, a *(real) piecewise linear function* is a function from the union of the intervals to the set of real numbers such that the function is defined by (possibly different) linear functions on each interval.)
- **Polynomial Expression** (A *polynomial expression* is either: (1) a numerical expression or a variable symbol or (2) the result of placing two previously generated polynomial expressions into the blanks of the addition operator ($_ + _$) or the multiplication operator ($_ \times _$).)
- **Solution** (A *solution* to an equation with one variable is a number in the domain of the variable that, when substituted for all instances of the variable in both expressions, makes the equation a true number sentence.)
- **Solution Set** (The set of solutions of an equation is called its *solution set*.)
- **Standard Form of a Polynomial Expression in One Variable** (A polynomial expression with one variable symbol x is in *standard form* if it is expressed as $a_n x^n + a_{n-1} x^{n-1} + \dots + a_1 x + a_0$, where n is a nonnegative integer, and $a_0, a_1, a_2, \dots, a_n$ are constant coefficients with $a_n \neq 0$. A polynomial expression in x that is in standard form is often called a *polynomial in x* .)
- **Variable Symbol** (A *variable symbol* is a symbol that is a placeholder for a number. It is possible that a question may restrict the type of number that a placeholder might permit, maybe integers only or a positive real number, for instance.)
- **Zero Product Property** (The *Zero Product Property* states that given real numbers, a and b , if $a \cdot b = 0$ then either $a = 0$ or $b = 0$, or both a and $b = 0$.)

Familiar Terms and Symbols⁵

- Equation
- Formula
- Identity
- Inequality
- Linear Function
- Properties of Equality
- Properties of Inequality
- Solve
- System of Equations
- Term

Suggested Tools and Representations

- Coordinate Plane
- Equations and Inequalities

⁵These are terms and symbols students have seen previously.

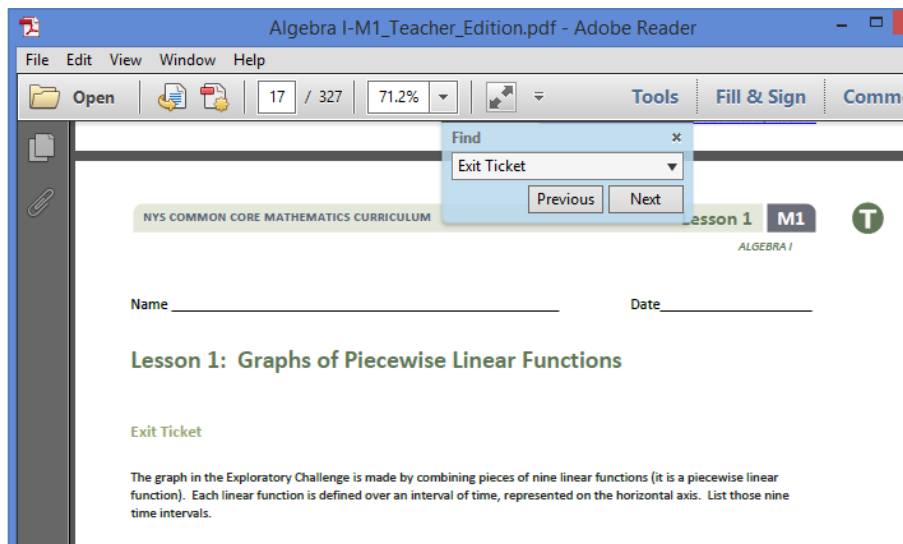
Preparing to Teach a Module

Preparation of lessons will be more effective and efficient if there has been an adequate analysis of the module first. Each module in *A Story of Functions* can be compared to a chapter in a book. How is the module moving the plot, the mathematics, forward? What new learning is taking place? How are the topics and objectives building on one another? The following is a suggested process for preparing to teach a module.

Step 1: Get a preview of the plot.

- A: Read the Table of Contents. At a high level, what is the plot of the module? How does the story develop across the topics?
- B: Preview the module’s Exit Tickets to see the trajectory of the module’s mathematics and the nature of the work students are expected to be able to do.

Note: When studying a PDF file, enter “Exit Ticket” into the search feature to navigate from one Exit Ticket to the next.



Step 2: Dig into the details.

- A: Dig into a careful reading of the Module Overview. While reading the narrative, liberally reference the lessons and Topic Overviews to clarify the meaning of the text—the lessons demonstrate the strategies, show how to use the models, clarify vocabulary, and build understanding of concepts.
- B: Having thoroughly investigated the Module Overview, read through the Student Outcomes of each lesson (in order) to further discern the plot of the module. How do the topics flow and tell a coherent story? How do the outcomes move students to new understandings?

Step 3: Summarize the story.

Complete the Mid- and End-of-Module Assessments. Use the strategies and models presented in the module to explain the thinking involved. Again, liberally reference the lessons to anticipate how students who are learning with the curriculum might respond.

Preparing to Teach a Lesson

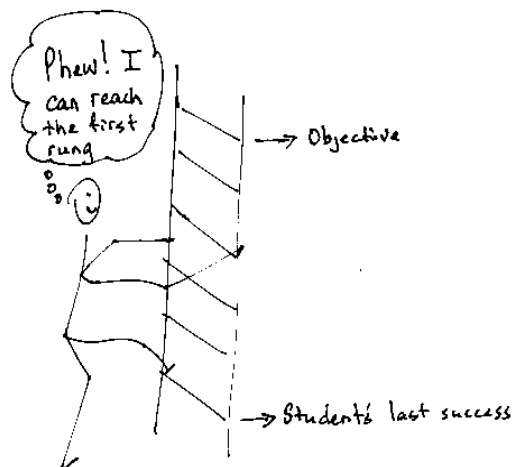
A three-step process is suggested to prepare a lesson. It is understood that at times teachers may need to make adjustments (customizations) to lessons to fit the time constraints and unique needs of their students. The recommended planning process is outlined below. Note: The ladder of Step 2 is a metaphor for the teaching sequence. The sequence can be seen not only at the macro level in the role that this lesson plays in the overall story, but also at the lesson level, where each rung in the ladder represents the next step in understanding or the next skill needed to reach the objective. To reach the objective, or the top of the ladder, all students must be able to access the first rung and each successive rung.

Step 1: Discern the plot.

- A: Briefly review the module’s Table of Contents, recalling the overall story of the module and analyzing the role of this lesson in the module.
- B: Read the Topic Overview related to the lesson, and then review the Student Outcome(s) and Exit Ticket of each lesson in the topic.
- C: Review the assessment following the topic, keeping in mind that assessments can be found midway through the module and at the end of the module.

Step 2: Find the ladder.

- A: Work through the lesson, answering and completing each question, example, exercise, and challenge.
- B: Analyze and write notes on the new complexities or new concepts introduced with each question or problem posed; these notes on the sequence of new complexities and concepts are the rungs of the ladder.
- C: Anticipate where students might struggle, and write a note about the potential cause of the struggle.
- D: Answer the Closing questions, always anticipating how students will respond.



Step 3: Hone the lesson.

Lessons may need to be customized if the class period is not long enough to do all of what is presented and/or if students lack prerequisite skills and understanding to move through the entire lesson in the time allotted. A suggestion for customizing the lesson is to first decide upon and designate each question, example, exercise, or challenge as either “Must Do” or “Could Do.”

- A: Select “Must Do” dialogue, questions, and problems that meet the Student Outcome(s) while still providing a coherent experience for students; reference the ladder. The expectation should be that the majority of the class will be able to complete the “Must Do” portions of the lesson within the allocated time. While choosing the “Must Do” portions of the lesson, keep in mind the need for a balance of dialogue and conceptual questioning, application problems, and abstract problems, and a balance between students using pictorial/graphical representations and abstract representations. Highlight dialogue to be included in the delivery of instruction so that students have a chance to articulate and consolidate understanding as they move through the lesson.

- B: “Must Do” portions might also include remedial work as necessary for the whole class, a small group, or individual students. Depending on the anticipated difficulties, the remedial work might take on different forms as suggested in the chart below.

Anticipated Difficulty	“Must Do” Remedial Problem Suggestion
The first problem of the lesson is too challenging.	Write a short sequence of problems on the board that provides a ladder to Problem 1. Direct students to complete those first problems to empower them to begin the lesson.
There is too big of a jump in complexity between two problems.	Provide a problem or set of problems that bridge student understanding from one problem to the next.
Students lack fluency or foundational skills necessary for the lesson.	Before beginning the lesson, do a quick, engaging fluency exercise. ⁶ Before beginning any fluency activity for the first time, assess that students have conceptual understanding of the problems in the set and that they are poised for success with the easiest problem in the set.
More work is needed at the concrete or pictorial level.	Provide manipulatives or the opportunity to draw solution strategies.
More work is needed at the abstract level.	Add a set of abstract problems to be completed toward the end of the lesson.

- C: “Could Do” problems are for students who work with greater fluency and understanding and can, therefore, complete more work within a given time frame.
- D: At times, a particularly complex problem might be designated as a “Challenge!” problem to provide to advanced students. Consider creating the opportunity for students to share their “Challenge!” solutions with the class at a weekly session or on video.
- E: If the lesson is customized, be sure to carefully select Closing questions that reflect such decisions, and adjust the Exit Ticket if necessary.

⁶Look for fluency suggestions at www.eureka-math.org.

Assessment Summary

Assessment Type	Administered	Format	Standards Addressed
Mid-Module Assessment Task	After Topic B	Constructed response with rubric	N-Q.A.1, N-Q.A.2, N-Q.A.3, A-APR.A.1, A-SSE.A.2
End-of-Module Assessment Task	After Topic D	Constructed response with rubric	N-Q.A.1, A-SSE.A.1, A-SSE.A.2, A-APR.A.1, A-CED.A.1, A-CED.A.2, A-CED.A.3, A-CED.A.4, A-REI.A.1, A-REI.C.5, A-REI.C.6, A-REI.D.10, A-REI.D.12

Name _____

Date _____

1. Solve the following equations for x . Write your answer in set notation.

a. $3x - 5 = 16$

b. $3(x + 3) - 5 = 16$

c. $3(2x - 3) - 5 = 16$

d. $6(x + 3) - 10 = 32$

e. Which two equations above have the same solution set? Write a sentence explaining how the properties of equality can be used to determine the pair without having to find the solution set for each.

2. Let c and d be real numbers.
- If $c = 42 + d$ is true, then which is greater: c or d , or are you not able to tell? Explain how you know your choice is correct.

 - If $c = 42 - d$ is true, then which is greater: c or d , or are you not able to tell? Explain how you know your choice is correct.

3. If $a < 0$ and $c > b$, circle the expression that is greater:

$$a(b - c) \quad \text{or} \quad a(c - b)$$

Use the properties of inequalities to explain your choice.

4. Solve for x in each of the equations or inequalities below, and name the property and/or properties used:

a. $\frac{3}{4}x = 9$

b. $10 + 3x = 5x$

c. $a + x = b$

d. $cx = d$

e. $\frac{1}{2}x - g < m$

f. $q + 5x = 7x - r$

g. $\frac{3}{4}(x + 2) = 6(x + 12)$

h. $3(5 - 5x) > 5x$

5. The equation $3x + 4 = 5x - 4$ has the solution set $\{4\}$.

a. Explain why the equation $(3x + 4) + 4 = (5x - 4) + 4$ also has the solution set $\{4\}$.

- b. In part (a), the expression $(3x + 4) + 4$ is equivalent to the expression $3x + 8$. What is the definition of equivalent expressions? Why does changing an expression on one side of an equation to an equivalent expression leave the solution set unchanged?

- c. When we square both sides of the original equation, we get the following new equation:

$$(3x + 4)^2 = (5x - 4)^2.$$

Show that 4 is still a solution to the new equation. Show that 0 is also a solution to the new equation but is not a solution to the original equation. Write a sentence that describes how the solution set to an equation may change when both sides of the equation are squared.

- d. When we replace x by x^2 in the original equation, we get the following new equation:

$$3x^2 + 4 = 5x^2 - 4.$$

Use the fact that the solution set to the original equation is $\{4\}$ to find the solution set to this new equation.

6. The Zonda Information and Telephone Company (ZI&T) calculates a customer's total monthly cell phone charge using the formula,

$$C = (b + rm)(1 + t),$$

where C is the total cell phone charge, b is a basic monthly fee, r is the rate per minute, m is the number of minutes used that month, and t is the tax rate.

Solve for m , the number of minutes the customer used that month.

7. Students and adults purchased tickets for a recent basketball playoff game. All tickets were sold at the ticket booth—season passes, discounts, etc., were not allowed.

Student tickets cost \$5 each, and adult tickets cost \$10 each. A total of \$4,500 was collected. 700 tickets were sold.

- Write a system of equations that can be used to find the number of student tickets, s , and the number of adult tickets, a , that were sold at the playoff game.

- Assuming that the number of students and adults attending would not change, how much more money could have been collected at the playoff game if the ticket booth charged students and adults the same price of \$10 per ticket?

- Assuming that the number of students and adults attending would not change, how much more money could have been collected at the playoff game if the student price was kept at \$5 per ticket and adults were charged \$15 per ticket instead of \$10?

8. Alexis is modeling the growth of bacteria for an experiment in science. She assumes that there are B bacteria in a Petri dish at 12:00 noon. In reality, each bacterium in the Petri dish subdivides into two new bacteria approximately every 20 minutes. However, for the purposes of the model, Alexis assumes that each bacterium subdivides into two new bacteria exactly every 20 minutes.
- a. Create a table that shows the total number of bacteria in the Petri dish at $\frac{1}{3}$ hour intervals for 2 hours starting with time 0 to represent 12:00 noon.
- b. Write an equation that describes the relationship between total number of bacteria T and time h in hours, assuming there are B bacteria in the Petri dish at $h = 0$.
- c. If Alexis starts with 100 bacteria in the Petri dish, draw a graph that displays the total number of bacteria with respect to time from 12:00 noon ($h = 0$) to 4:00 p.m. ($h = 4$). Label points on your graph at time $h = 0, 1, 2, 3, 4$.

- d. For her experiment, Alexis plans to add an anti-bacterial chemical to the Petri dish at 4:00 p.m. that is supposed to kill 99.9% of the bacteria instantaneously. If she started with 100 bacteria at 12:00 noon, how many live bacteria might Alexis expect to find in the Petri dish right after she adds the anti-bacterial chemical?
9. Jack is 27 years older than Susan. In 5 years, he will be 4 times as old as she is.
- a. Find the present ages of Jack and Susan.
- b. What calculations would you do to check if your answer is correct?

10.

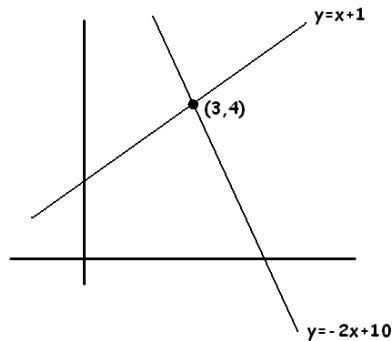
a. Find the product: $(x^2 - x + 1)(2x^2 + 3x + 2)$.

b. Use the results of part (a) to factor 21,112 as a product of a two-digit number and a three-digit number.

11. Consider the following system of equations with the solution $x = 3, y = 4$.

Equation A1: $y = x + 1$

Equation A2: $y = -2x + 10$



a. Write a unique system of two linear equations with the same solution set. This time make both linear equations have positive slope.

Equation B1: _____

Equation B2: _____

- b. The following system of equations was obtained from the original system by adding a multiple of equation A2 to equation A1.

Equation C1: $y = x + 1$

Equation C2: $3y = -3x + 21$

What multiple of A2 was added to A1?

- c. What is the solution to the system given in part (b)?

- d. For any real number m , the line $y = m(x - 3) + 4$ passes through the point $(3, 4)$.

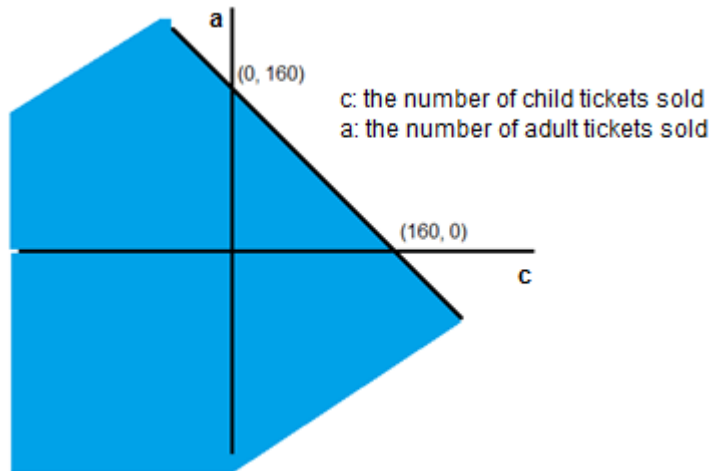
Is it certain, then, that the system of equations

Equation D1: $y = x + 1$

Equation D2: $y = m(x - 3) + 4$

has only the solution $x = 3, y = 4$? Explain.

12. The local theater in Jamie's home town has a maximum capacity of 160 people. Jamie shared with Venus the following graph and said that the shaded region represented all the possible combinations of adult and child tickets that could be sold for one show.



- a. Venus objected and said there was more than one reason that Jamie's thinking was flawed. What reasons could Venus be thinking of?

- b. Use equations, inequalities, graphs, and/or words to describe for Jamie the set of all possible combinations of adult and child tickets that could be sold for one show.
- c. The theater charges \$9 for each adult ticket and \$6 for each child ticket. The theater sold 144 tickets for the first showing of the new release. The total money collected from ticket sales for that show was \$1,164. Write a system of equations that could be used to find the number of child tickets and the number of adult tickets sold, and solve the system algebraically. Summarize your findings using the context of the problem.

A Progression Toward Mastery

Assessment Task Item		STEP 1 Missing or incorrect answer and little evidence of reasoning or application of mathematics to solve the problem.	STEP 2 Missing or incorrect answer but evidence of some reasoning or application of mathematics to solve the problem.	STEP 3 A correct answer with some evidence of reasoning or application of mathematics to solve the problem, or an incorrect answer with substantial evidence of solid reasoning or application of mathematics to solve the problem.	STEP 4 A correct answer supported by substantial evidence of solid reasoning or application of mathematics to solve the problem.
1	a–d A-REI.A.1	Student gives a short incorrect answer or leaves the question blank.	Student shows at least one correct step, but the solution is incorrect.	Student solves the equation correctly (every step that is shown is correct) but does not express the answer as a solution set.	Student solves the equation correctly (every step that is shown is correct) and expresses the answer as a solution set.
	e A-SSE.A.1b A-REI.B.3	Student does not answer or answers incorrectly with something other than (b) and (d).	Student answers (b) and (d) but does not demonstrate solid reasoning in the explanation.	Student answers (b) and (d) but makes minor misstatements in the explanation.	Student answers (b) and (d) and articulates solid reasoning in the explanation.
2	a A-CED.A.3	Student responds incorrectly or leaves the question blank.	Student responds correctly that (c) must be greater but does not use solid reasoning to explain the answer.	Student responds correctly that (c) must be greater but gives an incomplete or slightly incorrect explanation of why.	Student responds correctly that (c) must be greater and supports the statement with solid, well-expressed reasoning.
	b A-CED.A.3	Student responds incorrectly or leaves the question blank.	Student responds correctly that there is no way to tell but does not use solid reasoning to explain the answer.	Student responds correctly that there is no way to tell but gives an incomplete or slightly incorrect explanation of why.	Student responds correctly that there is no way to tell and supports the statement with solid, well-expressed reasoning.

3	A-SSE.A.1b	Student responds incorrectly or leaves the question blank.	Student responds correctly by circling the expression on the left but does not use solid reasoning to explain the answer.	Student responds correctly by circling the expression on the left but gives limited explanation or does not use the properties of inequality in the explanation.	Student responds correctly by circling the expression on the left and gives a complete explanation that uses the properties of inequality.
4	a–h A-REI.A.1 A-REI.B.3	Student answers incorrectly with no correct steps shown.	Student answers incorrectly but has one or more correct steps.	Student answers correctly but does not correctly identify the property or properties used.	Student answers correctly and correctly identifies the property or properties used.
5	a A-REI.A.1	Student does not answer or demonstrates incorrect reasoning throughout.	Student demonstrates only limited reasoning.	Student demonstrates solid reasoning but falls short of a complete answer or makes a minor misstatement in the answer.	Student answer is complete and demonstrates solid reasoning throughout.
	b A-REI.A.1	Student does not answer or does not demonstrate understanding of what the question is asking.	Student makes more than one misstatement in the definition.	Student provides a mostly correct definition with a minor misstatement.	Student answers completely and uses a correct definition without error or misstatement.
	c A-REI.A.1	Student makes mistakes in both verifications and demonstrates incorrect reasoning or leaves the question blank.	Student conducts both verifications but falls short of articulating reasoning to answer the question.	Student conducts both verifications and articulates valid reasoning to answer the question but makes a minor error in the verification or a minor misstatement in the explanation.	Student conducts both verifications without error and articulates valid reasoning to answer the question.
	d A-REI.A.1	Student answers incorrectly or does not answer.	Student identifies one or both solutions but is unable to convey how the solutions could be found using the fact that 4 is a solution to the original equation.	Student identifies only one solution correctly but articulates the reasoning of using the solution to the original equation to find the solution to the new equation.	Student identifies both solutions correctly and articulates the reasoning of using the solution to the original equation to find the solution to the new equation.

6	A-CED.A.4	Student does not answer or shows no evidence of reasoning.	Student makes more than one error in the solution process but shows some evidence of reasoning.	Student answer shows valid steps but with one minor error.	Student answers correctly.
7	a–c A-CED.A.3	Student is unable to answer any portion correctly.	Student answers one part correctly or shows some evidence of reasoning in more than one part.	Student shows solid evidence of reasoning in every part but may make minor errors.	Student answers every part correctly and demonstrates and expresses valid reasoning throughout.
8	a A-CED.A.2	Student provides no table or a table with multiple incorrect entries.	Student provides a data table that is incomplete or has more than one minor error.	Student provides a data table that is complete but may have one error or slightly inaccurate headings.	Student provides a data table that is complete and correct with correct headings.
	b A-CED.A.2	Student provides no equation or an equation that does not represent exponential growth.	Student provides an incorrect equation but one that models exponential growth.	Student provides a correct answer in the form of $T = B(2)^{3h}$.	Student provides a correct answer in the form of $T = B8^h$ or in more than one form, such as $T = B(2)^{3h}$ and $T = B8^h$.
	c A-CED.A.2	Student provides no graph or a grossly inaccurate graph.	Student provides a graph with an inaccurate shape but provides some evidence of reasoning in labeling the axes and/or data points.	Student creates a graph with correct general shape but may leave off or make an error on one or two axes or data points.	Student creates a complete graph with correctly labeled axes and correctly labeled data points (or a data table) showing the values for $h = 0, 1, 2, 3, 4$.
	d A-CED.A.2	Student provides no answer or an incorrect answer with no evidence of reasoning in arriving at the answer.	Student provides limited evidence of reasoning and an incorrect answer.	Student answers that 409.6 bacteria are alive.	Student answers that 410, or about 410, bacteria are alive.

9	a A-CED.A.1	Student writes incorrect equations or does not provide equations.	Student answers are incorrect, but at least one of the equations is correct. Student makes a gross error in the solution, makes more than one minor error in the solution process, or has one of the two equations incorrect.	Both equations are correct, but student makes a minor mistake in finding the solution.	Both equations are correct and student solves them correctly to arrive at the answer that Jack is 31 and Susan is 4.
	b A-REI.B.3	Student does not answer or gives a completely incorrect answer.	Student articulates only one of the calculations correctly.	Student articulates the two calculations but with a minor misstatement in one of the descriptions.	Student articulates both calculations correctly.
10	a–b A-APR.A.1	Student work is blank or demonstrates no understanding of multiplication of polynomials, nor how to apply part (a) to arrive at an answer for part (b).	Student makes more than one error in the multiplication but demonstrates some understanding of multiplication of polynomials. Student may not be able to garner or apply information from part (a) to use in answering part (b) correctly.	Student demonstrates the ability to multiply the polynomials (expressing the product as a sum of monomials with like terms combined) and to apply the structure from part (a) to solve part (b). There may be minor errors.	Student demonstrates the ability to multiply the polynomials (expressing the product as a sum of monomials with like terms combined) and to apply the structure from part (a) to solve part (b) as $91(232)$.
11	a A-REI.C.6	Student is unable to demonstrate the understanding that two equations with $(3, 4)$ as a solution are needed.	Student provides two equations that have $(3, 4)$ as a solution (or attempts to provide such equations) but makes one or more errors. Student may provide an equation with a negative slope.	Student shows one minor error in the answer but attempts to provide two equations both containing $(3, 4)$ as a solution and both with positive slope.	Student provides two equations both containing $(3, 4)$ as a solution and both with positive slope.
	b A-REI.C.6	Student is unable to identify the multiple correctly.	Student identifies the multiple as 3.	N/A	Student correctly identifies the multiple as 2.

	c A-REI.C.6	Student is unable to demonstrate even a partial understanding of how to find the solution to the system.	Student shows some reasoning required to find the solution but makes multiple errors.	Student makes a minor error in finding the solution point.	Student successfully identifies the solution point as (3, 4).
	d A-REI.C.5 A-REI.C.6 A-REI.D.10	Student is unable to answer or to support the answer with any solid reasoning.	Student concludes yes or no but is only able to express limited reasoning in support of the answer.	Student correctly explains that all the systems have the solution point (3, 4) but incorrectly assumes this is true for all cases of m .	Student correctly explains that while in most cases this is true, if $m = 1$, the two lines are coinciding lines, resulting in a solution set consisting of all the points on the line.
12	a MP.2 A-REI.D.12	Student is unable to articulate any sound reasons.	Student is only able to articulate one sound reason.	Student provides two sound reasons but makes minor errors in the expression of reasoning.	Student is able to articulate at least two valid reasons. Valid reasons include the following: the graph assumes x could be less than zero, the graph assumes y could be less than zero, the graph assumes a and b could be non-whole numbers, the graph assumes 160 children could attend with no adults.
	b A-CED.A.2 A-REI.D.10 A-REI.D.12	Student is unable to communicate a relevant requirement of the solution set.	Student provides a verbal description that lacks precision and accuracy but demonstrates some reasoning about the solution within the context of the problem.	Student makes minor errors in communicating the idea that both (a) and (b) must be whole numbers whose sum is less than or equal to 160.	Student communicates effectively that both (a) and (b) must be whole numbers whose sum is less than or equal to 160.

	<p>c</p> <p>A-CED.A.2 A-REI.C.6</p>	<p>Student is unable to demonstrate any substantive understanding in how to create the equations and solve the system of equations.</p>	<p>Student makes multiple errors in the equations and/or solving process but demonstrates some understanding of how to create equations to represent a context and/or solve the system of equations.</p>	<p>Student makes minor errors in the equations but solves the system accurately, or the student creates the correct equations but makes a minor error in solving the system of equations.</p>	<p>Student correctly writes the equations to represent the system. Student solves the system accurately and summarizes by defining or describing the values of the variable in the context of the problem (i.e., that there are 100 adult tickets and 44 child tickets sold.)</p>
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Name _____

Date _____

1. Solve the following equations for x . Write your answer in set notation.

a. $3x - 5 = 16$

$$3x = 21 \quad \text{Solution set: } \{7\}$$

$$x = 7$$

b. $3(x + 3) - 5 = 16$

$$3x + 9 - 5 = 16 \quad \text{Solution set: } \{4\}$$

$$3x = 12$$

$$x = 4$$

c. $3(2x - 3) - 5 = 16$

$$6x - 9 - 5 = 16 \quad \text{Solution set: } \{5\}$$

$$6x - 14 = 16$$

$$6x = 30$$

$$x = 5$$

d. $6(x + 3) - 10 = 32$

$$6x + 18 - 10 = 32 \quad \text{Solution set: } \{4\}$$

$$6x = 24$$

$$x = 4$$

- e. Which two equations above have the same solution set? Write a sentence explaining how the properties of equality can be used to determine the pair without having to find the solution set for each.

Problems (b) and (d) have the same solution set. The expressions on each side of the equal sign for (d) are twice those for (b). So, if (left side) = (right side) is true for only some x -values, then $2(\text{left side}) = 2(\text{right side})$ will be true for exactly the same x -values. Or simply, applying the multiplicative property of equality does not change the solution set.

2. Let c and d be real numbers.

- a. If $c = 42 + d$ is true, then which is greater: c or d or are you not able to tell? Explain how you know your choice is correct.

c must be greater because c is always 42 more than d .

- b. If $c = 42 - d$ is true, then which is greater: c or d or are you not able to tell? Explain how you know your choice is correct.

There is no way to tell. We only know that the sum of c and d is 42. If d were 10, c would be 32 and, therefore, greater than d . But if d were 40, c would be 2 and, therefore, less than d .

3. If $a < 0$ and $c > b$, circle the expression that is greater:

$a(b - c)$ or $a(c - b)$

Use the properties of inequalities to explain your choice.

*Since $c > b$,
it follows that $0 > b - c$,
and since $a < 0$, a is negative,
and the product of two negatives will be
a positive.*

*Since $c > b$,
it follows that $c - b > 0$.
so $(c - b)$ is positive. And since a is
negative, the product of
 $a \cdot (c - b) < a \cdot (b - c)$.*

4. Solve for x in each of the equations or inequalities below and name the property and/or properties used:

a. $\frac{3}{4}x = 9$

$$x = 9 \cdot \left(\frac{4}{3}\right)$$

$$x = 12$$

Multiplication property of equality

b. $10 + 3x = 5x$

$$10 = 2x$$

$$5 = x$$

Addition property of equality

Multiplication property of equality

c. $a + x = b$

$$x = b - a$$

Addition property of equality

d. $cx = d$

$$x = \frac{d}{c}, c \neq 0$$

Multiplication property of equality

e. $\frac{1}{2}x - g < m$

$$\frac{1}{2}x < m + g$$

$$x < 2 \cdot (m + g)$$

Addition property of equality

Multiplication property of equality

f. $q + 5x = 7x - r$

$$q + r = 2x$$

$$\frac{(q+r)}{2} = x$$

Addition property of equality

Multiplication property of equality

g. $\frac{3}{4}(x + 2) = 6(x + 12)$

$$3 \cdot (x + 2) = 24 \cdot (x + 12)$$

Multiplication property of equality

$$3x + 6 = 24x + 288$$

Distributive property

$$-\frac{282}{21} = x$$

Addition property of equality and multiplication

$$-\frac{94}{7} = x$$

Property of equality

$$-\frac{94}{7} = x$$

h. $3(5 - 5x) > 5x$

$$15 - 15x > 5x$$

Distributive property

$$15 > 20x$$

Addition property of inequality

$$\frac{3}{4} > x$$

Multiplication property of equality

5. The equation, $3x + 4 = 5x - 4$, has the solution set $\{4\}$.

a. Explain why the equation, $(3x + 4) + 4 = (5x - 4) + 4$, also has the solution set $\{4\}$.

Since the new equation can be created by applying the addition property of equality, the solution set does not change.

OR

Each side of this equation is 4 more than the sides of the original equation. Whatever value(s) make $3x + 4 = 5x - 4$ true would also make 4 more than $3x + 4$ equal to 4 more than $5x - 4$.

- b. In part (a), the expression $(3x + 4) + 4$ is equivalent to the expression $3x + 8$. What is the definition of equivalent algebraic expressions? Describe why changing an expression on one side of an equation to an equivalent expression leaves the solution set unchanged?

Algebraic expressions are equivalent if (possibly repeated) use of the distributive, associative, and commutative properties and/or the properties of rational exponents can be applied to one expression to convert it to the other expression.

When two expressions are equivalent, assigning the same value to x in both expressions will give an equivalent numerical expression, which then evaluates to the same number. Therefore, changing the expression to something equivalent will not change the truth value of the equation once values are assigned to x .

- c. When we square both sides of the original equation, we get the following new equation:

$$(3x + 4)^2 = (5x - 4)^2.$$

Show that 4 is still a solution to the new equation. Show that 0 is also a solution to the new equation but is not a solution to the original equation. Write a sentence that describes how the solution set to an equation may change when both sides of the equation are squared.

$(3 \cdot 4 + 4)^2 = (5 \cdot 4 - 4)^2$ gives $16^2 = 16^2$, which is true.

$(3 \cdot 0 + 4)^2 = (5 \cdot 0 - 4)^2$ gives $4^2 = (-4)^2$, which is true.

But, $(3 \cdot 0 + 4) = (5 \cdot 0 - 4)$ gives $4 = -4$, which is false.

When both sides are squared, you might introduce new numbers to the solution set because statements like $4 = -4$ are false, but statements like $4^2 = (-4)^2$ are true.

- d. When we replace x by x^2 in the original equation, we get the following new equation:

$$3x^2 + 4 = 5x^2 - 4.$$

Use the fact that the solution set to the original equation is $\{4\}$ to find the solution set to this new equation.

Since the original equation $3x + 4 = 5x - 4$ was true when $x = 4$, the new equation $3x^2 + 4 = 5x^2 - 4$ should be true when $x^2 = 4$. And, $x^2 = 4$ when $x = 2$, so the solution set to the new equation is $\{-2, 2\}$.

6. The Zonda Information and Telephone Company calculates a customer's total monthly cell phone charge using the formula,

$$C = (b + rm)(1 + t),$$

where C is the total cell phone charge, b is a basic monthly fee, r is the rate per minute, m is the number of minutes used that month, and t is the tax rate.

Solve for m , the number of minutes the customer used that month.

$$C = b + bt + rm + rmt$$

$$C - b - bt = m \cdot (r + rt)$$

$$\frac{C - b - bt}{r + rt} = m$$

$$t \neq -1$$

$$r \neq 0$$

7. Students and adults purchased tickets for a recent basketball playoff game. All tickets were sold at the ticket booth—season passes, discounts, etc., were not allowed.

Student tickets cost \$5 each, and adult tickets cost \$10 each. A total of \$4,500 was collected. 700 tickets were sold.

- a. Write a system of equations that can be used to find the number of student tickets, s , and the number of adult tickets, a , that were sold at the playoff game.

$$5s + 10a = 4500$$

$$s + a = 700$$

- b. Assuming that the number of students and adults attending would not change, how much more money could have been collected at the playoff game if the ticket booth charged students and adults the same price of \$10 per ticket?

$$700 \times \$10 = \$7000$$

$$\$7000 - \$4500 = \$2500 \text{ more}$$

- c. Assuming that the number of students and adults attending would not change, how much more money could have been collected at the playoff game if the student price was kept at \$5 per ticket and adults were charged \$15 per ticket instead of \$10?

First solve for a and s

$$5s + 10a = 4500$$

$$-5s - 5a = -3500$$

$$5a = 1000$$

$$a = 200$$

$$s = 500$$

$$\$5 \cdot (500) + \$15 \cdot (200) = \$5500$$

$$\$1,000 \text{ more}$$

OR

$$\$5 \text{ more per adult ticket } (200 \cdot \$5 = \$1000 \text{ more})$$

8. Alexis is modeling the growth of bacteria for an experiment in science. She assumes that there are B bacteria in a Petri dish at 12:00 noon. In reality, each bacterium in the Petri dish subdivides into two new bacteria approximately every 20 minutes. However, for the purposes of the model, Alexis assumes that each bacterium subdivides into two new bacteria exactly every 20 minutes.

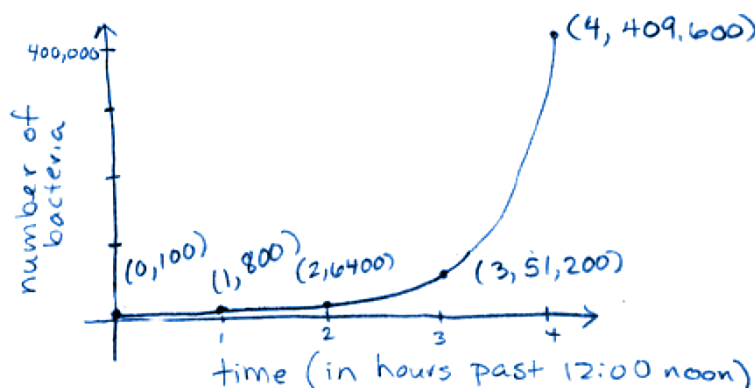
- a. Create a table that shows the total number of bacteria in the Petri dish at $\frac{1}{3}$ hour intervals for 2 hours starting with time 0 to represent 12:00 noon.

Time	Number of Bacteria
0	B
$\frac{1}{3}$ hour	$2B$
$\frac{2}{3}$ hour	$4B$
1 hour	$8B$
$1 \frac{1}{3}$ hour	$16B$
$1 \frac{2}{3}$ hour	$32B$
2 hour	$64B$

- b. Write an equation that describes the relationship between total number of bacteria T and time h in hours, assuming there are B bacteria in the Petri dish at $h = 0$.

$$T = B \cdot (2)^{3h} \text{ or } T = B \cdot 8^h$$

- c. If Alexis starts with 100 bacteria in the Petri dish, draw a graph that displays the total number of bacteria with respect to time from 12:00 noon ($h = 0$) to 4:00 p.m. ($h = 4$). Label points on your graph at time $h = 0, 1, 2, 3, 4$.



- d. For her experiment, Alexis plans to add an anti-bacterial chemical to the Petri dish at 4:00 p.m. that is supposed to kill 99.9% of the bacteria instantaneously. If she started with 100 bacteria at 12:00 noon, how many live bacteria might Alexis expect to find in the Petri dish right after she adds the anti-bacterial chemical?

$$(1 - 0.999) \cdot 409600 = 409.6$$

about 410 live bacteria

9. Jack is 27 years older than Susan. In 5 years time, he will be 4 times as old as she is.
- a. Find the present ages of Jack and Susan.

$$J = S + 27$$

$$J + 5 = 4 \cdot (S + 5)$$

$$S + 27 + 5 = 4S + 20$$

$$S + 32 = 4S + 20$$

$$12 = 3S$$

$$S = 4$$

$$J = 4 + 27$$

$$J = 31$$

Jack is 31 and Susan is 4.

- b. What calculations would you do to check if your answer is correct?

Is Jack's age – Susan's age = 27?

Add 5 years to Jack's and Susan's ages, and see if that makes Jack 4 times as old as Susan.

10.

a. Find the product: $(x^2 - x + 1)(2x^2 + 3x + 2)$

$$\begin{array}{r} 2x^4 + 3x^3 + 2x^2 - 2x^3 - 3x^2 - 2x + 2x^2 + 3x + 2 \\ 2x^4 + x^3 + x^2 + x + 2 \end{array}$$

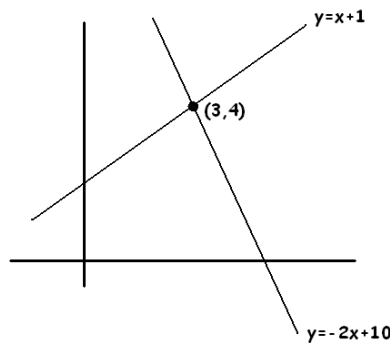
b. Use the results of part (a) to factor 21,112 as a product of a two-digit number and a three-digit number.

$$\begin{array}{r} (100 - 10 + 1) \cdot (200 + 30 + 2) \\ (91) \cdot (232) \end{array}$$

11. Consider the following system of equations with the solution $x = 3, y = 4$.

Equation A1: $y = x + 1$

Equation A2: $y = -2x + 10$



a. Write a unique system of two linear equations with the same solution set. This time make both linear equations have positive slope.

Equation B1: $y = \frac{4}{3}x$

Equation B2: $y = x + 1$

- b. The following system of equations was obtained from the original system by adding a multiple of equation A2 to equation A1.

Equation C1: $y = x + 1$

Equation C2: $3y = -3x + 21$

What multiple of A2 was added to A1?

2 times A2 was added to A1.

- c. What is the solution to the system given in part (b)?

(3,4)

- d. For any real number m , the line $y = m(x - 3) + 4$ passes through the point $(3,4)$.

Is it certain then that the system of equations:

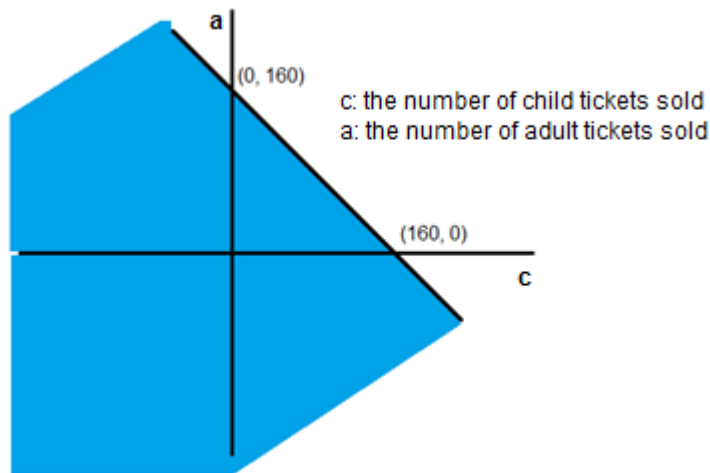
Equation D1: $y = x + 1$

Equation D2: $y = m(x - 3) + 4$

has only the solution $x = 3, y = 4$? Explain.

No. If $m = 1$, then the two lines have the same slope. Both lines pass through the point $(3,4)$, and the lines are parallel; therefore, they coincide. There are infinite solutions. The solution set is all the points on the line. Any other nonzero value of m would create a system with the only solution of $(3,4)$.

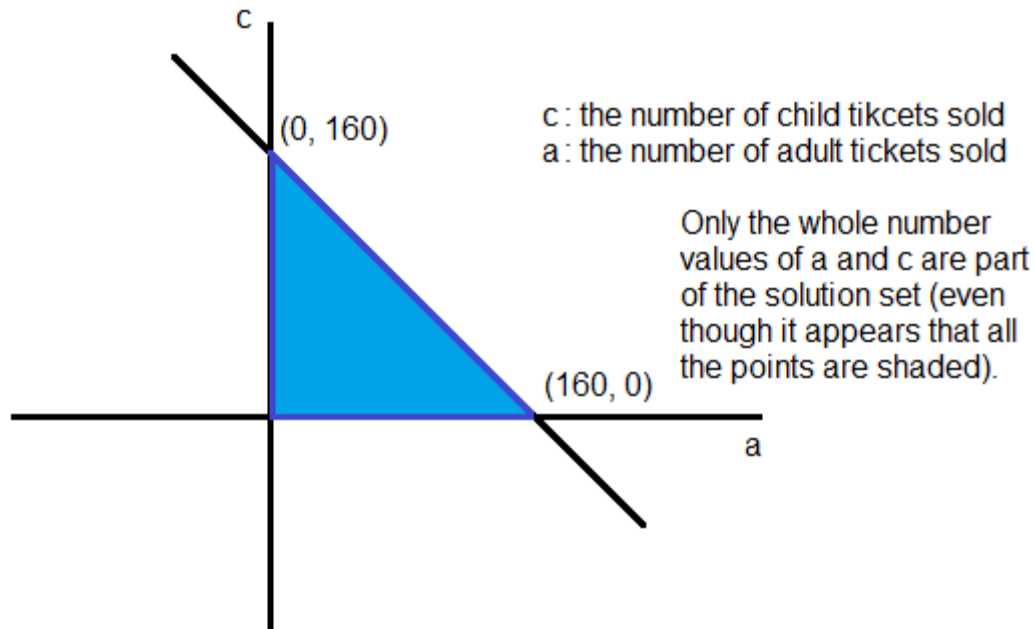
12. The local theater in Jamie's home town has a maximum capacity of 160 people. Jamie shared with Venus the following graph and said that the shaded region represented all the possible combinations of adult and child tickets that could be sold for one show.



- a. Venus objected and said there was more than one reason that Jamie's thinking was flawed. What reasons could Venus be thinking of?
- The graph implies that the number of tickets sold could be a fractional amount, but really it only makes sense to sell whole number tickets. x and y must be whole numbers.*
 - The graph also shows that negative ticket amounts could be sold, which does not make sense.*

- b. Use equations, inequalities, graphs, and/or words to describe for Jamie the set of all possible combinations of adult and child tickets that could be sold for one show.

The system would be $\begin{cases} a + c \leq 160 \\ a \geq 0 \\ c \geq 0 \end{cases}$ where a and c are whole numbers.



- c. The theater charges \$9 for each adult ticket and \$6 for each child ticket. The theater sold 144 tickets for the first showing of the new release. The total money collected from ticket sales for that show was \$1,164. Write a system of equations that could be used to find the number of child tickets and the number of adult tickets sold, and solve the system algebraically. Summarize your findings using the context of the problem.

a : the number of adult tickets sold (must be a whole number)

c : the number of child tickets sold (must be a whole number)

$$\begin{cases} 9a + 6c = 1164 \\ a + c = 144 \end{cases}$$

$$9a + 6c = 1164$$

$$-6a - 6c = -864$$

$$3a = 300$$

$$a = 100, c = 44$$

In all, 100 adult tickets and 44 child tickets were sold.

**Section 1.3 - Education Plan :: Attachment 5 - Units of instruction ::
English Language Arts**

Grade 6: Module 1

Unit 2: Overview and Lessons

Write to Inform: Compare and Contrast Text and Film of *The Lightning Thief*

In Unit 2, students will continue to read excerpts from *The Lightning Thief*. They will also analyze the Greek myths highlighted in the novel and compare themes and topics in the Greek myths with those evident in *The Lightning Thief*. In the second half of the unit, students write a literary analysis essay using the Painted Essay® structure comparing and contrasting watching parts of *The Lightning Thief* movie with reading about the same events in the novel.

The 4 Ts

TOPIC	TASK
<p>Greek Mythology</p>	<p>Read several Greek myths featured in the anchor and identify their themes; compare and contrast select scenes from the film version of the <i>The Lightning Thief</i> to the novel (mid-unit assessment).</p> <p>Compose an informational essay using a compare and contrast structure; follow a peer critique protocol to revise writing (end of unit assessment).</p>
TARGETS	TEXTS
<p>RL.6.1, RL.6.2, RL.6.4, RL.6.7, RL.6.9, RL.6.10, W.6.2, W.6.4, W.6.5, W.6.6, W.6.9a, W.6.10, L.6.2b, L.6.4, L.6.6</p>	<p><i>Percy Jackson and the Olympians: The Lightning Thief</i> by Rick Riordan <i>Percy Jackson and the Olympians: The Lightning Thief</i>, 20th Century Fox Greek Myths: “Theseus and the Minotaur,” “Cronus,” “Medusa,” and “Hestia”</p>



CCS Standards

Below are the standards that are formally assessed in this unit.

Reading—Literature

- **RL.6.1:** Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- **RL.6.2:** Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
- **RL.6.4:** Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.
- **RL.6.7:** Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text to what they perceive when they listen or watch.
- **RL.6.9:** Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.
- **RL.6.10:** By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Writing

- **W.6.2:** Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
- **W.6.2a:** Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
- **W.6.2b:** Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
- **W.6.2c:** Use appropriate transitions to clarify the relationships among ideas and concepts.
- **W.6.2d:** Use precise language and domain-specific vocabulary to inform about or explain the topic.
- **W.6.2e:** Establish and maintain a formal style.
- **W.6.2f:** Provide a concluding statement or section that follows from the information or explanation presented.
- **W.6.4:** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)

- **W.6.5:** With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including Grade 6.)
- **W.6.6:** Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.
- **W.6.9a:** Apply *Grade 6 Reading standards* to literature (e.g., “Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics”).
- **W.6.10:** Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Language

- **L.6.2b:** Spell correctly.
- **L.6.4:** Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies.
- **L.6.4a:** Use context (e.g., the overall meaning of a sentence or paragraph; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase.
- **L.6.4b:** Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *audience*, *auditory*, *audible*).
- **L.6.4c:** Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.
- **L.6.4d:** Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
- **L.6.6:** Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Habits of Character

Social-Emotional Learning Focus

Central to the EL Education curriculum is a focus on “habits of character” and social-emotional learning. Students work to become effective learners, developing mindsets and skills for success in college, career, and life (e.g., initiative, responsibility, perseverance, collaboration); work to become ethical people, treating others well and standing up for what is right (e.g., empathy, integrity, respect, compassion); and work to contribute to a better world, putting their learning to use to improve communities (e.g., citizenship, service).

In this unit, students focus on the habits of character of respect and compassion as they respond to one another’s ideas and skills in written work and in discussions. Also, students focus on integrity and perseverance as they work independently on assessments. As they track progress on their assessments, they take responsibility for their own learning.



Unit-at-a-Glance

This unit is approximately 3 weeks or 15 sessions of instruction.

Lesson and Focus CCS Standards	Lesson Summary	Daily Learning Targets	Ongoing Assessment
Lesson 1 RL.6.1, RL.6.2, RL.6.4, L.6.4a, L.6.4b	Determine Theme and Summarize: <i>The Lightning Thief</i>, Chapter 13 Opening A. Engage the Learner – L.6.4b (5 minutes) Work Time A. Read <i>The Lightning Thief</i> , Chapter 13 Excerpt – RL.6.1 (15 minutes) B. Analyze Theme: <i>The Lightning Thief</i> , Chapter 13 – RL.6.2 (10 minutes) C. Analyze a Model Summary – RL.6.2 (10 minutes) Closing and Assessment A. Reflect on Academic Mindsets (5 minutes) Homework A. Analyze Summaries: Students complete Homework: Analyze Sample Summaries: <i>The Lightning Thief</i> , Chapter 13. B. Preread Anchor Text: Students should preread chapter 14 of <i>The Lightning Thief</i> in preparation for studying an excerpt from the chapter in the next lesson. Students read chapter 13 of <i>The Lightning Thief</i> before practicing text-dependent questions on the themes present in the novel. Students analyze a model summary to generate criteria for an effective summary.	<ul style="list-style-type: none"> I can demonstrate understanding of the excerpt from chapter 13 of <i>The Lightning Thief</i>. (RL.6.1) I can determine a theme and how it is conveyed through details in chapter 13 of <i>The Lightning Thief</i>. (RL.6.2) I can analyze a model to identify characteristics of an effective summary. (RL.6.2) 	<ul style="list-style-type: none"> Opening A: Entrance Ticket (RL.6.4, L.6.4b) Work Time A: Gist on sticky notes Work Time B: Text-Dependent Questions: <i>The Lightning Thief</i>, Chapter 13 (RL.6.1, RL.6.2, RL.6.4, L.6.4a, L.6.4b) Closing and Assessment A: Analyze a Model Summary note-catcher (RL.6.1, RL.6.2, SL.6.1)

Greek Mythology

Lesson and Focus CCS Standards	Lesson Summary	Daily Learning Targets	Ongoing Assessment
<p>Lesson 2 RL.6.1, RL.6.2</p>	<p>Close Read: “Theseus and the Minotaur”</p> <p>Opening A. Engage the Learner – RL.6.2 (5 minutes)</p> <p>Work Time A. Read <i>The Lightning Thief</i>, Chapter 14 Excerpt – RL.6.1 (15 minutes) B. Close Read: “Theseus and the Minotaur” – RL.6.2 (15 minutes)</p> <p>Closing and Assessment A. Pair Write: Summary – RL.6.2 (10 minutes)</p> <p>Homework A. Compare and Contrast Themes: Students complete Homework: Compare and Contrast Themes: “Theseus and the Minotaur” and <i>The Lightning Thief</i>. B. Independent Research Reading: Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.</p> <p>Students read chapter 14 of <i>The Lightning Thief</i> before engaging in a close read of one of the Greek myths referenced in the novel. Students work in pairs to practice writing a summary.</p>	<ul style="list-style-type: none"> • I can demonstrate understanding of the excerpt from chapter 14 of <i>The Lightning Thief</i>. (RL.6.1) • I can determine a theme and how it is conveyed through details in “Theseus and the Minotaur.” (RL.6.2) • I can write a summary of “Theseus and the Minotaur” without personal opinions or judgments. (RL.6.2) 	<ul style="list-style-type: none"> • Work Time A: Gist on sticky notes • Work Time B and Closing and Assessment A: Close Reading Culminating Task: “Theseus and the Minotaur” (RL.6.1, RL.6.2, W.6.10)
<p>Lesson 3 RL.6.1, RL.6.2</p>	<p>Close Reading Jigsaw: “Cronus” and “Medusa”</p> <p>Opening A. Engage the Learner – RL.6.2 (5 minutes)</p> <p>Work Time A. Review Summary Writing – RL.6.2 (10 minutes) B. Jigsaw Close Read: “Cronus” and “Medusa” – RL.6.2 (20 minutes)</p> <p>Closing and Assessment A. Jigsaw Share – RL.6.2 (10 minutes)</p> <p>Homework A. Compare and Contrast Themes: Students complete Homework: Compare and Contrast Themes: Greek Myths and <i>The Lightning Thief</i>. B. Preread Anchor Text: Students should preread chapter 15 in <i>The Lightning Thief</i> in preparation for studying an excerpt from the chapter in the next lesson.</p> <p>Students dive into additional Greek myths referenced in the novel and determine their themes. Students practice collaboration by working with multiple partners to share their findings.</p>	<ul style="list-style-type: none"> • I can write a summary of “Theseus and the Minotaur” without personal opinions or judgments. (RL.6.2) • I can determine themes in “Cronus” and “Medusa” and how they are conveyed through details. (RL.6.2) 	<ul style="list-style-type: none"> • Opening A: Entrance Ticket (RL.6.2) • Work Time A: Revision of Close Read Culminating Task: “Theseus and the Minotaur” (RL.6.1, RL.6.2, W.6.5, W.6.10) • Work Time B: Close Read Jigsaw: Greek Myths note-catcher (RL.6.1, RL.6.2, RL.6.4, W.6.10, SL.6.1, L.6.4)

Lesson and Focus CCS Standards	Lesson Summary	Daily Learning Targets	Ongoing Assessment
<p>Lesson 4 RL.6.1, RL.6.2, RL.6.9</p>	<p>Compare and Contrast Themes: Greek Myths and <i>The Lightning Thief</i></p> <p>Opening A. Engage the Learner – RL.6.2 (5 minutes)</p> <p>Work Time A. Read <i>The Lightning Thief</i>, Chapter 15 Excerpt – RL.6.1 (20 minutes) B. Compare and Contrast Themes: Greek Myths and <i>The Lightning Thief</i> – RL.6.9 (15 minutes)</p> <p>Closing and Assessment A. Reflect on Habits of Character (5 minutes)</p> <p>Homework A. Independent Research Reading: Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.</p> <p>Students read chapter 15 of <i>The Lightning Thief</i>, making connections between the themes of the novel and the Greek myths they have been studying.</p>	<ul style="list-style-type: none"> I can demonstrate understanding of the excerpt from chapter 15 of <i>The Lightning Thief</i>. (RL.6.1) I can compare and contrast the approach to similar themes in <i>The Lightning Thief</i> and Greek myths. (RL.6.9) 	<ul style="list-style-type: none"> Opening A: Entrance Ticket (RL.6.1, RL.6.2, W.6.10) Work Time A: Gist on sticky notes Work Time B: Compare and Contrast Themes: Greek Myths and <i>The Lightning Thief</i> note-catcher (RL.6.1, RL.6.2, RL.6.9, RL.6.10, W.6.10)
<p>Lesson 5 RL.6.1, RL.6.2, RL.6.4, RL.6.9, L.6.4</p>	<p>Mid-Unit 2 Assessment: Themes in Greek Myths and <i>The Lightning Thief</i></p> <p>Opening A. Return End of Unit 1 Assessments (5 minutes) B. Engage the Learner (5 minutes)</p> <p>Work Time A. Mid-Unit 2 Assessment: Compare and Contrast Themes in Literature (25 minutes)</p> <p>Closing and Assessment A. Track Progress – RL.6.2 (10 minutes)</p> <p>Homework A. Independent Research Reading: Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.</p> <p>Students complete the Mid-Unit 2 Assessment, in which they analyze themes in a Greek myth and <i>The Lightning Thief</i>.</p>	<ul style="list-style-type: none"> I can compare and contrast the approach to similar themes in <i>The Lightning Thief</i> and “Prometheus.” (RL.6.1, RL.6.2, RL.6.9, W.6.9a, W.6.10) I can independently read, understand, and explain the meaning of a new text. (RL.6.1, RL.6.2, RL.6.4, RL.6.10, L.6.4) 	<ul style="list-style-type: none"> Opening A: Entrance Ticket Work Time A: Mid-Unit 2 Assessment: Compare and Contrast Themes in Literature (RL.6.1, RL.6.2, RL.6.4, RL.6.9, RL.6.10, L.6.4) Closing and Assessment A: Track Progress (RL.6.1, RL.6.2, W.6.10)

Lesson and Focus CCS Standards	Lesson Summary	Daily Learning Targets	Ongoing Assessment
<p>Lesson 6 RL.6.7, W.6.2, W.6.4, W.6.9a</p>	<p>Compare and Contrast Essay: Analyze a Model</p> <p>Opening A. Engage the Learner – W.6.10 (5 minutes)</p> <p>Work Time A. Read a Model Painted Essay® – W.6.2 (5 minutes) B. View Clip from Film Version of <i>The Lightning Thief</i> – RL.6.7 (10 minutes) C. Analyze a Model Painted Essay® – W.6.2 (20 minutes)</p> <p>Closing and Assessment A. Debrief: Painted Essay® – W.6.2 (5 minutes)</p> <p>Homework A. Preread Anchor Text: Students should preread chapter 16 in <i>The Lightning Thief</i> in preparation for studying an excerpt from the chapter in the next lesson.</p> <p>Students begin composing an essay comparing and contrasting <i>The Lightning Thief</i> to clips from the film version. Students apply the Painted Essay® structure to a model essay.</p>	<ul style="list-style-type: none"> • I can determine the purpose of a model essay. (W.6.2) • I can compare and contrast the experience of reading a scene in a novel to viewing a film version of the same scene. (RL.6.7) • I can use the Painted Essay® structure to analyze a model. (W.6.2) 	<ul style="list-style-type: none"> • Opening A: Entrance Ticket (W.6.10) • Work Time B: Compare and contrast text and film scene (RL.6.1, RL.6.7) • Work Time C: The Painted Essay® template (W.6.2, W.6.4, W.6.5, W.6.9a)
<p>Lesson 7 RL.6.1, RL.6.4, RL.6.7, W.6.5, W.6.9a, L.6.4a, L.6.4d</p>	<p>Compare and Contrast Film and Text: <i>The Lightning Thief</i></p> <p>Opening A. Engage the Learner – L.6.4 (5 minutes)</p> <p>Work Time A. Read <i>The Lightning Thief</i>, Chapter 16 Excerpt – RL.6.1 (20 minutes) B. Compare and Contrast Text and Film Scene – RL.6.7 (15 minutes)</p> <p>Closing and Assessment A. Reflect on Habits of Character (5 minutes)</p> <p>Homework A. Independent Research Reading: Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.</p> <p>Students read chapter 16 of <i>The Lightning Thief</i> and engage in a deeper comparison of the film version of the novel.</p>	<ul style="list-style-type: none"> • I can demonstrate understanding of the excerpt from chapter 16 of <i>The Lightning Thief</i>. (RL.6.1) • I can compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the film. (RL.6.7) 	<ul style="list-style-type: none"> • Opening A: Entrance Ticket (RL.6.4, L.6.4a, L.6.4d) • Work Time A: Gist on sticky notes • Work Time B: Compare and Contrast Film and Text: <i>The Lightning Thief</i> note-catcher (RL.6.1, RL.6.7, W.6.2b, W.6.5, W.6.9a)

Lesson and Focus CCS Standards	Lesson Summary	Daily Learning Targets	Ongoing Assessment
<p>Lesson 8 RL.6.1, RL.6.7, W.6.2a, W.6.4, W.6.5, W.6.9a</p>	<p>Compare and Contrast Essay: Plan Introduction</p> <p>Opening A. Engage the Learner – RL.6.7 (5 minutes)</p> <p>Work Time A. Compare and Contrast Text and Film Scene – RL.6.7 (5 minutes) B. Language Dive: Compare and Contrast Model Essay Focus Statement – W.6.2a (10 minutes) C. Plan an Introduction – W.6.2a (20 minutes)</p> <p>Closing and Assessment A. Reflect on Habits of Character (5 minutes)</p> <p>Homework A. Plan Introduction: Students review and revise their focus statements and plan for their introduction to make sure they are responding to the prompt. B. Preread Anchor Text: Students should preread chapter 17 in <i>The Lightning Thief</i> in preparation for studying an excerpt from the chapter in the next lesson.</p> <p>Students engage in a Language Dive to better understand the structure of a focus statement. They also begin planning the introduction to their compare and contrast essay.</p>	<ul style="list-style-type: none"> I can compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the film. (RL.6.7) I can plan the introduction of a compare and contrast essay with a strong focus statement. (W.6.2a) 	<ul style="list-style-type: none"> Work Time A: Compare and Contrast Film and Text: <i>The Lightning Thief</i> note-catcher (RL.6.1, RL.6.7, W.6.2b, W.6.5, W.6.9a) Work Time B: Language Dive: Focus Statement (W.6.2a, SL.6.1) Work Time C: Introduction: Informative/ Explanatory Writing Plan graphic organizer (RL.6.1, RL.6.7, W.6.2a, W.6.4, W.6.5, W.6.9a)
<p>Lesson 9 RL.6.1, RL.6.7, W.6.2a, W.6.2b, W.6.4, W.6.5, W.6.9a</p>	<p>Compare and Contrast Essay: Plan Proof Paragraph 1</p> <p>Opening A. Engage the Learner – W.6.2a (5 minutes)</p> <p>Work Time A. Read <i>The Lightning Thief</i>, Chapter 17 Excerpt – RL.6.1 (20 minutes) B. Plan Proof Paragraph 1 – W.6.2b (15 minutes)</p> <p>Closing and Assessment A. Pair Share – RL.6.7 (5 minutes)</p> <p>Homework A. Plan Proof Paragraph 1: Students review and revise their plan for their second Proof Paragraph to make sure they are accurately contrasting the experiences of seeing the film and reading the novel. B. Preread Anchor Text: Students should preread chapter 18 in <i>The Lightning Thief</i> in preparation for studying an excerpt from the chapter in the next lesson.</p> <p>Students read chapter 17 of <i>The Lightning Thief</i> and begin planning the first paragraph of their compare and contrast essay.</p>	<ul style="list-style-type: none"> I can demonstrate understanding of the excerpt from chapter 17 of <i>The Lightning Thief</i>. (RL.6.1) I can compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the film. (RL.6.7) I can plan the first Proof Paragraph of a compare and contrast essay. (W.6.2b) 	<ul style="list-style-type: none"> Opening A: Entrance Ticket (W.6.2a, W.6.5) Work Time A: Gist on sticky notes Work Time B: Proof Paragraph 1: Informative/ Explanatory Writing Plan graphic organizer (RL.6.1, RL.6.7, W.6.2b, W.6.4, W.6.5, W.6.9a)

Lesson and Focus CCS Standards	Lesson Summary	Daily Learning Targets	Ongoing Assessment
<p>Lesson 10 RL.6.1, RL.6.7, W.6.2b, W.6.4, W.6.5, W.6.9a</p>	<p>Compare and Contrast Essay: Plan Proof Paragraph 2</p> <p>Opening A. Engage the Learner – W.6.2b (5 minutes)</p> <p>Work Time A. Read <i>The Lightning Thief</i>, Chapter 18 Excerpt – RL.6.1 (20 minutes) B. Plan Proof Paragraph 2 – W.6.2b (15 minutes)</p> <p>Closing and Assessment A. Pair Share – RL.6.7 (5 minutes)</p> <p>Homework A. Plan Proof Paragraph 2: Students review and revise their plan for their second Proof Paragraph to make sure they are accurately contrasting the experiences of seeing the film and reading the novel. Remind students that, at this time, they are only planning, not drafting, their second Proof Paragraph. B. Independent Research Reading: Students read for at least 20 minutes in their independent research reading text. They then select a prompt and write a response in their independent reading journal.</p> <p>Students read chapter 18 of <i>The Lightning Thief</i> and begin planning the second paragraph of their compare and contrast essay.</p>	<ul style="list-style-type: none"> • I can demonstrate understanding of the excerpt from chapter 18 of <i>The Lightning Thief</i>. (RL.6.1) • I can compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the film. (L.6.7) • I can plan the second Proof Paragraph of a compare and contrast essay. (W.6.2b) 	<ul style="list-style-type: none"> • Opening A: Entrance Ticket (W.6.2b) • Work Time A: Gist on sticky notes • Work Time B: Proof Paragraph 2: Informative/ Explanatory Writing Plan graphic organizer (RL.6.1, RL.6.7, W.6.2b, W.6.4, W.6.5, W.6.9a)
<p>Lesson 11 RL.6.1, RL.6.7, W.6.2a, W.6.2f, W.6.4, W.6.5, W.6.9a</p>	<p>Compare and Contrast Essay: Plan Conclusion</p> <p>Opening A. Engage the Learner – W.6.2a (5 minutes)</p> <p>Work Time A. Language Dive: Reflection – W.6.2f (15 minutes) B. Plan a Conclusion – W.6.2f (20 minutes)</p> <p>Closing and Assessment A. Pair Share – RL.6.7 (5 minutes)</p> <p>Homework A. Plan Conclusion: Students review and revise the plan for their conclusion to make sure they are adequately wrapping up their essay. B. Independent Research Reading: Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.</p> <p>Students engage in a Language Dive to better understand the structure of a concluding paragraph before beginning to compose their own.</p>	<ul style="list-style-type: none"> • I can compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the film. (RL.6.7) • I can plan the conclusion of a compare and contrast essay with a strong reflection. (W.6.2f) 	<ul style="list-style-type: none"> • Work Time A: Language Dive: Reflection (W.6.2f) • Work Time B: Conclusion: Informative/ Explanatory Writing Plan graphic organizer (RL.6.1, RL.6.7, W.6.2f, W.6.4, W.6.5, W.6.9a)

Lesson and Focus CCS Standards	Lesson Summary	Daily Learning Targets	Ongoing Assessment
<p>Lessons 12–13 RL.6.1, RL.6.7, W.6.2, W.6.4, W.6.5, W.6.6, W.6.9a, L.6.2b, L.6.6</p>	<p>End of Unit 2 Assessment: Compare and Contrast Film and Text: <i>The Lightning Thief</i></p> <p>Opening A. Return Mid-Unit 2 Assessments (5 minutes) B. Engage the Learner (5 minutes)</p> <p>Work Time A. End of Unit 2 Assessment: Write Compare and Contrast Essay (65 minutes)</p> <p>Closing and Assessment A. Track Progress – W.6.2 (15 minutes)</p> <p>Homework A. Independent Research Reading: Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.</p> <p>Students complete the End of Unit 2 Assessment by synthesizing their draft paragraphs into a cohesive essay.</p>	<ul style="list-style-type: none"> I can write an essay in which I compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the film. (RL.6.1, RL.6.7, W.6.2, W.6.4, W.6.5, W.6.6, W.6.9a, W.6.10, L.6.6) 	<ul style="list-style-type: none"> Opening A: Entrance Ticket Work Time A: End of Unit 2 Assessment: Write Compare and Contrast Essay (RL.6.1, RL.6.7, W.6.2, W.6.4, W.6.5, W.6.6, W.6.9a, W.6.10, L.6.2b, L.6.6) Closing and Assessment A: Track Progress (W.6.2, W.6.10)
<p>Lesson 14 RL.6.1, RL.6.7, W.6.2, W.6.4, W.6.5, W.6.6, W.6.9a, W.6.10, L.6.2b, L.6.6</p>	<p>End of Unit 2 Assessment: Revise Compare and Contrast Essay</p> <p>Opening A. Engage the Learner – W.6.2 (5 minutes)</p> <p>Work Time A. Language Dive: Appropriate Transitions – W.6.2c (10 minutes) B. Introduce Peer Critique Protocol – W.6.5 (10 minutes) C. Peer Critique – W.6.5 (10 minutes)</p> <p>Closing and Assessment A. End of Unit 2 Assessment Revision – W.6.2 (10 minutes)</p> <p>Homework A. Preread Anchor Text: Students should preread chapter 19 in <i>The Lightning Thief</i> in preparation for studying an excerpt from the chapter in the next lesson.</p> <p>Students engage in a Language Dive to better understand transition phrases. They also complete a peer critique, giving and receiving kind and constructive feedback.</p>	<ul style="list-style-type: none"> I can provide kind, specific, and helpful feedback to peers. (W.6.5) I can use feedback to revise my essay. (W.6.2) 	<ul style="list-style-type: none"> Opening A: Entrance Ticket (W.6.2, W.6.10) Work Time A: Language Dive: Compare and Contrast Model Essay, Appropriate Transitions note-catcher (W.6.2c, SL.6.1, L.6.6) Closing and Assessment A: End of Unit 2 Assessment (RL.6.1, RL.6.7, W.6.2, W.6.4, W.6.5, W.6.6, W.6.9a, W.6.10, L.6.6)

Preparation and Materials

Ensure that families are aware of the sensitive content of *The Lightning Thief*, and prepare students who may be affected by this content in advance.

The following materials are introduced in this unit and referenced throughout both the module and the school year:

- ✓ Criteria for an Effective Summary anchor chart
- ✓ Criteria for an Effective Informative Essay anchor chart
- ✓ Peer Critique Protocol anchor chart

Texts and Resources

Required Trade Books and Resources

- Riordan, Rick. *Percy Jackson and the Olympians: The Lightning Thief*. Disney Press, 2005. (one per student)
- Columbus, Chris M., director. *Percy Jackson and the Olympians: The Lightning Thief* (DVD). 20th Century Fox, 2010.

Additional Resources (provided in curriculum materials)

- Greek Myths: “Cronus,” “Medusa,” “Theseus and the Minotaur,” “Hestia”

Assessment Texts (provided in assessment materials)

- Greek Myth: “Prometheus”

Lesson 1: Determine Theme and Summarize: *The Lightning Thief*, Chapter 13



CCS Standards

Focus Standards

These are the standards the instruction addresses.

- RL.6.1, RL.6.2, RL.6.4, L.6.4a, L.6.4b

Supporting Standards

These are the standards that are incidental—no direct instruction in this lesson, but practice of these standards occurs as a result of addressing the focus standards.

- RL.6.10, SL.6.1, L.6.6



Daily Learning Targets

- I can demonstrate understanding of the excerpt from chapter 13 of *The Lightning Thief*. (RL.6.1)
- I can determine a theme and how it is conveyed through details in chapter 13 of *The Lightning Thief*. (RL.6.2)
- I can analyze a model to identify characteristics of an effective summary. (RL.6.2)

Ongoing Assessment

- Opening A: Entrance Ticket (RL.6.4, L.6.4b)
- Work Time A: Gist on sticky notes
- Work Time B: Text-Dependent Questions: *The Lightning Thief*, Chapter 13 (RL.6.1, RL.6.2, RL.6.4, L.6.4a, L.6.4b)
- Closing and Assessment A: Analyze a Model Summary note-catcher (RL.6.1, RL.6.2, SL.6.1)

Agenda

1. Opening

A. Engage the Learner – L.6.4b (5 minutes)

2. Work Time

A. Read *The Lightning Thief*, Chapter 13 Excerpt – RL.6.1 (15 minutes)

B. Analyze Theme: *The Lightning Thief*, Chapter 13 – RL.6.2 (10 minutes)

C. Analyze a Model Summary – RL.6.2 (10 minutes)

3. Closing and Assessment

A. Reflect on Academic Mindsets (5 minutes)

4. Homework

A. Analyze Summaries: Students complete Homework: Lesson 1: Analyze Sample Summaries: *The Lightning Thief*, Chapter 13.

B. Preread Anchor Text: Students should preread chapter 14 of *The Lightning Thief* in preparation for studying an excerpt from the chapter in the next lesson.

Teaching Notes

Alignment to Assessment Standards and Purpose of Lesson

- L.6.4 – Opening A: Students complete an entrance ticket in which they apply strategies to determine the meanings of unknown words.
- RL.6.1 – Work Time A: Students read the next chapter of the text and find the gist. Students also unpack unfamiliar vocabulary and answer comprehension questions using inferences and evidence from text.
- RL.6.2 – Work Time B: Students complete text-dependent questions to demonstrate their understanding of the main idea and theme(s) conveyed through the events of chapter 13.
- RL.6.4 – Work Time B: Students also answer text-dependent questions that ask them to interpret words as they are used in the text.
- RL.6.2 – Work Time C: Students collaborate with their peers to analyze a model summary and generate the criteria of an effective summary. By analyzing a model, students better understand the standard to which they should hold their own writing. By determining the characteristics of a summary through their own personal examination, students experience greater ownership over their learning than they would if simply given the criteria.
- Directions for routines that are repeated from previous lessons have been pared down and noted with “Repeated routine.” For the detailed outline of how to facilitate this part of the lesson, please refer back to previous lessons.

Opportunities to Extend Learning

- At this point in the novel, students have gathered a number of new vocabulary words. Challenge some students to deliberately use the words as they are discussing the novel or in their reading responses to internalize their meanings.

- For additional vocabulary practice, invite students to categorize by parts of speech the vocabulary they have pulled from the text so far. Check for understanding, then encourage students to create new categories and rearrange the vocabulary by the new classification.

How It Builds on Previous Work

- In this unit, students continue reading *The Lightning Thief* while also reading the original Greek stories referenced in the novel. Students practice writing summaries and continue exploring themes as they build toward writing a compare and contrast essay.

Support All Students

- Note there are differentiated versions of the Text-Dependent Questions: *The Lightning Thief*, Chapter 13 used in Work Time B and the Analyze a Model Summary note-catcher used in Work Time C in the separate Teacher’s Guide for English Language Learners. ▲
- Starting in this lesson, there is again another shift in how students are supported to determine gist. In the earlier lessons, students were guided through the process. Use knowledge of students to determine which students still need the support of the gist handout or more direct support.
- Students may be surprised, offended, confused, or upset by the sensitive content of this chapter (e.g., Annabeth’s difficult relationship with her father and stepmother; the Chimera is described as having a “blood-caked mane”). Additionally, Echidna is described in terms that are critical of her body size. Time for debriefing and reflection might help get these concerns out into the open so they can be addressed and tracked throughout the text.
- Students may struggle to read independently in the allotted time. Think about strategic grouping students of varying proficiency levels. ▲
- Students may struggle to differentiate gist writing from summary writing. Think about modeling, examples, clear definitions, and paraphrases of definitions into more comprehensible languages. ▲
- As students continue to move through a long text, it is important that poor reading habits don’t crystallize. Think about facilitating opportunities to gauge students’ performance/progress/goals. ▲

Assessment Guidance

- Monitor what students are recording on their Text-Dependent Questions note-catchers to ensure that they understand the key points. Look for common errors to use as teaching points and also strong models to share whole group.
- Monitor what students are recording on their Analyze a Model Summary note-catchers to ensure that they understand the key points. See the Criteria for an Effective Summary anchor chart (example for teacher reference). If a lot of students are a long way from being able to write a summary similar to the sample response, add a lesson of additional instruction before the assessment.

Down the Road

- In the next lesson, students will expand their understanding of Greek mythology and theme by engaging in a close read of “Theseus and the Minotaur.” After studying a model summary in this lesson, students will practice writing their own summary of “Theseus and the Minotaur” in the next lesson. They will also read from chapter 14 in *The Lightning Thief*.

In Advance

- Prepare the Criteria for an Effective Summary anchor chart.
- Review the student tasks and example answers to get familiar with what students will be required to do in the lesson (see Materials list).
- Preread chapter 13 in *The Lightning Thief* to identify words or plot points that may challenge students.
- Prepare copies of handouts for students, including entrance ticket (see Materials list).
- Post the learning targets and applicable anchor charts (see Materials list).

Technology & Multimedia

- Opening A: Use an online reflection and feedback tool, such as <http://eled.org/0121>, to assign warm-up prompts, encourage collaborative conversation, and provide immediate feedback.
- Work Time B: The skill of summarizing is introduced in this lesson. Use a brief but effective video to reinforce instruction on this skill.

Vocabulary

- *in-* (prefix), inconvenient, indignantly, insane, intense, invisible, rational, summary (A)

Key

(A): Academic Vocabulary

(DS): Domain-Specific Vocabulary

Materials from Previous Lessons

Teacher

- ✓ Close Readers Do These Things anchor chart (one to display; from Unit 1, Lesson 4, Opening A)
- ✓ Academic word wall (begun in Unit 1, Lesson 1, Opening A)
- ✓ Text Guide: *The Lightning Thief* (for teacher reference) (from Unit 1, Lesson 2, Work Time A)
- ✓ Gist Record: *The Lightning Thief* anchor chart (example for teacher reference) (one to display; from Unit 1, Lesson 2, Work Time A)
- ✓ Work to Become Ethical People anchor chart (one to display; from Unit 1, Lesson 1, Work Time C)

- Work to Become Ethical People anchor chart (example for teacher reference) (from Unit 1, Lesson 1, Work Time C)

Student

- Vocabulary logs (one per student; begun in Unit 1, Lesson 2, Work Time B)
- Affix lists (one per student; from Affix List section)
- Percy Jackson and the Olympians: The Lightning Thief* (one per student; text; from Unit 1, Lesson 1, Work Time C)

New Materials

Teacher

- Entrance Ticket: Unit 2, Lesson 1 (for teacher reference)
- Text-Dependent Questions, *The Lightning Thief*, Chapter 13 (answers for teacher reference)
- Analyze a Model Summary note-catcher (example for teacher reference)
- Criteria for an Effective Summary anchor chart (for teacher reference)
- Criteria for an Effective Summary anchor chart (co-created during Work Time C)
- Homework: Lesson 1: Analyze Sample Summaries: *The Lightning Thief*, Chapter 13 (answers for teacher reference) (in Unit 2 Homework)

Student

- Entrance Ticket: Unit 2, Lesson 1 (one per student)
- Print or online dictionary (shared among several students)
- Sticky notes (one per student)
- Synopsis: *The Lightning Thief*, Chapter 13 (one per student; one for display)
- Text-Dependent Questions: *The Lightning Thief*, Chapter 13 (one per student)
- Text-Dependent Questions: *The Lightning Thief*, Chapter 13 ▲ (optional; see Teacher's Guide for English Language Learners)
- Analyze a Model Summary note-catcher (one per student)
- Analyze a Model Summary note-catcher ▲ (optional; see Teacher's Guide for English Language Learners)
- Homework: Analyze Sample Summaries: *The Lightning Thief*, Chapter 13 (one per student; from Unit 2 Homework)

Opening

A. Engage the Learner – L.6.4b (5 minutes)

- Repeated routine: Follow the same routine as previous lessons to distribute and review **Entrance Ticket: Unit 2, Lesson 1**. Students will also need their **affix lists** and a **dictionary**.

- Ask students to hold up the number of fingers on one hand to match the word they think doesn't fit. Call on a few students to share their reasoning for their choice.
- Direct students to add the prefix *in-* to their **vocabulary logs** as well as the four words from the warm-up question containing the prefix.
- Repeated routine: Follow the same routine as the previous lessons to review learning targets and the purpose of the lesson, reminding students of any learning targets that are similar or the same as previous lessons.
- With students, use the vocabulary strategies on the **Close Readers Do These Things anchor chart** to deconstruct the word *summary* (a short statement of main points). Record on the **academic word wall** with translations in home languages, where appropriate, ▲ and invite students to record words in their vocabulary logs. If needed, post definitions, synonyms, examples, and/or visual representations of the word *summary*. ▲
- Turn and Talk:
 - “What do you think you will be doing in this lesson based on these learning targets?” (Reading from the next chapter in *The Lightning Thief* and determining what messages or lessons are conveyed through the text. We will also begin looking at the characteristics of summary writing.)*
 - “Why are we doing this? How is it meaningful to you? How will it help you to be successful?” (Discussing theme offers the reader life lessons that he or she may find meaningful. Also, models provide guidance for students to create their best work.)*

Work Time

A. Read *The Lightning Thief*, Chapter 13 Excerpt – RL.6.1 (15 minutes)

- Repeated routine: Read aloud the selected excerpt, using **Text Guide: *The Lightning Thief* (for teacher reference)** for comprehension and vocabulary questions as needed. Students continue to record the gist on **sticky notes**, unpack and record unfamiliar vocabulary, and reflect on their reading as they choose. Refer to the following resources as appropriate to support this section of the lesson: **Gist Record: *The Lightning Thief* anchor chart (example for teacher reference)**, vocabulary logs, **chapter synopsis**, and **Work to Become Ethical People anchor chart**.
- Excerpt: Starting at page 203 “The Arch was about a mile . . .” and ending at page 211 “. . . I plummeted toward the river.”
- Gist: The trio ends up on the top of the St. Louis Gateway Arch being attacked by Echidna, the Mother of Monsters, and her son, Chimera. Percy jumps off the Arch into the Mississippi River to escape.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Work Time

B. Analyze Theme: *The Lightning Thief*, Chapter 13 – RL.6.2 (10 minutes)

- Review the learning target relevant to the work to be completed in this section of the lesson:
“I can determine a theme and how it is conveyed through details in chapter 13 of *The Lightning Thief*.”
- Distribute and display **Text-Dependent Questions: *The Lightning Thief*, Chapter 13** or **Text-Dependent Questions: *The Lightning Thief*, Chapter 13 ▲**.
- Students work with their reading groups to complete the text-dependent questions. Let them know they should be prepared to share their responses. As students work, continue to circulate and support them as needed, pushing them back into the text for evidence to support their responses.
- Refocus the whole group.
- Briefly go through each text-dependent question, and cold call students to share their responses with the whole group. Refer to the **Text-Dependent Questions: *The Lightning Thief*, Chapter 13 (answers for teacher reference)** as necessary.
- If productive, use a Goal 1 Conversation Cue to encourage students to expand their responses to the text-dependent questions by giving examples:
“Can you say more about that?”
“Can you give an example?”
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Work Time

C. Analyze a Model Summary – RL.6.2 (10 minutes)

- Review the learning target relevant to the work to be completed in this section of the lesson:
“I can analyze a model to identify characteristics of an effective summary.”
- Distribute and display the **Analyze a Model Summary note-catcher** or **Analyze a Model Summary note-catcher ▲**.
- Read aloud the model as students follow along, reading silently. Remind students they have just seen this paragraph as part of the text-dependent questions.
- Focus students on the first sentence of the summary.
“What is this sentence saying?” (This sentence says that this paragraph will be about chapter 13 of *The Lightning Thief*. Chapter 13 is when the trio arrive in St. Louis as part of their train trip to Denver.)
“What is this sentence doing? What is its function in the paragraph?” (This sentence introduces the text and the central idea of the chapter.)

- Record student answers in the first row of the table on the displayed Analyze a Model Summary note-catcher. Refer to the **Analyze a Model Summary note-catcher (example for teacher reference)** for guidance.
- Invite students to work in pairs to do this for each of the remaining sentences.
- After 3 minutes, refocus whole group and use total participation techniques to select students to share the function of each sentence with the whole group.
- Point students to the second question on the Analyze a Model Summary note-catcher.
- Think-Pair-Share:
“Given your analysis above, generate a list of characteristics for an effective summary.”
- As students share out, record their responses on the **Criteria for an Effective Summary anchor chart**. Refer to the **Criteria for an Effective Summary anchor chart (example for teacher reference)** for guidance.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Closing and Assessment

A. Reflect on Academic Mindsets (5 minutes)

- Incorporate reflection on and awareness of the following academic mindset: “My ability and competence grow with my effort.”
- Turn and Talk:

“How does our work with the model summary relate to this academic mindset?” (Analyzing a model is the first step in understanding a new skill. Putting in the effort now to analyze a model will help strengthen our ability to write a summary later.)

“Which of the habits of character most closely match the idea stated in this academic mindset? Explain your reasoning.” (Possible response: This academic mindset matches “I show perseverance.” Both statements recognize that learning a skill is a challenge that takes time and effort.)

Homework

A. Analyze Summaries

- Students complete **Homework: Analyze Sample Summaries: *The Lightning Thief*, Chapter 13**.

B. Preread Anchor Text

- Students should preread chapter 14 of *The Lightning Thief* in preparation for studying an excerpt from the chapter in the next lesson.

Lesson 2: Close Read: "Theseus and the Minotaur"



CCS Standards

Focus Standards

These are the standards the instruction addresses.

- RL.6.1, RL.6.2

Supporting Standards

These are the standards that are incidental—no direct instruction in this lesson, but practice of these standards occurs as a result of addressing the focus standards.

- RL.6.4, RL.6.5, RL.6.9, RL.6.10, W.6.10, L.6.4, L.6.6



Daily Learning Targets

- I can demonstrate understanding of the excerpt from chapter 14 of *The Lightning Thief*. (RL.6.1)
- I can determine a theme and how it is conveyed through details in "Theseus and the Minotaur." (RL.6.2)
- I can write a summary of "Theseus and the Minotaur" without personal opinions or judgments. (RL.6.2)

Ongoing Assessment

- Work Time A: Gist on sticky notes
- Work Time B and Closing and Assessment A: Close Reading Culminating Task: "Theseus and the Minotaur" (RL.6.1, RL.6.2, W.6.10)

Agenda

1. Opening

A. Engage the Learner – RL.6.2 (5 minutes)

2. Work Time

A. Read *The Lightning Thief*, Chapter 14 Excerpt – RL.6.1 (15 minutes)

B. Close Read: "Theseus and the Minotaur" – RL.6.2 (15 minutes)

3. Closing and Assessment

A. Pair Write: Summary – RL.6.2 (10 minutes)

4. Homework

A. Compare and Contrast Themes: Students complete Homework: Compare and Contrast Themes: "Theseus and the Minotaur" and *The Lightning Thief*.

B. Independent Research Reading: Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.

Teaching Notes

Alignment to Assessment Standards and Purpose of Lesson

- RL.6.1 – Work Time A: Students read the next chapter of the text and find the gist. Students also unpack unfamiliar vocabulary and answer comprehension questions using inferences and evidence from text.
- RL.6.1 – Work Time B: Students participate in a close read, in which they use evidence from “Theseus and the Minotaur” to support their analysis of the myth and the inferences they draw from it. The Close Reading Guide lists the text excerpts, key questions to ask students, and instructional moves required. Continue to use discussion protocols (e.g., Think-Pair-Share, Conversation Cues, and total participation techniques) to engage all students in a collaborative discussion about the text.
- RL.6.2 – Work Time B: During the close read, students discuss the central idea(s) and themes of “Theseus and the Minotaur.”
- RL.6.2 – Closing and Assessment A: Students work in pairs to write their own summary of the Greek myth analyzed during the close read.

Opportunities to Extend Learning

- The Greek myth provided with this lesson has been rewritten to reflect an average Grade 6 reading level. Provide a more complex version of the story for students reading at a higher level.
- Challenge students to generate questions about the myth before asking the prepared questions.
- Support background building on Greek mythological figures by viewing a video such as (<http://eled.org/0104>).

How It Builds on Previous Work

- In the previous lesson, students read chapter 13 of *The Lightning Thief* and began to pull text evidence to support a particular theme represented in the text. They also analyzed a model summary which they will use for guidance as they practice writing their own summary in this lesson.

Support All Students

- Students may need additional support with recording their answers on their note-catchers. Work with those students in a small group to give more support. ▲
- Students may be surprised or upset by the description of the scene at the St. Louis Gateway Arch as a possible terrorist attack. Time for debriefing and reflection might help get these concerns out into the open so they can be addressed and tracked throughout the text.
- Students may struggle to adjust to the language/organization of the close read, which is different from much they have already read. Remind students of the reading and vocabulary strategies they have practiced in class. ▲
- Writing a complete summary in 10 minutes may be challenging for some students (especially since they have mostly written gists, which are less organized). Think about strategically grouping writers of varying proficiency levels. ▲

- Be mindful of differences in experience with source attributions during summary writing. Make sure that students are aware that ideas can be borrowed from the original text, but that they must use their own words to explain ideas when they write, and they must place quotation marks around the quotes they borrow and explain where they came from. ▲
- Consider diversity and inclusion when reading and discussing Greek myths. Ask about, research, acknowledge, celebrate, and incorporate student knowledge, languages, beliefs, and skills; compare and contrast students' cultures and background to those introduced in Greek myths. ▲

Assessment Guidance

- Review students' Close Reading Culminating Task: "Theseus and the Minotaur" recording forms to ensure students understand how to identify theme and an effective summary.

Down the Road

- In the next lesson, students will read more stories of Greek figures, specifically those referenced in the anchor text. Using a Jigsaw protocol, students will apply the close reading skills they practice in this lesson to the text they analyze in a smaller group setting. They will also write a summary using the skills they have practiced in the first two lessons of the unit.

In Advance

- Review the student tasks and example answers to get familiar with what students will be required to do in the lesson (see Materials list).
- Record the following on the board for students as they arrive:
 - Review or complete your summary homework answers with a partner, revising as necessary. Be ready to share with the large group.
- Preview the Close Reading Guide: "Theseus and the Minotaur" and Close Reading Culminating Task: "Theseus and the Minotaur" to get familiar with what will be required of students.
- Preread chapter 14 in *The Lightning Thief* to identify words or plot points that may challenge students.
- Prepare copies of handouts for students (see Materials list).
- Post the learning targets and applicable anchor charts (see Materials list).

Technology & Multimedia

- Work Time B: Use a search engine to gather several visuals to enhance reading of the "Theseus and the Minotaur" myth. Many images of figures from Greek mythology are not school-appropriate; preview images first before displaying them to the class.
- Closing and Assessment A: Allow students to collaborate on their summary with a partner using a web-based word-processing tool, such as Google Docs.

Vocabulary

- alter, ambition, dreadful, exuberance, hubris, judgment, opinion (A)

Key

(A): Academic Vocabulary

(DS): Domain-Specific Vocabulary

Materials from Previous Lessons

Teacher

- Close Readers Do These Things anchor chart (one to display; from Unit 1, Lesson 4, Opening A)
- Academic word wall (begun in Unit 1, Lesson 1, Opening A)
- Text Guide: *The Lightning Thief* (for teacher reference) (from Unit 1, Lesson 2, Work Time A)
- Gist Record: *The Lightning Thief* anchor chart (example for teacher reference) (one to display; from Unit 1, Lesson 2, Work Time A)
- Work to Become Effective Learners anchor chart (one to display; from Unit 1, Lesson 5, Work Time A)
- Criteria for an Effective Summary anchor chart (one to display; from Unit 2, Lesson 1, Work Time C)

Student

- Vocabulary logs (one per student; from Unit 1, Lesson 2, Work Time B)
- Percy Jackson and the Olympians: The Lightning Thief* (one per student; text; from Unit 1, Lesson 1, Work Time C)
- Affix lists (one per student; from Affix List section)

New Materials

Teacher

- Close Reading Guide: “Theseus and the Minotaur” (for teacher reference)
- Close Reading Culminating Task: “Theseus and the Minotaur” (example for teacher reference)
- Homework: Compare and Contrast Themes: “Theseus and the Minotaur” and *The Lightning Thief* (example for teacher reference) (from Unit 2 Homework)

Student

- Sticky notes (one per student)
- Synopsis: *The Lightning Thief*, Chapter 14 (one per student; one for display)
- Text: “Theseus and the Minotaur” (one per student; one for display)
- Close Reading Culminating Task: “Theseus and the Minotaur” (one per student; one for display)
- Homework: Compare and Contrast Themes: “Theseus and the Minotaur” and *The Lightning Thief* (one per student; from Unit 2 Homework)

Opening

A. Engage the Learner – RL.6.2 (5 minutes)

- Direct students to the posted directions on the board, then read them aloud.
“Review or complete your summary homework answers with a partner, revising as necessary. Be ready to share with the large group.”
- Facilitate a quick review of the sample summaries and what’s missing from each.
- Repeated routine: Follow the same routine as the previous lessons to review learning targets and the purpose of the lesson, reminding students of any learning targets that are similar or the same as previous lessons.
- With students, use the vocabulary strategies on the **Close Readers Do These Things anchor chart** to deconstruct the words *opinion* and *judgment* (belief; viewpoint, idea). Record on the **academic word wall** with translations in home languages, where appropriate, ▲ and invite students to record the words in their **vocabulary logs**.
- Turn and Talk:
*“What do you think you will be doing in this lesson based on these learning targets?”
(We are going to be reading a Greek myth, determining its theme, and writing a summary of it.)*

“Why are we doing this? How is it meaningful to you? How will it help you to be successful?” (Reading the actual Greek myths referenced in the novel will help the reader to better understand the plot and characters, as well as the message the author is trying to convey in the novel.)

Work Time

A. Read *The Lightning Thief*, Chapter 14 Excerpt – RL.6.1 (15 minutes)

- Repeated routine: Read aloud the selected excerpt, using the **Text Guide: *The Lightning Thief* (for teacher reference)** for comprehension and vocabulary questions as needed. Students continue to record the gist on **sticky notes**, unpack and record unfamiliar vocabulary, and reflect on their reading as they choose. Refer to the following resources as appropriate to support this section of the lesson: **Gist Record: *The Lightning Thief* anchor chart (example for teacher reference)**, **vocabulary logs**, **chapter synopsis**, and **Work to Become Ethical People anchor chart**.
- Excerpt: starting at page 212 “I’d love to tell you. . .”and ending at page 215 “. . . and swam for the surface.”
- Gist: Percy falls into the water and realizes he can breathe underwater. A water spirit brings him a message that there is still hope for his mom.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Work Time

B. Close Read: “Theseus and the Minotaur” – RL.6.2 (15 minutes)

- Review the learning target relevant to the work to be completed in this section of the lesson:
“I can determine a theme and how it is conveyed through details in ‘Theseus and the Minotaur.’”
- Focus students on the Close Readers Do These Things anchor chart, and remind them that digging into the text deeper can help them understand it better, so they are going to dig deeper into an excerpt from the text through close reading.
- Move students into predetermined triads.
- Direct students’ attention to the **Work to Become Effective Learners anchor chart**, and review what collaboration looks and sounds like.
- Use **Close Reading Guide: “Theseus and the Minotaur” (for teacher reference)** to set the purpose of the close read and to guide students through a close read of this excerpt. Refer to the guide for how to integrate the following:
 - **Text: “Theseus and the Minotaur”**
 - **Close Reading Culminating Task: “Theseus and the Minotaur”**
 - **Affix list**
- Refer to **Close Reading Culminating Task: “Theseus and the Minotaur” (example for teacher reference)** as necessary.
- Reconvene the class after students complete questions 1 and 2 on the Close Reading Culminating Task recording form.
- Explain that they’ll complete item 3 in the next segment.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Closing and Assessment

A. Pair Write: Summary – RL.6.2 (10 minutes)

- Review the learning target relevant to the work to be completed in this section of the lesson:
“I can write a summary of ‘Theseus and the Minotaur’ without personal opinions or judgments.”
- Explain that now students will continue analyzing the story, working with a partner to write a summary of it, which is item 3 on **Close Reading Culminating Task: “Theseus and the Minotaur.”** Display the **Criteria for an Effective Summary anchor chart**. Remind students that they can use the anchor chart and the model summary from Lesson 1 as they write.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Homework

A. Compare and Contrast Themes

- Students complete **Homework: Compare and Contrast Themes: “Theseus and the Minotaur” and *The Lightning Thief***.

B. Independent Research Reading

- Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.

Lesson 3: Close Reading Jigsaw: "Cronus" and "Medusa"



CCS Standards

Focus Standards

These are the standards the instruction addresses.

- RL.6.1, RL.6.2

Supporting Standards

These are the standards that are incidental—no direct instruction in this lesson, but practice of these standards occurs as a result of addressing the focus standards.

- RL.6.4, RL.6.10, W.6.5, W.6.10, SL.6.1a, SL.6.1b, L.6.4, L.6.6



Daily Learning Targets

- I can write a summary of "Theseus and the Minotaur" without personal opinions or judgments. (RL.6.2)
- I can determine themes in "Cronus" and "Medusa" and how they are conveyed through details. (RL.6.2)

Ongoing Assessment

- Opening A: Entrance Ticket (RL.6.2)
- Work Time A: Revision of Close Reading Culminating Task: "Theseus and the Minotaur" (RL.6.1, RL.6.2, W.6.5, W.6.10)
- Work Time B: Close Reading Jigsaw: Greek Myths note-catcher (RL.6.1, RL.6.2, RL.6.4, W.6.10, SL.6.1, L.6.4)

Agenda

1. Opening

- A. Engage the Learner – RL.6.2 (5 minutes)

2. Work Time

- A. Review Summary Writing – RL.6.2 (10 minutes)
- B. Jigsaw Close Read: "Cronus" and "Medusa" – RL.6.2 (20 minutes)

3. Closing and Assessment

- A. Jigsaw Share – RL.6.2 (10 minutes)

4. Homework

- A. Compare and Contrast Themes: Students complete Homework: Compare and Contrast Themes: Greek Myths and *The Lightning Thief*.
- B. Preread Anchor Text: Students should preread chapter 15 in *The Lightning Thief* in preparation for studying an excerpt from the chapter in the next lesson.

Teaching Notes

Alignment to Assessment Standards and Purpose of Lesson

- RL.6.2 – Work Time A: Students critique and revise the summaries they wrote during Closing and Assessment A in Lesson 2. Students offer a star (praise) and a step (critique) for their partners’ consideration. Providing peer feedback gives students ownership over their academic improvement and allows them the valuable practice of viewing student writing like a teacher.
- RL.6.1 – Work Time B: Students participate in a close reading of “Cronus” and “Medusa” using the Jigsaw protocol. They use evidence from the myths to support their analysis of the myths’ themes and key details.
- RL.6.2 – Work Time B: During the close read, students focus on theme, key details, and summary. By reporting back their learning to another small group, students gain background knowledge on a number of myths.
- Students engage in the following new protocol in this lesson (instructions for which appear at the first point of use in the lesson):
 - **Jigsaw:** Allows small groups to engage in an effective, time-efficient comprehension of two different texts. Students become experts in one of the texts, hear oral summaries of the other, and still gain an understanding of the material.

Opportunities to Extend Learning

- The Greek myths provided in this lesson have been rewritten to reflect an average Grade 6 reading level. Provide a more complex version of the story (available in the public domain) for students reading at a higher level.
- Myths from different cultures often reflect similar values or explanations (e.g., how the earth was created). Challenge students to engage in a close read of strategically chosen myths from other cultures and identify their similar themes and other connections. ▲

How It Builds on Previous Work

- In the previous lesson, students participated in a close read of “Theseus and the Minotaur.” In this lesson, students apply those close reading skills to a new Greek story, this time working in small groups.
- Rather than guiding students toward a particular theme as in previous lessons, students read closely to identify themes with only peer support.

Support All Students

- Note there is a differentiated version of the Close Reading Jigsaw: Greek Myths note-catcher used in Work Time B in the separate Teacher’s Guide for English Language Learners. ▲
- Students may notice that Perseus of traditional Greek mythology makes an appearance in the Medusa myth. Point out that this Perseus is different from Percy, the protagonist of *The Lightning Thief*.
- Students may need additional support with recording their answers on their note-catchers. Work together with those students in a small group for more support when necessary.
- Students may need extra support to make the Jigsaw Close Read successful. Think about modeling, strategic grouping, designated roles for members of each reading group, or active reading/note-taking strategies. ▲

- Consider diversity and inclusion when reading Greek stories. Ask about, research, acknowledge, celebrate, and incorporate student knowledge, languages, beliefs, and skills; compare and contrast students' cultures and background to those introduced in Greek stories. ▲

Assessment Guidance

- Circulate and monitor as students share their summaries and provide peer feedback. Ensure that feedback is kind, helpful, and accurate. Remind students that they do not have to make the corrections their peers suggest if they disagree, but ensure that they justify their reasoning for not accepting certain feedback.
- Review the Close Reading Jigsaw: Greek Myths note-catcher to ensure students understand how to identify theme. It is vital that, at this point, students are understanding how to identify themes in texts, as they will begin to build on this skill in the next lesson by comparing themes across texts.

Down the Road

- In the next lesson, students will return to the anchor text, reading from chapter 15 of *The Lightning Thief*. Using their new understanding of the Greek figures referenced in the text, students will compare themes across texts.

In Advance

- Prepare for the Jigsaw protocol:
 - Review the questions and answers for both myths in the Jigsaw protocol.
 - Thoroughly review the Jigsaw protocol to ensure clear directions and smooth transitions.
 - Strategically group students into home groups of four, and then assign each student in the home group a letter—A, B, C, or D. The lettered groups will be the expert groups during the Jigsaw, with two expert groups reading each of two Greek myths.
- Review the student tasks and example answers to get familiar with what students will be required to do in the lesson (see Materials list).
- Prepare copies of handouts for students, including entrance ticket (see Materials list).
- Post the learning targets and applicable anchor charts (see Materials list).

Technology & Multimedia

- Work Time B: Use a search engine to gather visuals to enhance the reading of the Cronus and Medusa myths. Many images of figures from Greek mythology are not school-appropriate; preview images first before displaying them to the class.
- Work Time B: Use a video to model the Jigsaw protocol in action: <http://eled.org/jigsaw>.
- Alternatively, display a visual representation of the movements in a jigsaw to ease the cognitive load for students as they take part in the protocol.

Vocabulary

- banished, dethroned, envious, vowed (A)

Key

(A): Academic Vocabulary

(DS): Domain-Specific Vocabulary

Materials from Previous Lessons**Teacher**

- Criteria for an Effective Summary anchor chart (one to display; from Unit 2, Lesson 1, Work Time C)
- Close Reading Culminating Task: “Theseus and the Minotaur” (example for teacher reference) (from Unit 2, Lesson 2, Work Time A)
- Close Readers Do These Things anchor chart (one to display; added to in Unit 1, Lesson 5, Work Time A)
- Work to Become Effective Learners anchor chart (one to display; edited version from Unit 2, Lesson 2, Work Time B)
- Work to Become Effective Learners anchor chart (example for teacher reference) (from Unit 2, Lesson 2, Work Time B)

Student

- Close Reading Culminating Task: “Theseus and the Minotaur” (one per student; from Unit 2, Lesson 2, Work Time A)

New Materials**Teacher**

- Entrance Ticket: Unit 2, Lesson 3 (for teacher reference)
- Close Reading Jigsaw: Greek Myths note-catcher (example for teacher reference)

Student

- Entrance Ticket: Unit 2, Lesson 3 (one per student)
- Text: “Cronus” (one per student and one for display)
- Text: “Medusa” (one per student and one for display)
- Close Reading Jigsaw: Greek Myths note-catcher (one per student and one to display)
- Close Reading Jigsaw: Greek Myths note-catcher ▲ (optional; see Teacher’s Guide for English Language Learners)
- Homework: Compare and Contrast Themes: Greek Myths and *The Lightning Thief* (one per student; from Unit 2 Homework)

Opening

A. Engage the Learner – RL.6.2 (5 minutes)

- Repeated routine: Follow the same routine as previous lessons to distribute and review **Entrance Ticket: Unit 2, Lesson 3.**
- Repeated routine: Follow the same routine as the previous lessons to review learning targets and the purpose of the lesson, reminding students of any learning targets that are similar or the same as previous lessons.
- Turn and Talk:

“What do you think you will be doing in this lesson based on these learning targets?” (We’ll be continuing to work on our summaries for “Theseus and the Minotaur” and reading other Greek myths.)

“Why are we doing this? How is it meaningful to you? How will it help you to be successful?” (Reading and understanding the Greek myths that are mentioned in The Lightning Thief will help us to better understand the novel and also think about the relevance of Greek mythology today.)

Work Time

A. Review Summary Writing – RL.6.2 (10 minutes)

- Display the **Criteria for an Effective Summary anchor chart.** Ask a student to read one characteristic aloud, and allow for any questions. Repeat for all characteristics.
- Have students retrieve their **Close Reading Culminating Task: “Theseus and the Minotaur”** handouts from Lesson 2. Ask them to get back into their summary writing pairs and then join another pair. Each pair reads their summary aloud, while the other pair listens for each of the characteristics. The listening pair then shares one star (something that was done well) and one step (something that could be improved). Repeat for the other pair. Students then make revisions to their summaries as necessary.
- See **Close Reading Culminating Task: “Theseus and the Minotaur” (example for teacher reference).**
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Work Time

B. Jigsaw Close Read: “Cronus” and “Medusa” – RL.6.2 (20 minutes)

- Review the learning target relevant to the work to be completed in this section of the lesson: *“I can determine themes in ‘Cronus’ and ‘Medusa’ and how they are conveyed through details.”*

- Focus students on the **Close Readers Do These Things anchor chart**, and remind them that digging into the text deeper can help them understand it better, so they are going to dig deeper into two Greek myths, “Cronus” and “Medusa.”
- Direct students’ attention to the **Work to Become Effective Learners anchor chart**, and review what collaboration looks and sounds like.
- Distribute and display **Text: “Cronus,” Text: “Medusa,”** and **Close Reading Jigsaw: Greek Myths note-catcher** or **Close Reading Jigsaw: Greek Myths note-catcher ▲**. Read directions aloud, and clarify any confusion.
- Review the Jigsaw procedure: Students have home groups and expert groups. They will work with their expert groups on a text, and then they will share what they learned with their home groups and also learn about the other group’s text.
- Display home group and expert groupings. Have students move into their expert (letter) groups and begin working: groups A and C will read “Cronus,” and groups B and D will read “Medusa.” As students work, circulate and provide support as needed. Allow more proficient groups to grapple, and join less proficient groups to provide additional reading support. ▲ Refer to **Close Reading Jigsaw: Greek Myths note-catcher (example for teacher reference)** as necessary.

Closing and Assessment

A. Jigsaw Share – RL.6.2 (10 minutes)

- Have students move into their home groups. Students A and C share their summaries and themes about “Cronus.” Next, students B and D share their summaries and themes about “Medusa.” As students listen, they should add to and revise their note-catchers as needed.
- Reconvene the whole group.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Homework

A. Compare and Contrast Themes

- Students complete **Homework: Compare and Contrast Themes: Greek Myths and The Lightning Thief**.

B. Preread Anchor Text

- Students should preread chapter 15 in *The Lightning Thief* in preparation for studying an excerpt from the chapter in the next lesson.

Lesson 4: Compare and Contrast Themes: Greek Myths and *The Lightning Thief*



CCS Standards

Focus Standards

These are the standards the instruction addresses.

- RL.6.1, RL.6.2, RL.6.9

Supporting Standards

These are the standards that are incidental—no direct instruction in this lesson, but practice of these standards occurs as a result of addressing the focus standards.

- RL.6.4, RL.6.10, W.6.10, L.6.4



Daily Learning Targets

- I can demonstrate understanding of the excerpt from chapter 15 of *The Lightning Thief*. (RL.6.1)
- I can compare and contrast the approach to similar themes in *The Lightning Thief* and Greek myths. (RL.6.9)

Ongoing Assessment

- Opening A: Entrance Ticket (RL.6.1, RL.6.2, W.6.10)
- Work Time A: Gist on sticky notes
- Work Time B: Compare and Contrast Themes: Greek Myths and *The Lightning Thief* note-catcher (RL.6.1, RL.6.2, RL.6.9, RL.6.10, W.6.10)

Agenda

1. Opening

A. Engage the Learner – RL.6.2 (5 minutes)

2. Work Time

A. Read *The Lightning Thief*, Chapter 15 Excerpt – RL.6.1 (20 minutes)

B. Compare and Contrast Themes: Greek Myths and *The Lightning Thief* – RL.6.9 (15 minutes)

3. Closing and Assessment

A. Reflect on Habits of Character (5 minutes)

4. Homework

A. Independent Research Reading: Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.

Teaching Notes

Alignment to Assessment Standards and Purpose of Lesson

- RL.6.1 – Work Time A: Students read the next chapter of the text and find the gist. Students also unpack unfamiliar vocabulary and answer comprehension questions using inferences and evidence from text.
- RL.6.1 – Work Time B: Students cite specific textual evidence that supports their analysis of themes in *The Lightning Thief* and in other Greek myths they have read.
- RL.6.2 – Work Time B: Students determine the theme(s) present in the texts they have read.
- RL.6.9 – Work Time B: Students draw connections among the themes they discover. They synthesize their understanding of theme by bringing together materials and learning from multiple lessons.

Opportunities to Extend Learning

- To strengthen writing and speaking skills, invite students to rewrite their assigned Greek myth as Readers Theater and perform it for the class.
- Challenge students to generate questions about the texts before asking the prepared questions.

How It Builds on Previous Work

- In the previous lesson, students were gradually released to apply the close reading skills they learned in Lesson 2 to a new myth in a smaller group setting. In this lesson, students use their knowledge of the myths they have been reading to compare their themes with the anchor text.

Support All Students

- Note there is a differentiated version of the Compare and Contrast Themes: Greek Myths and *The Lightning Thief* note-catcher used in Work Time B in the separate Teacher’s Guide for English Language Learners. ▲
- Students may struggle to identify similarities and differences across Greek myths and *The Lightning Thief*. Think about ways to make sure that the terms *compare* and *contrast* are very clear (e.g. visuals, examples, quick discussion, etc.). Pre-annotate the myths to draw students’ attention to areas that hint at a theme. ▲
- Be thoughtful when strategically grouping students to compare and contrast themes. The Compare and Contrast Themes note-catcher may be challenging for some ELLs to fill out, so grouping high- and low-proficiency students may be helpful. ▲

Assessment Guidance

- Differentiate by assigning “Theseus and the Minotaur” to more proficient readers, as it is the longer text of the two analyzed in this lesson.
- Monitor to ensure that students are able to first, identify a common theme; next, select relevant text evidence from two different texts; and finally, synthesize their findings as they compare and contrast the two texts. They will need to do this independently in the next lesson for the mid-unit assessment.

Down the Road

- In the next lesson, students will complete the Mid-Unit 2 Assessment, in which they read a new Greek myth and compare the themes of the new text to *The Lightning Thief*. Students will also share their research reading thus far.

In Advance

- Strategically decide how students will accomplish the reading for today's class. Be mindful of and balance variety with students' needs and their desire for choice while planning for the reading time during the lessons.
- Review the student tasks and example answers to get familiar with what students will be required to do in the lesson (see Materials list).
- Preread chapter 15 in *The Lightning Thief* to identify words or plot points that may challenge students.
- Prepare copies of handouts for students, including entrance ticket (see Materials list).
- Post the learning targets and applicable anchor charts (see Materials list).

Technology & Multimedia

- Work Time A: Input all gist statements from the novel so far into a word cloud generator, such as <http://eled.org/0123>. Use the results to determine common ideas that might give a hint as to the theme of the novel.
- Work Time B: Utilize a tool such as <http://eled.org/0124> to make collaboration and comparison of themes more visual and interactive.

Vocabulary

- initiative (A)

Key

(A): Academic Vocabulary

(DS): Domain-Specific Vocabulary

Materials from Previous Lessons

Teacher

- ✓ Text Guide: *The Lightning Thief* (for teacher reference) (from Unit 1, Lesson 2, Work Time A)
- ✓ Gist Record: *The Lightning Thief* anchor chart (example for teacher reference) (one to display; from Unit 1, Lesson 2, Work Time A)
- ✓ Work to Become Ethical People anchor chart (one to display; from Unit 1, Lesson 1, Work Time C)
- ✓ Work to Become Effective Learners anchor chart (one to display; from Unit 1, Lesson 5, Work Time A)

- Work to Become Effective Learners anchor chart (example for teacher reference) (from Unit 1, Lesson 5, Work Time A)
- Academic word wall (one to display; from Unit 1, Lesson 1, Opening A)

Student

- Percy Jackson and the Olympians: The Lightning Thief* (one per student; text; from Unit 1, Lesson 1, Work Time C)
- Vocabulary logs (one per student; begun in Unit 1, Lesson 2, Work Time B)
- Homework: Lesson 2: Compare and Contrast Themes: “Theseus and the Minotaur” and *The Lightning Thief* (homework from Unit 2, Lesson 2)
- Close Reading Culminating Task: “Theseus and the Minotaur” (one per student; from Unit 2, Lesson 2, Work Time B)
- Close Reading Jigsaw: Greek Myths note-catcher (one per student; from Unit 2, Lesson 3, Work Time B)
- Homework: Compare and Contrast Themes: Greek Myths and *The Lightning Thief* (homework from Unit 2, Lesson 3)

New Materials

Teacher

- Entrance Ticket: Unit 2, Lesson 4 (for teacher reference)
- Compare and Contrast Themes: Greek Myths and *The Lightning Thief* note-catcher (example for teacher reference)

Student

- Entrance Ticket: Unit 2, Lesson 4 (one per student)
- Sticky notes (one per student)
- Synopsis: *The Lightning Thief*, Chapter 15 (one per student; one to display)
- Compare and Contrast Themes: Greek Myths and *The Lightning Thief* note-catcher (one per student)
- Compare and Contrast Themes: Greek Myths and *The Lightning Thief* note-catcher ▲ (optional; see Teacher’s Guide for English Language Learners)

Opening

A. Engage the Learner – RL.6.2 (5 minutes)

- Repeated routine: Follow the same routine as previous lessons to distribute and review **Entrance Ticket: Unit 2, Lesson 4**.
- Repeated routine: Follow the same routine as the previous lessons to review learning targets and the purpose of the lesson, reminding students of any learning targets that are similar or the same as previous lessons.

- Turn and Talk:

*“What do you think you will be doing in this lesson based on these learning targets?” (reading the next chapter in *The Lightning Thief* and looking for common themes between the novel and the Greek myths we have been reading)*

“Why are we doing this? How is it meaningful to you? How will it help you to be successful?” (We are strengthening our skills as readers by drawing connections between texts and looking for universal themes that we might apply in our personal lives.)

Work Time

A. Read *The Lightning Thief*, Chapter 15 Excerpt – RL.6.1 (20 minutes)

- Repeated routine: Read aloud the selected excerpt, using **Text Guide: *The Lightning Thief*(for teacher reference)** for comprehension and vocabulary questions as needed. Students continue to record the gist on **sticky notes**, unpack and record unfamiliar vocabulary, and reflect on their reading as they choose. Refer to the following resources as appropriate to support this section of the lesson: **Gist Record: *The Lightning Thief* anchor chart (example for teacher reference)**, **vocabulary logs**, **chapter synopsis**, and **Work to Become Ethical People anchor chart**.
- Excerpts:
 - Starting at page 226 “Then it struck me . . .” to page 229 “. . . Don’t disappoint me.”
 - Starting at page 231 “We continued searching . . .” to page 239 “. . . rocketed through the darkness.”
- Gist: The trio meet Ares, the god of war, who offers them a ride to LA if Percy can retrieve Ares’s shield from a local water park. It turns out to be a trap set by Aphrodite’s jealous husband, Hephaestus, trying to catch her cheating with Ares.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Work Time

B. Compare and Contrast Themes: Greek Myths and *The Lightning Thief* – RL.6.9 (15 minutes)

- Review the learning target relevant to the work to be completed in this section of the lesson:
*“I can compare and contrast the approach to similar themes in *The Lightning Thief* and Greek Myths.”*
- Distribute and display **Compare and Contrast Themes: Greek Myths and *The Lightning Thief* note-catcher** or **Compare and Contrast Themes: Greek Myths and *The Lightning Thief* note-catcher ▲**. Read the directions aloud, and clarify any questions.

- Have students retrieve and refer to the following to help them complete this task:
 - Entrance Ticket: Unit 2, Lesson 4
 - **Compare and Contrast Themes: “Theseus and the Minotaur” and *The Lightning Thief*** (homework from Unit 2, Lesson 2)
 - **Close Reading Culminating Task: “Theseus and the Minotaur”**
 - **Close Reading Jigsaw: Greek Myths note-catcher**
 - **Compare and Contrast Themes: Greek Myths and *The Lightning Thief*** (homework from Lesson 3)
- Have students move into preassigned pairs and complete the Compare and Contrast Themes: Greek Myths and *The Lightning Thief* note-catcher. Refer to **Compare and Contrast Themes: Greek Myths and *The Lightning Thief* note-catcher (example for teacher reference)** as needed. If appropriate, assign particular pairs to complete particular themes.
- After 10 minutes, cold call pairs to share out one piece of evidence they recorded.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Closing and Assessment

A. Reflect on Habits of Character (5 minutes)

- Focus students on the **Work to Become Effective Learners anchor chart**. Explain that it says at the top that effective learners are people who develop the mindsets and skills for success in college, career, and life.
- Read aloud the habit of character recorded:

“I take initiative. This means I notice what needs to be done and do it.”
- Invite students to Turn and Talk to a partner. Then cold call students to share:

“What does initiative look like? What might you see when someone is showing initiative?” (See Work to Become Effective Learners anchor chart [example for teacher reference].)

“What does initiative sound like? What might you hear when someone is showing initiative?” (See Work to Become Effective Learners anchor chart [example for teacher reference].)
- As students share, record their responses in the appropriate column on the Work to Become Effective Learners anchor chart.
- Ask:

“How did you show initiative during today’s lesson?” (Possible response: While working in groups on the Compare and Contrast Themes: Greek Myths and The Lightning Thief note-catcher, I showed initiative by staying on task and getting the work done.)
- Record *initiative* on the **academic word wall**. Invite students to add translations of the words in their home languages in a different color next to the target vocabulary. ▲

Homework

A. Independent Research Reading

- Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.

Lesson 5: Mid-Unit 2 Assessment: Themes in Greek Myths and *The Lightning Thief*



CCS Standards

Focus Standards

These are the standards the instruction addresses.

- RL.6.1, RL.6.2, RL.6.4, RL.6.9, L.6.4

Supporting Standards

- RL.6.10, L.6.6



Daily Learning Targets

- I can compare and contrast the approach to similar themes in *The Lightning Thief* and “Prometheus.” (RL.6.1, RL.6.2, RL.6.9, W.6.9a, W.6.10)
- I can independently read, understand, and explain the meaning of a new text. (RL.6.1, RL.6.2, RL.6.4, RL.6.10, L.6.4)

Ongoing Assessment

- Opening A: Entrance Ticket
- Work Time A: Mid-Unit 2 Assessment: Compare and Contrast Themes in Literature (RL.6.1, RL.6.2, RL.6.4, RL.6.9, RL.6.10, L.6.4)
- Closing and Assessment A: Track Progress (RL.6.1, RL.6.2)

Agenda

1. Opening

- A. Return End of Unit 1 Assessments (5 minutes)
- B. Engage the Learner (5 minutes)

2. Work Time

- A. Mid-Unit 2 Assessment: Compare and Contrast Themes in Literature – RL.6.9 (25 minutes)

3. Closing and Assessment

- A. Track Progress (10 minutes)

4. Homework

- A. Independent Research Reading: Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.

Teaching Notes

Alignment to Assessment Standards and Purpose of Lesson

- Work Time B: Students complete the Mid-Unit 2 Assessment. The assessment invites students to read a new myth, “Prometheus,” and use evidence from the text to support their analysis of the text and its themes. Students also produce a summary of “Prometheus” that highlights its theme and most important details, and they compare its themes to those in a selection from *The Lightning Thief*. (RL.6.1, RL.6.2, RL.6.4, RL.6.9, RL.6.10, W.6.10, L.6.4)
- RL.6.1 – Closing and Assessment A: Students reflect on their learning using the Track Progress: Read, Understand, and Explain New Text recording form, which tracks their developing ability to read new texts and extract textual evidence to support their analysis of the text. This exercise is meant to provide them with time to formally keep track of and reflect on their own learning. This self-reflection supports metacognition and pride in work and learning.

Opportunities to Extend Learning

- The Mid-Unit 2 Assessment naturally accommodates exceptional students by allowing more proficient writers to display their writing prowess.
- The story of Prometheus, featured in the Mid-Unit 2 Assessment, is similar to myths from other cultures, like the Native American story of Raven bringing fire to humans. Provide access to versions of similar myths and invite students to draw connections to these additional texts. ▲

How It Builds on Previous Work

- In the first half of this unit, students read Greek myths referenced in *The Lightning Thief*, determining themes and key details from the texts, summarizing what they read, and comparing and contrasting the myths with the novel. This lesson continues those routines in an assessment.

Support All Students

- If students receive accommodations for assessments, communicate with the cooperating service providers regarding the practices of instruction in use during this study as well as the goals of the assessment.
- Some students may need the text read aloud before they work on the questions. Invite students who require this to sit in a group away from the rest of the students, so as not to be distracting.
- For some students, this assessment may require more than the 25 minutes allotted. Provide time over multiple days if necessary.
- Some students may require support with limiting distractions during the assessment (e.g., using sound-canceling headphones or dividers between workspaces). Similarly, some students may require variations in time for the assessment. Break the assessment into more manageable parts, and offer breaks at certain times. During the assessment, provide scaffolds that support executive function skills, self-regulation, and students’ abilities to monitor progress before and after the assessment (e.g., visual prompts, reminders, checklists, rubrics). ▲

- After the assessment, ask students to discuss which assessment task was easiest and which was most difficult, and why. In future lessons and for homework, focus on the language skills that will help students address these assessment challenges. ▲

Assessment Guidance

- Mid-Unit 2 Assessment: Compare and Contrast Themes in Literature (student and teacher versions) are included in the Assessment Overview and Resources.
- When assessing and providing feedback on this assessment, use the answer key and sample student responses (see Assessment Overview and Resources) to help complete students' Track Progress recording form.
- In this assessment, students are tracking progress toward the following anchor standards:
 - R.1: By the end of Grade 12, I will be able to: Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
 - R.4: Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
 - R.10: By the end of Grade 12, I will be able to: Read and comprehend complex literary and informational texts independently and proficiently.
 - L.4: Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.

Down the Road

- In the next lesson, students will begin preparing for the End of Unit 2 Assessment, in which they write an essay comparing and contrasting how a scene from the novel version of *The Lightning Thief* is depicted in the film version. They will study a model essay and be introduced to the Painted Essay® structure.
- Students' Mid-Unit 2 Assessments will be returned in Lesson 12 with feedback.

In Advance

- Prepare
 - Mid-Unit 2 Assessment: Compare and Contrast Themes in Literature (see Assessment Overview and Resources)
 - Track Progress folders
- Review the student tasks and example answers to get familiar with what students will be required to do in the lesson (see Materials list).
- Ensure End of Unit 1 Assessments with feedback are available for each student at desks as they enter.
- Prepare copies of handouts for students, including entrance ticket (see Materials list).
- Post the learning targets and applicable anchor charts (see Materials list).

Technology & Multimedia

- Work Time A: Students complete their Mid-Unit 2 Assessment in a word-processing document—for example, a Google Doc—using speech-to-text facilities activated on devices, or using an app or software such as <http://eled.org/0103>.

Vocabulary

- N/A

Materials from Previous Lessons

Teacher

- End of Unit 1 Assessments with feedback (one per student; from Unit 1, Lessons 15–16)
- Close Readers Do These Things anchor chart (one to display; from Unit 1, Lesson 4, Opening A)
- Strategies to Answer Selected Response Questions anchor chart (one to display; from Unit 1, Lesson 3, Opening B)
- Work to Become Effective Learners anchor chart (one to display; from Unit 1, Lesson 5, Work Time A)
- Work to Become Effective Learners anchor chart (example for teacher reference) (from Unit 1, Lesson 5, Work Time A)

Student

- Percy Jackson and the Olympians: The Lightning Thief* (one per student; text; from Unit 1, Lesson 1, Work Time C)

New Materials

Teacher

- Mid-Unit 2 Assessment: Compare and Contrast Themes in Literature (See Assessment Overview and Resources)

Student

- Entrance Ticket: Unit 2, Lesson 5 (one per student)
- Track Progress folders (one per student)
- Track Progress: Read, Understand, and Explain New Text (one per student)
- Sticky notes (three per student)

Opening

A. Return End of Unit 1 Assessments (5 minutes)

- Repeated routine: Follow the same routine as previous lessons to distribute and review **Entrance Ticket: Unit 2, Lesson 5**. Students will also need their **End of Unit 1 Assessment with feedback**.

Opening

B. Engage the Learner (5 minutes)

- Repeated routine: Follow the same routine as the previous lessons to review learning targets and the purpose of the lesson, reminding students of any learning targets that are similar or the same as previous lessons.
- Remind students that they saw a version of the first learning target in the previous lesson, and review vocabulary: *compare* (similarities between two sources), *contrast* (differences between two sources), and *approach* (the choices an author or film director makes about conveying a story), as needed. ▲

Work Time

A. Mid-Unit 2 Assessment: Compare and Contrast Themes in Literature – RL.6.9 (25 minutes)

- Distribute **Mid-Unit 2 Assessment: Compare and Contrast Themes in Literature**, and invite students to take out their copies of *The Lightning Thief*.
- Tell students that for this assessment, they will read a new Greek myth, “Prometheus.” They will then identify the main ideas and key details of the myth, summarize it, and finally, compare and contrast the themes in the myth with those in an excerpt from *The Lightning Thief*.
- Read aloud the directions for each part of the assessment as students follow along, reading silently. Make sure students understand the assessment directions; paraphrase some instructions, if needed. ▲ Answer students’ questions, but refrain from supplying answers to the assessment questions themselves.
- Direct students’ attention to the following anchor charts:
 - **Close Readers Do These Things anchor chart**
 - **Strategies to Answer Selected Response Questions anchor chart**
- Remind students to refer to these anchor charts as they read the assessment text and answer the assessment questions.

- Remind students that because this is an assessment, they should complete it independently in silence. Focus students on the **Work to Become Effective Learners anchor chart**, and review what perseverance looks and sounds like. Remind students that because they will be reading and answering questions independently for the assessment, they may need to practice perseverance.
- Invite students to begin the assessment.
- While they are taking the assessment, circulate to monitor and document their test-taking skills.
- Give students specific, positive feedback on their completion of the Mid-Unit 2 Assessment.

Closing and Assessment

A. Track Progress (10 minutes)

- Review the learning target relevant to the work in this section.
“I can independently read, understand, and explain the meaning of a new text.”
- Distribute **Track Progress folders, Track Progress: Read, Understand, and Explain New Text**, and **sticky notes**.
- Guide students through completing the recording form.

Homework

A. Independent Research Reading

- Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal

Lesson 6: Compare and Contrast Essay: Analyze a Model



CCS Standards

Focus Standards

These are the standards the instruction addresses.

- RL.6.7, W.6.2, W.6.4, W.6.9a

Supporting Standards

These are the standards that are incidental—no direct instruction in this lesson, but practice of these standards occurs as a result of addressing the focus standards.

- RL.6.1, RL.6.10, RI.6.1, RI.6.2, L.6.6



Daily Learning Targets

- I can determine the purpose of a model essay. (W.6.2)
- I can compare and contrast the experience of reading a scene in a novel to viewing a film version of the same scene. (RL.6.7)
- I can use the Painted Essay® structure to analyze a model. (W.6.2)

Ongoing Assessment

- Opening A: Entrance Ticket (W.6.10)
- Work Time B: Compare and contrast text and film scene (RL.6.1, RL.6.7)
- Work Time C: The Painted Essay® template (W.6.2, W.6.4, W.6.5, W.6.9a)

Agenda

1. Opening

- A. Engage the Learner – W.6.10 (5 minutes)

2. Work Time

- A. Read a Model Painted Essay® – W.6.2 (5 minutes)
- B. View Clip from Film Version of *The Lightning Thief* – RL.6.7 (10 minutes)
- C. Analyze a Model Painted Essay® – W.6.2 (20 minutes)

3. Closing and Assessment

- A. Debrief: Painted Essay® – W.6.2 (5 minutes)

4. Homework

- A. Preread Anchor Text: Students should preread chapter 16 in *The Lightning Thief* in preparation for studying an excerpt from the chapter in the next lesson.

Teaching Notes

Alignment to Assessment Standards and Purpose of Lesson

- W.6.2 – Work Time A: Students read a model Painted Essay®, preparing them to write their own explanatory essays on a similar topic. The Painted Essay® (Diana Leddy, Vermont Writing Collaborative) guides students in coding each section of an essay a different color in order to understand the function and content of each part of the essay, and how the different parts relate to one another. By generating criteria from a model and coding its structure, students begin to internalize the ideal characteristics for their own essay as they work toward the end of unit assessment.
- RL.6.7 – Work Time B: Students watch a clip from the film version of *The Lightning Thief* and compare it to the corresponding chapter from the novel.
- W.6.9 – Work Time B: Students draw evidence from a scene depicted in *The Lightning Thief* novel and film in order to support their analysis of the scenes’ similarities and differences.
- W.6.2 – Work Time C: Students practice “painting” the model essay according to its structural components, with attention to the introduction, clarity of focus statement, development of ideas, and conclusion.
- W.6.4 – Work Time C: Students analyze an example of clear and coherent writing, whose organization and style are appropriate to task, purpose, and audience.
- W.6.2 – Closing and Assessment A: Students reflect on the Painted Essay® structure as a guide for their own writing.

Opportunities to Extend Learning

- Several reviews can be found online critiquing the film version of *The Lightning Thief*. Provide some critiques for students to explore; challenge them to identify the strongest criticisms and/or defend the movie director’s choices.

How It Builds on Previous Work

- In the previous lesson, students completed the Mid-Unit 2 Assessment, in which they compared and contrasted themes in literature. Over the next several lessons, students will use the knowledge they have acquired about the novel to begin writing their own informational essay.

Support All Students

- For students who may be overwhelmed by too much print on a page: Reduce anxiety and support sustained effort by offering a copy of the model essay with one paragraph per page with double-wide spacing and large font.
- Students may require additional support when reading for gist. Pair students heterogeneously for this activity, or group students who may need additional reading support together while the text is read aloud. ▲
- Watching and comprehending the movie clip in real time could be difficult for some students. Think about scaffolding their experience with the movie clip by turning on the closed captioning feature or encouraging active note-taking. Make the film available ahead of time to allow students to preview it a few times before discussing it in class. ▲

- The Painted Essay® requires high levels of comprehension and attention. This lesson could include simple examples, some inductive learning, or practice opportunities with partners to reduce cognitive load. ▲

Assessment Guidance

- Throughout Work Time C, frequently review student work to ensure they are color-coding accurately. Use common issues as whole group teaching points.

Down the Road

- In the next lessons, students will plan their essays comparing a scene from the book to the movie. They will use their plan to draft and revise their essays in end of unit assessment.

In Advance

- Read the Paint an Essay Lesson Plan to review the color-coding system and the purpose of each color choice.
- Set up the technology needed to show the film clip *Percy Jackson and the Olympians: The Lightning Thief*, Scenes 13–14 [46:45–56:48] during Work Time B.
- Review the student tasks and example answers to get familiar with what students will be required to do in the lesson (see Materials list).
- Prepare copies of handouts for students, including entrance ticket (see Materials list).
- Post the learning targets and applicable anchor charts (see Materials list).

Technology & Multimedia

- Work Time C: Students annotate the model essay using the comments feature in an online word processing tool such as <http://eled.org/0158>.
- Work Time C: Rather than using colored pencils on the displayed model essay, highlight or use colored text on a word-processing document.

Vocabulary

- structure (A)
- Painted Essay® (DS)

Key

(A): Academic Vocabulary

(DS): Domain-Specific Vocabulary

Materials from Previous Lessons

Teacher

- Close Readers Do These Things anchor chart (one to display; from Unit 1, Lesson 4, Opening A)
- Academic word wall (begun in Unit 1, Lesson 1, Opening A)
- Domain-specific word wall (begun in Unit 1, Lesson 1, Opening A)

Student

- Vocabulary logs (one per student; from Unit 1, Lesson 2, Work Time B)
- Percy Jackson and the Olympians: The Lightning Thief* (one per student; text; from Unit 1, Lesson 1, Work Time C)

New Materials

Teacher

- Entrance Ticket: Unit 2, Lesson 6 (for teacher reference)
- Annotated Compare and Contrast Model Essay (for teacher reference)
- Percy Jackson and the Olympians: The Lightning Thief*, Scenes 13–14 [46:45–56:48] (film)
- Paint an Essay Lesson Plan (for teacher reference)

Student

- Entrance Ticket: Unit 2, Lesson 6 (one per student)
- Compare and Contrast Model Essay (one per student and one for display)
- Watercolor paint set or colored pencils (red, yellow, blue, green; one of each per student)
- Painted Essay® Template (one per student and one for display)

Opening

A. Engage the Learner – W.6.10 (5 minutes)

- Repeated routine: Follow the same routine as previous lessons to distribute and review **Entrance Ticket: Unit 2, Lesson 6**.
- Repeated routine: Follow the same routine as the previous lessons to review learning targets and the purpose of the lesson, reminding students of any learning targets that are similar or the same as previous lessons.
- With students, use the vocabulary strategies on the **Close Readers Do These Things anchor chart** to deconstruct the word *structure* (in this particular context, *structure* refers to the organization of the component parts of a text/piece of writing). Record on the **academic word wall** with translations in home languages, where appropriate, and invite students to record words in their **vocabulary logs**. ▲

- Focus students on the phrase *Painted Essay*[®]. Explain that they'll be learning what this is and how it will support them to write their essays in this lesson and throughout the remaining lessons in this unit.
- Turn and Talk:
“What do you think you will be doing in this lesson based on this learning target?” (We will be using a model essay to guide our writing as we prepare to write a compare and contrast essay of our own.)

Work Time

A. Read a Model Painted Essay[®] – W.6.2 (5 minutes)

- Distribute and display the **Compare and Contrast Model Essay**.
- Read the model aloud as students follow along, reading silently. Note that the structure and organization of a traditional four- or five-paragraph essay may be new for some students, including ELLs. Provide opportunities for students to reflect on any essay conventions or expectations that differ from what they have seen before. ▲
- Turn and Talk:
“What is this text about?” (This paper compares and contrasts the Medusa scene from the book with the same scene from the film version.)
- Focus students on the first paragraph.
- Turn and Talk:
“What is the gist of this paragraph?” (It provides brief background information on The Lightning Thief and clearly states a focus for the rest of the essay.)
- Cold call students to share out. As students share, capture their response next to the first paragraph on the displayed model. Refer to the **Annotated Compare and Contrast Model Essay (for teacher reference)** as necessary.
- Continue this process for each of the remaining paragraphs.

Work Time

B. View Clip from Film Version of *The Lightning Thief* – RL.6.7 (10 minutes)

- Tell students they will view the scene from chapter 11, when Percy, Grover, and Annabeth visit Auntie Em's (pages 172–187).
- Show the clip of the film *Percy Jackson and the Olympians: The Lightning Thief* (Scenes 13–14, 46:45–56:48).
- As they watch, ask them to make note of what they see and what they hear, as well as any differences or similarities between the book and the film.

Work Time

C. Analyze a Model Painted Essay® – W.6.2 (20 minutes)

- Refocus students on the Compare and Contrast Model Essay.
- Distribute **colored pencils**, and guide students through using these and their **Painted Essay® Template** to color-code their Compare and Contrast Model Essay. **Refer to Paint an Essay Lesson Plan (for teacher reference)** for further detail.
- Repeated routine: After guiding students through analyzing the model, invite them to reflect on their progress toward the relevant learning targets.

Closing and Assessment

A. Debrief: Painted Essay® – W.6.2 (5 minutes)

- Think-Pair-Share:
“How can the Painted Essay® structure benefit us as writers?”
- Students should pair up with the nearest classmate and take turns answering the question.
- Circulate and monitor to ensure that students understand how the Painted Essay® highlights important structural pieces in an essay, illustrates the connection between ideas, and aids in effective organization.

Homework

A. Preread Anchor Text

- Students should preread chapter 16 in *The Lightning Thief* in preparation for studying an excerpt from the chapter in the next lesson.

Lesson 7: Compare and Contrast Film and Text: *The Lightning Thief*



CCS Standards

Focus Standards

These are the standards the instruction addresses.

- RL.6.1, RL.6.4, RL.6.7, W.6.5, W.6.9a, L.6.4a, L.6.4d

Supporting Standards

These are the standards that are incidental—no direct instruction in this lesson, but practice of these standards occurs as a result of addressing the focus standards.

- RL.6.10, L.6.6



Daily Learning Targets

- I can demonstrate understanding of the excerpt from chapter 16 of *The Lightning Thief*. (RL.6.1)
- I can compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the film. (RL.6.7)

Ongoing Assessment

- Opening A: Entrance Ticket (RL.6.4, L.6.4a, L.6.4d)
- Work Time A: Gist on sticky notes
- Work Time B: Compare and Contrast Film and Text: *The Lightning Thief* note-catcher (RL.6.1, RL.6.7, W.6.2b, W.6.5, W.6.9a)

Agenda

1. Opening

A. Engage the Learner – L.6.4 (5 minutes)

2. Work Time

A. Read *The Lightning Thief*, Chapter 16 Excerpt – RL.6.1 (20 minutes)

B. Compare and Contrast Text and Film Scene – RL.6.7 (15 minutes)

3. Closing and Assessment

A. Reflect on Habits of Character (5 minutes)

4. Homework

A. Independent Research Reading: Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.

Teaching Notes

Alignment to Assessment Standards and Purpose of Lesson

- RL.6.4 – Opening A: Students complete an entrance ticket, in which they determine the meaning of a word as it is used in the text.
- L.6.4 – Opening A: Students apply vocabulary strategies to make a determination about an unknown word’s meaning.
- RL.6.1 – Work Time A: Students read the next chapter of the text and find the gist. Students also unpack unfamiliar vocabulary and answer comprehension questions using inferences and evidence from text.
- RL.6.7 – Work Time B: Students view a clip of the film version of *The Lightning Thief* and engage in a compare and contrast activity, noting similarities and differences between the scene in the film and the same scene in the text. The interplay of reading, rereading, and viewing is an engaging way to present this material, and it helps readers make sense of a complex text. (Note: Do not play the entire film for students. Strategically designed lessons incorporate film at critical junctures in student learning.)
- W.6.5 – Work Time B: Students capture responses on a note-catcher intended to help them plan their essays.
- W.6.9a – Work Time B: Students draw evidence from a scene *The Lightning Thief* to support their analysis of that scene and the same scene in the film.

Opportunities to Extend Learning

- Give students a blank Informative Writing checklist, and challenge them to generate the criteria based on the model essay.
- Point students to the sentence on page 247 of *The Lightning Thief*: “I was a source of amusement for the gods.” Challenge students to compare the human-god relationship as it portrayed in Greek myths to this same relationship in other cultures and religions.
- Use Goal 1 Conversation Cues to provoke critical thinking during this analysis.

How It Builds on Previous Work

- In the previous lesson, students analyzed a model essay using the Painted Essay® structure to generate criteria for their own essays. In preparation to write their own compare and contrast essay, students will now read the next chapter in the novel and watch another scene from the film.

Support All Students

- Note there is a differentiated version of the Model Compare and Contrast Film and Text: *The Lightning Thief* note-catcher used in Work Time B in the separate Teacher’s Guide for English Language Learners. ▲
- Students may be surprised or upset by the description of the deplorable conditions in which the animals are kept. Time for debriefing and reflection might help get these concerns out into the open so they can be addressed and tracked throughout the text.
- During the viewing of the film scene, the main characters eat lotus flowers. The effect of the flowers replicates that of drug use. Be aware that this representation of drug use may be upsetting or confusing for some students.

- Comparing and contrasting the movie scene may be difficult for some students. Think about strategic grouping, modeling, or offering guiding questions on the note-catcher. Additionally, scaffold their experience with the movie clip by turning on the closed-captioning feature or encouraging active note-taking. Make the film available ahead of time to allow students to preview it a few times before discussing it in class. ▲

Assessment Guidance

- Students may need some explanation on the experience of making a film to understand the choices the director made that led to the differences between the film and the novel.

Down the Road

- In the next lesson, students will plan the introduction of their compare and contrast essay with a strong focus statement.

In Advance

- Strategically decide how students will accomplish the reading for today's class. Be mindful of and balance variety with students' needs and their desire for choice while planning for the reading time during the lessons.
- Strategically decide on triad groupings to collaborate during the work on the Compare and Contrast note-catcher.
- Review the student tasks and example answers to get familiar with what students will be required to do in the lesson (see Materials list).
- Cue the film to the correct spot for the scene presented in this lesson.
- Preread chapter 16 in *The Lightning Thief* to identify words or plot points that may challenge students.
- Prepare copies of handouts for students, including entrance ticket (see Materials list).
- Post the learning targets and applicable anchor charts (see Materials list).

Technology & Multimedia

- Work Time A: Use an interactive online resource such as <http://eled.org/0126> to conduct the comparison.
- Work Time B: Select Closed Captioning on the DVD settings to provide subtitles and support auditory processing.

Vocabulary

- evaluate, responsibility (A)

Key

(A): Academic Vocabulary

(DS): Domain-Specific Vocabulary

Materials from Previous Lessons

Teacher

- Text Guide: *The Lightning Thief* (for teacher reference) (from Unit 1, Lesson 2, Work Time A)
- Gist Record: *The Lightning Thief* anchor chart (example for teacher reference) (one to display; from Unit 1, Lesson 2, Work Time A)
- Work to Become Ethical People anchor chart (one to display; from Unit 1, Lesson 1, Work Time C)
- Work to Become Ethical People anchor chart (example for teacher reference) (from Unit 1, Lesson 1, Work Time C)
- Percy Jackson and the Olympians: The Lightning Thief*, Scenes 18–19 [1:10:16–1:20:07] (film)
- Work to Become Effective Learners anchor chart (one to display; from Unit 1, Lesson 5, Work Time A)
- Work to Become Effective Learners anchor chart (from Unit 1, Lesson 5, Work Time A)
- Academic word wall (one to display; from Unit 1, Lesson 1, Opening A)

Student

- Percy Jackson and the Olympians: The Lightning Thief* (one per student; text; from Unit 1, Lesson 1, Work Time C)
- Vocabulary logs (one per student; begun in Unit 1, Lesson 2, Work Time B)
- Dictionary

New Materials

Teacher

- Entrance Ticket: Unit 2, Lesson 7 (for teacher reference)
- Compare and Contrast Film and Text: *The Lightning Thief* note-catcher (example for teacher reference)

Student

- Entrance Ticket: Unit 2, Lesson 7 (one per student)
- Sticky notes (one per student)
- Synopsis: *The Lightning Thief*, Chapter 16 (one per student; one to display)
- Model Compare and Contrast Film and Text: *The Lightning Thief* note-catcher (one per student)
- Compare and Contrast Film and Text: *The Lightning Thief* note-catcher (one per student)
- Compare and Contrast Film and Text: *The Lightning Thief* note-catcher ▲ (optional; see Teacher’s Guide for English Language Learners)

Opening

A. Engage the Learner – L.6.4 (5 minutes)

- Repeated routine: Follow the same routine as previous lessons to distribute and review **Entrance Ticket: Unit 2, Lesson 7**. Students will also need a **dictionary**.
- Repeated routine: Follow the same routine as the previous lessons to review learning targets and the purpose of the lesson, reminding students of any learning targets that are similar or the same as previous lessons.
- Remind students they have seen this learning target before; it is the essay prompt they are going to be working on in the next half of the unit.
- Turn and Talk:

*“What do you think you will be doing in this lesson based on these learning targets?” (reading the next chapter of *The Lightning Thief* and then watching a scene from the film to compare it to the novel.)*

“Why are we doing this? How is it meaningful to you? How will it help you to be successful?” (This will give us practice in viewing the same ideas from various perspectives and thinking critically about why people approach the same content in different ways.)

Work Time

A. Read *The Lightning Thief*, Chapter 16 Excerpt – RL.6.1 (20 minutes)

- Repeated Routine: Read aloud the selected excerpt, using **Text Guide: *The Lightning Thief* (for teacher reference)** for comprehension and vocabulary questions as needed. Students continue to record the gist on **sticky notes**, unpack and record unfamiliar vocabulary, and reflect on their reading as they choose. Refer to the following resources as appropriate to support this section of the lesson: **Gist Record: *The Lightning Thief* anchor chart (example for teacher reference)**, **vocabulary logs**, **chapter synopsis**, and **Work to Become Ethical People anchor chart**.
- Excerpt: starting at page 257 “We must have taken a wrong turn . . .” and ending at the end of the chapter on page 265 “One day to complete our quest.”
- Gist: Percy learns the full story of Thalia’s death while traveling in a truck with abused animals. The trio ends up trapped in the Lotus Casino in Las Vegas, where time moves slowly. They lose five days of their trip there.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Work Time

B. Compare and Contrast Text and Film Scene – RL.6.7 (15 minutes)

- Review the learning target relevant to the work to be completed in this section of the lesson:
“I can compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the film.”
- Remind students that when we read, we often get an idea in our minds of what characters look like or how they are supposed to act. We imagine scenes and settings. Directors, actors, and even the screenwriter make decisions about how a novel or even a play with a script will be portrayed on screen, including changing things dramatically on occasion. After identifying what is the same and different, students will evaluate the impact of those similarities and differences on the reader/viewer. Remind them that to *evaluate* means to judge.
- Distribute the **Model Compare and Contrast: Film and Text, *The Lightning Thief* note-catcher** or **Compare and Contrast: Film and Text, *The Lightning Thief* note-catcher ▲**.
- Point out that the writer used this organizer to help to gather evidence to support her thinking, which helps the reader trust the writer. People who read these essays want evidence so they can better understand the points being made.
- Emphasize that the essays they write, like the model, will be grounded in evidence so people will better understand them.
- Invite students to sit with their triads before viewing the film. Tell students they will view the scene from chapter 16, when Percy, Grover, and Annabeth enter the Lotus Casino (pages 242–265, and the Casino scene is on pages 257–265).
- Distribute and display **Compare and Contrast: Film and Text: *The Lightning Thief* note-catcher**.
- Show the clip of the **film, *Percy Jackson and the Olympians: The Lightning Thief* (Scenes 18–19, 1:10:16–1:20:07)**. As students watch, encourage them to record what they notice about what they see and hear.
- After watching, have students jot down their answers in the first two columns. Invite them to Turn and Talk with their triads as they work.
- See the **Compare and Contrast Film and Text: *The Lightning Thief* note-catcher (example for teacher reference)**.

Closing and Assessment

A. Reflect on Habits of Character (5 minutes)

- Focus students on the **Work to Become Effective Learners anchor chart**. Explain that it says at the top that effective learners are people who develop the mindsets and skills for success in college, career, and life.
- Read aloud the habit of character recorded:
“I take responsibility. This means I take ownership of my work, my actions, and my space.”
- Invite students to Turn and Talk to a partner. Then cold call students to share:
“What does responsibility look like? What might you see when someone is being responsible?” (See **Work to Become Effective Learners anchor chart** [example for teacher reference].)
“What does responsibility sound like? What might you hear when someone is being responsible?” (See **Work to Become Effective Learners anchor chart** [example for teacher reference].)
- As students share, record their responses in the appropriate column on the **Work to Become Effective Learners anchor chart**.
- Invite students to give examples of showing responsibility at school, home, or other environments of importance to them.
- Record *responsibility* on the **academic word wall**. Invite students to add translations of the words in their home languages in a different color next to the target vocabulary. ▲

Homework

A. Independent Research Reading

- Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.

Lesson 8: Compare and Contrast Essay: Plan Introduction



CCS Standards

Focus Standards

These are the standards the instruction addresses.

- RL.6.1, RL.6.7, W.6.2a, W.6.2b, W.6.4, W.6.5, W.6.9a

Supporting Standards

These are the standards that are incidental—no direct instruction in this lesson, but practice of these standards occurs as a result of addressing the focus standards.

- W.6.10, SL.6.1, L.6.6



Daily Learning Targets

- I can compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the film. (RL.6.7)
- I can plan the introduction of a compare and contrast essay with a strong focus statement. (W.6.2a)

Ongoing Assessment

- Work Time A: Compare and Contrast Film and Text: *The Lightning Thief* note-catcher (RL.6.1, RL.6.7, W.6.2b, W.6.5, W.6.9a)
- Work Time B: Language Dive: Focus Statement (W.6.2a, SL.6.1)
- Work Time C: Introduction: Informative/Explanatory Writing Plan graphic organizer (RL.6.1, RL.6.7, W.6.2a, W.6.4, W.6.5, W.6.9a)

Agenda

1. Opening

- A. Engage the Learner – RL.6.7 (5 minutes)

2. Work Time

- A. Compare and Contrast Text and Film Scene – RL.6.7 (5 minutes)
- B. Language Dive: Compare and Contrast Model Essay Focus Statement – W.6.2a (10 minutes)
- C. Plan an Introduction – W.6.2a (20 minutes)

3. Closing and Assessment

- A. Reflect on Habits of Character (5 minutes)

4. Homework

- A. Plan Introduction: Students review and revise their focus statements and plan for their introduction to make sure they are responding to the prompt.
- B. Preread Anchor Text: Students should preread chapter 17 in *The Lightning Thief* in preparation for studying an excerpt from the chapter in the next lesson.

Teaching Notes

Alignment to Assessment Standards and Purpose of Lesson

- W.6.2 – Work Time B: Students participate in a Language Dive that guides them through the meaning of a sentence from the Compare and Contrast Model Essay. The focus of this Language Dive is on understanding the author’s focus statement and to help students understand how to use comparing and contrasting language effectively. Students then apply their understanding of the meaning and structure of this sentence when writing focus statements for their informative essays in upcoming lessons and when revising their essays to include linking language.
- RL.6.1 – Work Time C: Students use evidence from the text to plan the introduction for their Compare and Contrast essay. Provide differentiated mentors by purposefully preselecting student partnerships so that these students can work together for this activity and throughout the planning of their essays. Students conclude the lesson in Closing and Assessment A by sharing with peers their introduction plan, which serves to help them rehearse their plan and identify any problems with it.
- RL.6.7 – Work Time C: As they plan the introduction of their essays, students compare and contrast the experience of reading a scene in a story with the experience of watching the same scene in a film.
- W.6.4 – Work Time C: Using the Model Compare and Contrast Essay and Language Dive as guidance, students organize a clear and coherent introduction with attention to task, purpose, and audience.
- W.6.5 – Work Time C: Students receive some support as they strengthen their writing by thoughtfully planning the introduction of their essay.
- W.6.9a – Work Time C: Students apply Grade 6 Reading standards to literature by comparing and contrasting a video clip and its corresponding scene in the text.
- In this lesson, students work to become effective learners, focusing on a characteristic of their choice as they draft their introductions.

Opportunities to Extend Learning

- Use “brag tags” to identify students in class who are particularly good at different aspects of writing an introduction, and allow them to conference with their classmates to give advice on their area of expertise.

How It Builds on Previous Work

- In the previous lessons, students analyzed the structure of the model essay using the Painted Essay® template. In this lesson, the introduction is analyzed in detail so students can begin planning their own essays. Students also began comparing and contrasting the film and novel in the previous lessons, which is work that they will build on in this lesson.

Support All Students

- Students may need additional support planning their introductions. Group those students for a guided discussion to give context to the reader about the novel and film. ▲
- Note that adolescence is characterized by extreme self-consciousness. Some students may feel uncomfortable sharing their writing with a peer and accepting constructive criticism. Consider sharing and feedback options that allow for anonymity. Additionally, find areas to praise every student and bolster confidence.

Assessment Guidance

- Monitor as students plan their focus statement and introduction paragraph. It is critical that their focus statement is precise and meets the requirements of the assignment; otherwise, it will affect the content of the rest of their essay.

Down the Road

- In the next lesson, students will plan the first Proof Paragraph of their essays. They will plan their essay one paragraph at a time over the next three lessons before producing and then revising a draft for their End of Unit 2 Assessment in Lessons 12 and 13.

In Advance

- Review the student tasks and example answers to get familiar with what students will be required to do in the lesson (see Materials list).
- Record the following on the board for students as they arrive:
 - Retrieve and review your Compare and Contrast Film and Text: *The Lightning Thief* note-catcher. Put a star next to one of your observations about a similarity or difference, and be ready to share it with the whole group during our discussion.
- Strategically pair students for work in Opening A with at least one strong reader per pair.
- Preview the Language Dive Guide, and invite conversation among students to address the language goals suggested under each sentence chunk strip (see Materials list). Select from the questions and goals provided to best meet students' needs.
- Prepare copies of handouts for students, including entrance ticket (see Materials list).
- Post the learning targets and applicable anchor charts (see Materials list).

Technology & Multimedia

- Work Time A: Use an interactive online resource such as <http://eled.org/0126> to conduct the comparison.

Vocabulary

- differences, reveal, similarities (A)
- comparison, introduction (DS)

Key

(A): Academic Vocabulary

(DS): Domain-Specific Vocabulary

Materials from Previous Lessons

Teacher

- Compare and Contrast Film and Text: *The Lightning Thief* note-catcher (example for teacher reference) (from Unit 2, Lesson 7, Work Time B)

- Close Readers Do These Things anchor chart (one to display; from Unit 1, Lesson 4, Opening A)
- Academic word wall (begun in Unit 1, Lesson 1, Opening A)
- Work to Become Effective Learners anchor chart (one to display; begun in Unit 1, Lesson 5, Work Time A)
- Work to Become Effective Learners anchor chart (example for teacher reference) (from Unit 1, Lesson 5, Work Time A)
- Annotated Compare and Contrast Model Essay (example for teacher reference) (from Unit 2, Lesson 6, Work Time A)
- Domain-specific word wall (begun in Unit 1, Lesson 1, Opening A)

Student

- Compare and Contrast Film and Text: *The Lightning Thief* note-catcher (one per student; from Unit 2, Lesson 7, Work Time B)
- Vocabulary logs (one per student; begun in Unit 1, Lesson 2, Work Time B)
- Percy Jackson and the Olympians: The Lightning Thief* (one per student; text; from Unit 1, Lesson 1, Work Time C)
- Compare and Contrast Model Essay (one per student; from Unit 2, Lesson 6, Work Time A)
- Painted Essay® Template (one per student; from Unit 2, Lesson 6, Work Time C)

New Materials

Teacher

- Language Dive Guide: Compare and Contrast Model Essay Focus Statement (for teacher reference)
- Language Dive: Compare and Contrast Model Essay Focus Statement note-catcher (example for teacher reference)
- Language Dive: Compare and Contrast Model Essay Focus Statement sentence chunk strips (one to display)
- Colored pencil (red)
- Criteria for an Effective Informative Essay anchor chart (example for teacher reference)
Informative Writing checklist (example for teacher reference)
- Criteria for an Effective Informative Essay anchor chart (one to display; co-created during Work Time B)
- Informative/Explanatory Writing Plan graphic organizer (example for teacher reference)

Student

- Language Dive: Compare and Contrast Model Essay Focus Statement note-catcher (one per student)
- Informative Writing checklist (one per student and one to display)
- Informative/Explanatory Writing Plan graphic organizer (one per student and one to display)

Opening

A. Engage the Learner – RL.6.7 (5 minutes)

- Record the following on the board for students as they arrive:
 - Retrieve and review your **Compare and Contrast Film and Text: *The Lightning Thief* note-catcher**. Put a star next to one of your observations about a similarity or difference, and be ready to share it with the whole group during our discussion later in the lesson.
- Repeated routine: Follow the same routine as the previous lessons to review learning targets and the purpose of the lesson, reminding students of any learning targets that are similar or the same as previous lessons.
- With students, use the vocabulary strategies on the **Close Readers Do These Things anchor chart** to deconstruct the word *introduction* (the paragraph that opens a piece of writing and helps the reader understand what the writing will be about). Record on the **domain-specific word wall** with translations in home languages, where appropriate, ▲ and invite students to record in their **vocabulary logs**.
- Using a total participation technique, invite responses from the group:

“What is an introduction? What is the purpose of it?” With student support, record the meaning of introduction (the beginning or opening to an essay or book) on the domain-specific word wall with translations in students’ home languages. Write synonyms, or sketch a visual above each key term to scaffold students’ understanding.
- Focus students on the **Work to Become Effective Learners anchor chart**, and invite them to read the habits of character on the chart to themselves. Tell students to choose a habit to focus on as they begin drafting today.

Work Time

A. Compare and Contrast Text and Film Scene – RL.6.7 (5 minutes)

- Ask students to retrieve their Compare and Contrast Film and Text: *The Lightning Thief* note-catchers and their copies of ***The Lightning Thief***.
- Inform students that they will continue the work done in the previous lesson, finding the similarities and differences between how chapter 16 is presented in the book and the film.
- Cold call students to share the detail they starred at the beginning of the lesson. On the displayed note-catcher, model adding these notes to the “similarities” and the “differences” columns, and invite students to do the same on their own note-catchers. Refer to **Compare and Contrast Film and Text: *The Lightning Thief* note-catcher (example for teacher reference)**.

Work Time

B. Language Dive: Compare and Contrast Model Essay Focus Statement – W.6.2a (10 minutes)

- Tell students they will now participate in a 10-minute Language Dive to examine how focus statements can be organized to show contrast.
- Reread aloud the first paragraph of the **Compare and Contrast Model Essay**.
- Focus students on the sentence:

“A comparison of chapter 11 of the book and the same scene of the movie reveals both similarities and differences.” (paragraph 1)
- Use the **Language Dive Guide: Compare and Contrast Model Essay Focus Statement** and **red colored pencil** to guide students through a Language Dive conversation about the sentence. Distribute and display the **Language Dive: Compare and Contrast Model Essay Focus Statement note-catcher** and the **Language Dive: Compare and Contrast Model Essay Focus Statement sentence chunk strips**.
- See the **Language Dive: Compare and Contrast Model Essay Focus Statement note-catcher (example for teacher reference)**.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Work Time

C. Plan an Introduction – W.6.2a (20 minutes)

- Inform students that they will use the notes they generated on the Compare and Contrast Film and Text: *The Lightning Thief* note-catcher as they begin planning their own essays in response to the prompt: *How does the experience of reading chapter 16 in The Lightning Thief compare to watching the same scene in the film?*
- Explain that in this lesson, they are only planning the introductions in their graphic organizer and will actually draft the essays for Part II during their end of unit assessment in Lessons 12–13.
- Ask students to retrieve their annotated copies of the Compare and Contrast Model Essay, and remind them that this essay was written to the same prompt to which they will write their essays, but the model essay referenced events from chapter 11 instead.
- Invite students to refer to their **Painted Essay® Template** to remember the parts of an introduction:
 - Context (information to engage the reader and provide needed background)
 - Focus statement
- Invite students to choral read the introduction of the model essay together as a class, stopping after each sentence to explain its function in the paragraph. ▲ Invite students to help record the parts of an introduction on the **Criteria for an Effective Informative Essay anchor chart**. Refer to **Criteria for an Effective Informative Essay anchor chart (example for teacher reference)** as necessary.

- Focus the class on the following sentences from the model essay:
“Can you imagine learning that your father is a Greek god? What about fighting immortals to find Zeus’s lightning bolt? This is what happens to Percy Jackson in The Lightning Thief by Rick Riordan. In the book and the movie, Percy is a twelve-year-old boy who learns that he is the son of the Sea God, Poseidon. Then Percy and two friends go on a quest to find Zeus’s bolt. A comparison of chapter 11 of the book and the same scene of the movie reveals both similarities and differences.”
- Turn and Talk:
“What would be the effect if these sentences were removed from the paragraph?” (The reader wouldn’t understand what novel was being discussed or what the novel was about in general.)
- Ask:
“What is the best way to summarize the sentences that come before the focus statement in the model essay’s introduction?” (They catch our interest and give us some context for the novel and film.)
- Direct students’ attention to the prompt and focus statement for the essay:
 - Prompt: How does the experience of reading chapter 16 in *The Lightning Thief* compare to watching the same scene in the film?
 - Focus Statement: A comparison of chapter 11 of the book and the same scene of the movie reveals both similarities and differences.
- Ask for a volunteer to describe how the prompt and focus statement are related. (The focus statement answers the questions in the prompt.) Refer frequently to the Language Dive students have just completed. Encourage students to think about the meaning of the focus statement as they connect it to the prompt. ▲
- Distribute and display the **Informative Writing checklist**. Invite students to read the checklist to themselves.
- Using a total participant technique, invite responses from the group:
“What do you notice about this checklist? What do you wonder?” (Responses will vary.)
- Give students a few minutes to reread the Compare and Contrast Model Essay. Then, use a total participation technique to invite responses from the group:
“What criterion on this checklist do you see done well in the model? What evidence from the model supports your thinking?” (Responses will vary.)
- If productive, ask students to listen carefully and seek to understand, and then to explain why a classmate came up with a particular response:
“Who can tell us what your classmate said in your own words?” (Responses will vary.)
“Who can explain why your classmate came up with that response? I’ll give you time to think and write.” (Responses will vary.)
- As students share out the criterion, jot down, say aloud, sketch, and display each characteristic to provide visual reinforcement. ▲
- Point out the following characteristic on the checklist:
 - W.6.2a: I have an introduction that gives readers the context they need to understand the topic or text.

- Ask:
“Are there any specific characteristics of this piece that you should be aware of and list in that column on the checklist?” (Responses will vary.)
- As students share out, capture their responses in the Characteristics of This Informative Essay column as needed. Refer to the **Informative Writing checklist (example for teacher reference)** for guidance. Remind students to refer to the **academic word wall** and domain-specific word wall as needed.
- Display and invite students to retrieve their **Informative/Explanatory Writing Plan graphic organizer**. Refer to **Informative/Explanatory Writing Plan graphic organizer (example for teacher reference)** as necessary.
- Invite students to use the Compare and Contrast Model Essay, the criteria on the Criteria for an Effective Informative Essay anchor chart, and the Informative Writing checklist to plan an introduction on the writing plan graphic organizer. Explain that students will be planning their essays over the next few lessons and will write the piece as part of the assessment at the end of this unit. Today they will plan only the introduction.
- Circulate to support students as they plan their introductions. Provide students an opportunity to verbally test and rehearse their ideas with a partner before recording their ideas. This may allow them additional time to organize their thinking.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Closing and Assessment

A. Reflect on Habits of Character (5 minutes)

- Move students into groups of three or four, and have them reread the Work to Become Effective Learners anchor chart.
- Invite students to reflect on the habits of character they chose to focus on in this lesson, discussing what went well and what could be improved next time.

Homework

A. Plan Introduction

- Students review and revise their focus statements and plan for their introduction to make sure they are responding to the prompt. Remind students that, at this time, they are only planning and not drafting their introduction.

B. Preread Anchor Text

- Students should preread chapter 17 in *The Lightning Thief* in preparation for studying an excerpt from the chapter in the next lesson.

Lesson 9: Compare and Contrast Essay: Plan Proof Paragraph 1



CCS Standards

Focus Standards

These are the standards the instruction addresses.

- RL.6.1, RL.6.7, W.6.2a, W.6.2b, W.6.4, W.6.5, W.6.9a

Supporting Standards

These are the standards that are incidental—no direct instruction in this lesson, but practice of these standards occurs as a result of addressing the focus standards.

- RL.6.10, W.6.10, L.6.6



Daily Learning Targets

- I can demonstrate understanding of the excerpt from chapter 17 of *The Lightning Thief*. (RL.6.1)
- I can compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the film. (RL.6.7)
- I can plan the first Proof Paragraph of a compare and contrast essay. (W.6.2b)

Ongoing Assessment

- Opening A: Entrance Ticket (W.6.2a, W.6.5)
- Work Time A: Gist on sticky notes
- Work Time B: Proof Paragraph 1: Informative/Explanatory Writing Plan graphic organizer (RL.6.1, RL.6.7, W.6.2b, W.6.4, W.6.5, W.6.9a)

Agenda

1. Opening

A. Engage the Learner – W.6.2a (5 minutes)

2. Work Time

A. Read *The Lightning Thief*, Chapter 17 Excerpt – RL.6.1 (20 minutes)

B. Plan Proof Paragraph 1 – W.6.2b (15 minutes)

3. Closing and Assessment

A. Pair Share – RL.6.7 (5 minutes)

4. Homework

A. Plan Proof Paragraph 1: Students review and revise their plan for their second Proof Paragraph to make sure they are accurately contrasting the experiences of seeing the film and reading the novel.

B. Preread Anchor Text: Students should preread chapter 18 in *The Lightning Thief* in preparation for studying an excerpt from the chapter in the next lesson.

Teaching Notes

Alignment to Assessment Standards and Purpose of Lesson

- W.6.2a – Opening A: Students complete an entrance ticket in which they trade their essays’ focus statements with a partner and give and receive kind and helpful feedback.
- RL.6.1 – Work Time A: Students read the next chapter of the text and find the gist. Students also unpack unfamiliar vocabulary and answer comprehension questions using inferences and evidence from text.
- RL.6.1 – Work Time B: Students plan the first Proof Paragraph of their essays, using evidence from *The Lightning Thief* to support their ideas. Students will apply their learning from the Painted Essay® structure to describe the similarities between the novel and the film. Students will practice organizing the facts, concrete details, and examples into a coherent structure.
- RL.6.7 – Work Time B: Students plan the first Proof Paragraph of an essay in which they contrast the experience of reading a scene in a story with the experience of watching the same scene in a film.
- W.6.2b – Work Time B: Students develop the topic of their essays in their first Proof Paragraphs using relevant facts, concrete details, quotations, and examples.
- W.6.4 – Work Time B: Using the Compare and Contrast Model Essay as guidance, students organize a clear and coherent Proof Paragraph with attention to task, purpose, and audience.
- W.6.5 – Work Time B: Students receive some support as they strengthen their writing by thoughtfully planning the first Proof Paragraph of their essays.
- W.6.9a – Work Time B: Students apply Grade 6 Reading standards to literature by comparing and contrasting a video clip and its corresponding scene in the text.
- RL.6.7 – Closing and Assessment A: Students share their plans with a partner and give and receive feedback on the connections drawn across the text and film.

Opportunities to Extend Learning

- Use “brag tags” to identify students who are particularly good at different aspects of writing a Proof Paragraph, and allow them to conference with their classmates to give advice on their area of expertise.

How It Builds on Previous Work

- In the previous lessons, students analyzed the structure of the model essay using the Painted Essay® template and planned their introductory paragraph. They build on those foundations in this lesson.

Support All Students

- Students may be confused or upset by the characterization of some characters in the novel as “gangbangers,” “bums,” and “street hawkers.” Time for debriefing and reflection might help get these concerns out into the open so they can be addressed and tracked throughout the text.

- In chapter 17, one line of *The Lightning Thief* (“There’s no such thing as a free lunch.’ That’s an ancient Greek saying that translated pretty well into American”) appears to conflate the English language with an American identity. Be aware of ways in which this embedded attitude could feel alienating to ELLs. Welcome any critical questions posed by students. ▲
- Students may need additional support while planning their Proof Paragraphs. Group those students for a guided discussion to find evidence to support their points. ▲
- Provide opportunities for students to interact and discuss what they want to include in their Proof Paragraphs before they begin planning independently.

Assessment Guidance

- Use the Informative Writing checklist to assess students’ writing abilities in Work Time B.

Down the Road

- In the next lesson, students will continue planning their compare and contrast essay, focusing on their second Proof Paragraph. They will also read from chapter 18 of *The Lightning Thief*.

In Advance

- Strategically decide how students will accomplish the reading for today’s class. Be mindful of and balance variety with students’ needs and their desire for choice while planning for the reading time during the lessons.
- Review the student tasks and example answers to get familiar with what students will be required to do in the lesson (see Materials list).
- Preread chapter 17 in *The Lightning Thief* to identify words or plot points that may challenge students.
- Prepare copies of handouts for students, including entrance ticket (see Materials list).
- Cut up the Proof Paragraph 1 Strips in preparation for the activity in Work Time B.
- Post the learning targets and applicable anchor charts (see Materials list).

Technology & Multimedia

- Work Time A: Many new figures from Greek mythology are named in chapter 17 (Procrustes, Charon, Hercules, Orpheus). Use a search engine to compile visuals of these figures to enhance reading of this chapter. Many images of figures from Greek mythology are not school-appropriate; preview images first before displaying them to the class.
- Work Time B: Provide the Informative Writing checklist in a digital form, such as <http://eled.org/0158>.

Vocabulary

- evidence (A)
- Proof Paragraph (DS)

Key

(A): Academic Vocabulary

(DS): Domain-Specific Vocabulary

Materials from Previous Lessons**Teacher**

- Work to Become Effective Learners anchor chart (one to display; begun in Unit 1, Lesson 5, Work Time A)
- Work to Become Effective Learners anchor chart (example for teacher reference) (from Unit 1, Lesson 5, Work Time A)
- Text Guide: *The Lightning Thief* (for teacher reference) (from Unit 1, Lesson 2, Work Time A)
- Gist Record: *The Lightning Thief* anchor chart (example for teacher reference) (one to display; from Unit 1, Lesson 2, Work Time A)
- Work to Become Ethical People anchor chart (one to display; begun in Unit 1, Lesson 1, Work Time C)
- Work to Become Ethical People anchor chart (example for teacher reference) (from Unit 1, Lesson 1, Work Time C)
- Compare and Contrast Film and Text: *The Lightning Thief* note-catcher (example for teacher reference) (from Unit 2, Lesson 7, Work Time B)
- Annotated Compare and Contrast Model Essay (example for teacher reference) (from Unit 2, Lesson 6, Work Time A)
- Informative Writing checklist (example for teacher reference) (one to display; from Unit 2, Lesson 8, Work Time C)
- Criteria for an Effective Informative Essay anchor chart (one to display; from Unit 2, Lesson 8, Work Time B)
- Criteria for an Effective Informative Essay anchor chart (example for teacher reference) (from Unit 2, Lesson 8, Work Time B)
- Domain-specific word wall (begun in Unit 1, Lesson 1, Opening A)
- Academic word wall (begun in Unit 1, Lesson 1, Opening A)

Student

- Percy Jackson and the Olympians: The Lightning Thief* (one per student; text; from Unit 1, Lesson 1, Work Time C)
- Painted Essay® template (one per student; from Unit 2, Lesson 6, Work Time C)
- Vocabulary logs (one per student; begun in Unit 1, Lesson 2, Work Time B)

- ✓ Compare and Contrast Film and Text: *The Lightning Thief* note-catcher (one per student; from Unit 2, Lesson 7, Work Time B)
- ✓ Compare and Contrast Model Essay (one per student; from Unit 2, Lesson 6, Work Time A)
- ✓ Informative Writing checklist (one per student; from Unit 2, Lesson 8, Work Time C)
- ✓ Informative/Explanatory Writing Plan graphic organizer (one per student; from Unit 2, Lesson 8, Work Time C)

New Materials

Teacher

- ✓ Entrance Ticket: Unit 2, Lesson 9 (for teacher reference)

Student

- ✓ Entrance Ticket: Unit 2, Lesson 9 (one per student)
- ✓ Sticky notes (one per student)
- ✓ Synopsis: *The Lightning Thief*, Chapter 17 (one per student; one to display)
- ✓ Yellow construction paper (one per pair)
- ✓ Organize the Model: Proof Paragraph 1 strips (one per pair; one to display)

Opening

A. Engage the Learner – W.6.2a (5 minutes)

- Repeated routine: Follow the same routine as previous lessons to distribute and review **Entrance Ticket: Unit 2, Lesson 9**.
- Repeated routine: Follow the same routine as the previous lessons to review learning targets and the purpose of the lesson, reminding students of any learning targets that are similar or the same as previous lessons.
- Underline the phrase *Proof Paragraph*. Using a total participation technique, invite responses from the group:
“What is the purpose of Proof Paragraph 1?” (It explains Point 1 by giving evidence and examples.)
- Focus students on the **Work to Become Effective Learners anchor chart**, and invite them to read the habits of character on the chart to themselves. Tell students to choose a habit to focus on as they work today.

Work Time

A. Read *The Lightning Thief*, Chapter 17 Excerpt – RL.6.1 (20 minutes)

- Repeated Routine: Read aloud the selected excerpt, using **Text Guide: *The Lightning Thief* (for teacher reference)** for comprehension and vocabulary questions as needed. Students continue to record the gist on **sticky notes**, unpack and record unfamiliar vocabulary, and reflect on their reading as they choose. Refer to the following resources as appropriate to support this section of the lesson: **Gist Record: *The Lightning Thief* anchor chart (example for teacher reference)**, **vocabulary logs**, **chapter synopsis**, and **Work to Become Ethical People anchor chart**.
- Excerpt: starting at the beginning of the chapter on page 266 “It was Annabeth’s idea . . .” and ending on page 274 “. . . we turned our backs on the sea.”
- Gist: A Nereid, or “a spirit of the sea,” gives Percy three pearls to help him escape danger. Hiding in a waterbed store, the trio are trapped by Procrustes, aka “Crusty” the Stretcher, and manage to escape after cutting off his head.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Work Time

B. Plan Proof Paragraph 1 – W.6.2b (15 minutes)

- Review the learning targets relevant to the work to be completed in this section of the lesson:
 - “*I can compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the movie.*”
 - “*I can plan the first Proof Paragraph of a compare and contrast essay.*”
- Move students into predetermined pairs.
- Distribute **yellow construction paper** and **Organize the Model: Proof Paragraph 1 strips**.
- Invite students to refer to their **Painted Essay® template** to remember where Proof Paragraph 1 fits in the structure of an informational piece.
- Remind students that the yellow paragraph is about similarities and the blue paragraph is about differences.
- Read aloud the introduction of the **Compare and Contrast Model Essay** again to remind students where the writer left off, before transitioning into the first Proof Paragraph.
- Post and review the following directions:
 1. Read and lay out the sentence strips on the yellow construction paper.
 2. Organize each set of strips logically as they would appear in Proof Paragraph 1. (Remind students that the paragraph should begin with a topic sentence, end with a concluding sentence, and include relevant evidence from the text.)
 3. Check your work against the Compare and Contrast Model Essay.

- Answer clarifying questions about what students will be doing in this activity. Model sorting displayed strips, if necessary.
- Invite students to begin working, and circulate to support them in reading and sorting the strips.
- Refocus whole group.
- Have students choral read Proof Paragraph 1. ▲
- For each sentence strip, ask:
“What is the purpose of this sentence or group of sentences?”
- Listen for students to notice that the topic sentence tells the readers that Proof Paragraph 1 is about the similarities, related evidence is grouped together and all relates back to the topic sentence, and the concluding sentence explains the significance of the points made in the paragraph.
- Invite students to help record the criteria for Proof Paragraph 1 on the **Criteria for an Effective Informative Essay anchor chart**. Refer to **Criteria for an Effective Informative Essay anchor chart (example for teacher reference)** as necessary. Point out that in a Proof Paragraph, the author provides evidence from the text and elaborates by explaining how the evidence he or she has chosen supports the focus statement.
- Invite students to retrieve and read their **Informative/Explanatory Writing Plan graphic organizer** started in the previous lesson to remind them of their focus statement and their ideas before planning their own Proof Paragraph 1.
- Invite students to refer to their **Compare and Contrast Film and Text: The Lightning Thief note-catcher**, Compare and Contrast Model Essay, the criteria on the Criteria for an Effective Informative Essay anchor chart, the **Informative Writing checklist**, and the **domain-specific word wall** to plan Proof Paragraph 1. Remind students that, at this time, they are only planning, not drafting, Proof Paragraph 1. If needed, model filling out this part of the Informative/Explanatory Writing Plan graphic organizer using the information in the **Annotated Compare and Contrast Model Essay (for teacher reference)**.
- Circulate to support students as they work and to identify common issues to use as whole group teaching points.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Closing and Assessment

A. Pair Share – RL.6.7 (5 minutes)

- Invite students to join a partner sitting next to them to form a pair and share their organizers. Encourage them to press each other for evidence from the text and connections to their focus statement.

Homework

A. Plan Proof Paragraph 1

- Students review and revise their plan for their second Proof Paragraph to make sure they are accurately contrasting the experiences of seeing the film and reading the novel. Remind students that, at this time, they are only planning, not drafting, their first Proof Paragraph.

B. Preread Anchor Text

- Students should preread chapter 18 in *The Lightning Thief* in preparation for studying an excerpt from the chapter in the next lesson.

Lesson 10: Compare and Contrast Essay: Plan Proof Paragraph 2



CCS Standards

Focus Standards

These are the standards the instruction addresses.

- RL.6.1, RL.6.7, W.6.2b, W.6.4, W.6.5, W.6.9a

Supporting Standards

These are the standards that are incidental—no direct instruction in this lesson, but practice of these standards occurs as a result of addressing the focus standards.

- RL.6.10, W.6.10, L.6.6



Daily Learning Targets

- I can demonstrate understanding of the excerpt from chapter 18 of *The Lightning Thief*. (RL.6.1)
- I can compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the film. (L.6.7)
- I can plan the second Proof Paragraph of a compare and contrast essay. (W.6.2b)

Ongoing Assessment

- Opening A: Entrance Ticket (W.6.2b)
- Work Time A: Gist on sticky notes
- Work Time B: Proof Paragraph 2: Informative/Explanatory Writing Plan graphic organizer (RL.6.1, RL.6.7, W.6.2b, W.6.4, W.6.5, W.6.9a)

Agenda

1. Opening

A. Engage the Learner – W.6.2b (5 minutes)

2. Work Time

A. Read *The Lightning Thief*, Chapter 18 Excerpt – RL.6.1 (20 minutes)

B. Plan Proof Paragraph 2 – W.6.2b (15 minutes)

3. Closing and Assessment

A. Pair Share – RL.6.7 (5 minutes)

4. Homework

A. Plan Proof Paragraph 2: Students review and revise their plan for their second Proof Paragraph to make sure they are accurately contrasting the experiences of seeing the film and reading the novel. Remind students that, at this time, they are only planning, not drafting, their second Proof Paragraph.

B. Independent Research Reading: Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.

Teaching Notes

Alignment to Assessment Standards and Purpose of Lesson

- W.6.2b – Opening A: Students complete an entrance ticket in which they review the plans for their first Proof Paragraphs.
- RL.6.1 – Work Time A: Students read the next chapter of the text and find the gist. Students also unpack unfamiliar vocabulary and answer comprehension questions using inferences and evidence from text.
- RL.6.1 – Work Time B: Students plan the second Proof Paragraph of their essays, using evidence from *The Lightning Thief* to support their ideas. Students will apply their learning from the Painted Essay® structure to describe the differences between the novel and the film. Students will practice organizing the facts, concrete details, and examples into a coherent structure.
- RL.6.7 – Work Time B: Students plan the second Proof Paragraph of an essay, in which they contrast the experience of reading a scene in a story with the experience of watching the same scene in a film.
- W.6.2b – Work Time B: Students develop the topic of their essays in their second Proof Paragraphs using relevant facts, concrete details, quotations, and examples.
- W.6.4 – Work Time B: Using the Compare and Contrast Model Essay as guidance, students organize a clear and coherent second Proof Paragraph with attention to task, purpose, and audience.
- W.6.5 – Work Time B: Students receive some support as they strengthen their writing by thoughtfully planning the second Proof Paragraph of their essays.

- W.6.9a – Work Time B: Students apply Grade 6 Reading standards to literature by comparing and contrasting a video clip and its corresponding scene in the text.
- RL.6.7 – Closing and Assessment A: Students share their plans with a partner and give and receive feedback on the connections drawn across the text and film.

Opportunities to Extend Learning

- Challenge proficient writers to try more advanced writing techniques like adding direct quotes, pulling in additional sources, or using figurative language and vivid words, especially the vocabulary they have added to their vocabulary logs.
- Check the Language standards to identify additional goals for a proficient writer to work toward (e.g., utilizing punctuation to set off nonrestrictive/parenthetical elements).

How It Builds on Previous Work

- In the second half of this unit, students have been analyzing a model and using their analysis to plan an informative essay and plan the introduction and Proof Paragraph 1. This lesson continues those routines to plan the second Proof Paragraph.

Support All Students

- Students may be surprised or upset by the description of the Underworld in chapter 18. Note that the Underworld as depicted in Greek mythology is not the same as the Christian view of hell, a place of punishment for sinners. Draw attention to page 291 of *The Lightning Thief*, which describes the different areas of the Underworld, including a place of reward for those who lived good lives.
- Students may need additional support while writing their Proof Paragraphs. Group those students for a discussion that will guide them in finding and explaining evidence to support their points. ▲
- Think about providing opportunities for students to interact and discuss what they want to include in their Proof Paragraphs before they begin planning independently.
- Error correction and celebration are two other high-leverage supports to consider. If possible, think about isolating and discussing one or two common errors within the first and second Proof Paragraphs; or locate and celebrate one or two samples of growth, if readily available. ▲
- Think about providing opportunities for students to interact and discuss what they want to include in their Proof Paragraphs before they begin planning independently.

Assessment Guidance

- Use the Informative Writing checklist to assess students' writing abilities in Work Time B.

Down the Road

- In the next lesson, students will finish planning their compare and contrast essay, focusing on their conclusion in preparation to write their final draft for the End of Unit 2 Assessment.

In Advance

- Strategically decide how students will accomplish the reading for today’s class. Be mindful of and balance variety with students’ needs and their desire for choice while planning for the reading time during the lessons.
- Review the student tasks and example answers to get familiar with what students will be required to do in the lesson (see Materials list).
- Preread chapter 18 in *The Lightning Thief* to identify words or plot points that may challenge students.
- Prepare copies of handouts for students, including entrance ticket (see Materials list).
- Cut up the Proof Paragraph 2 Strips in preparation for the activity in Work Time B.
- Post the learning targets and applicable anchor charts (see Materials list).

Technology & Multimedia

- Work Time A: The events of chapter 18 are depicted in the film version of the novel. Show the scene during class time, and provide extra practice with comparing and contrasting the mediums.

Vocabulary

- N/A

Materials from Previous Lessons**Teacher**

- Criteria for an Effective Informative Essay anchor chart (example for teacher reference) (one to display; from Unit 2, Lesson 8, Work Time B)
- Text Guide: *The Lightning Thief* (for teacher reference) (from Unit 1, Lesson 2, Work Time A)
- Gist Record: *The Lightning Thief* anchor chart (example for teacher reference) (one to display; from Unit 1, Lesson 2, Work Time A)
- Work to Become Ethical People anchor chart (one to display; begun in Unit 1, Lesson 1, Work Time C)
- Work to Become Ethical People anchor chart (example for teacher reference) (from Unit 1, Lesson 1, Work Time C)
- Compare and Contrast Film and Text: *The Lightning Thief* note-catcher (example for teacher reference) (from Unit 2, Lesson 7, Work Time B)
- Annotated Compare and Contrast Model Essay (example for teacher reference) (from Unit 2, Lesson 6, Work Time A)

- ✓ Criteria for an Effective Informative Essay anchor chart (one to display; from Unit 2, Lesson 8, Work Time B)
- ✓ Criteria for an Effective Informative Essay anchor chart (example for teacher reference) (from Unit 2, Lesson 8, Work Time B)
- ✓ Domain-specific word wall (begun in Unit 1, Lesson 1, Opening A)

Student

- ✓ *Percy Jackson and the Olympians: The Lightning Thief* (one per student; text; from Unit 1, Lesson 1, Work Time C)
- ✓ Vocabulary logs (one per student; begun in Unit 1, Lesson 2, Work Time B)
- ✓ Painted Essay® template (one per student; from Unit 2, Lesson 6, Work Time C)
- ✓ Compare and Contrast Film and Text: *The Lightning Thief* note-catcher (one per student; from Unit 2, Lesson 7, Work Time B)
- ✓ Compare and Contrast Model Essay (one per student; from Unit 2, Lesson 6, Work Time A)
- ✓ Informative Writing checklist (one per student; begun in Unit 2, Lesson 8, Work Time C)
- ✓ Informative/Explanatory Writing Plan graphic organizer (one per student; from Unit 2, Lesson 8, Work Time B)

New Materials

Teacher

- ✓ Entrance Ticket: Unit 2, Lesson 10 (for teacher reference)

Student

- ✓ Entrance Ticket: Unit 2, Lesson 10 (one per student)
- ✓ Sticky notes (one per student)
- ✓ Synopsis: *The Lightning Thief*, Chapter 18 (one per student; one to display)
- ✓ Blue construction paper (one per pair)
- ✓ Organize the Model: Proof Paragraph 2 strips (one per pair; one to display)

Opening

A. Engage the Learner – W.6.2b (5 minutes)

- Repeated routine: Follow the same routine as previous lessons to distribute and review **Entrance Ticket: Unit 2, Lesson 10**. Allow time for students to share their star and step with their partner and for their partner to respond.
- Repeated routine: Follow the same routine as the previous lessons to review learning targets and the purpose of the lesson, reminding students of any learning targets that are similar or the same as previous lessons.
- Direct students' attention to the **Criteria for an Effective Informative Essay anchor chart**, and read each bullet point aloud.

Work Time

A. Read *The Lightning Thief*, Chapter 18 Excerpt – RL.6.1 (20 minutes)

- Repeated Routine: Read aloud the selected excerpt, using the **Text Guide: *The Lightning Thief* (for teacher reference)** for comprehension and vocabulary questions as needed. Students continue to record the gist on **sticky notes**, unpack and record unfamiliar vocabulary, and reflect on their reading as they choose. Refer to the following resources as appropriate to support this section of the lesson: **Gist Record: *The Lightning Thief* anchor chart (example for teacher reference)**, **vocabulary logs**, **chapter synopsis**, and **Work to Become Ethical People anchor chart**.
- Excerpt: starting on page 291 “I’m not sure what I was expecting . . .” and ending at the conclusion of the chapter on page 299 “. . . longing for his new friend.”
- Gist: The trio enters the Underworld and meets Charon, the ferryman across the River Styx. Cerberus, the three-headed dog, can detect those who are not dead; Annabeth plays fetch with him so Percy can sneak in to see Hades.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Work Time

B. Plan Proof Paragraph 2 – W.6.2b (15 minutes)

- Review the learning targets relevant to the work to be completed in this section of the lesson:

“I can compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the movie.”

“I can plan the second Proof Paragraph of a compare and contrast essay.”
- Move students into predetermined pairs.
- Distribute **blue construction paper** and **Organize the Model: Proof Paragraph 2 strips**.
- Invite students to refer to their **Painted Essay® template** to remember where Proof Paragraph 2 fits in the structure of an informational piece.
- Remind students that the yellow paragraph is about similarities and the blue paragraph is about differences.
- Read aloud Proof Paragraph 1 of the **Compare and Contrast Model Essay** again to remind students where the writer left off, before transitioning into the second Proof Paragraph.
- Post and review the following directions:
 1. Read and lay out the sentence strips on the blue construction paper.
 2. Organize each set of strips logically as they would appear in Proof Paragraph 2. (Remind students that the paragraph should begin with a topic sentence, end with a concluding sentence, and include relevant evidence from the text.)
 3. Check your work against the Compare and Contrast Model Essay.

- Invite students to begin working, and circulate to support them in reading and sorting the strips.
- Refocus whole group.
- Have students choral read Proof Paragraph 2. ▲
- For each sentence strip, ask:
“What is the purpose of this sentence or group of sentences?”
- Listen for students to notice that the topic sentence tells the readers that Proof Paragraph 2 is about the differences, related evidence is grouped together and all relates back to the topic sentence, and the concluding sentence explains the significance of the points made in the paragraph.
- Invite students to help record any new criteria for Proof Paragraph 2 on the Criteria for an Effective Informative Essay anchor chart. Refer to **Criteria for an Effective Informative Essay anchor chart (example for teacher reference)** as necessary. Point out that transition words and phrases help segue between paragraphs.
- Invite students to retrieve and read their **Informative/Explanatory Writing Plan graphic organizer** started in a previous lesson to remind them of their focus statement and their ideas before planning their own Proof Paragraph 2.
- Invite students to refer to their **Compare and Contrast Film and Text: *The Lightning Thief* note-catcher**, Compare and Contrast Model Essay, the criteria on the Criteria for an Effective Informative Essay anchor chart, the **Informative Writing checklist**, and the **domain-specific word wall** to plan Proof Paragraph 2. Remind students that, at this time, they are only planning, not drafting, Proof Paragraph 2. If needed, model filling out this part of the Informative/Explanatory Writing Plan graphic organizer using the information in the **Annotated Compare and Contrast Model Essay (for teacher reference)**.
- Circulate to support students as they work and to identify common issues to use as whole group teaching points.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Closing and Assessment

A. Pair Share – RL.6.7 (5 minutes)

- Invite students to join a partner sitting next to them to form a pair.
- Post the following directions, and read through them with students.
- Answer clarifying questions.
 1. Trade and review each other’s graphic organizers for Proof Paragraphs 1 and 2.
 2. Give your partner one star (one piece of feedback for something your partner did well) and one step (one piece of feedback for something your partner could improve on).

Homework

A. Plan Proof Paragraph 2

- Students review and revise their plan for their second Proof Paragraph to make sure they are accurately contrasting the experiences of seeing the film and reading the novel. Remind students that, at this time, they are only planning, not drafting, their second Proof Paragraph.

B. Independent Research Reading

- Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.

Lesson 11: Compare and Contrast Essay: Plan Conclusion



CCS Standards

Focus Standards

These are the standards the instruction addresses.

- RL.6.1, RL.6.7, W.6.2a, W.6.2f, W.6.4, W.6.5, W.6.9a

Supporting Standards

These are the standards that are incidental—no direct instruction in this lesson, but practice of these standards occurs as a result of addressing the focus standards.

- RL.6.10, W.6.10, SL.6.1, L.6.6



Daily Learning Targets

- I can compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the film. (RL.6.7)
- I can plan the conclusion of a compare and contrast essay with a strong reflection. (W.6.2f)

Ongoing Assessment

- Work Time A: Language Dive: Reflection (W.6.2f)
- Work Time B: Conclusion: Informative/Explanatory Writing Plan graphic organizer (RL.6.1, RL.6.7, W.6.2f, W.6.4, W.6.5, W.6.9a)

Agenda

1. Opening

A. Engage the Learner – W.6.2a (5 minutes)

2. Work Time

A. Language Dive: Reflection – W.6.2f (15 minutes)

B. Plan a Conclusion – W.6.2f (20 minutes)

3. Closing and Assessment

A. Pair Share – RL.6.7 (5 minutes)

4. Homework

A. Plan Conclusion: Students review and revise the plan for their conclusion to ensure they are adequately wrapping up their essay. Remind students that, at this time, they are only planning and not drafting their conclusion.

B. Independent Research Reading: Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.

Teaching Notes

Alignment to Assessment Standards and Purpose of Lesson

- W.6.2a – Opening A: Students refine the focus statements of their introductions in preparation to write their conclusions.
- W.6.2f – Work Time A: Students engage in a Language Dive, which facilitates a closer look at a key sentence in the conclusion of the model essay. This Language Dive will give students the opportunity to practice a structure that may be useful as they write the conclusions of their own essays.
- RL.6.1 – Work Time B: Students return to their compare and contrast essays to plan the conclusion, using evidence from *The Lightning Thief* to support their ideas. On the end of unit assessment, students apply what they have learned to provide a concluding section that follows from the comparison presented.
- RL.6.7 – Work Time B: Students plan the concluding paragraphs of their essays, in which they compare and contrast the experience of reading a scene in a story with the experience of watching the same scene in a film.
- W.6.2f – Work Time B: Students plan a conclusion that follows from the information presented in their proof paragraphs.
- W.6.4 – Work Time B: Using the Compare and Contrast Model Essay as guidance, students plan a clear and coherent conclusion paragraph, with attention to task, purpose, and audience.
- W.6.5 – Work Time B: Students receive some support as they strengthen their writing by thoughtfully planning the concluding paragraphs of their essays.
- W.6.9a – Work Time B: Students apply Grade 6 Reading standards to literature by comparing and contrasting a video clip and its corresponding scene in the text.
- RL.6.7 – Closing and Assessment A: Students share their plans with a partner and give and receive feedback on the connections drawn across the text and film.
- In this lesson, students focus on working to become effective learners, showing perseverance as they write independently.

Opportunities to Extend Learning

- Gather a number of new texts with effective conclusions. Invite students to analyze these conclusions written by professionals to gather more criteria for an effective conclusion.

How It Builds on Previous Work

- In the second half of this unit, students have been analyzing a model and using their analysis to plan a compare and contrast essay. This lesson continues those routines to finish planning the essay's conclusion and reflective statement.

Support All Students

- Some students may need additional support as they plan the conclusions of their essays. This lesson includes a Language Dive, which will focus students' attention to the most important elements of an effective reflection sentence within a conclusion. Language Dives help create more confident readers and writers, and further accelerate language growth for ELLs. ▲

- If an interactive whiteboard, like a Smartboard, is available, input the sentence chunks of the Language Dive as individual text boxes, and allow students to manipulate the chunks on the board.

Assessment Guidance

- Monitor the timing of this lesson to ensure that all students are prepared with a comprehensive plan for the next lesson's assessment before the end of class. Circulate and monitor to clarify any egregious misconceptions before the end of unit assessment.
- Review students' Language Dive: Compare and Contrast Model Essay, Conclusion and Reflection note-catcher from Work Time A to ensure students understand how to restate, reinforce, and reflect on the focus statement of the essay.

Down the Road

- In the next lesson, students will use their plans to complete the End of Unit 2 Assessment, in which they plan an essay comparing and contrasting the film version of *The Lightning Thief* with the novel.
- Students will review their Mid-Unit 2 Assessment at the start of the next lesson. Ensure that kind, helpful, and specific feedback is ready for their review at that time.

In Advance

- Review the student tasks and example answers to get familiar with what students will be required to do in the lesson (see Materials list).
- Preview the Language Dive Guide, and invite conversation among students to address the language goals suggested under each sentence chunk strip. Select from the questions and goals provided to best meet the students' needs.
- Prepare the Language Dive sentence chunk strips for students to physically manipulate.
- Prepare copies of handouts for students, including entrance ticket (see Materials list).
- Post the learning targets and applicable anchor charts (see Materials list).

Technology & Multimedia

- Work Time B: Students use a digital online tool such as <http://eled.org/0120> to record themselves reading their entire plan essay aloud, then listen back to it. Reflect on areas that need more support or smoother transitions.
- Closing and Assessment A: Use a free online tool like <http://eled.org/0127> to aid students in giving effective and efficient feedback.

Vocabulary

- fantastic, journey, perhaps (A)

Key

(A): Academic Vocabulary

(DS): Domain-Specific Vocabulary

Materials from Previous Lessons**Teacher**

- Annotated Compare and Contrast Model Essay (for teacher reference) (Unit 2, Lesson 6, Work Time A)
- Criteria for an Effective Informative Essay anchor chart (one to display; from Unit 2, Lesson 8, Work Time B)
- Criteria for an Effective Informative Essay anchor chart (example for teacher reference) (from Unit 2, Lesson 8, Work Time B)
- Work to Become Effective Learners anchor chart (one to display; from Unit 1, Lesson 5, Work Time A)
- Work to Become Effective Learners anchor chart (example for teacher reference) (from Unit 1, Lesson 5, Work Time A)
- Academic word wall (begun in Unit 1, Lesson 1, Opening A)

Student

- Informative/Explanatory Writing Plan graphic organizer (one per student; from Unit 2, Lesson 8, Work Time B)
- Compare and Contrast Model Essay (one per student; from Unit 2, Lesson 6, Work Time A)
- Painted Essay® template (one per student; from Unit 2, Lesson 6, Work Time C)
- Informative Writing checklist (one per student; begun in Unit 2, Lesson 8, Work Time C)

New Materials**Teacher**

- Language Dive Guide: Compare and Contrast Model Essay Conclusion and Reflection (for teacher reference)
- Language Dive: Compare and Contrast Model Essay Conclusion and Reflection note-catcher (example for teacher reference)
- Language Dive: Compare and Contrast Model Essay Conclusion and Reflection sentence chunk strips (one to display)

Student

- Language Dive: Compare and Contrast Model Essay Conclusion and Reflection note-catcher (one per student)

Opening

A. Engage the Learner – W.6.2a (5 minutes)

- Record the following on the board for students to complete as they arrive:
 - Reread your **Informative/Explanatory Writing Plan graphic organizer** to review and further refine your focus statement and ideas to get you ready to plan your conclusion.
- Repeated routine: Follow the same routine as the previous lessons to review learning targets and the purpose of the lesson, reminding students of any learning targets that are similar or the same as previous lessons.

Work Time

A. Language Dive: Reflection – W.6.2f (15 minutes)

- Tell students they will now participate in another Language Dive to understand how modal phrases can be used to reflect about the choices of the director and author of *The Lightning Thief*.
- Reread aloud from the paragraph of the **Compare and Contrast Model Essay**.
- Focus students on the sentence:

“Perhaps the biggest similarity between the book and the movie is the feeling of strength and power both readers and viewers experience as they make this fantastic journey alongside Percy and his friends.”
- Use the **Language Dive Guide: Compare and Contrast Model Essay, Conclusion and Reflection (for teacher reference)** to guide students through a Language Dive conversation about the sentence. Distribute and display the **Language Dive: Compare and Contrast Model Essay, Conclusion and Reflection note-catcher**, and the **Language Dive: Compare and Contrast Model Essay, Conclusion and Reflection sentence chunk strips**. Refer to the **Language Dive: Compare and Contrast Model Essay, Conclusion and Reflection note-catcher (example for teacher reference)** for guidance.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Work Time

B. Plan a Conclusion – W.6.2f (20 minutes)

- Review the learning targets relevant to the work to be completed in this section of the lesson:

“I can compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the movie.”

“I can plan the conclusion of a compare and contrast essay with a strong reflection.”

- Invite students to refer to their **Painted Essay® template** to remember the parts of a conclusion paragraph:
 - Restated focus statement
 - Reflection
- Direct students to the Compare and Contrast Model Essay. Point out that the first part of the conclusion is colored in green, yellow, and blue because it is a mix of the focus statement, point 1, and point 2.
- Turn and Talk:

“Why might the shade of green in the conclusion be slightly different from the shade of green for the focus statement? Think back to your experience painting the essay in Lesson 6.” (When we mixed yellow and blue paints they made a new shade of green. This shows that when we run the ideas in the yellow paragraph and the ideas in the blue paragraph through our own minds, they come together to make something new—our own thinking on the topic, but still connected back to the focus statement.)
- Invite students to help record the parts of a conclusion paragraph on the **Criteria for an Effective Informative Essay anchor chart**. Refer to the **Criteria for an Effective Informative Essay anchor chart (example for teacher reference)** as necessary.
- Remind students that as they plan the conclusion, they should restate the focus statement and provide a reflection.
- Invite students to retrieve the following materials:
 - **Informative Writing checklist**
 - Informative/Explanatory Writing Plan graphic organizer
- Draw students’ attention to the **Work to Become Effective Learners anchor chart**. Remind them of the habit of perseverance.
- Circulate to support students as they work and to identify common issues to use as whole group teaching points.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Closing and Assessment

A. Pair Share – RL.6.7 (5 minutes)

- Invite students to join a new partner to form a pair.
- Post the following directions, and read through them with students. Answer clarifying questions:
 1. First partner explains his/her ideas for the conclusion of the essay.
 2. Second partner offers one star (one piece of feedback for something your partner did well) and one step (one piece of feedback for something your partner could improve on).
 3. Repeat steps 1 and 2 with the other partner presenting his/her conclusion.
 4. Both pairs revise their work according to the stars and steps they received (if they agree).

- Invite students to begin sharing.
- After 5 minutes, invite students to return to their seats.

Homework

A. Plan Conclusion

- Students review and revise their plan for their conclusion to ensure they are adequately wrapping up their essay. Remind students that, at this time, they are only planning and not drafting their conclusion.

B. Independent Research Reading

- Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.

Lessons 12–13: End of Unit 2 Assessment: Compare and Contrast Film and Text: *The Lightning Thief*



CCS Standards

Focus Standards

These are the standards the instruction addresses.

- RL.6.1, RL.6.7, W.6.2, W.6.4, W.6.5, W.6.6, W.6.9a, L.6.2b, L.6.6

Supporting Standards

These are the standards that are incidental—no direct instruction in this lesson, but practice of these standards occurs as a result of addressing the focus standards.

- W.6.10



Daily Learning Targets

- I can write an essay in which I compare and contrast what I see and hear when I read the text to what I perceive when I watch the same scene of the film. (RL.6.1, RL.6.7, W.6.2, W.6.4, W.6.5, W.6.6, W.6.9a, W.6.10, L.6.2b, L.6.6)

Ongoing Assessment

- Work Time A: End of Unit 2 Assessment: Write Compare and Contrast Essay (RL.6.1, RL.6.7, W.6.2, W.6.4, W.6.5, W.6.6, W.6.9a, W.6.10, L.6.6)
- Closing and Assessment A: Track Progress (W.6.2, W.6.10)

Agenda

1. Opening

- A. Return Mid-Unit 2 Assessments (5 minutes)
- B. Engage the Learner (5 minutes)

2. Work Time

- A. End of Unit 2 Assessment: Write Compare and Contrast Essay (65 minutes)

3. Closing and Assessment

- A. Track Progress – W.6.2 (15 minutes)

4. Homework

- A. Independent Research Reading: Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.

Teaching Notes

Alignment to Assessment Standards and Purpose of Lesson

- Work Time A: Students complete the End of Unit 2 Assessment, in which they compose the four-paragraph essay they have planned comparing and contrasting the Lotus-Eaters scene from the film version of *The Lightning Thief* with the same scene in the novel. Two lessons have been allocated for this assessment to ensure sufficient time for students to complete the essay. If these are taught in two separate lessons rather than together as one block, revisit the learning targets and the task at the beginning of the second 45-minute lesson to remind students of the task and purpose. Be sure to collect all written work at the end of each session. (RL.6.1, RL.6.7, W.6.2, W.6.4, W.6.5, W.6.6, W.6.9a, W.6.10, L.6.2b, L.6.6)
- W.6.2 – Closing and Assessment A: Students reflect on their learning using the Track Progress: Informative Writing recording form. This exercise is meant to provide them with time to formally keep track of and reflect on their own learning. This self-reflection supports metacognition and pride in work and learning.
- The independent research reading that students complete for homework will help build both their vocabulary and knowledge pertaining to Greek mythology. By participating in this volume of reading over a span of time, students will develop a wide base of knowledge about the world and the words that help describe and make sense of it.

Opportunities to Extend Learning

- Some students may not require the level of scaffolding provided in this unit. Prompt students toward deeper levels of understanding and increased rigor by referencing Levels 3 and 4 of Webb’s Depth of Knowledge.
- Guide students in an informal discussion of when the skills of comparing and contrasting or writing informative texts might be important in a “real-world” setting. Prompt students with suggestions, like considering which apartment to rent or when a police officer needs to write an incident report.

How It Builds on Previous Work

- In the second half of this unit, students have been analyzing a model and using their analysis to plan an informative essay. This lesson assesses those skills as students use their plans to compose their essays comparing a scene from the film version of *The Lightning Thief* to the same scene in the novel.

Support All Students

- If students receive accommodations for assessments, communicate with the cooperating service providers regarding the practices of instruction in use during this study as well as the goals of the assessment.

Assessment Guidance

- End of Unit 2 Assessment: Compare and Contrast Essay (student and teacher version) are included in the Assessment Overview and Resources.
- Save a copy of the scored essays to use as a baseline assessment. These pieces can be used to measure the progress of individual students throughout the year, as well as to identify common instructional needs in a class.

- When assessing and providing feedback to students on this assessment, use the Informative Writing Rubric (see Module 1 Teacher Guide: Appendix and/or Tools Page, <https://eled.org/tools>) and the annotated sample essay to help complete the student Track Progress: Informative Writing. Make notes in the appropriate column for each criterion in a different color from student responses. There is also space provided to respond to student comments.
- Decide in what format students will compose their essays. Provide lined paper or a computer with word-processing software, depending on students' needs and preferences.
- In this assessment, students are tracking progress toward anchor standard CCRA.W.2: Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

Down the Road

- In the next lesson, students will engage in another Language Dive, this time focused on appropriate transitions. They will apply their learning as they revise their essays to make connections between points. Students will also be introduced to the Peer Critique protocol, in which they pair up with another peer to critique transitions, domain-specific vocabulary words, and correct spelling.

In Advance

- Thoroughly review the directions and rubric for the End of Unit 2 Assessment, anticipating areas of struggle that may arise.
- Review the student tasks and example answers to get familiar with what students will be required to do in the lesson (see Materials list).
- Ensure Mid Unit 2 Assessments with feedback are available for each student at desks as they enter.
- Decide in what format students will compose their essays. Provide lined paper or a device with word-processing software, depending on the students' needs and preferences. Ensure that devices are in good working order, fully charged, and logged into before students begin composing their essays, to avoid wasting work time.
- Prepare copies of handouts for students (see Materials list).
- Post the learning targets and applicable anchor charts (see Materials list).

Technology & Multimedia

- Work Time A: Students complete essay online using a tool such as <http://eled.org/0158>.
- Closing and Assessment A: Students complete their Track Progress handouts in a word-processing document using speech-to-text facilities activated on devices or using an app or software such as <http://eled.org/0103>.

Vocabulary

- N/A

Materials from Previous Lessons

Teacher

- Compare and Contrast Film and Text: *The Lightning Thief* note-catcher (example for teacher reference) (from Unit 2, Lesson 7, Work Time B)
- Annotated Compare and Contrast Model Essay (for teacher reference) (from Unit 2, Lesson 6, Work Time A)
- Criteria for an Effective Informative Essay anchor chart (one to display; from Unit 2, Lesson 8, Work Time B)
- Work to Become Effective Learners anchor chart (one to display; begun in Unit 1, Lesson 5, Work Time A)
- Work to Become Effective Learners anchor chart (example for teacher reference) (from Unit 1, Lesson 5, Work Time A)

Student

- Mid-Unit 2 Assessment with feedback (one per student; from Unit 2, Lesson 5, Work Time A)
- Compare and Contrast Film and Text: *The Lightning Thief* note-catcher (one per student; from Unit 2, Lesson 7, Work Time B)
- Informative/Explanatory Writing Plan graphic organizer (one per student; from Unit 2, Lesson 8, Work Time B)
- Informative Writing checklist (one per student; begun in Unit 2, Lesson 8, Work Time C)
- Compare and Contrast Model Essay (one per student; from Unit 2, Lesson 6, Work Time A)
- Percy Jackson and the Olympians: The Lightning Thief* (one per student; text; from Unit 1, Lesson 1, Work Time C)
- Painted Essay® template (one per student; from Unit 2, Lesson 6, Work Time C)
- Track Progress folder (one per student; from Unit 1, Lesson 15, Closing and Assessment A)

New Materials

Teacher

- Module 1: End of Unit 2 Assessment: Compare and Contrast Essay (example for teacher reference) (see Assessment Overview and Resources)

Student

- Device with word-processing software (one per student) or lined paper (three per student)
- Module 1: End of Unit 2 Assessment: Compare and Contrast Essay Directions (one per student)
- Track Progress: Informative Writing (one per student)
- Sticky notes (three per student)

Opening

A. Return Mid-Unit 2 Assessments (5 minutes)

- As students enter the classroom, return students' **Mid-Unit 2 Assessments with feedback**. Direct students to write their name on the board if they need an explanation for the feedback provided.

Opening

B. Engage the Learner (5 minutes)

- Repeated routine: Follow the same routine as the previous lessons to review learning targets and the purpose of the lesson, reminding students of any learning targets that are similar or the same as previous lessons.
- Remind students that they have seen this learning target in the previous lessons. Invite students to discuss what they think they will be doing in this lesson and the purpose of this work.

Work Time

A. End of Unit 2 Assessment: Write Compare and Contrast Essay (65 minutes)

- Distribute **devices** with word-processing capabilities or **lined paper** on which students will compose their essay.
- Invite students to retrieve the following materials:
 - **Compare and Contrast Film and Text: *The Lightning Thief***
 - **Completed Informative/Explanatory Writing Plan graphic organizer**
 - **Informative Writing checklist**
 - **Compare and Contrast model essay**
 - ***The Lightning Thief* (text)**
 - **Painted Essay® template**
- Direct students to also reference the **Criteria for an Effective Informative Essay anchor chart**, as needed. Display and distribute the **Module 1: End of Unit 2 Assessment: Compare and Contrast Essay Directions**.
- Read Part I aloud as students follow along, reading silently. Make sure students understand the assessment directions; paraphrase some instructions, if needed. ▲
- Remind students that because this is an assessment, they should complete it independently in silence. Focus students on the **Work to Become Effective Learners anchor chart**, and review perseverance and what this looks and sounds like. Remind students that as they will be writing independently for the assessment, they may need to practice perseverance.
- Remind students that they planned this essay in the previous lessons.
- Invite students to begin the assessment.

- While students are taking the assessment, circulate to monitor and document their test-taking skills. As this assessment takes place over two periods, offer students a time warning before collecting them at the end of the first period. Redistribute the assessments for the next period.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.
- Repeat, inviting students to self-assess how well they persevered in this lesson.

Closing and Assessment

A. Track Progress – W.6.2 (15 minutes)

- Give students specific, positive feedback on their completion of the End of Unit 2 Assessment.
- Distribute **Track Progress folders**, **Track Progress: Informative Writing**, and **sticky notes**.
- Tell students the sticky notes are for them to find evidence of the following criterion:
 - W.6.2: Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
- Guide students through completing Track Progress: Informative Writing.

Homework

A. Independent Research Reading

- Students read for at least 20 minutes in their independent research reading text. Then they select a prompt and write a response in their independent reading journal.

Lesson 14: End of Unit 2 Assessment: Revise Compare and Contrast Essay



CCS Standards

Focus Standards

These are the standards the instruction addresses.

- RL.6.1, RL.6.7, W.6.2, W.6.4, W.6.5, W.6.6, W.6.9a, W.6.10, L.6.2b, L.6.6

Supporting Standards

These are the standards that are incidental—no direct instruction in this lesson, but practice of these standards occurs as a result of addressing the focus standards.

- SL.6.1



Daily Learning Targets

- I can provide kind, specific, and helpful feedback to peers. (W.6.5)
- I can use feedback to revise my essay. (W.6.2)

Ongoing Assessment

- Opening A: Entrance Ticket (W.6.2, W.6.10)
- Work Time A: Language Dive: Compare and Contrast Model Essay, Appropriate Transitions note-catcher (W.6.2c, SL.6.1, L.6.6)
- Closing and Assessment A: End of Unit 2 Assessment (RL.6.1, RL.6.7, W.6.2, W.6.4, W.6.5, W.6.6, W.6.9a, W.6.10, L.6.6)

Agenda

1. Opening

- A. Engage the Learner – W.6.2 (5 minutes)

2. Work Time

- A. Language Dive: Appropriate Transitions – W.6.2c (10 minutes)
- B. Introduce Peer Critique Protocol – W.6.5 (10 minutes)
- C. Peer Critique – W.6.5 (10 minutes)

3. Closing and Assessment

- A. End of Unit 2 Assessment Revision – W.6.2 (10 minutes)

4. Homework

- A. Preread Anchor Text: Students should preread chapter 19 in *The Lightning Thief* in preparation for studying an excerpt from the chapter in the next lesson.

Teaching Notes

Alignment to Assessment Standards and Purpose of Lesson

- W.6.2 – Opening A: Students review the informative essay drafts that they completed in the previous lesson and note ways to make the essay more effectively convey ideas.
- W.6.2 – Work Time A: Students participate in a Language Dive, which facilitates a closer look at the use of transition words and phrases in the model essay. This Language Dive will give students the opportunity to dissect and practice transitional phrases that express contrast (*yet*) and that situate events in time (*at the end of the scene of the novel*). Deeper understanding of the ways in which transitional devices can be integrated into writing will help students produce clearer, more organized essays.
- W.6.5 – Work Time B: The Peer Critique protocol is introduced, and students collaborate to generate criteria for giving kind, helpful, and specific feedback. Ensure that students understand the purpose of revising their work and gaining insight from multiple people. Allow for students to share stories of a skill in which they are now proficient but with which they once struggled (e.g., playing an instrument, competing in a sport). Model what the Peer Critique protocol looks like, and monitor closely to ensure that students are being gentle in their critique.
- W.6.5 – Work Time C: Students provide feedback to partners on their compare and contrast essays using the Peer Critique protocol.
- L.6.2b – Work Time C: Students give one another feedback on areas in the informative essays that could be improved, such as spelling.
- Closing and Assessment A: Students complete the End of Unit 2 Assessment, revising their essays using feedback from their peers as guidance. (RL.6.1, RL.6.7, W.6.2, W.6.4, W.6.5, W.6.6, W.6.9a, W.6.10, L.6.6)

Opportunities to Extend Learning

- Select trustworthy students to model a peer critique before expecting students to do this work independently. Alternatively, as a class, watch an EL video demonstrating the Peer Critique protocol and outlining the benefits (<http://eled.org/0105>).
- Direct students who finish early to <http://eled.org/0128>, an interactive anthology of myths, to compare and contrast creation stories from a number of different cultures.

How It Builds on Previous Work

- In the previous lesson, students completed the end of unit assessment, in which they composed a four-paragraph essay comparing and contrasting a scene from the film version of *The Lightning Thief* with the same scene in the novel. Students will have one more opportunity to revise their work in this lesson as they incorporate peer feedback.

Support All Students

- Much of this lesson is discussion-based, so students who struggle with oral language and/or auditory processing may need additional support. Provide sentence frames for students to refer to during discussions or a note-taking template for students to take notes during discussion. ▲

- Think about strategic grouping during the peer critique. Mixed-proficiency groups may still be helpful. Alternative options are having students interact (1) in home language groups if the task is particularly challenging or (2) in homogeneous proficiency groups to promote English language development through grappling. ▲

Assessment Guidance

- Review students' Language Dive: Compare and Contrast Model Essay, Appropriate Transitions note-catcher from Work Time A to ensure students understand how to connect one point to another in a smooth, coherent way using precise words, phrases, or sentences.

Down the Road

- This next lesson commences the final unit in Module 1. In Unit 3, students practice narrative writing by rewriting a scene from *The Lightning Thief*, adding a new character to the action. Incorporating research on another Greek god or goddess and narrative techniques, students develop a new demigod character to join the main characters of *The Lightning Thief* in a specific scene from the novel.
- Students will also share their progress on their Independent Research Reading task. Refer to the Independent Reading: Sample Plans to guide students through a research reading share, or use your own routine.

In Advance

- Prepare the Peer Critique Protocol anchor chart.
- Review the student tasks and example answers to get familiar with what students will be required to do in the lesson (see Materials list).
- Preview the Language Dive Guide, and invite conversation among students to address the language goals suggested under each sentence chunk strip. Select from the questions and goals provided to best meet students' needs.
- Prepare the Language Dive Sentence Chunks for students to physically manipulate.
- Determine pairs for Work Time B.
- Ask a student if he or she is willing to share his or her writing to help model the Peer Critique in Work Time B.
- Review how to use the suggestions/comments feature for documents composed on a device.
- Prepare copies of handouts for students, including entrance ticket (see Materials list).
- Post the learning targets and applicable anchor charts (see Materials list).

Technology & Multimedia

- Work Time C: Audio critique: Students record their partners' ideas and feedback in audio through free software or apps such as <http://eled.org/0118> or <http://eled.org/0119>.
- Work Time C: Students use the highlighting and comments features on word-processing software to make suggestions on the work of peers.

Vocabulary

- critique, peer (A)
- transitions (DS)

Key

(A): Academic Vocabulary

(DS): Domain-Specific Vocabulary

Materials from Previous Lessons

Teacher

- Criteria for an Effective Informative Essay anchor chart (example for teacher reference) (one to display; from Unit 2, Lesson 8, Work Time B)
- Close Readers Do These Things anchor chart (one to display; from Unit 1, Lesson 4, Opening A)
- Domain-specific word wall (begun in Unit 1, Lesson 1, Opening A)
- Module 1: End of Unit 2 Assessment: Compare and Contrast Essay (example for teacher reference) (see Assessment Overview and Resources; from Unit 2, Lessons 12–13, Work Time A)
- Annotated Compare and Contrast Model Essay (for teacher reference) (from Unit 2, Lesson 6, Work Time A)
- Academic word wall (begun in Unit 1, Lesson 1, Opening A)
- Work to Become Ethical People anchor chart (one to display; from Unit 1, Lesson 1, Work Time C)
- Work to Become Ethical People anchor chart (example for teacher reference) (from Unit 1, Lesson 1, Work Time C)
- Work to Become Effective Learners anchor chart (one to display; from Unit 1, Lesson 5, Work Time A)
- Work to Become Effective Learners anchor chart (example for teacher reference) (from Unit 1, Lesson 5, Work Time A)

Student

- Vocabulary logs (one per student; begun in Unit 1, Lesson 2, Work Time B)
- End of Unit 2 Assessment: Compare and Contrast Essay (one per student; from Unit 2, Lessons 12–13, Work Time A; composed on a device or on lined paper)
- Compare and Contrast Model Essay (one per student; from Unit 2, Lesson 6, Work Time A)

New Materials

Teacher

- Entrance Ticket: Unit 2, Lesson 14 (for teacher reference)
- Language Dive Guide: Compare and Contrast Model Essay, Appropriate Transitions (for teacher reference)

- Language Dive: Compare and Contrast Model Essay, Appropriate Transitions note-catcher (example for teacher reference)
- Peer Critique Protocol anchor chart (for teacher reference) (one to display)
- Directions for Peer Critique (for teacher reference) (one to display)

Student

- Entrance Ticket: Unit 2, Lesson 14 (one per student)
- Sticky notes (one per student)
- Devices with word-processing software (optional; one per student)
- Language Dive: Compare and Contrast Model Essay, Appropriate Transitions note-catcher (one per student)
- Language Dive: Compare and Contrast Model Essay, Appropriate Transitions sentence chunk strips (one per student)
- Sticky notes (optional; two per student)

Opening

A. Engage the Learner – W.6.2 (5 minutes)

- Repeated routine: Follow the same routine as previous lessons to distribute and review **Entrance Ticket: Unit 2: Lesson 14**.
- Students will need to reference the **Criteria for an Effective Informative Essay anchor chart**.
- Repeated routine: Follow the same routine as the previous lessons to review learning targets and the purpose of the lesson, reminding students of any learning targets that are similar or the same as previous lessons.
- With students, use the vocabulary strategies on the **Close Readers Do These Things anchor chart** to deconstruct the word *transitions* (words, phrases, or sentences that connect one topic or idea to another in a smooth, coherent way). Record on the **domain-specific word wall** with translations in home languages, where appropriate, and invite students to record words in their **vocabulary logs**.
- Turn and Talk:

*“What do you think you will be doing in this lesson based on these learning targets?”
(We will work with a partner to revise our essays, specifically looking for places to add transitions, precise language, and domain-specific vocabulary.)*

“Why are we doing this? How is it meaningful to you? How will it help you to be successful?” (Reviewing our work multiple times and gaining the insight of our peers will help us to strengthen our skills as writers.)

Work Time

A. Language Dive: Appropriate Transitions – W.6.2c (10 minutes)

- Tell students they will now participate in another Language Dive to examine how transition words and phrases improve the connections between ideas, giving the text a logical organization and structure.
- Reread aloud from the **Compare and Contrast Model Essay**.
- Focus students on the sentence:
“The setting of the novel and the movie, while not exactly the same, are quite similar.”
- Use the **Language Dive Guide: Compare and Contrast Model Essay, Appropriate Transitions** to guide students through a Language Dive conversation about the sentence. Distribute and display the **Language Dive: Compare and Contrast Model Essay, Appropriate Transitions note-catcher**, and the **Language Dive: Compare and Contrast Model Essay, Appropriate Transitions sentence chunk strips**.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Work Time

B. Introduce Peer Critique Protocol – W.6.5 (10 minutes)

- Tell students they are going to work in pairs to help each other revise their **Compare and Contrast Essays** from the End of Unit 2 Assessment. Explain that when they work together to review and critique work, this is called a peer review or a peer critique. Ensure students understand that a peer is someone else in the class.
- Invite students to Think-Pair-Share, leaving adequate time for each partner to think, ask the question of their partner, and partner share:
“What is the purpose of giving peer feedback? Why is it more effective than revising our own work alone?” (It helps someone else improve their work, and it is better than trying to do it on your own because sometimes you can’t see your own mistakes and someone else can see them more clearly.)
- If productive, cue students to expand the conversation by giving an example:
“Can you give an example?” (Responses will vary.)
- Focus students on the **Work to Become Ethical People anchor chart**, and remind them specifically of respect and compassion. Remind students that the purpose of peer feedback is to help the other student improve his or her work, so when we provide feedback, we have to be careful to ensure we are respectful and compassionate.
- Emphasize that peer critique is not about telling someone how bad his or her work is—it is about celebrating the good things about the work and helping to make it even better.

- Invite students to Think-Pair-Share, leaving adequate time for each partner to think, ask the question of their partner, and partner share:
 - “How can we effectively give peer feedback? What things should we think about and be aware of? What strategies can we use?” (Responses will vary.)
 - “What does this look like? What does this sound like?” (Responses will vary.)
- As students share out, capture their responses on the **Peer Critique Protocol anchor chart**. Refer to the **Peer Critique Protocol anchor chart (example for teacher reference)** for guidance.
- Tell students that today they will give and receive feedback about their compare and contrast essay. They will help each other take the drafts of their compare and contrast essays and make them into high-quality work pieces.
- Post and review the **Directions for Peer Critique**.
- Emphasize also that students should only revise their work when they agree with the peer critique. If they don’t agree, they shouldn’t do so, as we don’t always have to take the advice we are given.
- Answer clarifying questions.
- Use student work in a whole group peer critique to model the process.

Work Time

C. Peer Critique – W.6.5 (10 minutes)

- Review the learning targets relevant to the work to be completed in this section of the lesson:
 - “I can provide kind, specific, and helpful feedback to peers.”
 - “I can revise my essay to use precise language and domain-specific vocabulary.”
- Read aloud Part II of the **Module 1: End of Unit 2 Assessment: Compare and Contrast Essay Directions (example for teacher reference)**.
- Explain that students who composed their essays on electronic **devices** should receive feedback using the comment/suggestion feature provided through the word-processing software. For students critiquing an essay composed on lined paper, distribute **sticky notes**.
- Invite pairs to begin working.
- Circulate to support students as they complete their peer critiques and make their revisions.
- Repeated routine: Invite students to reflect on their progress toward the relevant learning targets.

Closing and Assessment

A. End of Unit 2 Assessment Revision – W.6.2 (10 minutes)

- Focus students on the **Work to Become Effective Learners anchor chart**, and remind them of initiative and responsibility as they revise their work.
- Invite students to revise their writing using the peer feedback and their notes from the warm-up activity. Circulate to support students as they revise their work.
- Invite students to reflect on the habits of character focus in this lesson, discussing what went well and what could be improved next time.

Homework

A. Preread Anchor Text

- Students should preread chapter 19 in *The Lightning Thief* in preparation for studying an excerpt from the chapter in the next lesson.



End of Unit 2 Assessment: Compare and Contrast Essay

(For Teacher Reference)

Part I

Students write the four-paragraph essay they have planned in Unit 2 lessons comparing and contrasting the experience of watching the Lotus-Eaters scene from the film version of *The Lightning Thief* with reading the same scene in the novel.

Part II

Students revise their essays written for Part I using peer feedback focused on transitional words and phrases to connect the ideas in their writing.



CCSS Assessed

- **RL.6.1:** Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- **RL.6.7:** Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text to what they perceive when they listen or watch.
- **W.6.2:** Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
- **W.6.2a:** Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
- **W.6.2b:** Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
- **W.6.2c:** Use appropriate transitions to clarify the relationships among ideas and concepts.
- **W.6.2d:** Use precise language and domain-specific vocabulary to inform about or explain the topic.
- **W.6.2e:** Establish and maintain a formal style.

- **W.6.2f:** Provide a concluding statement or section that follows from the information or explanation presented. W.6.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)
- **W.6.5:** With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 6.)
- **W.6.6:** Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.
- **W.6.9a:** Apply *grade 6 Reading standards* to literature (e.g., "Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics").
- **W.6.10:** Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
- **L.6.2b:** Spell correctly.
- **L.6.6:** Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

End of Unit 2 Assessment: Compare and Contrast Essay

(Example for Teacher Reference)

Part I: Write an Essay

Use all rows on the Grade 6 Informative/Explanatory Writing rubric and the sample proficient response to assess student writing. Save a copy of the scored essays to use as a baseline assessment. These pieces can be used to measure the progress of individual students throughout the year, as well as to identify common instructional needs in a class. Evidence of mastery of the Reading standards should be recorded in row “A” of the rubric.

Sample Proficient Response: Scorepoint 3, for Teacher Reference:

What if it were up to you to prevent a war among the three most powerful Greek gods? What if you and your two closest friends found yourselves on a dangerous journey to restore peace? That’s exactly what happens to Percy Jackson in *The Lightning Thief* by Rick Riordan. In both the book and the movie, Percy is a relatively normal twelve-year-old boy who finds out he is the son of the Greek God Poseidon. Wrongly accused of stealing Zeus’s lightning bolt, Percy and his friends go on a quest to find it and return it to Zeus. Along the way, they encounter challenges and difficulty but are able to persevere. One challenge they face is getting caught at The Lotus Casino on their way to Los Angeles. A comparison of the end of chapter 16 of the book and the same scene of the movie reveals both similarities and differences.

Much of what happens in the movie and the book when Percy, Grover, and Annabeth arrive at the Lotus Hotel and Casino is the same. The novel describes the three friends walking up to the hotel, where the “entrance was a huge neon flower, the petals lighting up and blinking. No one was going in or out, but the glittering chrome doors were open, spilling out air-conditioning that smelled like flowers—lotus blossom . . .” (257). Similarly, in the movie, we see the trio outside a bright, wild, loud, and enticing building with everything one might want, from food to fun. In both versions, once inside, they all get caught up in everything that the Lotus has to offer. In both, Percy is the one who realizes what is happening. He works to break the spell he and his friends have been under. In both, they escape so that they can keep focused on their larger goal and continue their journey west. In a movie that is, overall, very different from the novel, keeping much of this scene the same makes the movie instantly recognizable to anyone who has read the book.

W.6.2d, L.6.6: Precise language and domain-specific vocabulary well chosen for task, purpose, and audience. Introduction incorporates topic.

W.6.2a: Effectively communicated and strongly maintained focus. Focus statement explains essay topic.

W.6.2a: Clear, logical progression with strong connections between and among ideas. Paragraph links to first part of focus statement about similarities.

W.6.2b: Effectively uses various elaborative techniques. Quoted and paraphrased evidence from novel and movie is integrated, relevant, and specific.

Although the setting and outcome is the same in both, the characters of Grover and Annabeth are very different. In the book, Grover is awkward and self-conscious. He is described as "scrawny," "with acne and the start of a wispy beard on his chin," and "an easy target." In the film version, Grover is filled with confidence. He is the center of attention as he performs onstage, singing and dancing with swagger. The change in Grover's character makes him less relatable to readers who are also self-conscious and makes him more like a stereotypical teenage boy. Likewise, in the film, Annabeth is just interested in gambling, snacking, and dancing. In the novel, Annabeth is very different. She is captivated by "brainiac stuff," like watching *National Geographic*, playing trivia games, and building a holographic city. One of Annabeth's main strengths is her intelligence. This is clearer in the novel than in the film, where her intelligence is not highlighted as much. The film reduces the complexities of these two characters. It is harder to see the qualities that define their characters and solidify the trio's friendship.

This scene in both the book and the movie revolves around Riordan's strong setting and how they become trapped in the Lotus Casino. Although the way the characters are depicted is very different, the outcome of the scene is the same. In both the novel and the film version, the three friends eventually figure out what's happening and work together to leave the hotel to return to their important quest. Perhaps the biggest similarity between the book and the movie is the feeling of strength and power both readers and viewers experience as they make this fantastic journey alongside Percy and his friends.

W.6.2c: Appropriate transitions create cohesion and clarify relationships among ideas and concepts. *Although* transitions from similarities and links to next paragraph about differences.

W.6.2b: Effectively uses various elaborative techniques. Evidence from source material is integrated, relevant, and specific. Impact of differences on the viewer is described in detail.

W.6.2a: Well-chosen formatting, graphics, or multimedia enhances comprehension. Format follows Painted Essay® structure; predictable structure enhances comprehension.

W.6.2f: Conclusion follows from and supports information or explanation and offers ideas about impact on viewer.

W.6.4, W.6.2e: Establishes and maintains formal style and objective tone. The word *I* isn't used. Mostly compound and complex sentences.

Part II: Revise an Essay

Students revise the draft of their essays comparing and contrasting *The Lightning Thief* film with the text, focusing on linking words and phrases, specifically those that signal contrast and other logical relationships. Students use a word processor to type a final draft of their essay.

Use the following rubric and the changes highlighted on the draft to assess student progress.

	Advanced	Proficient	Developing	Beginning
Revises	Makes revisions suggested as well as additional revisions that improve the quality of the piece	Responds positively to feedback, making most revisions suggested	Responds to feedback, making some revisions suggested	Few or no changes made
Edits	Makes corrections suggested and identifies and corrects other errors in grammar, usage, or mechanics	Responds positively to feedback, making all corrections suggested	Responds to feedback, making most corrections suggested	Few or no changes made

End of Unit 2 Assessment: Compare and Contrast Essay

Name: _____ **Date:** _____

Part I: Write an Essay

Throughout this unit, you have been planning an essay comparing and contrasting a scene of *The Lightning Thief* movie with the same scene in the book. In this assessment, you will draft the essay you have been planning.

REMEMBER: A well-written informational piece:

- Clearly states a focus and stays focused throughout the piece.
- Uses accurate and relevant examples, details, and quotations to explain your thinking.
- Groups information logically, in a way that makes your thinking clear to the reader.
- Follows rules of writing (spelling, punctuation, and grammar).

Now, begin work on your essay. Manage your time carefully so that you can do the following:

1. Draft your essay.
2. Use the Informative/Explanatory Writing Checklist to revise and edit your essay.

Part II: Revise an Essay

In the first part of this assessment, you wrote the first draft of your essay comparing and contrasting a scene in *The Lightning Thief* movie with the same scene in the book. In this part of the assessment, you will revise and edit your piece using the peer feedback you have received.

Manage your time carefully so you can do the following:

3. Read the draft of your essay.
4. Read the feedback and consider how you can use this feedback to improve your work.
5. Revise your essay, clearly marking what revisions you have made.
 - Add transition words and phrases to connect the ideas in your piece, and underline the linking words you have already used.
 - Correct any spelling, punctuation, or grammar mistakes.

Grade 6 Informative/Explanatory Writing Rubric				
Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.				
Reading Comprehension				
	4 - Advanced	3 - Proficient	2 - Developing	1 - Beginning
R.6.1 W.6.9	Demonstrates a deep understanding of ideas (both stated and inferred) by developing an insightful focus supported by well-chosen textual evidence	Demonstrates a clear understanding of ideas (both stated and inferred) by developing an accurate focus, adequately supported by textual evidence	Demonstrates a limited understanding of ideas by developing an accurate focus, weakly supported by textual evidence	Does not demonstrate understanding or shows a misunderstanding of ideas, offering a focus unsupported by textual evidence
Organization/Purpose ³				
	4 - Advanced	3 - Proficient	2 - Developing	1 - Beginning
W.6.2a	Focus is effectively communicated and strongly maintained	Focus is clear and consistently maintained	Focus is somewhat unclear and/or insufficiently maintained	Focus is confusing or ambiguous
W.6.2a	Introduces a topic clearly, previewing what is to follow	Introduces a topic clearly	Introduction is weak or confusing	Introduction is missing or off-topic
W.6.2f	Concluding statement or section follows from and supports the information or explanation presented	Concluding statement or section follows from the explanation or information presented	Conclusion is weak or confusing	Conclusion is missing or off-topic
W.6.2a	Clear, logical progression of ideas from beginning to end with strong connections between and among ideas	Organizes ideas, concepts, and information using strategies such as definition, classification, comparison/contrast, and cause/effect	Uneven progression of ideas from beginning to end, inconsistent or unclear connections between and among ideas	Ideas have an unclear progression or seem to be randomly ordered; frequent extraneous ideas may be evident
W.6.2c	Uses appropriate transitions to create cohesion and clarify the relationships among ideas and concepts	Uses appropriate transitions to clarify the relationships among ideas and concepts	Inconsistently or incorrectly uses transitions to establish the relationships among ideas	Lack of transitions makes the relationship between ideas unclear
W.6.2a	Formatting, graphics, or multimedia used are well chosen to enhance comprehension	Includes formatting (e.g., headings), graphics, and multimedia when useful to aiding comprehension	Formatting, graphics, or multimedia used do not significantly aid comprehension	Formatting, graphics, or multimedia used are poorly chosen, distracting, or interfere with comprehension

³ W.6.4 is reflected in all descriptors.

Evidence/Elaboration				
	4 - Advanced	3 - Proficient	2 - Developing	1 - Beginning
W.6.2b	Effective use of a variety of elaborative techniques; comprehensive evidence (facts, definitions, details, quotations, or other information and examples) from the source material is integrated, relevant, and specific	Develops the topic with relevant facts, definitions, concrete details, quotations, or other information and examples	Topic is insufficiently developed with facts and details from source materials; evidence may be imprecise, repetitive, vague, and/or copied	Supporting facts and details are minimal, irrelevant, absent, in error, incorrectly used, or predominantly copied; expression of ideas is vague or confusing
W.6.2d L.6.6	Precise language and domain-specific vocabulary is well chosen for task, purpose and audience	Uses precise language and domain-specific vocabulary to inform about or explain the topic	Appropriately uses some general academic and domain-specific vocabulary words	Uses a basic vocabulary and/or incorrectly uses general academic and domain-specific vocabulary words
W.6.2e W.6.4	Establishes and maintains a formal style and objective tone	Establishes and consistently maintains a formal style	Voice and tone are largely appropriate to purpose and audience	Voice and tone are not appropriate to purpose and audience
L.6.3	Syntactic variety enhances meaning, interest, and style	Varies sentence patterns for meaning, interest, and style	Lacks sentence variety	Sentence structure simple and/or repetitive
Conventions ⁴				
	4 - Advanced	3 - Proficient	2 - Developing	1 - Beginning
L.6.1	Few, if any, errors in grammar and usage	Some errors in the conventions of standard English grammar and usage are present, but no systematic pattern of errors is displayed	Frequent errors in grammar or usage may obscure meaning	Errors in grammar and usage are frequent and severe, and meaning is often obscured
L.6.2	Effective and consistent use of punctuation, capitalization, and spelling	Adequate use of the conventions of standard English capitalization, punctuation, and spelling	Inconsistent use of punctuation, capitalization, and spelling	Errors in punctuation, capitalization, and/or spelling are frequent and severe, and meaning is often obscured

⁴ See Grade 6 Language standards 1 and 2 for specific expectations.

9.1.1

Unit Overview

“I’m home.”

Text	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell
Number of Lessons in Unit	17 lessons

Introduction

The first unit of Module 9.1 introduces students to skills, practices, and routines that support the close reading of texts, a process central to the curriculum. In this unit, students learn to annotate text, establish and support text-based claims, participate in evidence-based discussions, and write focused, text-based analyses of literature.

In 9.1.1, students read and analyze Karen Russell’s short story, “St. Lucy’s Home for Girls Raised by Wolves,” focusing on how Russell’s structural choices develop complex characters and central ideas. In the story, feral girls with werewolf parents attend a Jesuit boarding school founded to socialize the girls by teaching them “normal” human behaviors. Russell organizes the text according to five stages of development using epigraphs from an imaginary text, *The Jesuit Handbook on Lycanthropic Culture Shock*. Russell first introduces the story’s characters as a wolf pack, and then distinguishes individual characters including the narrator, Claudette; the oldest sister, Jeanette; and the youngest of the pack, Mirabella. The question of identity and the meaning of beauty develop as central ideas over the course of the text.

This unit includes a Mid-Unit Assessment that requires students to analyze the relationship between a self-selected epigraph and the events that follow that epigraph. Successful responses rely on text evidence drawn from students’ annotations and notes, to demonstrate the students’ understanding of how Russell’s structural choices contribute to the development of complex characters (RL.9-10.3 and RL.9-10.5).

The unit concludes with an End-of-Unit Assessment that asks students to write a multi-paragraph response analyzing the character development of the narrator, Claudette, in relation to the five stages of development presented in *The Jesuit Handbook on Lycanthropic Culture Shock*. A successful response draws on text evidence from each section of the story to demonstrate how Claudette develops as a

complex character over the course of the text. A successful response also demonstrates an ability to establish and support a claim and includes an introduction and conclusion (RL.9-10.3 and W.9-10.2.a, f).

Note: This unit introduces Accountable Independent Reading (AIR) for 9th grade. See Prefatory Material for more information about AIR.

Literacy Skills and Habits

- Read closely for textual details
- Annotate texts to support comprehension and analysis
- Engage in productive evidence-based discussions about text
- Collect and organize evidence from texts to support analysis in writing
- Make claims about texts using specific textual evidence
- Use vocabulary strategies to define unknown words

Standards for This Unit

College and Career Readiness Anchor Standards for Reading	
None.	
CCS Standards: Reading — Literature	
RL.9-10.1	Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
RL.9-10.2	Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
RL.9-10.3	Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
RL.9-10.4	Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language evokes a sense of time and place; how it sets a formal or informal tone).
RL.9-10.5	Analyze how an author’s choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create

	such effects as mystery, tension, or surprise.
CCS Standards: Writing	
W.9-10.2.a, f	<p>Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.</p> <p>a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>
CCS Standards: Speaking & Listening	
SL.9-10.1.b, c	<p>Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p> <p>b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.</p> <p>c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.</p>
SL.9-10.4	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.
CCS Standards: Language	
L.9-10.4.a, b	<p>Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grades 9–10 reading and content</i>, choosing flexibly from a range of strategies.</p> <p>a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase.</p> <p>b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., <i>analyze, analysis, analytical; advocate, advocacy</i>).</p>

L.9-10.5.a	<p>Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., euphemism, oxymoron) in context and analyze their role in the text.</p>
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Note: Bold text indicates targeted standards that will be assessed in the unit.

Unit Assessments

Ongoing Assessment	
Standards Assessed	RL.9-10.1, RL.9-10.2, RL.9-10.3, RL.9-10.4, RL.9-10.5, W.9-10.2.a, SL.9-10.1.b, c
Description of Assessment	Students participate in reading and discussion, write informally in response to text-based prompts, present information in an organized and logical manner, and participate effectively in evidence-based collaborative discussion.

Mid-Unit Assessment	
Standards Assessed	RL.9-10.3, RL.9-10.5
Description of Assessment	Students write a multi-paragraph response to the following prompt: Choose and explain one epigraph. Analyze the relationship between that epigraph and the girls’ development in that stage.

End-of-Unit Assessment	
Standards Assessed	RL.9-10.3, RL.9-10.5, W.9-10.2.a, f
Description of Assessment	Students write a formal, multi-paragraph response to the following prompt: Analyze Claudette’s development in relation to the five stages of Lycanthropic Culture Shock.

Unit-at-a-Glance Calendar

Lesson	Text	Learning Outcomes/Goals
1	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 225–229	In this first lesson of the unit, students listen to a masterful reading of the first section of Karen Russell’s “St. Lucy’s Home for Girls Raised by Wolves” (Stage 1) before reading and analyzing the title and first epigraph, focusing on how Russell uses specific word choices to evoke a sense of place.
2	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 229–240	In this lesson, students listen to a masterful reading of the next two sections (Stage 2 and Stage 3) of the story, and then analyze the cumulative impact of Russell’s word choices on the tone of the main character and narrator, Claudette. The lesson also introduces Accountable Independent Reading, an important component of the curriculum.
3	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 240–246	In this lesson, students listen to a masterful reading of the final two sections (Stages 4 and 5) of Russell’s short story before analyzing the interactions of the characters. Students also focus on developing speaking and listening skills by participating in a small-group collaborative discussion.
4	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 225–227	In this lesson, students learn annotation skills as they reread the opening pages of the short story, and then work in small groups to analyze how Russell develops the pack as a character in itself.
5	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 227–230	In this lesson, students learn to write an objective summary. They also continue to develop speaking and listening skills as they work in small groups to analyze how Russell introduces and develops the central idea of human identity versus wolf identification in this passage.
6	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 230–232	In this lesson, students work in pairs to read, annotate, and discuss the lesson excerpt before participating in a jigsaw activity to analyze how Russell develops the characters of Mirabella and Jeanette.
7	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 232–235	In this lesson, students learn to make a claim and write an introduction. They also work in small groups to analyze the character development of the story’s narrator, Claudette.

Lesson	Text	Learning Outcomes/Goals
8	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 235–237	In this lesson, students read and annotate the lesson excerpt before participating in a jigsaw activity to consider how Russell develops the character of Mirabella over the course of the first three stages.
9	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 237–240	In this lesson, students work in pairs to read and annotate the lesson excerpt before participating in a whole-class discussion in which they identify a new central idea: the meaning of beauty.
10	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 225–240	Students complete the Mid-Unit Assessment by writing a multi-paragraph response to the following prompt: Choose and explain one epigraph. Analyze the relationship between that epigraph and the girls’ development in that stage.
11	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 240–243	In this lesson, students work in pairs to read and analyze the lesson excerpt, focusing on how the author establishes tone through specific word choices.
12	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 243–245	In this lesson, students work in small groups to analyze how the characters’ interactions in Stage 4 develop central ideas in the text.
13	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 245–246	In this lesson, students read and analyze the conclusion of “St. Lucy’s Home for Girls Raised by Wolves.” After a whole-class analysis of how the conclusion to the story develops Claudette’s character and refines central ideas, students work in small groups to begin an analysis of the author’s choice to structure the story using the five stages described in the epigraphs from <i>The Jesuit Handbook on Lycanthropic Culture Shock</i> .
14	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell	In this lesson, students return to the small groups they established in Lesson 13. Students complete their analyses of a specific stage of culture shock and groups share their work with the class in short presentations.

Lesson	Text	Learning Outcomes/Goals
15	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell	In this lesson, students participate in self-assessed small-group discussions in which they discuss the extent to which the main character of the story has adapted to human society. Each member of the group establishes a claim and supports that claim with text evidence.
16	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell	In this lesson, students prepare for the End-of-Unit Assessment by reviewing how to make a claim and write an introduction while analyzing the relationship between Claudette’s development and the five stages of Lycanthropic Culture Shock. Students also learn how to write a conclusion in this lesson.
17	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell	For the End-of-Unit Assessment, students write a multi-paragraph response to the following prompt, relying on their reading and analysis of “St. Lucy’s Home for Girls Raised by Wolves”: Analyze Claudette’s development in relation to the five stages of Lycanthropic Culture Shock.

Preparation, Materials, and Resources

Preparation

- Read and annotate “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell.
- Review the Short Response Rubric and Checklist.
- Review the 9.1 Speaking and Listening Rubric and Checklist for standard SL.9-10.1.b, c.
- Review the 9.1.1 Mid-Unit and End-of-Unit Text Analysis Rubric and Checklist.
- Review all unit standards and post in classroom.
- Consider creating a word wall of the vocabulary provided in all lessons.

Materials and Resources

- Chart paper
- Copies of “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell
- Self-stick notes for students
- Writing utensils including pencils, pens, markers, and highlighters

- Methods for collecting student work: student notebooks, folders, etc.
- Access to technology (if possible): interactive whiteboard, document camera, and LCD projector
- Copies of handouts and tools for each student: see materials list in individual lesson plans
- Copies of the Short Response Rubric and Checklist
- Copies of the 9.1 Speaking and Listening Rubric and Checklist for standard SL.9-10.1.b, c
- Copies of the 9.1.1 Mid-Unit and End-of-Unit Text Analysis Rubrics and Checklists
- Copies of the 9.1 Common Core Learning Standards Tool
- Copies of the Central Ideas Tracking Tool
- Copies of the Character Tracking Tool
- Copies of the Epigraph Effect Tool

9.1.1

Lesson 1

Introduction

In this first lesson of the unit and module, students consider the impact of specific word choices and identify textual evidence to support analysis. Module 9.1 introduces students to many of the foundational skills, practices, and routines they will build upon and strengthen throughout the year, including reading closely, annotating text, and engaging in evidence-based writing and discussion.

In this lesson, students read the first section of Karen Russell’s short story, “St. Lucy’s Home for Girls Raised by Wolves.” In this story, feral girls with werewolf parents attend a Jesuit boarding school founded to socialize the girls by teaching them human behaviors. Students listen to a masterful reading of pages 225–229 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Stage 1: The initial period is one in which everything is new” to “her tranquilizer dart. ‘It can be a little over stimulating’”). Students read and analyze the title and epigraph, and examine how Russell uses specific word choices to evoke a sense of place. Student learning is assessed via a Quick Write at the end of the lesson: Identify two specific word choices in the title and epigraph and explain how they evoke a sense of place. This lesson also introduces students to Accountable Independent Reading (AIR), which continues throughout the module and the year.

For homework, students begin to look for an appropriate text for their AIR by determining two criteria for the kind of text that they want to read, e.g., topic, genre, fiction or nonfiction.

Standards

Assessed Standard(s)	
RL.9-10.4	Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language evokes a sense of time and place; how it sets a formal or informal tone).
Addressed Standard(s)	
RL.9-10.1	Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

Assessment

Assessment(s)
<p>Student learning is assessed via a Quick Write at the end of the lesson. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text.</p> <ul style="list-style-type: none"> Identify two specific word choices in the title and epigraph and explain how these words evoke a sense of place. <p>i Throughout this unit, Quick Writes will be assessed using the Short Response Rubric.</p>
High Performance Response(s)
<p>A High Performance Response should:</p> <ul style="list-style-type: none"> Identify two specific word choices in the epigraph and title (e.g., “students” and “interesting” (p. 225)). Explain how those word choices evoke a sense of place (e.g., “Students” suggests St. Lucy’s is a place where the girls will be educated, and “interesting” suggests that the girls may be curious about St. Lucy’s or that it is unlike the girls’ home (p.225)).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
<ul style="list-style-type: none"> Jesuit (adj.) – of or pertaining to Jesuits, a male Roman Catholic religious order lycanthropic (adj.) – of or pertaining to the delusion in which one imagines oneself to be a wolf stage (n.) – a single step or degree in a process initial (adj.) – first period (n.) – any specified division or portion of time
Vocabulary to teach (may include direct word work and/or questions)
<ul style="list-style-type: none"> None.
Additional vocabulary to support English Language Learners (to provide directly)
<ul style="list-style-type: none"> raised (v.) – brought up or reared wolves (n.) – large animals that are similar to dogs and that often hunt in groups culture shock (n.) – a feeling of confusion, doubt, or nervousness caused by being in a place (such as a foreign country) that is very different from what you are used to

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
<p>Standards & Text:</p> <ul style="list-style-type: none"> Standards: RL.9-10.1, RL.9-10.4 Text: “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 225–229 <p>Learning Sequence:</p> <ol style="list-style-type: none"> Introduction of Lesson Agenda Masterful Reading Reading and Discussion Quick Write Closing 	<ol style="list-style-type: none"> 15% 25% 35% 15% 10%

Materials

- Copies of the 9.1 Common Core Learning Standards Tool for each student
- Copies of “St. Lucy’s Home for Girls Raised by Wolves” for each student
- Copies of the Short Response Rubric and Checklist for each student

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

15%

Begin by outlining the goals for this module and unit. Explain to students that the first module of the year focuses on developing their ability to read closely and to use evidence from what they read in their writing and discussions. This unit focuses on introducing these skills.

Review the agenda and the assessed standard for this lesson: RL.9-10.4. In this lesson, students develop their close reading skills as they encounter Karen Russell’s “St. Lucy’s Home for Girls Raised by Wolves” for the first time. Students consider how Russell’s specific word choices evoke a sense of place, and then complete the lesson with a Quick Write.

① Since this is the first day of the curriculum, it may be necessary to begin establishing yearlong procedures and protocols. This first module establishes some expectations regarding routines such as pair work, group work, and evidence-based discussion. It is important to take time to set up these routines.

Distribute copies of the 9.1 Common Core Learning Standards Tool. Explain that students will work throughout the year to master the skills described in the Common Core State Standards (CCSS). Inform students that in this lesson they begin to work with two new standards: RL.9-10.1 and RL.9-10.4. Ask students to individually read these standards on their tools and assess their familiarity with and mastery of them.

- ▶ Students read and assess their familiarity with standards RL.9-10.1 and RL.9-10.4.

Instruct students to talk in pairs about what they think standard RL.9-10.1 means. Lead a brief discussion about the standard.

🗨 Student responses may include:

- Use quotes from the text to explain what the text means.
- Figure out what the text says directly and indirectly.
- Show where things are unexplained in the text.
- Read between the lines.

In preparation for a discussion about standard RL.9-10.4, provide students with the following definitions: *figurative language* is “language that expresses an idea in an interesting way by using words that usually describes something else,” *connotative meaning* is “a suggested or associated meaning in addition to a word’s primary meaning,” *cumulative* means “including or adding together all of the things that came before,” *evokes* means “brings (a memory, feeling, image, etc.) into the mind,” and *tone* is “an author’s attitude toward his or her subject.”

- ▶ Students write the definitions of *figurative language*, *connotative meaning*, *cumulative*, *evokes*, and *tone* on their copies of the text or in a vocabulary journal.

Instruct students to talk in pairs about what they think the standard RL.9-10.4 means. Lead a brief discussion about the standard.

🗨️ Student responses may include:

- Figure out what words and phrases mean based on the words around them.
- Think about how words might have different or multiple meanings depending on how they are used in the text.
- Show how a combination of word choices contributes to the meaning and tone of a text.
- Think about how words and phrases create a setting.

Activity 2: Masterful Reading

25%

Distribute copies of “St. Lucy’s Home for Girls Raised by Wolves.”

Have students listen to a masterful reading of pp. 225–229 (from “Stage 1: The initial period is one in which everything is new” to “her tranquilizer dart. ‘It can be a little over stimulating’”) of “St. Lucy’s Home for Girls Raised by Wolves.” Ask students to listen for words that evoke a sense of place.

① **Differentiation Consideration:** Consider posting or projecting the following guiding question to support students in their reading throughout this lesson:

Which words help you understand where “St. Lucy’s Home for Girls Raised by Wolves” takes place?

- ▶ Students follow along, reading silently.

Activity 3: Reading and Discussion

35%

① The questions in this section are designed to ensure comprehension of the Masterful Reading rather than to guide close reading. Students will read and analyze the text in more detail in later lessons.

Inform students that a quotation at the beginning of a text or a section of a text suggesting the text’s theme or central idea is called an *epigraph*.

Instruct students to form small groups and read the title and Epigraph of “St. Lucy’s Home for Girls Raised by Wolves” (p. 225, from “St. Lucy’s Home for Girls Raised by Wolves” to “It is fun for you students to explore their new environment”) and answer the following questions before sharing out with the class.

Post or project each set of questions below for students to discuss in groups.

Provide students with the following definitions: *Jesuit* means “of or pertaining to Jesuits, a male Roman Catholic religious order,” *lycanthropic* means “of or pertaining to the delusion in which one imagines oneself to be a wolf,” *stage* means “a single step or degree in a process,” *initial* means “first,” and *period* means “any specified division or portion of time.”

- ① Students may be familiar with some of these words. Consider asking students to volunteer definitions before providing them to the class.
 - ▶ Students write the definitions of *Jesuit*, *lycanthropic*, *stage*, *initial*, and *period* on their copies of the text or in a vocabulary journal.
- ① **Differentiation Consideration:** Consider providing students with the following definitions: *raised* means “brought up or reared,” *wolves* means “large animals that are similar to dogs and that often hunt in groups,” and *culture shock* means “a feeling of confusion, doubt, or nervousness caused by being in a place (such as a foreign country) that is very different from what you are used to.”
 - ▶ Students write the definitions of *raised*, *wolves*, and *culture shock* on their copies of the text or in a vocabulary journal.

How does the word “Home” in the title begin to develop your understanding of the story?

- 🗨 The word “Home” (p. 225) in the title shows that the girls will live and be educated at St. Lucy’s.
- ① **Differentiation Consideration:** If students struggle, consider asking the following scaffolding question:

How does St. Lucy’s Home differ from another common use of “home”?

- 🗨 St. Lucy’s Home is a school where the girls live and are educated, whereas a more common definition of home is where a person lives or where a person comes from geographically.

What specific word choice or phrase in the title develops your understanding of who this story is about?

- 🗨 The specific phrase “Girls Raised by Wolves” (p. 225) shows that this story is not about girls raised by humans. It is about girls whose parents or caretakers are wolves.

How does Russell begin the story?

- 🗨 Russell begins the story with a quote from “*The Jesuit Handbook on Lycanthropic Culture Shock*” (p.225).

For whom is “*The Jesuit Handbook on Lycanthropic Culture Shock*” written? Cite evidence from the text to support your response.

- The phrase “your students” shows that “*The Jesuit Handbook on Lycanthropic Culture Shock*” is a guide for teachers (p. 225).

What does the epigraph suggest about the time the girls will spend at St. Lucy’s? Cite specific words or phrases to support your response.

- Student responses may include:
 - “Stage 1” and “initial period” (p. 225) suggest that there will be more than one stage or period, or that the girls will be at St. Lucy’s for a while.
 - The statement, “[i]t is fun for your students to explore their new environment” (p. 225) suggests that the girls will be at St. Lucy’s long enough that they will become familiar with their surroundings.
 - The statement “[i]t is fun for your students to explore their new environment” (p. 225) also suggests that the girls will enjoy their time at St. Lucy’s.

Describe the tone of the epigraph. What words and phrases create this tone?

- Student responses may include:
 - The epigraph begins with “Stage 1” (p. 225), which adds structure to the epigraph and creates a formal tone.
 - The tone of the epigraph is informative and direct, explaining to teachers what students will do and feel in “the initial period” when they first arrive at St. Lucy’s: “It is fun for your students to explore” (p. 225).

① Consider reminding students that tone means “an author’s attitude toward his or her subject.”

Lead a brief, whole-class discussion of student responses.

Activity 4: Quick Write

15%

Distribute and introduce the Short Response Rubric and Checklist. Briefly explain the purpose of the rubric and checklist: to help students improve their Quick Write and reflective writing responses. Inform students that they should use the rubric and checklist to guide their own writing, and that they will use the same rubric for both Quick Writes and reflective writing assignments.

Lead a brief discussion of the rubric and checklist categories: Inferences/Claims, Analysis, Evidence, and Conventions. Review the components of a high-quality response.

① Quick Write activities continue to engage students in thinking deeply about texts, by encouraging them to synthesize the analysis they carry out during the lesson and build upon that analysis. Inform students that they typically have 4–10 minutes to write.

- ① Since this is the beginning of the school year, decide how best to collect, organize, and analyze assessments. This can be done through portfolios, journals, notebooks, etc., according to the needs of the classroom and students.
- ① Instruct students to keep their assessed Quick Writes for reference in future lessons assessments, unit assessments, and the Module Performance Assessment.

Instruct students to briefly respond in writing to the following Quick Write prompt:

Identify two specific word choices in the title and epigraph and explain how these words evoke a sense of place.

Instruct students to look at their notes to find evidence. Ask students to use this lesson’s vocabulary wherever possible in their written responses. Remind students to use the Short Response Rubric and Checklist to guide their written responses.

- ① Display the prompt for students to see, or provide the prompt in hard copy.

Transition to the independent Quick Write.

- ▶ Students independently answer the prompt using evidence from the text.
- 🗨 See the High Performance Response at the beginning of this lesson.

Activity 5: Closing

10%

Explain to students that part of the daily homework expectation is to read outside of class. Accountable Independent Reading (AIR) is an expectation that all students find, read, and respond to reading material written at their own independent reading level. The purpose of AIR is to have students practice reading outside of the classroom and stimulate an interest and enjoyment of reading.

- ▶ Students listen.
- ① AIR is an expectation for all students at all grades. An AIR text should be high interest but also a text that students can easily decode and comprehend. Give students several days to find the correct text.

Explain to students that they must find an appropriate text (or “just right book”) for AIR. Suggest different places where students can look for texts, including but not limited to the local or school library, electronic books, classroom library, or home library. As the year progresses, students will be held accountable for their reading in a variety of ways.

- ▶ Students continue to listen.

- ① In addition to class discussions about AIR texts, consider other methods of holding students accountable for AIR. Ideas for accountability include reading logs, reading journals, posting to a class wiki, peer/teacher conferencing, and blogging.

Display and distribute the homework assignment. For homework, instruct students to begin to look for an appropriate text for their AIR by determining two criteria for the kind of text that they want to read, e.g., topic, genre, fiction or nonfiction.

- ▶ Students follow along.

Homework

Begin to look for an appropriate text to read for Accountable Independent Reading (AIR) by determining two criteria for the kind of text that you want to read, e.g., topic, genre, fiction or nonfiction.

9.1 Common Core Learning Standards Tool

Name:		Class:		Date:	
College and Career Readiness Anchor Standards—Reading		I know what this is asking and I can do this.	This standard has familiar language, but I have not mastered it.	I am not familiar with this standard.	
CCRA.R.9	Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.				
CCL Standards: Reading—Literature		I know what this is asking and I can do this.	This standard has familiar language, but I have not mastered it.	I am not familiar with this standard.	
RL.9-10.1	Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.				

CCL Standards: Reading—Literature		I know what this is asking and I can do this.	This standard has familiar language, but I have not mastered it.	I am not familiar with this standard.
RL.9-10.2	Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.			
RL.9-10.3	Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.			
RL.9-10.4	Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language evokes a sense of time and place; how it sets a formal or informal tone).			

CCL Standards: Reading—Literature		I know what this is asking and I can do this.	This standard has familiar language, but I have not mastered it.	I am not familiar with this standard.
RL.9-10.5	Analyze how an author’s choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise.			
RL.9-10.7	Analyze the representation of a subject or a key scene in two different artistic mediums, including what is emphasized or absent in each treatment (e.g., Auden’s “Musée des Beaux Arts” and Breughel’s <i>Landscape with the Fall of Icarus</i>).			

CCL Standards: Reading—Informational		I know what this is asking and I can do this.	This standard has familiar language, but I have not mastered it.	I am not familiar with this standard.
RI.9-10.2	Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.			
RI.9-10.3	Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.			
RI.9-10.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).			

CCL Standards: Writing		I know what this is asking and I can do this.	This standard has familiar language, but I have not mastered it.	I am not familiar with this standard.
W.9-10.2	Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.			
W.9-10.2.a	Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.			
W.9-10.2.c	Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.			
W.9-10.2.f	Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).			

CCL Standards: Speaking and Listening		I know what this is asking and I can do this.	This standard has familiar language, but I have not mastered it.	I am not familiar with this standard
SL.9-10.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i> , building on others’ ideas and expressing their own clearly and persuasively.			
SL.9-10.1.b	Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.			
SL.9-10.1.c	Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.			

CCL Standards: Speaking and Listening		I know what this is asking and I can do this.	This standard has familiar language, but I have not mastered it.	I am not familiar with this standard
SL.9-10.4	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.			

CCL Standards: Language		I know what this is asking and I can do this.	This standard has familiar language, but I have not mastered it.	I am not familiar with this standard
L.9-10.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grades 9–10 reading and content</i> , choosing flexibly from a range of strategies.			
L.9-10.4.a	Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase.			

CCL Standards: Language		I know what this is asking and I can do this.	This standard has familiar language, but I have not mastered it.	I am not familiar with this standard
L.9-10.4.b	Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., <i>analyze, analysis, analytical; advocate, advocacy</i>).			
L.9-10.4.c	Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, or its etymology.			
L.9-10.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.			
L.9-10.5.a	Interpret figures of speech (e.g., euphemism, oxymoron) in context and analyze their role in the text.			

Short Response Rubric

Assessed Standard(s): _____

	2-Point Response	1-Point Response	0-Point Response
Inferences/Claims	Includes valid inferences or claims from the text. Fully and directly responds to the prompt.	Includes inferences or claims that are loosely based on the text. Responds partially to the prompt or does not address all elements of the prompt.	Does not address any of the requirements of the prompt or is totally inaccurate.
Analysis	Includes evidence of reflection and analysis of the text.	A mostly literal recounting of events or details from the text(s).	The response is blank.
Evidence	Includes relevant and sufficient textual evidence to develop a response according to the requirements of the Quick Write.	Includes some relevant facts, definitions, concrete details, or other information from the text(s) to develop an analysis of the text according to the requirements of the Quick Write.	The response includes no evidence from the text.
Conventions	Uses complete sentences where errors do not impact readability.	Includes incomplete sentences or bullets.	The response is unintelligible or indecipherable.

Short Response Checklist

Assessed Standard(s): _____

Does my writing...	Did I...	✓
Include valid inferences and/or claims from the text(s)?	Closely read the prompt and address the whole prompt in my response?	<input type="checkbox"/>
	Clearly state a text-based claim I want the reader to consider?	<input type="checkbox"/>
	Confirm that my claim is directly supported by what I read in the text?	<input type="checkbox"/>
Develop an analysis of the text(s)?	Did I consider the author’s choices, the impact of word choices, the text’s central ideas, etc.?	<input type="checkbox"/>
Include evidence from the text(s)?	Directly quote or paraphrase evidence from the text?	<input type="checkbox"/>
	Arrange my evidence in an order that makes sense and supports my claim?	<input type="checkbox"/>
	Reflect on the text to ensure the evidence I used is the best evidence to support my claim?	<input type="checkbox"/>
Use complete sentences, correct punctuation, and spelling?	Reread my writing to ensure it means exactly what I want it to mean?	<input type="checkbox"/>
	Review my writing for correct grammar, spelling, and punctuation?	<input type="checkbox"/>

9.1.1

Lesson 2

Introduction

In this lesson, students listen to a masterful reading of pages 229–240 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Stage 2: After a time, your students realize that they must work” to “But you could tell they were pleased”), in which the pack moves from Stage 2 to Stage 3 of lycanthropic culture shock under the supervision of the nuns, and readers learn the name of the narrator, Claudette.

Students analyze how Claudette’s tone develops over the course of Stages 2 and 3. Student learning is assessed via a Quick Write at the end of the lesson: Describe Claudette’s tone in her description of Stages 2 and 3 of lycanthropic culture shock. Cite specific evidence to support your response.

For homework, students continue searching for an appropriate Accountable Independent Reading (AIR) text and prepare for the following lesson by selecting a text.

Standards

Assessed Standard(s)	
RL.9-10.4	Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language evokes a sense of time and place; how it sets a formal or informal tone).
Addressed Standard(s)	
None.	

Assessment

Assessment(s)
<p>Student learning is assessed via a Quick Write at the end of the lesson. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text.</p> <ul style="list-style-type: none"> Describe Claudette’s tone in her description of Stages 2 and 3 of lycanthropic culture shock. Cite specific textual evidence to support your response.

High Performance Response(s)

A High Performance Response should:

- Identify a specific tone (e.g., Claudette’s tone in her description of Stages 2 and 3 is humorous).
- Cite specific evidence to support their answer (e.g., Claudette’s tone is frequently humorous. For example, when she is partnered with Mirabella for duck feeding she says: “and then who would get blamed for the dark spots of duck blood on our Peter Pan collars? Who would get penalized with negative Skill Points? Exactly” (p. 234). This quote is humorous because Claudette exaggerates her frustration and sense of injustice by using questions, and also because the image of “dark spots of duck blood on ... Peter Pan collars” brings together an everyday image of a school uniform with something unexpected, duck’s blood. Later, in Stage 3, when Jeanette blows her nose on the curtains, Claudette says, “Even [Jeanette’s] mistakes annoyed us—they were always so well intentioned” (p. 239). In doing so, she introduces a note of humor, partly because Jeanette’s actions are comically out of line with the polite behavior that she is trying to show, and partly because being well-intentioned is not something that one usually associates with annoying people).

Vocabulary**Vocabulary to provide directly (will not include extended instruction)**

- dislocation (n.) – the state of being out of place
- shunned (v.) – avoided deliberately and especially habitually
- etiquette (n.) – conventional requirements for social behavior
- rehabilitations (n.) – the states of being taught to live a normal and productive life

Vocabulary to teach (may include direct word work and/or questions)

- None.

Additional vocabulary to support English Language Learners (to provide directly)

- None.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text:	
<ul style="list-style-type: none"> Standards: RL.9-10.4 Text: “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 229–240 	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 5%
2. Homework Accountability	2. 5%
3. Masterful Reading	3. 50%
4. Reading and Discussion	4. 25%
5. Quick Write	5. 10%
6. Closing	6. 5%

Materials

- Student copies of the Short Response Rubric and Checklist (refer to 9.1.1 Lesson 1)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

5%

Begin by reviewing the agenda and the assessed standard for this lesson: RL.9-10.4. In this lesson, students listen to a masterful reading of pp. 229–240 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Stage 2: After a time, your students realize that they must work” to “But you could tell they were pleased”) and analyze how Claudette’s tone develops over the course of Stages 2 and 3. Students engage in evidence-based discussion and complete a brief writing assignment to close the lesson.

- ▶ Students look at the agenda.

Activity 2: Homework Accountability

5%

Instruct students to talk in pairs about their research into potential AIR texts, and to share the two criteria for AIR texts that they determined for the previous lesson’s homework assignment. Lead a brief share out on student progress in finding a suitable AIR text. Select several students (or student pairs) to share their progress and explain their criteria.

- ▶ Students provide an update on their progress on finding an AIR text and share their criteria for potential AIR texts.

Lead a brief whole-class discussion about methods for choosing AIR and resources to help students.

Activity 3: Masterful Reading

50%

Have students listen to a masterful reading of pages 229–240 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Stage 2: After a time, your students realize that they must work” to “But you could tell they were pleased”). Instruct students to listen for details that develop the narrator’s tone.

- ▶ Students follow along, reading silently.

Pause after the end of Stage 2 (p. 235, up to “Then I congratulated myself. This was a Stage 3 thought”) to allow students to write down any thoughts or questions they might have in response to the masterful reading so far.

- ▶ Students record thoughts or questions on their copies of the text or in a notebook.

Once students have been given enough time to record their thoughts and questions, complete the masterful reading.

① **Differentiation Consideration:** Consider posting or projecting the following guiding question to support students in their reading throughout this lesson:

What is the narrator’s tone in this excerpt?

- ▶ Students follow along reading silently.
- ① If necessary, remind students that “tone” is the attitude a speaker has towards the subject about which he or she is speaking.”

Activity 4: Reading and Discussion**25%**

- ① The questions in this section are designed to ensure comprehension of the masterful reading rather than to guide close reading. Students will read and analyze the text in more detail in later lessons.

Instruct students to form pairs. Post or project the questions below for students to discuss.

Instruct student pairs to read pages 229–240 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Stage 2: After a time, your students realize that they must work” to “But you could tell they were pleased”) and answer the following questions before sharing out with the class.

Provide students with the following definitions: *dislocation* means “the state of being out of place,” *shunned* means “avoided deliberately and especially habitually,” *etiquette* means “conventional requirements as to social behavior,” and *rehabilitations* means “the states of being taught to live a normal and productive life.”

- ① Students may be familiar with some of these words. Consider asking students to volunteer definitions before providing them to the class.
 - ▶ Students write the definitions of *dislocation*, *shunned*, *etiquette*, and *rehabilitations* on their copies of the text or in a vocabulary journal.

What do we learn about the narrator in this excerpt? Use details from the text to support your response.

- 🗨 Student responses should include:
 - The narrator is a member of the pack, because when she is describing pack activities, she uses the pronoun “we.”
 - The narrator’s name is Claudette. On page 233, Sister Josephine addresses her as “Claudette” and the narrator responds.

What specific details about their behavior does Russell use to describe Mirabella’s and Jeanette’s places in the pack?

- 🗨 Student responses may include:

- Russell uses the details of Mirabella’s misbehavior, such as the fact that Mirabella would “rip foamy chunks out of the church pews” (p. 230), or that she “shuck[ed] her plaid jumper in full view of the visiting cardinal” (p. 236), to describe Mirabella’s place as being the misfit of the pack.
- Russell uses the details of Jeanette’s good behavior, such as the fact that Jeanette was the “first among [the pack] to apologize” (p. 232), or that “nobody could do the Sausalito but Jeanette” (p. 238), to describe Jeanette as the best student of the pack.

How does Claudette describe her place in the pack?

- 🗨️ Claudette states that she was “one of the good girls,” but in the “middle of the pack” (p. 232).

What tone does Claudette use in her descriptions of Mirabella’s behavior?

- 🗨️ Student responses may include:
 - Claudette’s descriptions reveal her tone as both funny and frustrated. For example, when Claudette gets assigned Mirabella as her duck-feeding partner, she complains by saying, “and then who would get blamed for the dark spots of duck blood on our Peter Pan collars? Who would get penalized with negative Skill Points? Exactly” (p. 234). This creates humor because the questions Claudette uses to address the reader exaggerate her frustration and sense of injustice. Also, the image of a school uniform stained with something as strange as duck’s blood is humorous. Later, she seems both amused and irritated when she is talking about Mirabella’s mistakes: “Mirabella, doing belly flops into compost” (p. 236). Even though Claudette is complaining about Mirabella, her description has a slapstick feel to it, and conjures up a humorous image of Mirabella doing belly flops.
 - Claudette’s tone is kind when she says that she feels a “throb of compassion” (p. 235) for Mirabella when Mirabella is covered in splinters and wants Claudette to lick her wounds. It is clear from her tone that Claudette feels sorry for Mirabella and wants to help her.

Lead a brief whole-class discussion of student responses.

Activity 5: Quick Write

10%

Instruct students to briefly respond in writing to the following Quick Write prompt:

Describe Claudette’s tone in her description of Stages 2 and 3 of lycanthropic culture shock. Cite specific evidence to support your response.

Ask students to use this lesson’s vocabulary wherever possible in their written responses. Remind students to look at their text and notes to find evidence, and to use the Short Response Rubric and Checklist to guide their written responses.

- ▶ Students listen and read the Quick Write prompt.

① Display the prompt for students to see, or provide the prompt in hard copy.

Transition to the independent Quick Write.

- ▶ Students independently answer the prompt, using evidence from the text.
- 🗨 See the High Performance Response at the beginning of this lesson.

Activity 6: Closing

5%

Display and distribute the homework assignment. For homework, instruct students to continue to search for a text for their AIR, and to come to the next lesson having selected a text. Instruct students to begin reading their text if they have found an appropriate one.

- ▶ Students follow along.

Homework

Continue to search for an appropriate text for Accountable Independent Reading, and come to the next lesson having selected a text. If you have found an appropriate text, begin reading it.

9.1.1

Lesson 3

Introduction

In this lesson, students listen to a masterful reading of pp. 240–246 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Stage 4: As a more thorough understanding of the host culture” to “‘So,’ I said, telling my first human lie. ‘I’m home’”), in which the girls attend the Debutante Ball, Mirabella is expelled from St. Lucy’s, and Claudette returns to her family. Students encounter a new reading standard, RL.9-10.3, and analyze Mirabella’s interactions with the pack using the Character Tracking Tool. Students also encounter the first standard related to speaking and listening, SL.9-10.1, focusing on substandard c. Student learning is assessed via a Quick Write at the end of the lesson: How does Mirabella interact with the rest of the pack?

For homework, students being reading their Accountable Independent Reading (AIR) text through the lens of focus standard RL.9-10.1 or RI.9-10.1 and prepare for a brief discussion of their text based on that standard.

Standards

Assessed Standard(s)	
RL.9-10.3	Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
Addressed Standard(s)	
SL.9-10.1.c	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i> , building on others’ ideas and expressing their own clearly and persuasively. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.

Assessment

Assessment(s)

Student learning is assessed via a Quick Write at the end of the lesson. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text.

- How does Mirabella interact with the rest of the pack?

High Performance Response(s)

A High Performance Response should:

- Cite specific interactions between the pack and Mirabella (e.g., Mirabella destroys Jeanette’s property when she “snapped through Jeanette’s homework binder” (p. 240). Mirabella also pounces on Claudette at the Debutante Ball because she “intercept[s] [Claudette’s] eye-cry for help” (p. 244) and thinks that Claudette is in danger).
- Describe the interactions between the pack and Mirabella (e.g., Mirabella is a source of frustration for the pack because she is adapting so slowly. Mirabella is frequently aggressive and disruptive in her interactions with the rest of the pack, as when she “scratch[es] and scratch[es] at [Jeanette and Claudette], raking her nails along our shins so hard that she [draws] blood” (p. 240). She refuses to adapt to human culture and will communicate with other members of the pack only as a wolf, as when she rolls “belly-up on the cold stone floor, squirming on a bed of spelling-bee worksheets” in front of Jeanette and Claudette (p. 240), or when she “close[s] her jaws around Jeanette’s bald ankle” (p. 241). At the same time, she is very loving towards the rest of the pack. When she realizes that Claudette is in trouble, she tackles her from behind, “barking at unseen cougars, trying to shield [her] with her tiny body” (p. 244)).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)

- frog-marched (v.) – forced a person or persons to march with their arms held firmly behind the back
- muzzle (n.) – a device placed over an animal’s mouth to prevent the animal from biting
- intercepted (v.) – seen or overheard (a message, transmission, etc.) meant for another

Vocabulary to teach (may include direct word work and/or questions)

- None.

Additional vocabulary to support English Language Learners (to provide directly)
<ul style="list-style-type: none"> • None.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text: <ul style="list-style-type: none"> • Standards: RL.9-10.3, SL.9-10.1.c • Text: "St. Lucy's Home for Girls Raised by Wolves" by Karen Russell, pp. 240–246 	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 10%
2. Homework Accountability	2. 5%
3. Masterful Reading	3. 40%
4. Reading and Discussion	4. 30%
5. Quick Write	5. 10%
6. Closing	6. 5%

Materials

- Student copies of the 9.1 Common Core Learning Standards Tool (refer to 9.1.1 Lesson 1)
- Copies of the Character Tracking Tool for each student
- Student copies of the Short Response Rubric and Checklist (refer to 9.1.1 Lesson 1)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>

▶	Indicates student action(s).
💬	Indicates possible student response(s) to teacher questions.
ℹ	Indicates instructional notes for the teacher

Activity 1: Introduction of Lesson Agenda

10%

Begin by reviewing the agenda and the assessed standard for this lesson: RL.9-10.3. In this lesson, students listen to a masterful reading of the end of the text and analyze how Mirabella interacts with other members of the pack. Students participate in evidence-based discussion and complete a brief writing assignment to close the lesson.

- ▶ Students look at the agenda.

Instruct students to take out their copies of the 9.1 Common Core Learning Standards Tool. Inform students that in this lesson they begin working with two new standards: RL.9-10.3 and SL.9-10.1.c. Ask students to individually read these standards on their tools and assess their familiarity with and mastery of them.

- ▶ Students read and assess their familiarity with standards RL.9-10.3 and SL.9-10.1.c.

Instruct students to talk in pairs about what they think standard RL.9-10.3 means. Lead a brief discussion about the standard.

💬 Student responses may include:

- Analyze how characters change during a story
- Notice how these characters interact with other characters
- Analyze how these characters create action in the story
- Think about how these characters contribute to central ideas in the text

Instruct students to talk in pairs about what they think standard SL.9-10.1 means. Lead a brief discussion about the standard.

💬 Student responses may include:

- Begin and participate in a range of discussions with different partners.
- Listen to the ideas of other in order to develop greater understanding.
- Express ideas in a clear and convincing way

Instruct students to talk in pairs about what they think substandard SL.9-10.1.c means. Lead a brief discussion about the standard.

💬 Student responses may include:

- Move discussions forward by asking and answering questions and respectfully disagreeing

- Talk about how the discussion relates to bigger ideas
- Actively bring others into the discussion

Activity 2: Homework Accountability

5%

Instruct students to talk in pairs about their research into potential AIR texts, and to share the AIR text they chose for the previous lesson's homework assignment. Lead a brief share out on student choices. Select several students (or student pairs) to explain their choice.

- ▶ Students share their choice of AIR text.

Activity 3: Masterful Reading

40%

Have students listen to a masterful reading of pp. 240–246 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Stage 4: As a more thorough understanding of the host culture” to “So, I said, telling my first human lie. ‘I’m home’”). Instruct students to listen for specific details that develop Mirabella’s interactions with other characters.

- ① **Differentiation Consideration:** Consider posting or projecting the following guiding question to support students in their reading throughout this lesson:

How does Mirabella act?

- ▶ Students follow along, reading silently.

Activity 4: Reading and Discussion

30%

- ① The questions in this section are designed to ensure comprehension of the masterful reading rather than to guide close reading. Students will read and analyze the text in more detail in later lessons

Introduce and distribute the Character Tracking Tool. Explain to students that they will be using this tool over the course of the unit in order to keep track of evidence relating to character development in the text.

- ▶ Students listen and examine the Character Tracking Tool.

Instruct students to form small groups. Post or project the questions below for students to discuss.

- ① Consider reminding students that this is an opportunity to apply standard SL.9-10.1.c by participating effectively in a collaborative discussion. Students may focus on posing and responding

to questions, incorporating others into the discussion, and challenging or verifying ideas and conclusions.

Instruct student groups to read pp. 240–246 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Stage 4: As a more thorough understanding of the host culture” to ‘So,’ I said, telling my first human lie. ‘I’m home’”) and answer the following questions before sharing out with the class.

Provide students with the following definitions: *frog-marched* means “forced a person or persons to march with their arms held firmly behind the back,” *muzzle* means “a device placed over an animal’s mouth to prevent the animal from biting,” *intercepted* means “seen or overheard (a message, transmission, etc.) meant for another.”

① Students may be familiar with some of these words. Consider asking students to volunteer definitions before providing them to the class.

- ▶ Students write the definitions of *frog-marched*, *muzzle*, and *intercepted* on their copies of the text or in a vocabulary journal.

How does Mirabella treat Jeanette and Claudette at the beginning of Stage 4?

☞ Student responses may include:

- Mirabella destroys Jeanette’s property; she “snapped through Jeanette’s homework binder” (p. 240).
- Mirabella is violent with Claudette and Jeanette. She “scratched at [them] ... so hard that she drew blood” (p. 240) and “closed her jaws around Jeanette’s bald ankle” (p. 241).

How do the nuns treat Mirabella at the Debutante Ball?

☞ The nuns put Mirabella in a “dark corner” and put a muzzle on her (p. 242).

Why does Mirabella jump on Claudette?

☞ Mirabella jumps on Claudette to protect her. Mirabella “intercepted [Claudette’s] eye-cry for help” (p. 244) and thinks that Claudette is in danger.

Why does Claudette “grunt[.]” at Mirabella that “[she] didn’t want [her] help”?

☞ Claudette wants to conform to St. Lucy’s rules, and she wants the nuns to hear how much her “enunciation [has] improved” (p. 244). If Claudette lets them know she is happy that Mirabella has “ruined the ball” (p. 244), she could get into serious trouble and be kicked out. Instead of thanking Mirabella and telling Mirabella she loves her, Claudette protects herself from punishment.

How does Claudette feel about Mirabella’s actions? Why does Claudette feel this way?

- Claudette loves Mirabella more than anybody “before or since” (p. 244) for her actions. Claudette was about to “fail [her] Adaptive Dancing test” (p. 244), but Mirabella’s mistake covers Claudette’s failure.

① **Differentiation Consideration:** If students struggle, consider asking the following questions:

How well is Claudette doing at the Sausalito?

- Claudette is failing at the dance. She “was about to lose all [her] Skill Points” (p. 244).

How does Mirabella’s tackling Claudette help Claudette?

- Mirabella distracts everyone from how badly Claudette is failing at the Sausalito, which saves Claudette from being punished.

① Remind students that they should be keeping track of character development in the text using the Character Tracking Tool.

What happens to Mirabella following the Debutante Ball?

- Mirabella is expelled from St. Lucy’s, and “In the morning, Mirabella was gone” (p. 245).

Lead a brief whole-class discussion of student responses.

Activity 5: Quick Write

10%

Instruct students to respond briefly in writing to the following prompt:

How does Mirabella interact with the rest of the pack?

Ask students to use this lesson’s vocabulary wherever possible in their written responses. Remind students to look at their text and notes to find evidence, and to use the Short Response Rubric and Checklist to guide their written responses.

- ▶ Students listen and read the Quick Write prompt.

① Display the prompt for students to see, or provide the prompt in hard copy.

Transition to the independent Quick Write.

- ▶ Students independently answer the prompt, using evidence from the text.
- See the High Performance Response at the beginning of this lesson.

Activity 6: Closing

5%

Display and distribute the homework assignment. For homework, instruct students to begin reading their AIR text, if they have not done so already, through the lens of RL.9-10.1 or RI.9-10.1, and prepare for a 3–5 minute discussion based on that standard.

Introduce standard RL.9-10.1 and RI.9-10.1 as focus standards to guide students' AIR, and model what applying a focus standard looks like.

For example, RL.9-10.1 and RI.9-10.1 ask students to “Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.” Students who have read “St. Lucy’s Home for Girls Raised by Wolves” might say: “Claudette describes how Mirabella would “rip foamy chunks out of the church pews” on page 230, or how she “shuck[ed] her plaid jumper in full view of the visiting cardinal” on page 236. This evidence shows how Russell develops Mirabella as a misfit who does not adapt well to life at St. Lucy’s.”

Homework

Begin reading your AIR text through the lens of the assigned focus standard (RL.9-10.1 or RI.9-10.1) and prepare for a 3–5 minute discussion of your text based on that standard.

Character Tracking Tool

Name:		Class:		Date:	
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Directions: Use this tool to keep track of character development throughout the module. Trace character development in the texts by noting how the author introduces and develops characters. Cite textual evidence to support your work.

Text:	
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Character	Trait	Evidence

Model Character Tracking Tool

Name:		Class:		Date:	
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Directions: Use this tool to keep track of character development throughout the module. Trace character development in the texts by noting how the author introduces and develops characters. Cite textual evidence to support your work.

Text:	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell
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Character	Trait	Evidence
Mirabella	Destructive	Mirabella destroys Jeanette’s “homework binder” and scratches Claudette and Jeanette’s “shins so hard” that they bleed (p. 240).
	Loving	Mirabella tackles Claudette when she means to “shield” Claudette from whatever danger Claudette might be in (p. 244).
Claudette	Fearful	Claudette finds the nuns’ transformation of the rectory to be “very scary” (p. 241). She panics and begins to sweat and howl when she cannot do the Sausalito (p. 243).
	Loving	She loves Mirabella for helping her. “And I have never loved someone so much, before or since, as I loved my littlest sister at that moment.” (p. 244)
	Sad	When she comes home to her family, she lies about it feeling like home. “‘So,’ I said, telling my first human lie. ‘I’m home.’” (p. 246)
Jeanette	Well-Behaved	She wants to “mop up Mirabella’s mess” (p. 241).
	Mean	She refuses to help Claudette do the Sausalito even though Claudette’s about to get into lots of trouble. “Jeanette gave me a wide, true wolf smile. For an instant, she looked just like our mother. ‘Not for you.’” (p. 244)

9.1.1

Lesson 4

Introduction

In this lesson, students continue their reading and analysis of Karen Russell’s “St. Lucy’s Home for Girls Raised by Wolves.” Students read pages 225–227 (from “Stage 1: The initial period is one in which everything is new” to “our parents were sending us away for good. Neither did they”) in which the pack arrives at St. Lucy’s and begins the initial stages of adjustment to human society. Students analyze how Russell develops the pack as a character in itself. Student learning is assessed via a Quick Write at the end of the lesson: How does Russell develop the pack as a character?

For homework, students preview the reading for the following lesson by boxing any unfamiliar words and conducting brief searches into the words’ meanings. Students also continue reading their Accountable Independent Reading (AIR) texts through the lens of a focus standard and prepare for a brief discussion on how they applied the focus standard to their texts.

Standards

Assessed Standard(s)	
RL.9-10.1	Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
RL.9-10.3	Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
Addressed Standard(s)	
SL.9-10.1.c	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i> , building on others’ ideas and expressing their own clearly and persuasively. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
L.9-10.4.a	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grades 9–10 reading and content</i> , choosing flexibly from a range of strategies.

- | | |
|--|---|
| | a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. |
|--|---|

Assessment

Assessment(s)

Student learning is assessed via a Quick Write at the end of the lesson. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text.

- How does Russell develop the pack as a character?

High Performance Response(s)

A High Performance Response should:

- Identify the ways in which Russell develops the pack as a character (e.g., Russell develops the pack through their interactions with other characters; Russell uses the pronoun “we” to develop the pack as a character).
- Analyze how these techniques develop the pack as a character (e.g., Russell uses the pack's interactions with other characters. The pack's relationship with the local wolves and farmers shows how they live an “outsider's existence” in the forest (p. 227). The pack's parents are ostracized by local farmers who “threaten” them with “pitchforks” (p. 227). In turn, as werewolves, the pack's parents ostracize the local wolves by having “sometimes-thumbs, and regrets, and human children” (p. 227). These interactions show why the pack has been sent to St. Lucy's, because their parents want them to live in “human society” (p. 227) rather than in the forest, which Claudette describes as a “green purgatory” (p. 227). When the pack arrives at St. Lucy's, Russell develops them through their interactions with the nuns; by baring “row after row of tiny, wood-rotted teeth,” the pack shows itself to be wild and afraid (p. 226)).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)

- **hirsute** (adj.) – hairy; shaggy
- **sinewy** (adj.) – muscular; strong
- **barbaridad** (Spanish n.) – crudity of style, taste, expression, etc.
- **apiary** (n.) – a place where bees are kept
- **pidgin** (n.) – any broken form of a language

<ul style="list-style-type: none"> purgatory (n.) – any condition or place of temporary suffering
Vocabulary to teach (may include direct word work and/or questions)
<ul style="list-style-type: none"> backwoods (adj.) – unsophisticated ostracized (v.) – excluded, by general consent, from society, friendship, conversation, privileges, etc.
Additional vocabulary to support English Language Learners (to provide directly)
<ul style="list-style-type: none"> lasso (n.) – a rope with a loop that is used for catching animals deacon (n.) – a member of some Christian churches who has special duties werewolves (n.) – people who sometimes change into wolves especially when the moon is full heifers (n.) – young female cows

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text:	
<ul style="list-style-type: none"> Standards: RL.9-10.1, RL.9-10.3, SL.9-10.1.c, L.9-10.4.a Text: "St. Lucy's Home for Girls Raised by Wolves" by Karen Russell, pp. 225–227 	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 10%
2. Homework Accountability	2. 10%
3. Introduction to Annotation	3. 10%
4. Reading and Discussion	4. 45%
5. Paraphrasing and Quotations	5. 10%
6. Quick Write	6. 10%
7. Closing	7. 5%

Materials

- Student copies of the 9.1 Common Core Learning Standards Tool (refer to 9.1.1 Lesson 1)
- Copies of the Annotation Markings Bookmark for each student

- Student copies of the Character Tracking Tool (refer to 9.1.1 Lesson 3)—students may need additional blank copies
- Copies of the Tips for Integrating Quotations Handout for each student
- Student copies of the Short Response Rubric and Checklist (refer to 9.1.1 Lesson 1)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

10%

Begin by reviewing the agenda and assessed standards for this lesson: RL.9-10.1 and RL.9-10.3. In this lesson, students analyze how Russell develops the pack as a character. Students engage in evidence-based discussion and complete the lesson with a Quick Write.

- ▶ Students look at the agenda.

Instruct students to take out their copies of the 9.1 Common Core Learning Standards Tool. Inform students that in this lesson they begin to work with a new standard: L.9-10.4.a. Ask students to individually read this standard on their tools and assess their familiarity with and mastery of it.

- ▶ Students read and assess their familiarity with standard L.9-10.4.a.

Instruct students to talk in pairs about what they think the standard and substandard mean. Lead a brief discussion about these standards.

- ☞ Student responses may include:
 - The standard talks about determining the meaning of words as they are used in a text.
 - Substandard L.9-10.4.a focuses on using context as a strategy for determining word meaning.

Activity 2: Homework Accountability

10%

Instruct students to talk in pairs about how they applied focus standard RL.9-10.1 or RI.9-10.1 to their AIR texts. Lead a brief share out on the previous lesson's AIR homework assignment. Select several students (or student pairs) to explain how they applied the focus standard to their AIR texts.

- ▶ Students (or student pairs) discuss and share how they applied the focus standard to their AIR texts from the previous lesson's homework.

Activity 3: Introduction to Annotation

10%

Discuss the importance of annotation by asking the following questions:

What are some purposes for marking the text?

- 🗨 Student responses may include:
 - Marking the text helps the reader to remember what they are reading by recording their thoughts about the text.
 - Marking the text helps the reader to keep track of important ideas.
 - Marking the text helps the reader to think about unfamiliar words.
 - Marking the text helps the reader to question the text or make connections between ideas.

Explain to students that marking the text, or *annotation*, is a skill for reading closely.

- ① Note the relationship of annotation to standard RL.9-10.1: annotation helps students look closely at textual evidence to determine a text's meanings.

How does annotation impact the way you read?

- 🗨 Student responses may include:
 - Annotation connects the reader to the text more deeply by making a reader read more actively and pay close attention to details.
 - Annotation makes it difficult to just read because it slows down your reading.

Explain that readers use shorthand ways of marking text so as not to take time away from their reading. Display and explain the following codes:

- Box unfamiliar words.
- Star (*) important or repeating ideas.

- Put a question mark (?) next to a section you are questioning or confused about, and write your question down.
- Use an exclamation point (!) for connections between ideas or ideas that strike or surprise you in some way, and provide a brief note explaining the connection.

Distribute copies of the Annotation Markings Bookmark. Explain that it is important for students to annotate the text with their thinking alongside the codes. Explain that students will use these codes throughout the year, beginning with their reading of “St. Lucy’s Home for Girls Raised by Wolves,” to keep track of their thinking about the text.

- ① **Differentiation Consideration:** To help students remember annotation codes, consider posting them in the classroom, or instructing students to copy the codes into their notebooks or agendas.

Activity 4: Reading and Discussion

45%

Instruct students to form groups. Post or project the questions below for students to discuss. Instruct students to annotate the text as they read and discuss, and to keep track of character development in the text using the Character Tracking Tool.

- ① If necessary to support comprehension and fluency, consider using a masterful reading of the focus excerpt for the lesson.
- ① **Differentiation Consideration:** Consider posting or projecting the following guiding question to support students in their reading throughout this lesson:

How does Russell describe the pack?

Instruct student groups to read pages 225–227 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Stage 1: The initial period is one in which everything is new” to “our parents were sending us away for good. Neither did they”) and answer the following questions before sharing out with the class.

Provide students with the following definitions: *hirsute* means “hairy; shaggy,” *sinewy* means “muscular; strong,” *barbaridad* means “crudity of style, taste, expression, etc.,” *apiary* means “a place where bees are kept,” *pidgin* means “any broken form of a language,” and *purgatory* means “any condition or place of temporary suffering.”

- ① Students may be familiar with some of these words. Consider asking students to volunteer definitions before providing them to the class.
- ▶ Students write the definitions of *hirsute*, *sinewy*, *barbaridad*, *apiary*, *pidgin*, and *purgatory* on their copies of the text or in a vocabulary journal.

① **Differentiation Consideration:** Consider providing students with the following definitions: *lasso* means “a rope with a loop that is used for catching animals,” *deacon* means “a member of some Christian churches who has special duties,” *werewolves* means “people who sometimes change into wolves especially when the moon is full,” and *heifers* means “young female cows.”

- ▶ Students write the definitions of *lasso*, *deacon*, *werewolves*, and *heifers* on their copies of the text or in a vocabulary journals.

Why were the nuns’ faces “pinched with displeasure”?

- ☛ The nuns are displeased because the pack is behaving like wolves and not like girls. The pack is “overturning dresser drawers,” pawing through clean underwear, and “smashing lightbulbs” (p. 225). The pack is also “jump[ing] from bunk to bunk” (p. 225) and peeing on everything.

What is the impact of the narrator’s use of the pronoun “we” to describe the pack?

- ☛ The narrator frequently refers to the pack as “we,” which means that members of the pack see each other as one.
- ① Consider reminding students that a pronoun is a word (such as *I*, *he*, *she*, *you*, *it*, *we*, or *they*) that is used instead of a noun or noun phrase.

How does the comparison of the pack to the Copacabana girls develop the pack as a character?

- ☛ The Copacabana girls are described as “fat” and “languid” with “silky” pelts, and eat “guava right out of your hand” (p. 226), which means they are less wild and more obedient. The comparison shows how much more uncivilized the “hirsute” and “sinewy” (p. 226) pack is.

Given the pack’s behavior, what can you infer Sister Josephine means by “backwoods”)?

- ☛ Russell describes the pack as “hirsute,” and as moving by “knuckling along” with “terrible posture,” suggesting that the pack is not fully developed and acts more like wolves than humans (p. 226). This suggests that “backwoods” may mean unsophisticated or unrefined.
- ① Consider drawing students’ attention to the application of L.9-10.4.a through the process of using context to make meaning of unknown words.

How do the pack’s interactions with the nuns develop the pack as a character?

- ☛ They bare “row after row of tiny, wood-rotted teeth” (p. 226) at the nuns, which shows that the pack is afraid and aggressive.

Remind students to annotate their texts for character development, using the code “CD.”

How are the girls different from their parents? What causes this difference?

- The girls are human, but their “mothers and fathers were werewolves” (p. 227). The girls are human because the parents’ werewolf “condition skips a generation” (p. 227).

What can you infer about the meaning of *ostracized*, given the relationship of the pack’s parents to the farmers and the local wolves?

- *Ostracized* might mean excluded; their parents lived “an outsider’s existence” because of their relationship with the farmers and local wolves (p. 227).
- ① Consider drawing students’ attention to the application of L.9-10.4.a through the process of using context to make meaning of unknown words.
- ① **Differentiation Consideration:** If students struggle, consider asking the following scaffolding questions:

What do the pack’s parents do to the farmers?

- The pack’s parents eat the farmers’ “fruit pies” and “terroriz[e] the heifers” (p. 227).

How do the farmers respond to these actions?

- The farmers “threaten” the pack’s parents with “pitchforks” (p. 227).

How do the pack’s parents “ostracize[]” the local wolves?

- The pack’s parents ostracize the local wolves by having “sometimes-thumbs, and regrets, and human children” (p. 227), meaning they are werewolves, not actual wolves.

Why do the pack’s parents enroll their daughters in St. Lucy’s?

- Student responses may include:
 - Their parents wanted “something better for [them]” (p. 227), which means that unlike their parents, the pack had a chance at being “fully bilingual” (p. 227) and becoming “naturalized citizens of human society” (p. 227). In other words, they want them to have a chance at being accepted by human society.
 - Their parents enrolled them in St. Lucy’s so that the pack can “study a better culture” there (p. 227). They think their children will have a better life if they learn human ways.

Lead a brief whole-class discussion of student responses.

Instruct students to discuss the following question in their groups:

Describe the pack’s interactions with each other and other characters (e.g., the nuns, their families, local wolves).

🗨️ Student responses may include:

- The pack’s interaction with each other is playful and destructive. They “jump[] from bunk to bunk,” “smash[] lightbulbs,” spray “exuberant yellow streams” of urine on the bunks, and “buckl[e] in kinetic laughter” (p. 225) with each other.
 - The pack’s interaction with the nuns is aggressive and fearful. The pack shows its fear when it bares “row after row of tiny, wood-rotted teeth” (p. 226) at the nuns, and the narrator bites Sister Josephine’s ankle.
 - The pack has a loving bond with their families. Their parents want “something better for [them]” (p. 227), so they send them away to St. Lucy’s to have a chance at a better life.
 - The pack is ostracized by the local wolves because they have “sometimes-thumbs, and regrets, and human children,” meaning they are partly human (p. 227).
- ① Consider reminding students that this is an opportunity to apply standard SL.9-10.1.c by participating effectively in a collaborative discussion. Students may especially focus on posing and responding to questions, incorporating others into the discussion, and challenging or verifying ideas and conclusions.
- ① Remind students that they should keep track of character development in the text using the Character Tracking Tool.

Lead a brief whole-class discussion of student responses.

Activity 5: Paraphrasing and Quotations

10%

Remind the students of their work with standard RL.9-10.1 in 9.1.1 Lesson 1. Tell students that the standard requires them to use evidence from the text to support their analysis. Explain that to cite evidence, students may quote directly from the text or paraphrase the text.

- ▶ Students listen.

Post or project the following direct quote from “St. Lucy’s Home for Girls Raised by Wolves”:

“They lived an outsider’s existence in caves at the edge of the forest, threatened by frost and pitchforks.”
(p. 227)

Post or project the following example and ask students the following questions:

The narrator explains, “They lived an outsider’s existence in caves at the edge of the forest” (p. 227).

What is the same about these two examples?

- Both examples use some of the same words from the text.

What is different about these two examples?

- Student responses may include:
 - All of the words in the first example are in quotation marks.
 - The second example is shorter and includes only part of the first example.
 - The second example includes some words outside of the quotation marks.

Explain to students that both examples are taken from “St. Lucy’s,” but that the second example demonstrates how to use a quote when making a statement about the text.

As needed, provide direct instruction on the mechanics of quoting directly from the text, including how to use appropriate punctuation (commas and quotation marks). Consider instructing students on the correct placement of commas and quotation marks when quoting directly from the text. Review the Tips for Integrating Quotations Handout with students.

Post or project the following example:

They were outsiders who were threatened by farmers and the elements.

What is the same about this example in comparison to the first two examples?

- This example is about the same part of the text as the first two examples.

What is different about this example in comparison to the first two examples?

- Student responses should include:
 - This example uses no quotation marks.
 - This example uses different words from the first two examples.

Explain to students that this example demonstrates how to *paraphrase*, which means “to rephrase or restate the text in one’s own words without changing the meaning of the text.” Remind students that when paraphrasing the text, they should not use direct quotes from the text.

Instruct students to practice using direct quotes and paraphrasing as they read and discuss the text, as well as in their Quick Write responses.

Activity 6: Quick Write

10%

Instruct students to respond briefly in writing to the following prompt, using paraphrase and direct quotation to cite textual evidence:

How does Russell develop the pack as a character?

Instruct students to look at their annotations to find evidence. Ask students to use this lesson’s vocabulary wherever possible in their written responses. Remind students to use the Short Response Rubric and Checklist to guide their written responses.

- ▶ Students listen and read the Quick Write prompt.

① Display the prompt for students to see, or provide the prompt in hard copy.

Transition to the independent Quick Write.

- ▶ Students independently answer the prompt using evidence from the text.
- ☛ See the High Performance Response at the beginning of this lesson.

Activity 7: Closing

5%

For homework, students read pages 227–230 (from “That first afternoon, the nuns gave us free rein” to “It all felt like a sly, human taunt”), boxing any unfamiliar words and conducting brief searches into the words’ meanings.

Also for homework, students should continue to read their AIR text through the lens of focus standard RL.9-10.1 or RI.9-10.1, and prepare for a 3–5 minute discussion of their text based on that standard.

- ▶ Students listen.

Homework

Read pages 227–230 (from “That first afternoon, the nuns gave us free rein” to “It all felt like a sly, human taunt”) to preview tomorrow’s reading. Box any unfamiliar words and look up their definitions. Choose the definition that makes the most sense in the context, and write a brief definition above or near the word in the text.

Continue to read your Accountable Independent Reading through the lens of focus standard RL.9-10.1 or RI.9-10.1 and prepare for a 3–5 minute discussion of your text based on that standard.

Annotation Markings Bookmark

Annotation Markings Bookmark	Annotation Markings Bookmark	Annotation Markings Bookmark	Annotation Markings Bookmark
<p>Box unfamiliar words.</p> <p>Star (*) important or repeating ideas.</p> <p>Put a question mark (?) next to a section you're questioning or confused about.</p> <p>Use an exclamation point (!) for connections between ideas or ideas that strike you or surprise you in some way.</p> <p>Remember to write notes in the margin as you read to record your ideas and thoughts.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<p>Box unfamiliar words.</p> <p>Star (*) important or repeating ideas.</p> <p>Put a question mark (?) next to a section you're questioning or confused about.</p> <p>Use an exclamation point (!) for connections between ideas or ideas that strike you or surprise you in some way.</p> <p>Remember to write notes in the margin as you read to record your ideas and thoughts.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<p>Box unfamiliar words.</p> <p>Star (*) important or repeating ideas.</p> <p>Put a question mark (?) next to a section you're questioning or confused about.</p> <p>Use an exclamation point (!) for connections between ideas or ideas that strike you or surprise you in some way.</p> <p>Remember to write notes in the margin as you read to record your ideas and thoughts.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<p>Box unfamiliar words.</p> <p>Star (*) important or repeating ideas.</p> <p>Put a question mark (?) next to a section you're questioning or confused about.</p> <p>Use an exclamation point (!) for connections between ideas or ideas that strike you or surprise you in some way.</p> <p>Remember to write notes in the margin as you read to record your ideas and thoughts.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

Model Character Tracking Tool

Name:		Class:		Date:	
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Directions: Use this tool to keep track of character development throughout the module. Trace character development in the texts by noting how the author introduces and develops characters. Cite textual evidence to support your work.

Text:	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell
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Character	Trait	Evidence
The Pack	Uncivilized	As compared to the “fat” and “languid” girls from Copacabana with “silky” pelts, who eat “guava right out of your hand” (p. 226), the “hirsute” and “sinewy” (p. 226) pack is much less civilized. The members of the pack “[jump] from bunk to bunk,” “[smash] lightbulbs, spray “exuberant yellow streams” of urine on the bunks, and “buckl[e] in kinetic laughter” (p. 225) with each other.
	Afraid, aggressive	The pack bares “row after row of tiny, wood-rotted teeth” (p. 226) at the nuns.
	Human	Even though their “mothers and fathers were werewolves” (p. 227), the pack is human because their parents’ “condition skips a generation” (p. 227).
	Outsider status	The pack leads an “outsider’s existence” with their parents because of their relationship with the farmers, who resent them for “eating their silled fruit pies and terrorizing the heifers” (p. 227). At the same time, the pack “[can’t] keep up with the purebred wolves,” whom their parents ostracize “by having sometimes-thumbs, and regrets, and human children” (p. 227). The forest becomes a “green purgatory” for the pack (p. 227).

Tips for Integrating Quotations Handout

Step 1:

- Select a quotation you would like to integrate into your piece.
 - Sample: “We went knuckling along the wooden floor on the calloused pads of our fists, baring row after row of tiny, wood-rotted teeth.” (p. 226)

Step 2:

- Select a word, or several words, from that quotation that carry significant ideas.
 - Sample: “We went knuckling along the wooden floor,” “baring row after row of tiny, wood-rotted teeth” (p. 226).

Step 3:

- Compose a sentence that includes those words and the point you want to make. There are several ways to do this:
 1. Write a complete sentence and use a colon to introduce the quote.
Sample: The narrator describes the animal-like behavior of the pack: “We went knuckling along the wooden floor” (p. 226).
 2. Write a statement ending in *that* to introduce the quote.
Sample: The narrator describes the pack’s aggressive behavior when she says that “[they] bar[ed] row after row of tiny, wood-rotted teeth” (p. 226).
 3. Write a statement followed by a comma to introduce the quote.
Sample: The narrator states, “We went knuckling along the wooden floor” (p. 226).
 4. Insert short quotations into your own sentence.
Sample: Russell uses descriptive language when she portrays the pack’s “wood-rotted teeth” (p. 226) to emphasize the pack’s wildness.

9.1.1

Lesson 5

Introduction

In this lesson, students continue their reading of Karen Russell’s “St. Lucy’s Home for Girls Raised by Wolves,” and analyze how Russell introduces and develops a central idea in pages 227–230 (from “That first afternoon, the nuns gave us free reign” to “It all felt like a sly, human taunt”), in which the pack moves from Stage 1 to Stage 2 of lycanthropic culture shock. Students work with RL.9-10.2 as they summarize an epigraph and consider how Russell develops central ideas in this short story. Students continue to develop their speaking and listening skills by working in small groups that promote student discussion. Student learning is assessed via a Quick Write at the end of the lesson: How does Russell introduce and develop a central idea in this excerpt?

For homework, students review the Stage 1 epigraph and record their findings in the Epigraph Effect Tool.

Standards

Assessed Standard(s)	
RL.9-10.2	Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
Addressed Standard(s)	
RL.9-10.5	Analyze how an author’s choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise.
SL.9-10.1.c	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i> , building on others’ ideas and expressing their own clearly and persuasively. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.

Assessment

Assessment(s)

Student learning is assessed via a Quick Write at the end of the lesson. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text:

- How does Russell introduce a central idea in this excerpt?

High Performance Response(s)

A High Performance Response should:

- Identify a central idea in the text (e.g., human identity vs. wolf identification).
- Analyze how Russell introduces this central idea (e.g., Russell introduces a central idea of human identity versus wolf identification when the nuns rename the girls with human names, like “Jeanette” and “Mirabella” (p. 228). This frightens the girls and they sense a “subtler danger afoot” (p. 227) in this change, as it challenges their wolf identification. Next, in Stage 2, the nuns make them do “walking drills” (p. 229) like human girls, which make the pack feel “irritated, bewildered, depressed” (p. 229). However, at the same time, the girls want to succeed at St. Lucy’s and please the nuns; the narrator persists with the walking drills, repeating to herself “[m]outh on, shoes on feet” (p. 229). Similarly, the walls at St. Lucy’s are low enough that the girls recognize they are “all easily capable” (p. 230) of jumping over them, meaning that they could leave if they wanted to. Yet the girls know they cannot run away back to the woods without “betray[ing]” (p. 230) their parents, who sent the pack to St. Lucy’s “for [their] own betterment” (p. 230). The girls recognize the discomfort of life at St. Lucy’s, but know they can never return to their lives where they behaved as wolves. This tension demonstrates the girls’ struggle with their new human identity and their old wolf identification.

Vocabulary

Vocabulary to provide directly (will not include extended instruction)

- rein (n.) – the ability to control something
- delectable (adj.) – enjoyable
- improvised (v.) – made or fabricated out of what is conveniently on hand
- infirm (adj.) – weak in body or health
- bristled (v.) – rose up and became stiff; showed signs of anger
- tranquilizer (n.) – a drug that has a calming effect

<ul style="list-style-type: none"> dislocation (n.) – the state of being put out of place beckoned (v.) – signaled, or directed by a gesture of the head or hand
Vocabulary to teach (may include direct word work and/or questions)
<ul style="list-style-type: none"> None.
Additional vocabulary to support English Language Learners (to provide directly)
<ul style="list-style-type: none"> elk (n.) – a large kind of North American deer with big antlers dart (n.) – a small object that has a sharp point at one end that is used as a weapon drills (n.) – physical or mental activities that are done repeatedly to learn something, become more skillful, etc.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
<p>Standards & Text:</p> <ul style="list-style-type: none"> Standards: RL.9-10.2, RL.9-10.5, SL.9-10.1.c Text: “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 227–230 <p>Learning Sequence:</p> <ol style="list-style-type: none"> Introduction of Lesson Agenda Homework Accountability Reading and Discussion Quick Write Closing 	<ol style="list-style-type: none"> 10% 10% 55% 15% 10%

Materials

- Student copies of the 9.1 Common Core Learning Standards Tool (refer to 9.1.1 Lesson 1)
- Copies of the Central Ideas Tracking Tool for each student
- Student copies of the Short Response Rubric and Checklist (refer to 9.1.1 Lesson 1)
- Copies of the Epigraph Effect Tool for each student

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

10%

Begin by reviewing the agenda and the assessed standard for this lesson: RL.9-10.2. In this lesson, students analyze how Russell introduces and develops a central idea in this excerpt. Students engage in evidence-based discussion as well as complete a brief writing assignment to close the lesson.

- ▶ Students look at the agenda.

Instruct students to take out their copies of the 9.1 Common Core Learning Standards Tool. Inform students that in this lesson they begin to work with two new standards: RL.9-10.2 and RL.9-10.5. Ask students to individually read these standards on their tools and assess their familiarity with and mastery of them.

- ▶ Students read and assess their familiarity with standards RL.9-10.2 and RL.9-10.5.

Instruct students to talk in pairs about what they think standard RL.9-10.2 means. Lead a brief discussion about the standard.

☞ Student responses may include:

- Identify a theme or central idea
- Analyze how the idea develops throughout the text
- Analyze how specific details make the idea clearer
- Summarize the text

Provide students with the following definition: *summary* means “a brief statement of the main points of a text or section of text.” Explain that an objective summary is a summary based on facts and written without the influence of one’s personal feelings.

- ① **Differentiation Consideration:** Consider providing an example of an objective and a subjective summary. For example: An objective summary of the statement “We supplemented these holes by digging some of our own” would be “The girls in the pack added to the holes in the yard by digging their own holes.” A subjective summary would be “The girls added to the holes in the yard by digging their own holes because they are savages.”

Instruct students to talk in pairs about what they think standard RL.9-10.5 means. Lead a brief discussion about the standard.

- 🗨 Student responses may include:
- Identify an author’s choice(s) to structure a text, or order plot events
 - Identify how an author uses time in a text
 - Analyze the effects of these choices

Activity 2: Homework Accountability

10%

Instruct students to talk in pairs about how they applied the focus standard RL.9-10.1 or RI.9-10.1 to their Accountable Independent Reading (AIR) texts. Lead a brief share out on the previous lesson’s AIR homework assignment. Select several students (or student pairs) to explain how they applied a focus standard to their AIR texts.

- ▶ Students (or student pairs) discuss and share how they applied a focus standard to their AIR texts from the previous lesson’s homework.

Instruct students to form pairs to share the vocabulary words they identified and defined for the previous lesson’s homework.

- 🗨 Students may identify the following words: *rein, delectable, improvised, infirm, bristled, tranquilizer, dislocation, beckoned, elk, dart, drills.*

- ① Definitions are provided in the Vocabulary box in this lesson.

Activity 3: Reading and Discussion

55%

Instruct students to form groups. Post or project the questions below for students to discuss.

- ① Consider reminding students that this is an opportunity to apply standard SL.9-10.1.c by participating effectively in a collaborative discussion. Students may focus on posing and responding

to questions, incorporating others into the discussion, and challenging or verifying ideas and conclusions.

Introduce and distribute the Central Ideas Tracking Tool. Explain to students that they will use this tool throughout the module to keep track of evidence relating to central ideas in the text.

- ▶ Students listen and examine the Central Ideas Tracking Tool.
- ① If necessary to support comprehension and fluency, consider using a masterful reading of the focus excerpt for the lesson.
- ① **Differentiation Consideration:** Consider posting or projecting the following guiding question to support students in their reading throughout this lesson:

What is the central idea in this excerpt?

Instruct student groups to read pages 227–229 of “St. Lucy’s Home for Girls Raised by Wolves” (from “That first afternoon, the nuns gave us free rein” to “careful aim with her tranquilizer dart. ‘It can be a little overstimulating’”).

How does the pack feel at first about being at St. Lucy’s?

- ☞ At first, the pack is happy and enthusiastic to be at St. Lucy’s, which is “new, exciting, and interesting” to them (p. 227).

How do the nuns treat the pack at first?

- ☞ They give the pack “free rein” (p. 227) of St. Lucy’s and let them nap (p. 228), meaning the nuns let the pack do whatever they want and do not try to control the pack.

How does Russell use specific word choices to develop the pack’s reaction to the smells of St. Lucy’s?

- ☞ The pack’s noses “ache[]” and feel under “assault” by the human smells (p. 228), suggesting that they are overwhelmed by the new scents, and that the experience is not pleasant.

How does the oldest sister react to the nuns’ approach?

- ☞ The oldest sister “instinctively bristle[s]” (p. 228) at the nun’s approach, suggesting she senses something is not right and feels threatened by the nuns.

How does Sister Maria interact with the oldest sister?

- ☞ Sister Maria gives her a “brave smile” (p. 228) and asks her name. After the oldest sister responds by “howl[ing] something awful and inarticulate” (p. 228), Sister Maria ignores this and

pretends that the oldest sister has replied, then “slap[s]” a nametag on the oldest sister and renames her “Jeanette” (p. 228).

What effect does Jeanette’s naming have on the pack?

- Jeanette’s naming frightens the pack, as they begin to run “in a loose, uncertain circle.” They feel as if they should help Jeanette, but are also overcome by their “new fear” (p. 228). The pack feels a “subtler danger afoot, written in a language (p. 228) [they] didn’t understand,” meaning they feel something is wrong and threatening, but it is so unfamiliar to them that they cannot name it.

What relationship is established between the nuns and Mirabella in this excerpt?

- A hostile relationship is established between Mirabella and the nuns, because Mirabella “snarl[s]” (p. 229) at the nuns and runs from them when they try to rename her. The nuns must “pin her down” (p. 229) to put Mirabella’s nametag on and Sister Maria shoots her with a “tranquilizer dart” (p. 229).

Describe the mood of this excerpt of text (pp. 227–229). Cite specific words and phrases to support your response.

- Student responses may include:
 - The mood at the beginning of this excerpt is happy and excited. The pack lets out a “celebratory howl,” and the narrator exclaims “There were holes everywhere!” (p. 227), showing how enthused the pack is to be at St. Lucy’s.
 - The mood becomes fearful and threatened, because the girls feel “assaulted” by the human smells of St. Lucy’s and “bristle” (p. 228) out of fear at the nuns’ approach. The pack also “sense[s] some subtler danger afoot” (p. 228) when the nuns begin renaming them with human names, suggesting that they are afraid of the nuns.
 - The mood is violent and threatening, as the nuns have to “pin ... down” (p. 229) the youngest member of the pack to tag her, and Sister Maria shoots Mirabella with a “tranquilizer dart” (p. 229).

How does the mood of this excerpt relate to the description of Stage 1 given by the epigraph? How does this relationship develop an important idea in the text?

- Student responses should include:
 - The mood of the excerpt contrasts with the Stage 1 epigraph because St. Lucy’s is not just “new, exciting, and interesting” (p. 225), it is also frightening.

- The contrast between the description in the epigraph and the pack’s experience develops the important idea of what it means to live as a human versus what it means to live as a wolf, because the pack feels defensive about and “assaulted” (p. 228) by how unfamiliar human society feels. This suggests that they still identify as wolves and have not yet begun to adapt to human society.
- ① Consider giving students the terms *identity* and *identification* to talk about the tension between the pack’s identification as wolves, and the girls’ individual identities, which become more pronounced as they become more “human.” This emerging idea of human identity vs. wolf identification becomes central over the course of the text.
- ① To support students’ understanding of the difference between *identity* and *identification*, consider defining *identity* as “who someone is; the characteristics, beliefs, etc., that make a particular person or group unique” and *identification* as “a feeling that you share and understand the problems or experiences of another person or group.”

Instruct students to annotate their texts for the central idea, using the code CI. Remind students that annotating helps them to keep track of evidence they will use later in lesson assessments and on the Performance Assessment, which focus on the development of central ideas.

Lead a brief whole-class discussion of all student responses.

Instruct student groups to read pp. 229–230 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Stage 2: After a time, your students realize that they must work” to “It all felt like a sly, human taunt”) and answer the following questions before sharing out with the class.

Summarize the Stage 2 epigraph.

- 🗨 The epigraph says that it will take time for students to adjust to their new surroundings, and that the students may behave badly and be upset or sad for a while.
- ① Consider reminding students that a *summary* is a brief statement of the main points of a text or section of text.

Why have the girls “never wanted to run away so badly” (p. 229)?

- 🗨 The pack “had never wanted to run away so badly” (p. 229) because they feel out of place and uncomfortable at St. Lucy’s. Claudette describes the difficulty of adapting to human culture, saying that the pack cannot get used to “cold toilet seats and boiled tomatoes” and have trouble “willing [their] tongues to curl around [their] false new names” (p. 229). Claudette also describes her difficulty with the walking drills, as she keeps having to remind herself: “Mouth shut, shoes

on feet” (p. 229). As a result of this, the pack feels “irritated, bewildered and depressed” at St. Lucy’s, where they are all “uncomfortable and between languages” (p. 229).

How would the girls “betray” their parents by “going back to them” (p. 230)?

- ☛ The pack would betray their parents by returning to them because their parents sent the girls to St. Lucy’s “for [their] own betterment” (p. 230). To return before completing their time at St. Lucy’s would be to disappoint their parents, who were so kind to them growing up, who “loved [the pack] at [their] hairless worst” (p. 230).

What is the “sly, human taunt” Claudette describes on page 230?

The “sly, human taunt” is the ease with which the girls could escape from St. Lucy’s if they chose to do so. Claudette describes the lowness of the walls around St. Lucy’s. The girls know they are “all easily capable” of jumping over the walls, and they want to (p. 230). Similarly, Sister Josephine leaves the wooden gates “wide open” (p. 230), and the nuns unslat the windows at night “so that the long fingers of moonlight beckoned us from the woods” (p. 230). However, the girls know that they cannot return to the woods and their families without severely disappointing their parents. Although no one is forcing them to stay, the girls feel as though they must remain at St. Lucy’s despite their unhappiness, so the low walls and open gates and windows feel like a “taunt” (p. 230).

How does Claudette’s description of the “sly, human taunt” develop a central idea in the text?

- ☛ The “taunt” develops the central idea of human identity vs. wolf identification, because the girls choose to stay at St. Lucy’s even though they feel “irritated, bewildered, depressed” (p. 229) and know they are “easily capable” of jumping St. Lucy’s low walls. The wall “taunt[s]” (p. 230) the girls by showing them how they could escape if they wanted to, but not unless the girls “want to break the mother’s heart” (p. 230). The girls are struggling to let go of their wolf identification while they develop their human identity by staying and becoming “civilized” (p. 230).

Instruct students to annotate their texts for the central idea, using the code CI. Remind students that annotating helps them to keep track of evidence they will use later in lesson assessments and on the Performance Assessment, which focus on the development of central ideas.

Lead a brief whole-class discussion of all student responses.

Activity 4: Quick Write

15%

Instruct students to respond briefly in writing to the following prompt:

How does Russell introduce a central idea in this excerpt?

Instruct students to look at their annotations to find evidence. Ask students to use this lesson’s vocabulary wherever possible in their written responses. Remind students to use the Short Response Rubric and Checklist to guide their written responses.

- ▶ Students listen and read the Quick Write prompt.

① Display the prompt for students to see, or provide the prompt in hard copy.

Transition to the independent Quick Write.

- ▶ Students independently answer the prompt using evidence from the text.
- 🗨 See the High Performance Response at the beginning of this lesson.

Activity 5: Closing

10%

Display and distribute the homework assignment. For homework, instruct students to consider the effect created by Russell’s use of epigraphs by analyzing the Stage 1 Epigraph. Distribute copies of the Epigraph Effect Tool and instruct students to use this tool to structure their analysis. Explain to students that they should use the first column to record the stage the epigraph describes, the second column to describe the effect the epigraph creates, and the third column to provide textual evidence of the effect.

Homework

Consider the effect created by Russell’s use of epigraphs by analyzing the Stage 1 Epigraph. Use the Epigraph Effect Tool to structure your analysis.

Central Ideas Tracking Tool

Name:		Class:		Date:	
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Directions: Identify the central ideas that you encounter throughout the text. Trace the development of those ideas by noting how the author introduces, develops, or refines these ideas in the texts. Cite textual evidence to support your work.

Text:	
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Page / Paragraph #	Central Ideas	Notes and Connections

Model Central Ideas Tracking Tool

Name:		Class:		Date:	
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Directions: Identify the central ideas that you encounter throughout the text. Trace the development of those ideas by noting how the author introduces, develops, or refines these ideas in the texts. Cite textual evidence to support your work.

Text:	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell
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Page / Paragraph #	Central Ideas	Notes and Connections
Pages 227–228	Human Identity vs. Wolf Identification	The pack’s noses “ache[.]” from the “assault” of all of the human smells at St. Lucy’s, showing how foreign a human environment feels to them.
Page 228	Human Identity vs. Wolf Identification	Sister Maria begins to give the pack members human names, like “Jeanette,” which makes the pack feel there was a “subtler danger afoot, written in a language [they] didn’t understand.” This shows how much the girls identify themselves as wolves instead of humans, because they sense danger and are frightened when getting human names.
Page 229	Human Identity vs. Wolf Identification	The nuns make the pack do “walking drills” to learn how to walk like humans, and the pack feels “uncomfortable” and “between languages” but knows that they cannot run away without disappointing their parents. This shows how difficult it is for the pack to shift from wolf identification to human identity.

Epigraph Effect Tool

Name:		Class:		Date:	
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Directions: Use this tool to organize your analysis of the effects created by Russell’s use of epigraphs. Use the first column to record the stage the epigraph describes, the second column to describe the effect the epigraph creates, and the third column to provide textual evidence of the effect.

Epigraph Stage	Effect Created (e.g., tension, mystery, surprise, humor)	Evidence

9.1.1

Lesson 6

Introduction

In this lesson, students read pages 230–232 of “St. Lucy’s Home for Girls Raised by Wolves” (from “It was impossible to make the blank, chilly bedroom” to “pretended like she couldn’t smell a thing”). Students first read the excerpt, annotating and discussing the text in pairs. After a brief whole-class discussion, students participate in a jigsaw activity designed to promote a deeper understanding of Russell’s characterization of Mirabella and Jeanette. Students analyze how Russell develops complex characters through particular word choices and through the girls’ behaviors and interactions with others. Student learning is assessed via a Quick Write at the end of the lesson: How does Russell introduce and develop the characters of Mirabella and Jeanette?

For homework, students write a brief explanation of the literal and figurative meanings of Sister Maria de la Guardia’s words to Mirabella, “What are you holding on to? Nothing, little one. Nothing” (p. 231). In addition, students continue their Accountable Independent Reading (AIR) and prepare a brief discussion on how they applied RL.9-10.1 or RI.9-10.1 to their texts.

Standards

Assessed Standard(s)	
RL.9-10.3	Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, advance the plot or develop the theme.
Addressed Standard(s)	
SL.9-10.1.c	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i> , building on others’ ideas and expressing their own clearly and persuasively. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
L.9-10.4.a	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grades 9–10 reading and content</i> , choosing flexibly from a range of strategies.

- | | |
|--|---|
| | a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. |
|--|---|

Assessment

Assessment(s)

Student learning is assessed via a Quick Write at the end of the lesson. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text:

- How does Russell develop the characters of Mirabella and Jeanette?

High Performance Response(s)

A High Performance Response should:

- Describe Mirabella and Jeanette's characters (e.g., Mirabella is not adapting to the new culture as well as the other girls and does not seem to want to adapt; Jeanette is adapting more quickly than the others and seems eager to assume a human identity).
- Provide text evidence to support the characterizations of both girls (e.g., Mirabella still behaves like a wolf, ripping "foamy chunks out of the church pews" (p. 230) and she does not seem to have the "latent instinct" to "be pleasing" in the sight of "someone higher up in the food chain" (p. 231). While the other girls demonstrate that they are eager to meet the nuns' expectations by practicing things such as keeping their shoes on their feet, Mirabella is happy to continue behaving as a wolf, even though it is clear that the nuns do not approve of this behavior. Jeanette is described as a "goody two-shoes" whose "very shoes seemed to gloat" (p. 232). Jeanette is the first to mark many milestones; she is the first "to apologize; to drink apple juice out of a sippy cup; to quit eyeballing the cleric's jugular in a disconcerting fashion" (p. 232). Claudette's examples suggest that Jeanette is always the first to try out behavior that is acceptable in human society and to give up behavior that is typical in wolf society, including looking at a person as a possible meal).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)

- collaborative (adj.) – involving or done by two or more people or groups working together to achieve or do something
- eradication (n.) – removal or utter destruction
- instinct (n.) – an inborn pattern of activity or tendency to action common to a given biological species

<ul style="list-style-type: none"> ecstatic (adj.) – very happy or excited goody two-shoes (n.) – a person whose good behavior and politeness are annoying because they seem to be excessive or not sincere origins (n.) - the place, social situation, or type of family that a person comes from
Vocabulary to teach (may include direct word work and/or questions)
<ul style="list-style-type: none"> slouch (v.) – move or walk with loosely drooping body and careless gait amble (v.) – go at a slow, easy pace bipedal (adj.) – having two feet
Additional vocabulary to support English Language Learners (to provide directly)
<ul style="list-style-type: none"> commandment (n.) – an order given by one in authority locomote (v.) – move about, especially under one’s own power

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
<p>Standards & Text:</p> <ul style="list-style-type: none"> Standards: RL.9-10.3, SL.9-10.1.c, L.9-10.4.a Text: "St. Lucy's Home for Girls Raised by Wolves" by Karen Russell, pp. 230–232 <p>Learning Sequence:</p> <ol style="list-style-type: none"> Introduction of Lesson Agenda Homework Accountability Reading and Discussion Jigsaw Discussion Quick Write Closing 	<ol style="list-style-type: none"> 5% 10% 15% 55% 10% 5%

Materials

- Student copies of the Epigraph Effect Tool (refer to 9.1.1 Lesson 5)
- Copies of the Mirabella Jigsaw Tool for each student
- Copies of the Jeanette Jigsaw Tool for each student

- Student copies of the Character Tracking Tool (refer to 9.1.1 Lesson 3)—students may need additional blank copies
- Student copies of the Short Response Rubric and Checklist (refer to 9.1.1 Lesson 1)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

5%

Begin by reviewing the agenda and the assessed standard for this lesson: RL.9-10.3. In this lesson, students first work in pairs, then read, annotate and discuss a passage from “St. Lucy’s Home for Girls Raised by Wolves.” The students then participate in a jigsaw activity that focuses on how Karen Russell develops complex characters through specific words, phrases, and descriptions of the girls’ behaviors and interactions. After a brief whole-class discussion, students complete a Quick Write to demonstrate their learning.

Activity 2: Homework Accountability

10%

Instruct students to form pairs and discuss their responses to the previous lesson’s homework. (Consider the effect created by Russell’s use of epigraphs by analyzing the Stage 1 Epigraph. Use the Epigraph Effect Tool to structure your analysis.)

- ☞ See Model Epigraph Effect Tool for possible student responses.

Lead a brief whole-class discussion of student responses.

Activity 3: Reading and Discussion

15%

Instruct students to form pairs. Post or project the questions below for students to discuss. Instruct students to annotate the text as they read and discuss.

- ① If necessary to support comprehension and fluency, consider using a masterful reading of the focus excerpt for the lesson.
- ① **Differentiation Consideration:** Consider posting or projecting the following guiding question to support students in their reading throughout this lesson:

How does Russell describe Mirabella and Jeanette?

Instruct student pairs to read pages 230–232 (from “It was impossible to make the blank, chilly bedroom” to “pretended like she couldn’t smell a thing”), paying particular attention to unfamiliar words and phrases, repeated ideas, and passages that seem confusing or surprising in some way.

Instruct students to annotate their texts for character development, using the code *CD*. Remind students that annotating helps them to keep track of evidence they will use later in lesson assessments, the Mid-Unit Assessment, the End-of-Unit Assessment, and the Performance Assessment, which focus on character development.

▶ Students read and annotate.

🗨 Student annotations may include:

- “Mirabella would rip foamy chunks out of the church pews and replace them with ham bones and girl dander” (p. 230) – Mirabella
- “[Mirabella] loved to roam the grounds wagging her invisible tail” (p. 230) – Mirabella
- “[Jeanette] wouldn’t respond to [her real name] anymore” (p. 232) – Jeanette
- “[Jeanette] could even growl out a demonic sounding precursor to ‘Pleased to meet you’” (p. 232) – Jeanette
- “She’d delicately extend her former paws to visitors, wearing white kid gloves” (p. 232) – Jeanette
- “Jeanette was the first among us to apologize; to drink apple juice out of a sippy cup; to quit eyeballing the cleric’s jugular in a disconcerting fashion” (p. 232) – Jeanette

Provide students with the following definitions: *collaborative* means “involving or done by two or more people or groups working together to achieve or do something,” *eradication* means “removal or utter destruction,” *instinct* means “an inborn pattern of activity or tendency to action common to a given biological species,” *ecstatic* means “very happy or excited,” *goody two-shoes* means “a person whose good behavior and politeness are annoying because they seem to be excessive or not sincere,” and *origins* means “the place, social situation, or type of family that a person comes from.”

- ① Students may be familiar with some of these words. Consider asking students to volunteer definitions before providing them to the class.
 - ▶ Students write the definitions of *collaborative*, *eradication*, *instinct*, *ecstatic*, *goody two-shoes*, and *origins* on their copies of the text or in a vocabulary journal.
- ① **Differentiation Consideration:** Consider providing students with the following definitions: *commandment* means “an order given by one in authority” and *locomote* means “move about, especially under one’s own power.”
 - ▶ Students write the definitions of *commandment* and *locomote* on their copies of the text or in a vocabulary journal.

Instruct student pairs to answer the following questions before sharing out with the class.

What are some changes that happen in Stage 2 according to the Stage 2 epigraph?

- 🗨 The students start to miss their families and “feel isolated, irritated, bewildered, depressed, or generally uncomfortable” (p. 229).

What evidence does the first paragraph of the excerpt provide to support the Stage 2 epigraph?

- 🗨 Student responses may include:
 - The narrator demonstrates that the girls are “generally uncomfortable” (p. 229) when she says, “It was impossible to make the blank, chilly bedroom feel like home” (p. 230).
 - The narrator illustrates the “sense of dislocation” (p. 229) when she says, “we were dismayed to find all trace of the pack musk had vanished. Someone was coming in and erasing us” (p. 230).
 - The narrator expresses a “sense of dislocation” (p. 229) when she says, “We couldn’t make our scent stick here; it made us feel invisible” (p. 230).

What evidence does the first paragraph of the excerpt provide to illustrate how the girls are working “to adjust to the new culture”?

- 🗨 Student responses may include:
 - The narrator’s description of the girls trying to “will [their] tongues to curl around [their] false new names” (p. 229) demonstrates how they are working to adjust to the new names they use in the new culture.
 - The narrator’s description of the “walking drills” (p. 229) demonstrates how the girls are working to learn to walk on two feet instead of four, as they did in their wolf culture.

- When the narrator says, “eventually we gave up” trying to “make our scent stick here” (p. 230) she shows that they have been working hard to maintain their old culture but are learning to give up parts of that identity.
- The narrator says, “Still, the pack seemed to be adjusting on the same timetable,” (p. 230) showing that the pack is working to “adjust[]” (p. 229) and that they are making progress.
- The narrator reports on the achievements of some of the girls, saying, “The advanced girls could already alternate between two speeds: ‘slouch’ and ‘amble’” (p. 230). This demonstrates that these girls have been working hard to move from walking on all fours to walking at various speeds on two legs.
- When the narrator reports, “Almost everybody was fully bipedal” (p. 230), she makes it clear that the girls have been working to meet this goal as part of learning to adjust to the new culture.

Lead a brief whole-class discussion based on student responses.

Activity 4: Jigsaw Discussion

55%

Explain to students that they are going to participate in a jigsaw discussion. Instruct students to form pairs. Assign one member of each student pair pages 230–231 (from “Almost everybody was fully bipedal” to “What are you holding on to? Nothing, little one. Nothing”). Assign the other member of each student pair pages 231–232 (from “Then she would sing out the standard chorus” to “pretended like she couldn’t smell a thing”).

Instruct students to form small groups of three to four students who have the same assigned excerpt. Explain that each group will work together to answer the questions for their assigned excerpt before students return to their original pairs to share responses (see Mirabella Jigsaw Tool and Jeanette Jigsaw Tool, below).

- ① Consider reminding students that this discussion is an opportunity to apply standard SL.9-10.1.c by participating effectively in a collaborative discussion. Students may focus on posing and responding to questions, incorporating others into the discussion, and challenging or verifying ideas and conclusions.

Remind students to annotate their texts as they read and discuss their questions, using the codes *CI* to indicate places where they notice a central idea and *CD* to indicate places where they notice character development.

- ① Remind students that they should keep track of character development in the text using the Character Tracking Tool.

🗨️ See Model Jigsaw Tools for possible student responses.

Instruct students to return to their original pairs and share Jigsaw Tools.

- ▶ Students share and discuss responses in pairs.

Lead a brief, whole-class discussion of student responses.

Post or project the following question for students to answer in pairs before sharing out with the class.

How do Mirabella and Jeanette respond to the “main commandment of wolf life”?

🗨 Student responses should include:

- The “main commandment of wolf life” is “Know Your Place,” meaning that the wolf-girls should understand that their “place” is to please the other humans, including the nuns, who are “higher up in the food chain,” or more important (p. 231).
- Mirabella does not follow this commandment because she is not “adjusting on the same timetable” as the other girls (p. 230) and because the “slavish-dog affection,” which the narrator describes as “An abasing belly-to-the-ground desire to please,” has not “awakened” in her as it has in the other girls. She does not seem interested in being “pleasing” in the sight of “someone higher up in the food chain” (p. 231). Mirabella does not follow the main commandment because she does not recognize that she should be working to please the other humans around them, including the nuns, who are “higher up in the food chain” than she is. She should try to please the nuns by adjusting to human society, but instead, she continues to behave like a wolf.
- Jeanette follows this commandment more than any of the other girls. She is clearly “the most successful” of the girls and “the one furthest removed from her origins” (p. 232). She adjusts the quickest to human society and gives up her wolf behaviors, which had been normal for her until she came to St. Lucy’s, more easily than the other girls. She works harder than the other girls to please the nuns, adjusting to human society before the other girls have made the same progress.

Lead a brief whole-class discussion of student responses.

Activity 5: Quick Write

10%

Instruct students to respond briefly in writing to the following prompt:

How does Russell develop the characters of Mirabella and Jeanette?

Instruct students to look at their annotations to find evidence. Ask students to use this lesson’s vocabulary wherever possible in their written responses. Remind students to use the Short Response Rubric and Checklist to guide their written responses.

- ▶ Students listen and read the Quick Write prompt.

① Display the prompt for students to see, or provide the prompt in hard copy.

Transition to the independent Quick Write.

- ▶ Students independently answer the prompt, using evidence from the text.

🗨 See the High Performance Response at the beginning of this lesson.

① Keep Quick Writes from this lesson, because students will refer back to them in 9.1.1 Lesson 7.

Activity 6: Closing

5%

Display and distribute the homework assignment. For homework, instruct students to write a brief explanation of the literal and figurative meanings of Sister Maria de la Guardia’s words to Mirabella, “What are you holding on to? Nothing, little one. Nothing” (p. 231).

Also, students should continue to read their AIR through the lens of RL.9-10.1 or RI.9-10.1 and prepare for a 3–5 minute discussion of their texts based on that focus standard.

- ▶ Students follow along.

Homework

Write a brief explanation of the literal and figurative meanings of Sister Maria de la Guardia’s words to Mirabella, “What are you holding on to? Nothing, little one. Nothing” (p. 231).

Continue reading your Accountable Independent Reading text through the lens of focus standard RL.9-10.1 or RI.9-10.1, and prepare for a 3–5 minute discussion of your text based on that standard.

Model Epigraph Effect Tool

Name:		Class:		Date:	
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Directions: Use this tool to organize your analysis of the effects created by Russell’s use of epigraphs. Use the first column to record the stage the epigraph describes, the second column to describe the effects the epigraph creates, and the third column to provide textual evidence.

Epigraph Stage	Effect Created (e.g., tension, mystery, surprise, humor)	Evidence
<p>“Stage 1: The initial period is one in which everything is new, exciting, and interesting for your students. It is fun for your students to explore their new environment.” (p. 225)</p>	<p>Surprise and humor: The ways the girls have “fun” are probably not those that were intended by the writers of the handbook. Readers at first don’t expect new students to behave like wild animals and the contrast between the expectations and reality can be humorous.</p> <p>Tension: The contrast between the responses that the epigraph describes and the girls’ responses suggests that the epigraph is not entirely accurate and that there may be conflict between the culture at school and the girls’ culture.</p>	<p>This is evident in the girls’ behavior when they are running through their new rooms, “overturning dresser drawers, pawing through the neat piles of the Stage 3 girls’ starched underwear, [and] smashing lightbulbs with [their] bare fists” (p. 225).</p> <p>The epigraph’s description is not entirely accurate. Although the girls do find St. Lucy’s Home for Girls Raised by Wolves to be an exciting, new environment and they do have fun, they are also unhappy. When they are separated from their brothers, they “[run] along the shore, tearing at [their] new jumpers in a plaid agitation” and the little brothers look “small and confused” (p. 226). They are also unhappy because of the many strange smells. The narrator says the girls’ “noses ached beneath an invisible assault” (pp. 227–228) and that their “own scent had become foreign in this strange place” (p. 228). Finally, when the nuns approach the girls to give them human names, the oldest sister “howled something awful</p>

		and inarticulate, a distillate of hurt and panic” and “The rest of the pack ran in a loose, uncertain circle, torn between [their] instinct to help her and [their] new fear” because they sensed “some subtler danger afoot” (p. 228).
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Mirabella Jigsaw Tool

Name:		Class:		Date:	
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Directions: Refer to pages 230–231 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Almost everybody was fully bipedal” to “What are you holding on to? Nothing, little one. Nothing”) to find evidence relating to Mirabella’s behavior and the pack’s reactions to it.

What behaviors does Russell describe to demonstrate how Mirabella is adjusting to the school?

How do the girls respond to Mirabella’s behaviors?

How do the nuns respond to Mirabella’s behaviors?

What words does the narrator use when describing Mirabella?

What can you infer about Mirabella based on her behavior?

What can you infer about the pack based on their responses to Mirabella?

Jeanette Jigsaw Tool

Name:		Class:		Date:	
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Directions: Refer to pages 231–232 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Then she would sing out the standard chorus” to “pretended like she couldn’t smell a thing”) to find evidence relating to Jeanette’s behavior and the pack’s reactions to it.

What behaviors does Russell describe to demonstrate how Jeanette is adjusting to the school?

How do the girls respond to Jeanette’s behaviors?

How do the nuns respond to Jeanette’s behaviors?

What words does the narrator use when describing Jeanette?

What can you infer about Jeanette based on her behavior?

What can you infer about the pack based on their responses to Jeanette?

Model Mirabella Jigsaw Tool

Name:		Class:		Date:	
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Directions: Refer to pages 230–231 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Almost everybody was fully bipedal” to “What are you holding on to? Nothing, little one. Nothing”) to find evidence relating to Mirabella’s behavior and the pack’s reactions to it.

What behaviors does Russell describe to demonstrate how Mirabella is adjusting to the school?

☛ Student responses may include:

- Mirabella rips “foamy chunks out of the church pews and replace[s] them with ham bones and girl dander” (p. 230).
- Mirabella “roam[s] the grounds wagging her invisible tail” (p. 230).
- Mirabella is “hurt and confused” when girls correct her (p. 231).
- Mirabella goes “bounding around, gleefully spraying” on the statue of St. Lucy (p. 231).
- Mirabella scratches at fleas (p. 231).
- Mirabella stands “upright for roll call” but “collapse[s] right back to the ground” (p. 231).
- Mirabella is “still loping around on all fours” even though the nuns have taught the girls to see this as looking “unnatural and ridiculous” (p. 231).

How do the girls respond to Mirabella’s behaviors?

☛ Student responses may include:

- The pack is “worried” (p. 230).
- The pack is “worried,” but sympathetic because they “all had a hard time giving that [wagging their invisible tails] up” (p. 230).
- The pack gives Mirabella “scolding pinches” and “hisse[s]” at her (p. 231).
- The pack views Mirabella’s “loping around on all fours” as “unnatural and ridiculous” (p. 231). They can “barely believe” that they “used to locomote like that!” (p. 231).

How do the nuns respond to Mirabella’s behaviors?

● Student responses may include:

- The nuns frown and scold her (p. 231).
- The nuns cannot “figure out how to activate a “slavish-dog affection” or “An abasing, belly-to-the-ground desire to please” that had “awakened” in the other girls (p. 231).
- The nuns have “tearful insistence” that Mirabella “stand upright for roll call,” but Mirabella “collapse[s] right back to the ground” after roll call (p. 231).
- Sister Maria de la Guardia speaks gently to Mirabella, calling her “little one,” but tells her that she is holding “nothing” when Mirabella keeps her fists tight, “As if she were holding a secret tight to the ground” (p. 231).
- Sister Maria de la Guardia “sing[s] out the standard chorus, ‘Why can’t you be more like your sister Jeanette?’” when she deals with Mirabella (p. 231).

What words does the narrator use when describing Mirabella?

- The author uses words that make Mirabella seem innocent and childlike: “hurt and confused,” “bounding,” “gleefully,” “ecstatic,” etc. (p. 231).

What can you infer about Mirabella based on her behavior?

- Mirabella is having a hard time adjusting to the new school; she either does not want to give up her wolf-like behaviors or cannot change. She is happy with wolf-like behaviors.

What can you infer about the pack based on their responses to Mirabella?

- The pack sympathizes with Mirabella, but they disapprove of her wolf-like behaviors now and want her to act more like a human. They want Mirabella to stay “on the same timetable” (p. 230) and to follow the “main commandment of wolf life,” which is “Know Your Place” (p. 231). The pack seems to believe that by not trying to please “someone higher up in the food chain” (p. 231) (other humans watching them), Mirabella is not demonstrating that she knows her place in the pack. They also think that either Mirabella does not have “a slavish-dog affection,” “An abasing belly-to-the-ground desire to please” (p. 231), or that the nuns have not activated it.

Model Jeanette Jigsaw Tool

Name:		Class:		Date:	
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Directions: Refer to pages 231–232 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Then she would sing out the standard chorus” to “pretended like she couldn’t smell a thing”) to find evidence relating to Jeanette’s behavior and the pack’s reactions to it.

What behaviors does Russell describe to demonstrate how Jeanette is adjusting to the school?

☛ Student responses may include:

- She does not respond to her “real name” anymore (p. 232).
- She “spiff[s] her penny loafers” until they seem to “gloat” (p. 232).
- She “growl[s] out” polite phrases (p. 232).
- She “delicately extend[s] her former paws to visitors, wearing white kid gloves” (p. 232).
- She laughs along with visitors (p. 232).
- She is the first to apologize (p. 232).
- She is the first “to drink apple juice out of a sippy cup” (p. 232).
- She is the first “to quit eyeballing the cleric’s jugular in a disconcerting fashion” (p. 232).
- She smiles when the barber “cut[s] her pelt into bangs” (p. 232).
- She “pretend[s] like she couldn’t smell a thing” when she entered a room full of smells that the other girls notice (p. 232).

How do the girls respond to Jeanette’s behaviors?

☛ “The pack hated Jeanette” (p. 233).

How do the nuns respond to Jeanette’s behaviors?

☛ Student responses should include:

- Sister Maria de la Guardia uses Jeanette as an example for Mirabella, “sing[ing] out the standard chorus, “Why can’t you be more like your sister Jeanette?”” (p. 231).
- The nuns are proud of Jeanette’s progress and call her “Our little wolf, disguised in sheep’s

clothing!” (p. 232).

What words does the narrator use when describing Jeanette?

- The author uses words that have a critical tone when describing Jeanette. She says that even Jeanette’s loafers “seemed to gloat,” that she is the source of the expression “goody two-shoes,” that her words are “demonic-sounding” and her laugh is a “harsh, inhuman, barking sound” (p. 232).

What can you infer about Jeanette based on her behavior?

- Student responses may include:
 - Jeanette is a quick learner, and is the first to do many things, including “apologize ... drink apple juice ... [and] quit eyeballing the cleric’s jugular” (p. 232).
 - Jeanette is eager to stop acting like a wolf and learn to act like a human. She uses nice manners, laughs with visitors, smiles, and cuts her “pelt into bangs” (p. 232).

What can you infer about the pack based on their responses to Jeanette?

- Student responses may include:
 - They are jealous of her because she is “the most successful of” the pack (p. 232).
 - They do not trust her because she is “the one furthest removed from her origins” and she does not respond to her “real name” anymore (p. 232).

Model Character Tracking Tool

Name:		Class:		Date:	
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Directions: Use this tool to keep track of character development throughout the module. Trace character development in the texts by noting how the author introduces and develops characters. Cite textual evidence to support your work.

Text:	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell
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Character	Trait	Evidence
Mirabella	Wild, wolf-like	<p>Mirabella rips “foamy chunks out of the church pews and replace[s] them with ham bones and girl dander” (p. 230).</p> <p>Mirabella “roam[s] the grounds wagging her invisible tail” (p. 230).</p> <p>Mirabella is “hurt and confused” when girls correct her (p. 231).</p> <p>Mirabella goes “bounding around, gleefully spraying” on the statue of St. Lucy (p. 231).</p> <p>Mirabella scratches at fleas (p. 231).</p> <p>Mirabella stands “upright for roll call” but “collapse[s] right back to the ground” (p. 231).</p> <p>Mirabella is “still loping around on all fours” even though the nuns have taught the girls to see this as looking “unnatural and ridiculous” (p. 231).</p>
	Innocent, childlike	<p>She is “hurt and confused” when the other girls correct; Russell uses words like “bounding,” “gleefully,” “ecstatic,” etc. to describe Mirabella her (p. 231).</p>

Jeanette	Human Goody two-shoes	<p>She does not respond to her “real name” anymore (p. 232).</p> <p>She “growl[s] out” polite phrases (p. 232).</p> <p>She “delicately extend[s] her former paws to visitors, wearing white kid gloves” (p. 232).</p> <p>She laughs along with visitors (p. 232).</p> <p>She is the first to apologize (p. 232).</p> <p>She is the first “to drink apple juice out of a sippy cup” (p. 232).</p> <p>She is the first “to quit eyeballing the cleric’s jugular in a disconcerting fashion” (p. 232).</p> <p>She smiles when the barber “cut[s] her pelt into bangs” (p. 232).</p> <p>She “pretend[s] like she couldn’t smell a thing” (p. 232) when she entered a room full of smells that the other girls notice.</p> <p>Sister Maria de la Guardia uses Jeanette as an example for Mirabella, “sing[ing] out the standard chorus, ““Why can’t you be more like your sister Jeanette?”” (p. 231).</p> <p>She “spiff[s] her penny loafers” until they seem to “gloat” (p. 232).</p> <p>The nuns are proud of Jeanette’s progress and call her ““Our little wolf, disguised in sheep’s clothing!”” (p. 232).</p>
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9.1.1

Lesson 7

Introduction

In this lesson, students are introduced to the skills of making a claim and writing an introduction. After a brief exploration of these topics, students read and annotate pages 232–235, the conclusion of the Stage 2 portion of “St. Lucy’s Home for Girls Raised by Wolves” (from “I was one of the good girls” to “Then I congratulated myself. This was a Stage 3 thought”). In this excerpt, the narrator, Claudette, describes her own place in the pack and her interactions with Mirabella during a disastrous trip to feed the ducks. Students form small groups to discuss a series of questions designed to highlight the character development of the story’s narrator, Claudette. Students then learn what a claim is, and discuss the purpose and structure of an introduction. Student learning is assessed via a Quick Write at the end of the lesson: How does Russell introduce and develop the character of Claudette?

For homework, students review the text and their notes, annotations, and tools to complete the Stage 2 portion of the Epigraph Effect Tool. Students also review their Quick Write responses from the previous lesson and add textual evidence to their responses, using paraphrases and direct quotations.

Standards

Assessed Standard(s)	
RL.9-10.3	Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
Addressed Standard(s)	
W.9-10.2.a	Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. <ul style="list-style-type: none"> a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
SL.9-10.1.c	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and</i>

- issues*, building on others' ideas and expressing their own clearly and persuasively.
- c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.

Assessment

Assessment(s)

Student learning is assessed via a Quick Write at the end of the lesson. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text.

- How does Russell develop the character of Claudette?

High Performance Response(s)

A High Performance Response should:

- Describe an aspect of Claudette's character (e.g., her desire to adapt to human culture; traits which show that she still has not fully left her wolf identification behind; the conflict between her desire to adapt and her identification as a wolf).
- Analyze how Russell develops these aspects of Claudette's character (e.g., Russell develops Claudette by showing how torn she is between human and wolf cultures. Claudette's desire to adapt to human society is clear because she does not want to "get penalized with negative Skill Points" (p. 234), she uses her "new motor skills" to throw dirt and stones at Mirabella (p. 234), and she refuses to respond to Mirabella's request because "wound licking was not something you did in polite company" (p. 235). However, Claudette has not fully adapted to human culture: it takes her "a long time to say anything" because "first [she] has to translate it in [her] head from the Wolf" (p. 234) and, when under pressure and frustrated with Mirabella, Claudette displays wolf-like characteristics such as "pushing [her] ears back from [her] head" when she is angry (p. 234)).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)

- vied (v.) – competed with others in an attempt to get or win something
- aptitudes (n.) – abilities or talents
- catastrophic (adj.) – disastrous

<ul style="list-style-type: none"> • bliss (n.) – supreme happiness • vacant (adj.) – devoid of thought, reflection, or expression • compassion (n.) – feeling of wanting to help someone who is sick, hungry, in trouble, etc. • rehabilitated (v.) – restored to a condition of good health, ability to work, or the like • confounding (adj.) – perplexing; confusing
Vocabulary to teach (may include direct word work and/or questions)
None.
Additional vocabulary to support English Language Learners (to provide directly)
<ul style="list-style-type: none"> • daydream (n.) – pleasant thoughts about one’s life or future that one has while one is awake • ambushed (v.) – attacked from a concealed position

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
<p>Standards & Text:</p> <ul style="list-style-type: none"> • Standards: RL.9-10.3, W.9-10.2.a, SL.9-10.1.c • Text: “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 232–235 <p>Learning Sequence:</p> <ol style="list-style-type: none"> 1. Introduction of Lesson Agenda 2. Homework Accountability 3. Reading and Discussion 4. Claims and Introductions 5. Quick Write 6. Closing 	<ol style="list-style-type: none"> 1. 10% 2. 10% 3. 50% 4. 15% 5. 10% 6. 5%

Materials

- Student copies of 9.1 Common Core Learning Standards Tool (refer to 9.1.1 Lesson 1)
- Student copies of Character Tracking Tool (refer to 9.1.1 Lesson 3)—students may need additional blank copies

- Student copies of Epigraph Effect Tool (refer to 9.1.1 Lesson 5)—students may need additional blank copies
- Student copies of the Short Response Rubric and Checklist (refer to 9.1.1 Lesson 1)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

10%

Begin by reviewing the agenda and the assessed standard for this lesson: RL.9-10.3. In this lesson, students first explore the new standard, W.9-10.2.a, and then apply this standard to the work in the lesson.

After reviewing the literal and figurative meanings of a quote from the text, students read and annotate a passage of the story, and work in small groups to explore how Russell develops the character of Claudette. Students then learn what a claim is, and discuss the purpose and structure of an introduction. Finally, students complete a Quick Write as an assessment of their learning in the lesson.

- ▶ Students look at the agenda and follow along.

Instruct students to take out their copies of the 9.1 Common Core Learning Standards Tool. Inform students that they begin working with a new standard and substandard in this lesson: W.9-10.2. and W.9-10.2.a. Ask students to individually read standard W.9-10.2.a on their tools and assess their familiarity with and mastery of this standard.

- ▶ Students read and assess their familiarity with standard W.9-10.2 and substandard W.9-10.2.a.

Instruct students to talk in pairs about what they think the standard W.9-10.2 means. Lead a brief discussion about this standard.

- ▶ Students review W.9-10.2 and discuss its meanings in pairs.

🗨️ Student responses may include:

- W.9-10.2 focuses on writing that provides information and explanation.
- W.9-10.2 requires students to select, organize, and analyze relevant content.

Instruct students to talk in pairs about what they think the substandard W.9-10.2.a means. Lead a brief discussion about this substandard.

▶ Students review W.9-10.2.a and discuss its meanings in pairs.

🗨️ Student responses may include:

- W.9-10.2.a focuses on writing introductions that organize ideas and make important connections.
- W.9-10.2.a includes using appropriate formatting and technological supports, including PowerPoint presentations, audio clips, and video clips.

① **Differentiation Consideration:** Consider reviewing the terms *informative text* and *explanatory text*, reinforcing that this standard has to do with writing nonfiction texts. Also consider discussing the term “relevant content,” explaining that it is important to use evidence from a text that clearly supports their ideas and analysis.

Lead a brief whole-class discussion of student responses.

Activity 2: Homework Accountability

10%

Lead a brief share out on the previous lesson’s Accountable Independent Reading (AIR) homework assignment. Instruct students to talk in pairs about how they can apply the focus standard to their text. Select several students (or student pairs) to explain how they applied RL.9-10.1 or RI.9-10.1 to their AIR text.

▶ Students (or student pairs) discuss and then share how they applied the focus standard to their AIR text from the previous lesson’s homework.

Instruct students to take out their responses to the previous lesson’s homework assignment. (Write a brief explanation of the literal and figurative meanings of Sister Maria de la Guardia’s words to Mirabella, “What are you holding on to? Nothing, little one. Nothing” (p. 231).) Instruct students to Turn-and-Talk in pairs about their responses.

🗨️ Student responses should include:

- Literally, Sister Maria de la Guardia is telling Mirabella that when her hand is curled in a fist she is not holding on to anything, so there is no need for her to walk with her hands like this.

- Sister Maria wants Mirabella to stand upright instead of curling up her fists and using them as front paws.
- Figuratively, Sister Maria de la Guardia is telling Mirabella that by continuing with her wolf-like behavior she is “holding on” to her wolf culture, but that this culture is really “nothing” (p. 231). The words suggest that Sister Maria does not value Mirabella’s wolf culture and wants her to let it go so that she can participate in human society more successfully.

Lead a brief whole-class discussion of student responses.

Activity 3: Reading and Discussion

50%

Instruct students to individually read pages 232–235 (from “I was one of the good girls” to “Then I congratulated myself. This was a Stage 3 thought”). Remind students to mark the text with *CD* for character development and *CI* for central ideas.

- ① If necessary to support comprehension and fluency, consider using a masterful reading of the focus excerpt for the lesson.
- ① **Differentiation Consideration:** Consider posting or projecting the following guiding question to support students in their reading throughout this lesson:

What does the reader learn about Claudette?

- ▶ Students read and annotate text.
- 🗨 Student annotations may include:
 - Boxes around *vied*, *catastrophic*, *bliss*, *aptitudes*, *compassion*, *rehabilitated*, *confounding*, *vacant*, *daydream*, *ambushed*
 - Star (*) near
 - “Our little wolf, disguised in sheep’s clothing!” (p. 232)
 - “When we entered a room, our nostrils flared beneath the new odors” (p. 232)
 - “This wasn’t like the woods, where you had to be your fastest and your strongest and your bravest self. Different sorts of calculations were required to survive at the home.” (p. 232)
 - “Etiquette was so confounding in this country.” (p. 235)
 - *CI* near
 - “[S]olidly middle of the pack” (p. 232) (human identity versus wolf identification)
 - “DO YOU WANT TO END UP SHUNNED BY BOTH SPECIES?” (p. 235) (human identity vs. wolf identification).
 - *CD* near

- “I probably could have vied with Jeanette for the number one spot” (p. 232) – Claudette
- “Twitching with the shadow question: Whatever will become of me?” (p. 233) – Claudette
- “[F]irst I had to translate it in my head from the Wolf” (p. 234) – Claudette
- “I was still unsteady on my two feet ... I whirled around and snarled at her, pushing my ears back from my head. I bit her shoulder ... Hunched in the long cattails, my yellow eyes flashing, shoveling ragged hunks of bread into my mouth.” (p. 234) – Claudette
- “I felt a throb of compassion” (p. 235) – Claudette
- “Then I congratulated myself. This was a Stage 3 thought.” (p. 235) – Claudette
- Question mark (?) near
 - “I’d seen what happened if you gave in to your natural aptitudes” (p. 232) (indicating a question about what happens to the girls who show their natural abilities)
 - “Different sorts of calculations were required to survive at the home.” (p. 232)
 - “The pack hated Jeanette, but we hated Mirabella more.” (p. 233)
 - “‘Whatever will become of Mirabella?’” (p. 233)
 - “[S]caring ourselves with stories of catastrophic bliss” (p. 233)
 - “How can people live like they do?” (p. 235)
- Exclamation mark (!) near
 - “[T]rying to strangle a mallard with her rosary beads” (p. 234)
 - “Mirabella didn’t even try to curb her desire to kill things” (p. 234)

Instruct students to form small groups. Post or project the questions below for students to discuss. Instruct students to continue to annotate the text for both central idea and character development as they read and discuss. Remind students that they should also be keeping track of character development in the text using the Character Tracking Tool, and adding to the Epigraph Effect Tool as they gather more evidence.

- ① Consider drawing students’ attention to the application of standard SL.9-10.1.c through their effective participation in a collaborative discussion. Students may focus on posing and responding to questions, incorporating others into the discussion, and challenging or verifying ideas and conclusions.

Instruct student groups to read pages 232–235 (from “I was one of the good girls” to “Then I congratulated myself. This was a Stage 3 thought”) and answer the following questions before sharing out with the class.

Provide students with the following definitions: *vied* means “competed with others in an attempt to get or win something,” *aptitudes* means “abilities or talents,” *catastrophic* means “disastrous,” *bliss* means “supreme happiness,” *vacant* means “devoid of thought, reflection, or expression,” *compassion* means

“feeling of wanting to help someone who is sick, hungry, in trouble, etc.,” *rehabilitated* means “restored to a condition of good health, ability to work or the like,” and *confounding* means “confusing.”

- ① Students may be familiar with some of these words. Consider asking students to volunteer definitions before providing them to the class.
 - ▶ Students write the definitions of *vied*, *aptitudes*, *catastrophic*, *bliss*, *vacant*, *compassion*, *rehabilitated*, and *confounding* and on their copies of the text or in a vocabulary journal.
- ① **Differentiation Consideration:** Consider providing students with the following definitions: *daydream* means “pleasant thoughts about one’s life or future that one has while one is awake” and *ambushed* means “attacked from a concealed position.”
 - ▶ Students write the definitions of *daydream* and *ambushed* on their copies of the text or in a vocabulary journal.

Why does the narrator choose to stay in the “middle of the pack”?

- ☞ Student responses may include:
 - Success at St. Lucy’s means adapting enough but not too much. The narrator says, “but I’d seen what happened if you gave in to your natural aptitudes” (p. 232).
 - The narrator wants to fit in and stay in the middle of the pack. The narrator states that “The pack hated Jeanette, but we hated Mirabella more” (p. 233), demonstrating that those who either fail to adapt or adapt too successfully run the risk of being hated.

How does the statement “I’d begun to snarl at my own reflection as if it were a stranger” develop Claudette’s character?

- ☞ The statement shows that Claudette does not recognize her own reflection in the mirror because she is starting to become more human than wolf-like (p. 233).

Why would failing be a “catastrophic bliss”?

- ☞ It would be blissful because the girls could go home, where they feel comfortable, and be with their parents. But it would be a disaster because their parents want a better life for them, which St. Lucy’s can offer (p. 233).
- ① **Differentiation Consideration:** Consider posing the following optional extension question for students who would benefit from a greater challenge:

How do Claudette and the rest of the pack feel about failing?

- ☞ They are fearful of failing, but they also wish to fail (“guiltily hoped”) because they miss their native culture and their home. All of these feelings are reflected in the statement, “We liked to

speculate about this before bedtime, scaring ourselves with stories of catastrophic bliss” (p. 233).

How do the events at the duck pond further develop Claudette’s character?

🗨️ Student responses may include:

- The events show that Claudette is learning to adapt to the new culture. She knows how to take the bread out of the bag, make little balls of bread, and then give the balls to the ducks without killing them. She can also use her “new motor skills” to throw stones (p. 234).
- The events demonstrate that Claudette is willing to fight. She “bit[es] [Mirabella’s] shoulder,” “use[s] [her] new motor skills” (p. 234) to throw stones and dirt at Mirabella to gain the approval of the nuns and the school. She “snatch[es] the bread away from Mirabella” and “[runs] off to the duck pond on [her] own” because she does not want to “get blamed for the dark spots of duck blood on [her] Peter Pan collar[.]” and “get penalized with negative Skill Points” (p. 234).
- The events show that even though Claudette is trying hard to adjust to the new culture, she still has characteristics of the old culture. During the fight, she “snarled at [Mirabella], pushing [her] ears back from [her] head,” and she bites Mirabella’s shoulder. After the fight, she stays at the lake for hours, “[h]unched in the long cattails, [her] yellow eyes flashing, shoving ragged hunks of bread into [her] mouth” (p. 234). She hides in the reeds, like a wild animal, and she describes her eyes as “yellow,” which is the color of wolf eyes, not human eyes; she is not using the habits the nuns have taught them when she is “shoving ragged hunks of bread into [her] mouth.”

According to the slides the nuns show Claudette as punishment, what happens to “former wolf-girls” who fail “to be rehabilitated”?

🗨️ Student responses may include:

- They become too human-like, wearing “white tennis shoes and pleated culottes,” to return to being wolves; yet retain too many wolf attributes (eating “a raw steak on the deposit slips”) to be accepted by human society (p. 235).
- They become “sad-eyed women” who “[limp] after their former wolf packs” (p. 235).
- They end up eating raw steaks in public “while [their colleagues look] on in disgust” (p. 235).
- They are “shunned by both species” (p. 235).

At the top of page 233, Claudette states, “The pack hated Jeanette, but we hated Mirabella more.” Why does the pack hate Mirabella more?

🗨️ Student responses may include:

- The pack hates Mirabella more than Jeanette because Mirabella is not adapting, and the girls are afraid of the “disgrace” that accompanies failure (p. 233). If the girls are like Mirabella, they may become like the former wolf-girls in the slides that show girls “who had failed to be rehabilitated” and who are “shunned by both species” (p. 235).
- The pack hates Mirabella more than Jeanette because Mirabella, who is not adapting, reminds them of their old lives and the possibility of returning, even in “disgrace,” to their “native country, the vanishing woods” (p. 233).
- The pack hates Mirabella because she makes the girls feel guilty for rejecting her and their old ways as they themselves make progress. The girls know that Mirabella is often confused, and Claudette feels a “throb of compassion” for her, but still refuses to help her and instead focuses on having “a Stage 3 thought” (p. 235).

How does Russell develop Claudette’s character at the end of Stage 2 on p. 235 (from “‘Lick your own wounds,’ I said not unkindly” to “Then I congratulated myself. This was a Stage 3 thought”)?

☛ Student responses may include:

- Claudette is a caring person. She speaks “not unkindly” to Mirabella when she comes to Claudette with her hand “covered with splinters” (p. 235).
- Claudette is conflicted about whether it is better to show compassion by helping Mirabella, or to follow the etiquette that is “so confounding” (p. 235). Claudette feels that by following the nuns’ rules and obeying the rules of “polite company” she is not showing “compassion” and she wonders, “[h]ow can people live like they do?” (p. 235). This incident shows that while Claudette wants to be part of human society, she is still critical of it, and remains attached to wolf culture.
- Claudette is eager to make progress in her school and “congratulate[s] [her]self” when she realizes that “[t]his was a Stage 3 thought” (p. 235). Claudette is more pleased with her own progress than upset by Mirabella’s pain and confusion.

Lead a brief whole-class discussion of student responses.

Activity 4: Claims and Introductions

15%

Inform students that this part of the lesson is a discussion about claims and introductions in informative/explanatory texts.

Explain to students that a *claim* is a statement about a topic or text. A *claim* should be based on evidence and may be a response or answer to a prompt.

① Consider having students write the definition of *claim* on their copies of the text or in a vocabulary journal.

Post or project the following example of a prompt and claim:

Prompt: How does Russell introduce a central idea in this excerpt?

Claim: Russell introduces a central idea of human identity versus wolf identification by showing how the behavior of the pack and the nuns changes over time.

Explain to students that a claim must be based on and supported by evidence. Post or project the following examples of supporting evidence:

Evidence: In Stage 1 the nuns give the pack “free rein” (p. 227), but in Stage 2 the nuns make them do “walking drills” (p. 229) like human girls, which makes the pack feel “irritated, bewildered, depressed” (p. 229).

① This example is taken from the 9.1.1 Lesson 5 Quick Write and High Performance Response.

Inform students that a claim is an important part of an introduction to a piece of writing. Remind students that standard W.9-10.2.a focuses on writing introductions.

Ask students the following questions:

What is the purpose of an introduction?

- Student responses should include:
 - The introduction answers the prompt.
 - The introduction explains the topic.

What information about a text should be included in an introductory paragraph?

- An introduction should include the title and author of the text.

Explain to students that an effective introduction:

- Introduces the topic by making a claim in response to a prompt.
 - Identifies the title and author of the text.
 - Provides paraphrased examples to support the claim.
- ① Consider explaining to students that they should cite specific evidence in the body of a response, rather than in the introduction.
- Organizes the examples logically so that they build upon one another.

- ① Consider explaining to students that the order in which they provide supporting examples in the introduction is the order in which they should elaborate with specific evidence in the body of the response.
 - ▶ Students listen.
- ① Students will practice writing an introduction in Lesson 10 as part of the Mid-Unit Assessment.

Activity 5: Quick Write

10%

Instruct students to respond briefly in writing to the following prompt:

How does Russell introduce and develop the character of Claudette?

Instruct students to look at their annotations to find evidence. Ask students to use this lesson’s vocabulary wherever possible in their written responses and to practice making a claim in answer to the prompt. Also, remind students to use the Short Response Rubric and Checklist to guide their written responses.

- ▶ Students listen and read the Quick Write prompt.
- ① Display the prompt for students to see, or provide the prompt in hard copy.

Transition to the independent Quick Write.

- ▶ Students independently answer the prompt, using evidence from the text.
- 🗨 See the High Performance Response at the beginning of this lesson.

Activity 6: Closing

5%

Return to students their Quick Writes from Lesson 6. Display and distribute the homework assignment. For homework, instruct students to review the events of Stage 2 and use the Epigraph Effect Tool (introduced in 9.1.1 Lesson 5) to explain the relationship between these events and the epigraph. Also for homework, instruct students to review their Quick Write responses from Lesson 6 and add textual evidence to the response, using paraphrases and direct quotations.

Homework

Review the events of Stage 2, and use the Epigraph Effect Tool to explain the relationship between these events and the epigraph.

Review your Quick Write response from Lesson 6 and add textual evidence to the response, using paraphrases and direct quotations.

Model Character Tracking Tool

Name:		Class:		Date:	
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Directions: Use this tool to keep track of character development throughout the module. Trace character development in the texts by noting how the author introduces and develops characters. Cite textual evidence to support your work.

Text:	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell
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Character	Trait	Evidence
Claudette	Adaptable	<p>She has “an ear for languages” (p. 232).</p> <p>She is able to make “[d]ifferent sorts of calculations” to survive (p. 232) and realizes that it is best to be “solidly middle of the pack” while at St. Lucy’s (p. 232).</p> <p>She is gaining “motor skills” (p. 234) and is able to walk on two feet, although she is still “unsteady” (p. 234).</p> <p>She is “reading at a fifth-grade level” (p. 235).</p>
	Anxious	<p>She is eager not to “get penalized with negative Skill Points” and turns on Mirabella to make sure she doesn’t get blamed for killing the ducks at the pond (p. 234).</p> <p>She worries, along with the other girls, “<i>Whatever will become of me?</i>” (p. 233) if she doesn’t adapt.</p>
	Wolf-like	<p>When she gets angry at Mirabella she “push[es] her ears back from [her] head” and the nuns find her in the cattails with her “yellow eyes flashing” (p. 234).</p>

<p>Jeanette</p>	<p>Focused on gaining a human identity</p> <p>Sad</p> <p>Irritable</p> <p>Still retains elements of her wolf identity</p>	<p>Jeanette has “the number one spot” in the school and is hated for it (pp. 232–233).</p> <p>Even Jeanette spends “a lot of time daydreaming ... looking out at the woods in a vacant way” (p. 233).</p> <p>Jeanette “would lunge” at the other girls “with an elder-sister ferocity” when interrupted (p. 233).</p> <p>Jeanette “would lunge” at the other girls “with an elder-sister ferocity” if they interrupted her daydreams” and she is “startled back into being foamy old Jeanette” (p. 233).</p>
<p>Mirabella</p>	<p>Wolf-like</p> <p>Failing to develop a human identity</p> <p>Vulnerable, helpless</p>	<p>She would surprise the other girls “curled up beneath the beds or gnawing on a scapula in the garden” (p. 233).</p> <p>She “ambush[es]” her sisters (p. 233).</p> <p>She doesn’t “even try to curb her desire to kill things” and thinks Claudette is playing when she runs away from her at the duck pond; Mirabella gives chase, “nipping at [Claudette’s] heels” (p. 234).</p> <p>The girls worry, “‘Whatever will become of Mirabella?’” (p. 233); the girls avoid her.</p> <p>She uses her rosary beads to try to “strangle a mallard” after the fight with Claudette (p. 234).</p> <p>She approaches Claudette for help when her hand is covered in splinters and doesn’t understand why Claudette tells her, “‘Lick your own wounds.’” Mirabella’s fists are “balled together like small, white porcupines” and her brows are “knitted in animal confusion,” causing Claudette to feel a “throb of compassion” for her (p. 235).</p>

Model Epigraph Effect Tool

Name:		Class:		Date:	
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Directions: Use this tool to organize your analysis of the effects created by Russell’s use of epigraphs. Use the first column to record the stage the epigraph describes, the second column to describe the effect the epigraph creates, and the third column to provide textual evidence of the effect.

Epigraph	Effect Created (e.g., tension, mystery, surprise, humor)	Evidence
<p>“Stage 2: After a time, your students realize that they must work to adjust to the new culture. This work may be stressful and students may experience a strong sense of dislocation. They may miss certain foods. They may spend a lot of time daydreaming during this period. Many students feel isolated, irritated, bewildered, depressed, or generally uncomfortable.” (p. 229)</p>	<p>Tension: the similarities between the epigraph, which describes a difficult period for the students, and the events Claudette describes create tension as the girls struggle to maintain a pack identity while establishing an individual identity. The girls are also struggling to establish a human identity.</p> <p>Confusion: The pack has difficulty in reconciling the values of the wolf culture and those of human culture.</p>	<p>Claudette says, “I’d seen what happened if you gave in to your natural aptitudes. This wasn’t like the woods, where you had to be your fastest and your strongest and your bravest self.” Instead, Claudette chooses to remain “solidly middle of the pack” to avoid being hated the way Mirabella and Jeanette are hated (p. 232).</p> <p>Claudette has “begun to snarl at [her] own reflection as if it were a stranger” (p. 233).</p> <p>The nuns tell the girls to “[g]o practice compassion for all God’s creatures” by feeding the ducks, but the nuns also tell the girls that “wound licking was not something you did in polite company,” so Claudette refuses to help Mirabella when she has splinters in her paw, even though she feels a “throb of compassion” when Mirabella is hurt and confused (pp. 233, 235).</p> <p>Mirabella is especially confused by her pack’s changing values. She does not understand that they are not supposed to eat the ducks, or</p>

	<p>Sadness</p>	<p>that Claudette is not playing tag with her as she runs away from Mirabella.</p> <p>It is sad that Claudette feels she cannot help Mirabella; it is sad that even Jeanette spends “a lot of time daydreaming ... looking out at the woods in a vacant way” (p. 233).</p> <p>It is sad when Claudette turns on Mirabella until she turns away, making “a cringing retreat into the shadows of the purple saplings” (p. 234) because Claudette is rejecting Mirabella’s wolf identity.</p>
	<p>Anxiety</p>	<p>The girls are anxious about what will “become” of them if they cannot adapt. The girls share “rumors about former wolf-girls who never adapted to their new culture” (p. 233) and the nuns show slide shows of “former wolf-girls, the ones who had failed to be rehabilitated” in order to motivate the girls to adapt (pp.234–235).</p>

9.1.1

Lesson 8

Introduction

In this lesson, students read pages 235–237 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Stage 3: It is common that students who start living” to “under my bed, gnawing on my loafers”), in which Claudette describes Stage 3 of lycanthropic culture shock and Mirabella falls further behind the rest of the pack. Students deepen their understanding of Mirabella, an important character in the story, and continue to strengthen their annotation and discussion skills. Students participate in a jigsaw activity to consider the different methods Russell uses to develop the character of Mirabella over the course of the first three stages. Student learning is assessed via a Quick Write at the end of the lesson: How does Russell develop the character of Mirabella in the first three stages?

For homework, students write a paragraph in response to the following prompt: What does Mirabella’s character development suggest about her identity? Also for homework, students read their Accountable Independent Reading (AIR) texts through the lens of a new focus standard (RL.9-10.2 or RI.9-10.2) and prepare for a 3–5 minute discussion of their texts based on the focus standard.

Standards

Assessed Standard(s)	
RL.9-10.3	Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
Addressed Standard(s)	
SL.9-10.1.c	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i> , building on others’ ideas and expressing their own clearly and persuasively. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
L.9-10.4.a	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grades 9–10 reading and content</i> , choosing flexibly from a range of

	<p>strategies.</p> <p>a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.</p>
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Assessment

Assessment(s)
<p>Student learning is assessed via a Quick Write at the end of the lesson. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text.</p> <ul style="list-style-type: none"> How does Russell develop the character of Mirabella in the first three stages?
High Performance Response(s)
<p>A High Performance Response should:</p> <ul style="list-style-type: none"> Explain how Russell introduces Mirabella during Stage 1 (e.g., Russell first introduces Mirabella through her actions upon arriving at St. Lucy's. As the nuns attempt to give each girl a name tag, Mirabella is "snarling in the most menacing register that an eight-year-old wolf-girl can muster. Then she [runs]" (p. 229). These actions show that Mirabella is young and wild). Identify examples of how Russell develops the character of Mirabella in Stage 2 (e.g., In Stage 2, the pack is first worried about Mirabella because while most of the girls are progressing "on the same timetable" (p. 230), Mirabella is not adapting to her new culture and is becoming someone who also does not fit in with the rest of the pack. This is evident when the girls "[begin] to avoid her" (p. 233)). Identify examples of how Russell develops the character of Mirabella in Stage 3 (e.g., Russell uses descriptions of Mirabella's physical appearance to depict how "Mirabella's inability to adapt" is "taking a visible toll" on her (p. 236). Mirabella's "teeth were ground down to nubbins; her hair was falling out ... her ribs were poking through her uniform. Her bright eyes had dulled to a sour whiskey color" (p. 236). Mirabella is no longer the wild, energetic little wolf-girl Russell introduced in Stage 1. She is a sickly, vulnerable creature).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
<ul style="list-style-type: none"> shucking (v.) – peeling off cardinal (n.) – a priest of the Roman Catholic Church who ranks immediately below the Pope

- compost (n.) – a mixture of various decaying organic substances, as dead leaves or manure, used for fertilizing soil
- committing (v.) – doing (something that is illegal or harmful)
- ominously (adv.) – suggesting that something bad is going to happen in the future
- passive (adj.) – showing that the subject of a sentence is acted on or affected by the verb
- construction (n.) – the arrangement and connection of words or groups of words in a sentence

Vocabulary to teach (may include direct word work and/or questions)

None.

Additional vocabulary to support English Language Learners (to provide directly)

- taking a toll (idiom) – causing harm or damage
- lifestyle (n.) – the way a person lives or a group of people live

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
<p>Standards & Text:</p> <ul style="list-style-type: none"> • Standards: RL.9-10.3, SL.9-10.1.c, L.9-10.4.a • Text: “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 235–237 <p>Learning Sequence:</p> <ol style="list-style-type: none"> 1. Introduction of Lesson Agenda 2. Homework Accountability 3. Reading and Discussion 4. Jigsaw Activity 5. Quick Write 6. Closing 	<ol style="list-style-type: none"> 1. 5% 2. 15% 3. 20% 4. 35% 5. 15% 6. 10%

Materials

- Student copies of the Character Tracking Tool (refer to 9.1.1 Lesson 3)—students may need additional blank copies
- Copies of Jigsaw Tools 1–4 for each student

- Student copies of the Short Response Rubric and Checklist (refer to 9.1.1 Lesson 1)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

5%

Begin by reviewing the agenda and assessed standard for this lesson: RL.9-10.3. In this lesson, students work in pairs and small groups to analyze how Russell develops the character of Mirabella over the course of the text so far. Students read and annotate, and then participate in a jigsaw activity to consider the different methods Russell uses to develop the character of Mirabella over the course of the first three stages. Students then complete a Quick Write.

- ▶ Students look at the agenda.

Activity 2: Homework Accountability

15%

Instruct students to take out their responses to the previous lesson’s homework assignment. (Review the events of Stage 2, and use the Epigraph Effect Tool to explain the relationship between these events and the epigraph. Review your Quick Write response from Lesson 6 and add textual evidence to the response, using paraphrases and direct quotations.)

Instruct students to talk in pairs about their responses on their Epigraph Tools.

- ▶ Students share and discuss responses.
- ☞ See Model Epigraph Effect Tool for possible student responses.

Lead a brief whole-class discussion of student responses.

Instruct student pairs to share revised Quick Writes from Lesson 6.

- ▶ Students share revised Quick Writes, explaining how they used paraphrases and direct quotations to strengthen their responses.

Ask student volunteers to share examples of effective use of paraphrases or quotations.

Activity 3: Reading and Discussion

20%

Instruct students to individually read and annotate pages 235–237 (from “Stage 3: It is common that students who start living” to “under my bed, gnawing on my loafers”). Remind students to mark the text with the four codes introduced in 9.1.1 Lesson 4, as well as CD for character development and CI for central ideas.

- ① If necessary to support comprehension and fluency, consider using a masterful reading of the focus excerpt for the lesson.
- ① **Differentiation Consideration:** Consider posting or projecting the following guiding question to support students in their reading throughout this lesson:

How does Mirabella change in the first three stages?

- ▶ Students read and annotate text, using codes.

☞ Student annotations may include:

- Boxes around the following words (defined in the vocabulary box above): *shucking*, *compost*, *committing*, *ominously*, *passive*, *taking a ... toll*.
- Star (*) or CI near “they reject the host culture and ... wonder how the people can live like they do” as evidence of the conflict between human and wolf society (p. 235); “I would have warned her. But the truth is that by Stage 3 I wanted her gone” as evidence of Claudette’s emerging individual identity that is replacing her old group identification (p. 236).
- CD near “The nuns were worried about Mirabella, too” as evidence that Mirabella is not adjusting (p. 236); “Mirabella’s inability to adapt was taking a visible toll” as evidence that Mirabella is struggling physically and emotionally (p. 236); “But you couldn’t show Mirabella the slightest kindness anymore—she’d never leave you alone!” as evidence that Mirabella is vulnerable and needy (p. 236).
- Question mark (?) near “And there was Mirabella, shucking her plaid jumper in full view of the visiting cardinal” to indicate a question about why Mirabella is not acting like the other girls (p. 236); “‘Something must be done,’ Sister Ignatius said firmly” to indicate a question regarding what will be done by whom (p. 236).

- Exclamation point (!) near “But the truth is that by Stage 3 I wanted her gone” (p. 236), because this response is similar to Claudette’s statement, “We began to avoid her [Mirabella]” (p. 233).

Provide students with the following definitions: *shucking* means “peeling off,” *cardinal* means “a priest of the Roman Catholic Church who ranks immediately below the Pope,” *compost* means “a mixture of various decaying organic substances, as dead leaves or manure, used for fertilizing soil,” *committing* means “doing (something that is illegal or harmful),” *ominously* means “suggesting that something bad is going to happen in the future,” *passive* means “showing that the subject of a sentence is acted on or affected by the verb,” and *construction* means “the arrangement and connection of words or groups of words in a sentence.”

① **Differentiation Consideration:** Consider providing students with the following definitions: *taking a toll* means “causing harm or damage” and *lifestyle* means “the way a person lives or a group of people live.”

- ▶ Students write the definition of *taking a toll* and *lifestyle* on their copies of the text or in a vocabulary journal.

Instruct students to form pairs. Post or project the questions below for students to discuss. Instruct students to continue to annotate the text as they read and discuss. Remind students to keep track of character development in the text using the Character Tracking Tool.

Paraphrase the epigraph.

- ☛ During Stage 3, students often reject the host culture and become very quiet. They often make very broad statements about the host culture and wonder how people can live in this culture. The students view their own culture as superior to the host culture during this stage.

In the first paragraph of Stage 3, how does the statement, “To correct a failing, you must first be aware of it as a failing” relate to Mirabella?

- ☛ Student responses may include:
 - Mirabella is not correcting her behavior because she does not think she is doing anything wrong; she is not aware that the nuns see her behavior as “a failing” (p. 236).
 - Mirabella’s failings include removing her clothing or “shucking her plaid jumper in full view of the visiting cardinal,” “battling a raccoon under the dinner table,” and “doing belly flops into compost” (p. 236).

Why does Claudette refer to the sentence “Something must be done” as “[t]hat ominously passive construction”?

- Claudette says that the sentence “Something must be done” is an “ominously passive construction” because the sentence suggests that the “something” is “so awful that nobody wanted to assume responsibility for it” (p. 236).

What is the “something” that must be done?

- The “something” implies some kind of action the nuns will take against Mirabella.

① **Differentiation Consideration:** If students struggle, consider posing the following scaffolding questions:

What is the “passive construction” that Claudette notices?

- *Construction* means “arrangement and connection of words or groups of words in a sentence” and *passive* means “showing that the subject of a sentence is acted on or affected by the verb,” so the “passive construction” must refer to the sentence, “Something must be done” (p. 236).

In the sentence “[s]omething must be done,” who will do “something”?

- It is not clear from the sentence who will do “something,” (p. 236) but from the context it seems that the nuns will probably do something.

What makes the “construction” “ominous[]”?

- Student responses may include:
 - The response is “ominous” because the nuns’ use of the “passive construction” suggests they do not want to take responsibility for whatever they are planning, so it must be something bad.
 - The construction is “ominous” because while nobody knows exactly what the nuns are planning to do to Mirabella, it is probably some sort of punishment or treatment for Mirabella’s poor behavior, so it is something negative.

Lead a brief whole-class discussion of student responses.

Activity 4: Jigsaw Activity

35%

Explain to students that they are going to participate in and self-assess a jigsaw discussion focusing on how Russell develops Mirabella’s character over the course of the first three stages.

Instruct students to form small groups. Assign each group one of the following topics, making sure that the topics are evenly distributed among the groups: Physical Appearance, Behavior, Nuns’ Responses, and Girls’ Responses.

- ① Consider reminding students that this is an opportunity to apply standard SL.9-10.1.c by participating effectively in a collaborative discussion. Students may focus on posing and responding to questions, incorporating others into the discussion and challenging or verifying ideas and conclusions.

Distribute one Jigsaw Tool to each group, according to the group's assigned topic. Instruct groups to review the text, their notes and annotations, and any relevant tools to complete the appropriate tool, charting Mirabella's behavior over the course of the text so far.

- ▶ Students work together to find evidence relating to Mirabella's character development, discussing ideas and tracking them on the appropriate Jigsaw Tool.
- 🗨 See Model Jigsaw Tools for possible student responses.

Instruct students to form new small groups of four so that one student in each group represents one of the four topics. Instruct students to share examples of how Russell uses various methods of characterization to develop Mirabella.

Lead a brief whole-class discussion of student responses.

- ① Remind students that they should keep track of character development in the text using the Character Tracking Tool.
- ① Consider recording parts of the discussion on chart paper or a class wiki so that all students have access to the evidence from discussion.

Activity 5: Quick Write

15%

Instruct students to respond briefly in writing to the following prompt:

How does Russell develop the character of Mirabella in the first three Stages?

Instruct students to look at their annotations to find evidence. Ask students to use this lesson's vocabulary wherever possible in their written responses. Remind students to use the Short Response Rubric and Checklist to guide their written responses.

- ▶ Students listen and read the Quick Write prompt.
- ① Display the prompt for students to see, or provide the prompt in hard copy.

Transition to the independent Quick Write.

- ▶ Students independently answer the prompt using evidence from the text.
- 🗨 See the High Performance Response at the beginning of this lesson.

Activity 6: Closing

10%

Display and distribute the homework assignment. For homework, instruct students to write a paragraph in response to the following prompt:

What does Mirabella’s character development suggest about her identity?

Ask students to use this lesson’s vocabulary where possible in their written responses. Remind students to use the Short Response Rubric and Checklist to guide their written responses.

Students should also read their AIR texts through the lens of new focus standards, RL.9-10.2 or RI.9-10.2, and prepare for a 3–5 minute discussion of their texts based on one of these new standards.

Introduce standards RL.9-10.2 and RI.9-10.2 as focus standards to guide students’ AIR, and model what applying these focus standards looks like.

For example, RL.9-10.2 and RI.9-10.2 ask students to “determine a theme or central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details.” Students who read “St. Lucy’s Home for Girls Raised by Wolves” might identify the conflict between human identity and wolf identification as a central idea, and choose details such as Claudette’s use of the pronoun *we* that changes to *I* later in the story as a detail that shapes and refines the idea that she is becoming more human than wolf. The standard also asks students to “provide an objective summary of the text.” Students who read “St. Lucy’s Home for Girls Raised by Wolves” might summarize the events of Stage 1 by writing, “This part of the story describes how a pack of girls with werewolf parents begin to adjust to human culture at a boarding school called ‘St. Lucy’s Home for Girls Raised by Wolves.’”

- ▶ Students listen.

Homework

Write a paragraph in response to the following prompt:

What does Mirabella’s character development suggest about her identity?

Use this lesson’s vocabulary where possible in your written responses. Use the Short Response Rubric and Checklist to guide your written responses.

Also, continue reading your Accountable Independent Reading (AIR) texts through the lens of the new focus standard (RL.9-10.2 or RI.9-10.2) and prepare for a 3–5 minute discussion of your text based on that standard.

images when she describes many of the things that the girls find difficult.

to wearing shoes and keeping their mouths shut. During a drill, the narrator has to remind herself, “Keep your shoes on your feet. Mouth shut, shoes on feet. Do not chew on your new penny loafers ... Mouth shut, I repeated, shoes on feet” (pp. 229, 231).

The narrator describes how she had to remind herself not to “chew on [her] new penny loafers” and she “stumbled around in a daze, [her] mouth black with shoe polish” (p. 229).

Jeanette’s accomplishments are funny: She can “growl out a demonic-sounding precursor” to “Pleased to meet you” and holds out her “former paws” in “white kid gloves” (p. 232). Jeanette is the first to “quit eyeballing the cleric’s jugular in a disconcerting fashion” (p. 232).

The narrator’s description of the history of the expression “goody two-shoes” is funny because she claims it comes from Jeanette’s habit of “spif[fing] her penny loafers until her very shoes seemed to gloat” (p. 232).

The sisters’ joke about the wolf in sheep’s clothing is funny because Jeanette is a wolf-girl wearing “kid gloves” (p. 232) and “kid” usually means leather made from goatskin.

The idea of getting “penalized with negative Skill Points” for getting “dark spots of duck blood” on “Peter Pan collars” (p. 234) is ridiculous.

	<p>Tension: The events of the story provide emotional examples of what the epigraph describes objectively as “stressful” so that readers share the stress of the girls' experience. Much of the stress results from the tension between the girls’ efforts to adapt their wolf identities to the new human environment.</p> <p>Pity: The descriptions of how the pack begins to reject Mirabella because of her wolf behaviors causes the reader to pity Mirabella.</p>	<p>The narrator states, “I remember how disorienting it was to look down and see two square-toed shoes instead of my own four feet” (p. 229).</p> <p>The narrator states, “We were all uncomfortable, and between languages” (p. 229).</p> <p>The narrator also describes how the girls struggle to “will [their] tongues to curl around [their] false new names” (p. 229) and to adjust to living without the familiar “pack musk” in their bedroom (p. 230).</p> <p>The narrator describes worrying about rumors of “former wolf-girls who never adapted to their new culture.” The girls scare themselves at night with stories of what they view as “catastrophic bliss” (p. 233).</p> <p>The tension is reflected in Claudette’s conflicting urges to help Mirabella when she comes with splinters in her hand, or to follow the nuns’ instructions to say, ““Lick your own wounds”” (p. 235).</p> <p>Russell describes Mirabella as innocent when she says that Mirabella “loved to roam the grounds wagging her invisible tail” (p. 230).</p> <p>Russell causes the reader to feel</p>
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	<p>pity when she describes how Mirabella “cocked her ears ... hurt and confused” (p. 231) when her sisters correct her for behaviors that used to be acceptable.</p> <p>Russell makes Mirabella sound vulnerable when she describes her as having “knobby, oddly muscled legs” that “[quiver] from the effort” of standing upright (p. 231).</p> <p>Russell creates pity when Sister Maria de la Guardia asks, “What are you holding on to? Nothing, little one. Nothing” (p. 231).</p> <p>The description of Mirabella chasing Claudette and “nipping at [her] heels” because she thinks Claudette is playing a game when she runs away, and when Mirabella barks “the old word for tug-of-war,” causes the reader to pity Mirabella; the pity is deepened when Claudette turns on her and uses her “new motor skills” to throw dirt and stones at her, screaming until Mirabella makes “a cringing retreat into the shadows of the purple saplings” (p. 234).</p> <p>Mirabella is pitiful when she comes to Claudette, “holding her hand out. She was covered with splinters, keening a high, whining noise” (p. 235). When Claudette refuses to lick her wounds, Mirabella keeps “her fists balled</p>
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		<p>together like small, white porcupines” and “her brows” are “knitted in animal confusion” (p. 235).</p> <p>Russell causes the reader to feel pity for Claudette when she retreats to the lake and sits there “for hours. Hunched in the long cattails, my yellow eyes flashing, shoving ragged hunks of bread into [her] mouth” (p. 234).</p> <p>Russell also causes the reader to feel pity for Claudette when Claudette feels she cannot lick Mirabella’s wounds even though she “understood what she wanted” and she feels “a throb of compassion” for her (p. 235).</p>
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Jigsaw Tool 1: Mirabella’s Appearance

Name:		Class:		Date:	
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Directions: Review the text, your notes, annotations, and tools to find evidence showing how Russell uses descriptions of Mirabella’s appearance to develop her character in each stage of culture shock.

Stage	Description of Mirabella’s physical appearance	How description develops Mirabella’s character (What do you learn about Mirabella based on her appearance?)
1		
2		
3		

Jigsaw Tool 2: Mirabella’s Behavior

Name:		Class:		Date:	
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Directions: Review the text, your notes, annotations, and tools to find evidence showing how Russell uses descriptions of Mirabella’s behavior to develop her character in each stage of culture shock.

Stage	Description of Mirabella’s behavior	How behavior develops Mirabella’s character (What do you learn about Mirabella based on her behavior?)
1		
2		
3		

Jigsaw Tool 3: Nuns' Responses to Mirabella

Name:		Class:		Date:	
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Directions: Review the text, your notes, annotations, and tools to find evidence showing how Russell uses the nuns' responses to Mirabella to develop her character in each stage of culture shock.

Stage	Description of nuns' responses to Mirabella	How nuns' responses develop Mirabella's character (What do you learn about Mirabella based on the nuns' responses to her?)
1		
2		
3		

Jigsaw Tool 4: Girls' Responses to Mirabella

Name:		Class:		Date:	
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Directions: Review the text, your notes, annotations, and tools to find evidence showing how Russell uses descriptions of the girls' responses to Mirabella to develop her character in each stage of culture shock.

Stage	Description of girls' responses to Mirabella	How girls' responses develop Mirabella (What do you learn about Mirabella based on the girls' responses to her?)
1		
2		
3		

Model Jigsaw Tool 1: Mirabella’s Appearance

Name:		Class:		Date:	
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Directions: Review the text, your notes, annotations, and tools to find evidence showing how Russell uses descriptions of Mirabella’s appearance to develop her character in each stage of culture shock.

Stage	Description of Mirabella’s physical appearance	How description develops Mirabella’s character (What do you learn about Mirabella based on her appearance?)
1	N/A	N/A
2	<p>Mirabella has “knobby, oddly muscled legs” that “quiver” when she tries to stand upright (p. 231).</p> <p>“She was still loping around on all fours (which the nuns had taught us to see looked unnatural and ridiculous ...), her fists blue-white from the strain. As if she were holding a secret tight to the ground” (p. 231).</p> <p>When Mirabella comes to Claudette with her hand “covered with splinters, keening a high, whining noise through her nostrils ... her fists balled together like small, white porcupines, her brows knitted in animal confusion” (p. 235).</p>	<p>Not only is Mirabella emotionally and socially more suited to life as a wolf, she seems to be physically more suited to life as a wolf.</p> <p>Mirabella is most comfortable as a wolf, though she seems to be exerting a lot of effort on remaining wolf-like.</p> <p>Miranda is vulnerable; the animal imagery here suggests that she remains more wolf than human. Splinters have hurt her, a result of human activity.</p>
3	<p>Mirabella’s “teeth were ground down to nubbins; her hair was falling out ... her ribs were poking through her uniform. Her bright eyes had dulled to a sour whiskey color” (p. 236).</p>	<p>Mirabella’s “inability to adapt” is “taking a visible toll” on her (p. 236). She is physically unwell, reflecting her emotional weakness.</p>

Model Jigsaw Tool 2: Mirabella’s Behavior

Name:		Class:		Date:	
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Directions: Review the text, your notes, annotations, and tools to find evidence showing how Russell uses descriptions of Mirabella’s behavior to develop her character in each stage of culture shock.

Stage	Description of Mirabella’s behavior	How behavior develops Mirabella’s character (What do you learn about Mirabella based on her behavior?)
1	Mirabella “used her hands to flatten her ears to the side of her head. She backed towards the far corner of the garden, snarling in the most menacing register that an eight-year-old wolf-girl can muster. Then she ran” for two hours (pp. 228-229).	The behaviors introduce Mirabella as a wild, fierce little wolf-girl.
2	<p>Mirabella rips “foamy chunks out of the church pews and replace[s] them with ham bones and girl dander. She loved to roam the grounds wagging her invisible tail” (p. 230).</p> <p>Mirabella “cock[s] her ears at [the girls], hurt and confused” when they try to correct her behavior (p. 231).</p> <p>Mirabella goes “bounding around, gleefully spraying on [the nuns’] gilded statue of St. Lucy, mad-scratching at the virulent fleas that survived all of their powders and baths” (p. 231).</p> <p>When required, Mirabella would “stand upright for roll call ... Then she’d collapse right back to the ground with an ecstatic <i>oomph!</i> She was still loping around on all fours ... her fists blue-white from the strain. As if she were holding a secret tight to the ground” (p. 231).</p> <p>Mirabella sometimes would “surprise” the girls, “curled up beneath the beds or gnawing on a scapula in the garden” (p. 233).</p>	<p>Mirabella continues to display wolf behaviors.</p> <p>Mirabella doesn’t understand why the girls are correcting her wolf behaviors.</p> <p>Mirabella is exuberant and happy as a wolf.</p> <p>Mirabella finds it physically difficult to behave like a human and is holding on to her wolf culture.</p> <p>Mirabella doesn’t belong anywhere; she finds odd places to rest.</p>

	<p>Mirabella “ambushed” her sisters (p. 233).</p> <p>Mirabella cannot make bread balls or “even undo the twist tie of the bag ... Mirabella didn’t even try to curb her desire to kill things” (p. 234).</p> <p>Mirabella chases Claudette when she tries to run off to the duck pond alone, “nipping at [her] heels. She thought it was a game” (p. 234). Mirabella comes “bounding towards” Claudette and barks “the old word for tug-of-war” (p. 234). She tries “to steal the bread out of [Claudette’s] hands” (p. 234).</p> <p>When Claudette throws dirt and stones at Mirabella, she makes “a cringing retreat into the shadows of the purple saplings” (p. 234).</p> <p>Mirabella comes to Claudette, “holding her hand out ... keening a high, whining noise through her nostrils.” Her fists are “balled together like small, white porcupines, her brows knitted in animal confusion” (p. 235).</p>	<p>The girls are growing afraid of Mirabella (“It was scary to be ambushed by your sister.” (p. 233)).</p> <p>Mirabella remains very wolf-like.</p> <p>Mirabella is innocent and childlike; she wants to chase her sister and play tug-of-war. She does not understand why Claudette won’t play.</p> <p>Mirabella is defeated and alone.</p> <p>Mirabella is vulnerable.</p>
<p>3</p>	<p>Mirabella is “shucking her plaid jumper in full view of the visiting cardinal,” “battling a raccoon” while the other girls take “dainty bites of peas and borscht;” she is “doing belly flops into compost” (p. 236).</p> <p>Mirabella does not “try to earn Skill Points by shelling walnuts and polishing Saint-in-the Box” and she does not “even know how to say the word <i>walnut</i>” (p. 236).</p> <p>Mirabella “hate[s] the spongy, long-dead foods” (p. 236) served at the school; she “beg[s] for scraps” (p. 237) from the other girls and “live[s] under [Claudette’s] bed, gnawing on [her] loafers” (p. 237).</p>	<p>These behaviors show that Mirabella has not adapted to her new “host culture” and that she continues to behave like a wolf.</p> <p>Mirabella is not “aware” that her behaviors are “a failing” so she does not try to correct them (p. 236).</p> <p>Mirabella does not seem to value the ways of her new culture.</p> <p>Mirabella has not adapted to the foods of her new “host culture” (p. 235).</p>

Model Jigsaw Tool 3: Nuns’ Responses to Mirabella

Name:		Class:		Date:	
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Directions: Review the text, your notes, annotations, and tools to find evidence showing how Russell uses the nuns’ responses to Mirabella to develop her character in each stage of culture shock.

Stage	Description of nuns’ responses to Mirabella	How nuns’ responses develop Mirabella’s character (What do you learn about Mirabella based on the nuns’ responses?)
1	<p>“It took [the nuns] two hours to pin [Mirabella] down and tag her” (p. 229)</p> <p>“‘Stage 1,’ Sister Maria sighed, taking careful aim with her tranquilizer dart. ‘It can be a little overstimulating’” (p. 229).</p>	<p>Mirabella works hard to avoid the nuns, who are naming the girls.</p> <p>Mirabella only takes on a name when she is tranquilized; she is a fighter who is resisting the nuns’ efforts to make her part of the school.</p>
2	<p>Sister Maria frowns when Mirabella “fall[s] to the ground and start[s] pumping [her] backsides” (pp. 230–231).</p> <p>Sister Maria “tearful[ly] insist[s]” that Mirabella “stand upright for roll call” (p. 231).</p> <p>“Sister Maria de la Guardia would sigh every time she saw [Mirabella loping around on all fours]. ‘<i>Caramba!</i>’ She’d sit down with Mirabella and pry her fingers apart. ‘You see?’ she’d say softly, again and again. ‘What are you holding on to? Nothing, little one. Nothing’” (p. 231).</p> <p>The nuns send Mirabella with Claudette to feed the ducks, “[i]t wasn’t fair. [The nuns] knew Mirabella couldn’t make bread balls” (p. 234).</p>	<p>Mirabella cannot understand why the nuns object to behavior that has always been permitted in her wolf culture.</p> <p>Mirabella finds it physically difficult to stand upright.</p> <p>Mirabella seems to be holding on to her old ways, even though the nuns are trying to get her to let go of them and take on human behaviors.</p> <p>Mirabella is far behind the other girls, according to the “test[s]” the nuns give (p. 233).</p>

<p>3</p>	<p>“The nuns were worried about Mirabella, too.” (p. 236)</p> <p>Sister Josephine says, ““You have to pull your weight around here”” (p. 236).</p> <p>The nuns criticize Mirabella for not trying to “earn Skill Points by shelling walnuts and polishing Saint-in-the-Box” and for not even knowing how to say the word <i>walnut</i> (p. 236).</p> <p>Sister Ignatius says, ““Something must be done”” (p. 236) and all of the other nuns agree. Claudette comments on the “ominously passive construction” of the sentence (p. 236).</p>	<p>Mirabella is having trouble.</p> <p>Mirabella is not contributing to human society in ways that the nuns value.</p> <p>Mirabella is not able to perform basic tasks or communicate using human speech.</p> <p>Mirabella is such a difficult student that the nuns are working on a plan of some sort that is not very pleasant but that might force Mirabella to behave more like a human.</p>
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Model Jigsaw Tool 4: Girls' Responses to Mirabella

Name:		Class:		Date:	
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Directions: Review the text, your notes, annotations, and tools to find evidence showing how Russell uses descriptions of the girls' responses to Mirabella to develop her character in each stage of culture shock.

Stage	Description of girls' responses to Mirabella	How girls' responses develop Mirabella (What do you learn about Mirabella based on the girls' responses?)
1	N/A	N/A
2	<p>"The pack was worried about Mirabella." (p. 230)</p> <p>The girls give Mirabella "scolding pinches" and tell her "No" when she misbehaves (p. 231).</p> <p>The pack "hated ... Mirabella more" than they "hated Jeanette" (p. 233).</p> <p>The girls begin to avoid Mirabella and wonder "Whatever will become of Mirabella?" (p. 233)</p> <p>The girls think Mirabella looks "unnatural and ridiculous" when she walks on all fours (p. 231).</p>	<p>Mirabella is still part of the pack at the beginning of Stage 2, when the girls try to correct her.</p> <p>Mirabella is not adapting "on the same timetable" as the rest of the girls, who are trying to get her to stay on that timetable with them (p. 230).</p> <p>Mirabella's failure to adapt is more unacceptable to the pack than Jeanette's success; she is becoming an outsider by the end of Stage 2.</p> <p>Mirabella is ostracized because of her inability to adapt; the girls seem to think of her as an image of what they might become if they do not adapt.</p> <p>Mirabella has no friends and nobody wants to work with her because she has made no progress in adapting to the new culture; she gets the other girls in trouble.</p>

	<p>Claudette does not want to be paired with Mirabella to feed the ducks and prays, “<i>Don’t pair me with Mirabella ... anybody but Mirabella</i>” (p. 233).</p> <p>Claudette “snatched the bread away from Mirabella and ran off to the duck pond on [her] own,” without Mirabella (p. 234).</p> <p>Claudette growls “Stop it” to Mirabella when Mirabella thinks Claudette is playing a game (p. 234).</p> <p>Claudette fights like a wolf with Mirabella when Mirabella tries to play tug-of-war with the bread bag. “Get away! I screamed” (p. 234).</p> <p>Claudette chooses to “spen[d] less time with Mirabella” (p. 235) and refuses to lick Mirabella’s hand when it is wounded. Claudette feels “a throb of compassion” (p. 235) toward Mirabella when she looks confused by Claudette’s refusal, but she does not lick her wounds.</p>	<p>Mirabella is a problem for the other girls, who actively avoid her.</p> <p>Mirabella cannot understand the actions of the girls when they behave like humans; she remains wolf-like while the other girls become more like humans.</p> <p>Mirabella cannot understand why the girls are not helping her as they used to, even though they understand her needs. The differences between the two cultures are causing Mirabella to be separated from the pack.</p>
<p>3</p>	<p>Claudette “could have warned [Mirabella]. If we were back home, and Mirabella had come under attack ... I would have warned her. But the truth is that by Stage 3 I wanted her gone” (p. 236).</p> <p>The girls “couldn’t show Mirabella the slightest kindness anymore—she’d never leave you alone!” (p. 236).</p> <p>Claudette sleeps “fitfully” during Stage 3, “unable to forget that Mirabella was living under [her] bed, gnawing on [her] loafers” (p. 237).</p>	<p>In the new culture Mirabella has nobody to protect her; the girls want her gone.</p> <p>Mirabella has become very needy.</p> <p>Mirabella continues to live like a wolf.</p>

Model Character Tracking Tool

Name:		Class:		Date:	
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Directions: Use this tool to keep track of character development throughout the module. Trace character development in the texts by noting how the author introduces and develops characters. Cite textual evidence to support your work.

Text:	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell
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Character	Trait	Evidence
Mirabella	Wild, wolf-like (holding on to her wolf identity)	<p>She continues behaving like a wolf, even while the other girls are learning to behave like humans.</p> <p>She is unaware that her wolf behaviors are considered “failings” in her new environment: “To correct a failing, you must first be aware of it as a failing” (p. 236).</p> <p>She is “shucking her plaid jumper in full view of the visiting cardinal ... battling a raccoon under the dinner table ... doing belly flops into compost” (p. 236).</p> <p>She is not interested in the approval of the nuns, who represent aspects of her human identity. She does not “try to earn Skill Points” and cannot even “say the word <i>walnut</i>” (p. 236).</p> <p>She sleeps under Claudette’s bed, “gnawing on [her] loafers” (p. 237).</p> <p>She prefers her old foods to the “spongy, long-dead foods” served at St. Lucy’s (p. 236).</p>
	Suffering	<p>“Mirabella’s inability to adapt was taking a visible toll. Her teeth were ground down to nubbins; her hair was falling out.” (p. 236)</p> <p>Her ribs are “poking through her uniform” and her eyes have “dulled to a sour whiskey color” (p. 236).</p>
	Needy, vulnerable	<p>She will not leave the girls alone if they show her “the slightest kindness” and she begs for scraps from her sisters (pp. 236–237).</p>
	Isolated	<p>Claudette says, “I could have warned her. If we were back home ... I would have warned her. But the truth is that by Stage 3 I wanted her gone” (p. 236).</p>

9.1.1

Lesson 9

Introduction

In this lesson, students read and analyze pages 237–240 (from “It was during Stage 3 that we met our first purebred girls” to “But you could tell that they were pleased”), in which the pack plays checkers with purebred girls and attends chapel, and the nuns announce the Debutante Ball. Students participate in discussions to analyze how Russell refines the ideas of human identity versus wolf identification and introduces a new central idea of beauty, in both wolf and human culture. Student learning is assessed via a Quick Write at the end of the lesson: How does Russell develop a central idea in this excerpt? To conclude the lesson, students complete the Stage 3 portion of the Epigraph Effect Tool, reviewing the relationship between the events of the story and the language of the epigraph.

For homework, students review the whole text and all tools, notes, and annotations as they prepare for the Mid-Unit Assessment. In addition, the students continue reading their Accountable Independent Reading (AIR) text through the lens of focus standard RL.9-10.2 or RI.9-10.2 and prepare for a brief discussion of their text based on that standard.

Standards

Assessed Standard(s)	
RL.9-10.2	Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
Addressed Standard(s)	
SL.9-10.1.c	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i> , building on others’ ideas and expressing their own clearly and persuasively. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
L.9-10.4.a, b	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grades 9–10 reading and content</i> , choosing flexibly from a range of

	<p>strategies.</p> <ol style="list-style-type: none"> Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., <i>analyze, analysis, analytical; advocate, advocacy</i>).
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Assessment

Assessment(s)
<p>Student learning is assessed via a Quick Write. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text.</p> <ul style="list-style-type: none"> How does Russell develop a central idea in this excerpt?
High Performance Response(s)
<p>A High Performance Response should:</p> <ul style="list-style-type: none"> Identify a central idea in the passage (e.g., beauty is universal; human identity versus wolf identification). Explain how Russell develops a central idea (e.g., The passage presents the central idea that beauty is universal. For example, both humans and wolves appreciate the beauty of music, which Claudette describes as a way “to pattern the old hunger into arias” (p. 239). Claudette says that the girls “understood that [the chapel] was the humans’ moon, the place for howling beyond purpose ... not for anything but the sound itself,” showing that the humans and the wolf-girls both value music for “itself,” not for its usefulness (p. 240). In the chapel, where the girls sing, they appreciate the beauty of music in the same way that they understood the beauty of the howling that they did for no other reason than to hear it).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
<ul style="list-style-type: none"> ferocity (n.) – savage fierceness meekly (adv.) – humbly patient; overly submissive complied (v.) – did what had been asked or ordered arias (n.) – songs in an opera

<ul style="list-style-type: none"> • oculus (n.) – circular or oval window • nave (n.) – the main part of the interior of a church • conjure (v.) – bring to mind; recall • rudimentary (adj.) – very imperfectly developed • inducement (n.) – incentive • debutante (n.) – young upper-class woman who has begun going to special parties where she will meet and be seen by other people from the upper class • sophisticate (n.) – a person who has a lot of knowledge about the world and about culture, art, literature, etc.
Vocabulary to teach (may include direct word work and/or questions)
<ul style="list-style-type: none"> • captivity (n.) – the state of being kept within bounds; confined • purebred (adj.) – having parents of the same breed
Additional vocabulary to support English Language Learners (to provide directly)
<ul style="list-style-type: none"> • volunteer (n.) – person who does something without being forced to do it • moon (n.) – large round object that circles the earth and that shines at night by reflecting light from the sun • bicycle (n.) – a wheeled vehicle that a person rides by pushing on foot pedals • dance (v.) – move one’s body in a way that goes with the rhythm and style of music that is being played • dance (n.) – a social event at which people dance

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
<p>Standards & Text:</p> <ul style="list-style-type: none"> • Standards: RL.9-10.2, SL.9-10.1.c, L.9-10.4.a, b • Text: “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 237–240 <p>Learning Sequence:</p> <ol style="list-style-type: none"> 1. Introduction of Lesson Agenda 2. Homework Accountability 3. Reading and Discussion 	<p>1. 10%</p> <p>2. 10%</p> <p>3. 55%</p>

4. Quick Write	4. 10%
5. Epigraph Effect Tool	5. 10%
6. Closing	6. 5%

Materials

- Student copies of the 9.1 Common Core Learning Standards Tool (refer to 9.1.1 Lesson 1)
- Student copies of the Central Ideas Tracking Tool (refer to 9.1.1 Lesson 5)—students may need additional blank copies
- Student copies of the Short Response Rubric and Checklist (refer to 9.1.1 Lesson 1)
- Student copies of the Epigraph Effect Tool (refer to 9.1.1 Lesson 5)—students may need additional blank copies

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

10%

Begin by reviewing the agenda and the assessed standard for this lesson: RL.9-10.2. In this lesson, students read and annotate a section of text before participating in a discussion that focuses on how Russell develops central ideas in “St. Lucy’s Home for Girls Raised by Wolves.” Students respond to a Quick Write prompt about a central ideas in this excerpt and then complete the Stage 3 portion of the Epigraph Effect Tool.

- ▶ Students look at the agenda.

Instruct students to take out their copies of the 9.1 Common Core Learning Standards Tool. Inform students that in this lesson they begin to work with a new substandard: L.9-10.4.b. Ask students to

individually read substandard L.9-10.4.b on their tools and assess their familiarity with and mastery of this substandard.

- ▶ Students read and assess their familiarity with substandard L.9-10.4.b.

Instruct students to talk in pairs about what they think the substandard means. Lead a brief discussion about this standard.

- 🗨️ This substandard asks students to look at word patterns and parts to help find the meaning of new words.

Activity 2: Homework Accountability

10%

Instruct student pairs to share their responses to the previous lesson’s homework. (Write a paragraph in response to the following prompt: What does Mirabella’s character development suggest about her identity?)

- ▶ Student pairs share homework responses.

- 🗨️ Student responses may include:

- Descriptions of Mirabella’s behaviors make her seem more like a wolf than a girl, showing that she is not able to establish a human identity and still has a strong wolf identification. At first, she “flatten[s] her ears to the side of her head” and “snarl[s] in the most menacing register that an eight-year-old wolf-girl can muster” (p. 228–229). Later, she “rip[s] foamy chunks out of the church pews and replace[s] them with ham bones” and “wag[s] her invisible tail” (p. 230), two behaviors that are associated more with wolves than with humans. She “cock[s] her ears,” as a wolf would, when the other girls try to correct her and is “still loping around on all fours” when the other girls are learning to walk on two feet (p. 231). During Stage 2, Mirabella doesn’t “even try to curb her desire to kill things” and thinks Claudette is playing a game when she tries to run away from Mirabella instead of going to the duck pond with her. Again, Mirabella behaves like a wolf rather than a girl. She continues to communicate like a wolf, too, using “the old word for tug-of-war” when she wants to play with Claudette and making “a high, whining noise through her nostrils,” as a wolf would, when she wants Claudette to help her. Mirabella has only a wolf identity and cannot seem to create a human identity for herself.
- The description of Mirabella’s physical appearance presents her as someone who is suffering as a result of the mismatch between her strong wolf identification and her weak human identity. Claudette says, “Mirabella’s inability to adapt was taking a visible toll” and goes on to describe her as having “teeth [that] were ground down to nubbins; her hair was falling out” (p. 236), suggesting that her emotional distress leads to physical symptoms. She

explains that Mirabella hated the cooked, human food that the nuns served, so she would not eat and “her ribs were poking through her uniform,” showing that Mirabella’s dislike of human food is so strong that she is starving instead of learning to eat what humans eat (p. 236). Mirabella’s inability to develop a human identity or to continue successfully with her wolf identification causes her to suffer both emotionally and physically.

Instruct students to talk in pairs about how they applied a focus standard, RL.9-10.2 or RI.9-10.2, to their AIR texts. Lead a brief share out on the previous lesson’s AIR homework assignment. Select several students (or student pairs) to explain how they applied a focus standard to their AIR texts.

- ▶ Students (or student pairs) discuss and share how they applied a focus standard to their AIR texts from the previous lesson’s homework.

Activity 3: Reading and Discussion

55%

Instruct students to form pairs. Instruct student pairs to read pages 237–240 (from “It was during Stage 3 that we met our first purebred girls” to “But you could tell that they were pleased”) and annotate the text. Remind students to mark the text with the four annotation codes introduced in 9.1.1 Lesson 4, as well as CD for character development and CI for central ideas.

- ① If necessary to support comprehension and fluency, consider using a masterful reading of the focus excerpt for the lesson.
- ① **Differentiation Consideration:** Consider posting or projecting the following guiding question to support students in their reading throughout this lesson:

What are the central ideas in this excerpt?

- ▶ Students read and annotate text.
- 🗨 Student annotations may include:
 - Boxes around ferocity, meekly, complied, arias, oculus, nave, conjure, rudimentary, inducement, debutante, sophisticate, captivity, purebred, volunteer, moon, bicycle, and dance.
 - Star (*) near
 - “The lake-water was reinventing the forest and the white moon above it, and wolves lapped up the cold reflection of the sky.” (p. 239)
 - “Long before we could understand what the priest was saying, the music instructed us how to feel.” (p. 239)

- “We understood that this was the humans’ moon, the place for howling beyond purpose,” as evidence that both humans and wolves appreciate beauty for its own sake rather than for its usefulness (pp. 239–240).
 - *CI* near
 - “There were so many things that we could do wrong!” (p. 237) (human identity vs. wolf identification)
 - “I felt sorry for them. I wondered what it would be like to be bred in captivity, and always homesick for a dimly sensed forest” (p. 237). (human identity vs. wolf identification)
 - “Being human is like riding this bicycle.” (p. 238) (human identity vs. wolf identification)
 - “The brothers! We’d almost forgotten about them” (p. 238). (human identity vs. wolf identification)
 - *CD* near
 - “Jeanette was learning how to dance” as evidence that Jeanette is continuing to develop her human identity (p. 237) – Jeanette
 - “Mirabella would run after the bicycles, growling out our old names” (p. 238) – Mirabella
 - “I should have been excited; instead, I felt a low mad anger at the nuns” (p. 238) – Claudette
 - “[Jeanette] was the first of us to sign for her library card, too” (p. 238–239) – Jeanette
 - “Jeanette blew her nose into a nearby curtain” (p. 239) – Jeanette
 - Question mark (?) near
 - “I wasn’t ready to claim a common language with Jeanette” (p. 239)
 - “On Sundays, the pretending felt almost as natural as nature” (p. 239)
 - “She showed us how to pattern the old hunger into arias” (p. 239)
 - “A black shadow, running behind the watery screen of pines” (p. 239)
 - Exclamation mark (!) near
 - “always homesick for a dimly sensed forest, the trees you’ve never seen” (p. 237)
 - “Jeanette was learning how to dance” (p. 237)
 - “We pedaled faster” (p. 238)
 - “Things had been so much simpler in the woods” (p. 238)
 - “Mouth shut—shoes on feet! Mouth shut—shoes on feet! Mouthshutmouthshut” (p. 238)
 - “She was the first of us to sign for her library card, too” (pp. 238–239)
 - “The lake-water was reinventing the forest and the white moon above it, and wolves lapped up the cold reflection of the sky” (p. 239)

Post or project the questions below for students to discuss. Instruct students to continue to annotate the text as they read and discuss, using the codes *CI* and *CD* as appropriate. Also remind students that they should keep track of central ideas in the text using the Central Ideas Tracking Tool.

Instruct student pairs to read pages 237–238 (from “It was during Stage 3 that we met our first purebred girls” to “Mouth shut—shoes on feet! Mouth shut—shoes on feet! Mouthshutmouthshut”), and answer the following questions before sharing out with the class.

Provide students with the following definitions: *ferocity* means “savage fierceness,” *meekly* means “humbly patient; overly submissive,” *complied* means “did what had been asked or ordered,” *rudimentary* means “very imperfectly developed,” *inducement* means “incentive,” *debutante* means “a young upper-class woman who has begun going to special parties where she will meet and be seen by other people from the upper class,” and *sophisticate* means “a person who has a lot of knowledge about the world and about culture, art, literature, etc.”

① Students may be familiar with some of these words. Consider asking students to volunteer definitions before providing them to the class.

- ▶ Students write the definitions of *ferocity*, *meekly*, *complied*, *rudimentary*, *inducement*, *debutante*, and *sophisticate* on their copies of the text or in a vocabulary journal.

① **Differentiation Consideration:** Consider providing the following definitions: *volunteer* means “person who does something without being forced to do it,” *moon* means “large round object that circles the earth and that shines at night by reflecting light from the sun,” *bicycle* means “a wheeled vehicle that a person rides by pushing on foot pedals,” *dance* (v.) means “move one’s body in a way that goes with the rhythm and style of music that is being played,” and *dance* (n.) means “a social event at which people dance.”

- ▶ Students write the definitions of *volunteer*, *moon*, *bicycle*, and *dance* on their copies of the text or in a vocabulary journal.

How do the interactions between the purebred girls and the wolf-girls on page 237 develop a central idea of the story? Use textual evidence to support your response.

- ☛ The interactions develop the central idea of human identity versus wolf identification.
- ☛ Student responses may also include:
 - The interactions between the purebred girls and wolf-girls highlight the differences between the two cultures and show how difficult it is for the wolf-girls to identify themselves as part of human society. For example, the purebred girls come to St. Lucy’s as volunteers to “tutor [the girls from St. Lucy’s] in playing” (p. 237), showing that the girls have not yet mastered basic human games. They also make mistakes on purpose in order to give “[the girls from St. Lucy’s] an advantage” (page 237). Some of the wolf-girls do not understand human

interactions designed to make others feel better. For example, Lavash says, “These girl-girls sure is dumb” when she keeps winning at checkers, not realizing that the purebred girls are allowing the wolf-girls to win (p. 237).

- It makes the girls from St. Lucy’s “nervous to meet new humans” because there are “so many things that [they] could do wrong” (p. 237). This shows that the wolf-girls are not confident about their ability to function in human society yet.
- Claudette feels “sorry” for the purebred girls and wonders “what it would be like to be bred in captivity, and always homesick for a dimly sensed forest, the trees you’ve never seen” (p. 237), showing that she still feels a strong connection to her own wolf culture and has more of a wolf identification than a human identity at this point.

① **Differentiation Consideration:** Consider posing the following scaffolding question:

How does the phrase “always homesick for a dimly sensed forest, the trees you’ve never seen” help clarify the meaning of the word “captivity”?

💬 The girls who were raised in captivity have never seen the trees of the forest, so they are clearly not wild; they have been raised by people.

① Consider drawing students’ attention to their application of standard L.9-10.4.a through using context to make meaning of a word.

Why do the nuns “congratulate” the girls on learning to ride bicycles?

💬 The nuns see riding a bicycle as part of “being human” (p. 238). Riding a bicycle is a human activity and it represents being part of human society. Once the girls learn to “be human,” they will “never forget,” just as once they learn to ride a bicycle they will never forget: “Being human is like riding this bicycle. Once you’ve learned how, you’ll never forget” (p.238).

What is the impact of the statement “We pedaled faster”?

💬 The statement “We pedaled faster” shows that Mirabella, who has not learned to ride a bike, and can only “run after the bicycles, growling out [the girls’] old names” is being increasingly excluded from the pack. The pack is leaving Mirabella behind, both literally, as the girls ride away, and figuratively, as the other girls become more and more comfortable with human culture (p. 238).

Why does Claudette feel “a low mad anger at the nuns” when they announce the dance?

💬 Student responses may include:

- Claudette feels “a low mad anger at the nuns” because she says the nuns “knew we weren’t ready to dance with the brothers; we weren’t even ready to talk to them” (p. 238), showing

that Claudette does not feel she has the social skill needed for human interactions. Claudette’s anxiety about the dance is clear when she begins to practice in secret and repeats to herself, “Mouth shut—shoes on feet! Mouth shut—shoes on feet! Mouthshutmouthshut” (p. 238).

- Claudette feels that “Things had been so much simpler in the woods,” showing that she still misses her old life and resents the nuns for making things more complicated (p. 238).

Lead a brief whole-class discussion of student responses.

Instruct student pairs to read pages 238–240 (from “One night I came back early from the closet” to “But you could tell that they were pleased”) and answer the following questions before sharing out with the class.

Provide students with the following definitions: *arias* means “songs in an opera,” *oculus* means “circular or oval window,” *nave* means “the main part of the interior of a church,” and *conjure* means “bring to mind; recall.”

① Students may be familiar with some of these words. Consider asking students to volunteer definitions before providing them to the class.

- ▶ Students write the definitions of *arias*, *oculus*, *nave*, and *conjure* on their copies of the text or in a vocabulary journal.

How does Claudette’s description of Jeanette’s activities on page 238–239 (from “She was sitting in a patch of moonlight” to “I wasn’t ready to claim a common language with Jeanette”) develop a central idea in the text?

🗨 Student responses should include:

- The passage develops the central idea human identity versus wolf identification.
- The passage shows that Jeanette is still in transition from being wolf-like to human. Jeanette is “reading from one of her library books” (p. 238) and crying, as a human would, because of a beautiful line in the book, but she blows her nose on “a nearby curtain” because she has not yet fully adapted to human culture (p. 239).
- Claudette reads the line in Jeanette’s book, but will not “claim a common language with Jeanette” (p. 239) because she is unwilling to form a bond with Jeanette over the human experience of reading and finding beauty in a text.

① **Differentiation Consideration:** Consider posing the following scaffolding questions:

What is the “line in the book” that causes Jeanette to cry?

- Jeanette reads, “The lake-water was reinventing the forest and the white moon above it, and wolves lapped up the cold reflection of the sky.” (p. 239)

How do the word choices in the line in Jeanette’s book impact the tone of the passage?

- The author uses figurative language to personify the “lake-water” reflecting the trees, and describing the wolves as drinking or lapping “up the cold reflection of the sky” (p. 239), creating a sad tone.

What is “the old hunger” to which Claudette refers on p. 239?

- Student responses may include:
 - The hunger is a desire for living in nature and being part of a pack again. Claudette describes how the “[c]louds moved behind the frosted oculus of the nave,” showing that she is separated from nature now but still finds it beautiful (p. 239).
 - The hunger is a desire for family and being with the wolf pack, her old family. Claudette describes how the clouds remind her of her mother, saying, “The mother, I’d think, struggling to conjure up a picture. A black shadow, running behind the watery screen of pines” (p. 239).

- Differentiation Consideration:** If students struggle to answer this question, consider posing the following scaffolding question:

Based on the meaning of “the old hunger,” what other words could replace *pattern* in this sentence? Explain your response.

- The girls are using their desires to be with the wolf pack and in nature (“the old hunger”) to create songs and beauty (“arias”), so words such as *create*, *form*, *develop*, or *make* could replace *pattern*.

Why does Claudette describe “the mother” as a “black shadow” on page 239?

- Student responses may include:
 - Claudette describes the mother as a “black shadow” because she is hidden from Claudette’s view. The mother is “running behind the watery screen of pines,” so Claudette cannot see her clearly through the trees .
 - Claudette is “struggling to conjure up a picture” of her mother, meaning that her memory of her mother is fading as she adapts to human life.

What relationship does Claudette establish between the chapel and the moon?

- Both are places “for howling beyond purpose. Not for mating, not for hunting, not for fighting, not for anything but the sound itself” (p. 240). The music in the chapel and the wolves’ howling both express the beauty that both humans and wolves appreciate for its own sake rather than for its usefulness.

How do the words Jeanette reads (p. 239) relate to the girls’ “howling beyond purpose” (p. 240) at the chapel?

- Student responses may include:
 - Both the words and the howling remind the girls of their old life. The words describe wolves “lap[ping] up the cold reflection of the sky” (p. 239) as they drink from a moonlit forest lake. The girls understand the chapel to be “the humans’ moon, the place for howling beyond purpose ... not for anything but the sound itself” (pp. 239–240), where humans sing just as the wolves used to howl at the moon. The girls think of singing in the chapel as they think of howling, as an activity “beyond purpose” (p. 240).
 - The girls respond emotionally to both the words and the music. Jeanette “sniffle[s] and point[s] to a line in her book” to show that she recognizes the beauty of the moonlit scene (p.239). The music also has an emotional effect on the girls. Claudette says, “[t]he music instructed us in how to feel” and says that the choir director “showed [them] how to pattern the old hunger into arias” (p. 239). When the girls sing, they “howl along ... hurling every pitted thing within [them] at the stained glass,” meaning that they are expressing all of their emotions (“every pitted thing within us”) in their music, singing so loudly that it as though they are “hurling” the music “at the stained glass” (p. 240).

① **Differentiation Consideration:** If students struggle, consider posing the following scaffolding questions:

How does Claudette say that the chapel and the moon are similar?

- Both are places “for howling beyond purpose,” meaning they are places to appreciate beauty for its own sake rather than for any particular purpose, such as “mating ... hunting ... fighting” (p. 240).

How is howling at the moon different from other types of howling, according to Claudette?

- It has no purpose other than “the sound itself” (p. 240), while other types of howling can be used “for mating ... hunting ... fighting” (p. 240).

What new central idea emerges from the descriptions of language and music in this passage?

- Student responses should include:

- The central idea of beauty emerges in this passage.
- Claudette and Jeanette appreciate the beauty of the language in Jeanette’s book and of the scene it describes, which is familiar to them because of their former lives.
- Both the wolf-girls and the humans appreciate the beauty of music in the chapel as something “beyond purpose” (p. 240).

Lead a brief whole-class discussion of student responses.

Activity 4: Quick Write

10%

Instruct students to respond briefly in writing to the following prompt:

How does Russell develop a central idea in this excerpt?

Instruct students to look at their annotations to find evidence. Ask students to use this lesson’s vocabulary wherever possible in their written responses. Also, remind students to use the Short Response Rubric and Checklist to guide their written responses.

- ▶ Students listen and read the Quick Write prompt.

① Display the prompt for students to see, or provide the prompt in hard copy.

Transition to the independent Quick Write.

- ▶ Students independently answer the prompt, using evidence from the text.
- 🗨 See the High Performance Response at the beginning of this lesson.

Activity 5: Epigraph Effect Tool

10%

Instruct students to work in pairs to use the Epigraph Effect Tool to consider the relationship between the events of Stage 3 and the Stage 3 epigraph. Remind students to review their notes, annotations, and tracking tools related to “St. Lucy’s School for Girls Raised by Wolves” to support their work.

- ▶ Students work in pairs to complete the Stage 3 portion of the Epigraph Effect Tool.
- 🗨 See the Model Epigraph Effect Tool below for possible student response.

Lead a brief whole-class discussion of student responses.

Activity 6: Closing

5%

For homework, instruct students to review the text, the completed portions of the Epigraph Effect Tool, and all tools (including the Character Tracking Tool introduced in 9.1.1 Lesson 3 and the Central Ideas Tracking Tool introduced in 9.1.1 Lesson 5), notes, and annotations in preparation for the Mid-Unit Assessment. Review the Mid-Unit Assessment prompt:

Choose one epigraph. Analyze the relationship between that epigraph and the girls' development in that stage.

Also for homework, students should continue to read their AIR texts through the lens of focus standard RL.9-10.2 or RI.9-10.2, and prepare for a 3–5 minute discussion of their texts based on that standard.

Homework

Review the text, the other completed portions of the Epigraph Tool, and all tools, notes, and annotations to prepare for the Mid-Unit Assessment. Review the Mid-Unit Assessment prompt:

Choose one epigraph. Analyze the relationship between that epigraph and the girls' development in that stage.

Also, continue reading your Accountable Independent Reading text through the lens of standard RL.9-10.2 or RI.9-10.2, and prepare for a 3–5 minute discussion of your text based on that standard.

Model Central Ideas Tracking Tool

Name:		Class:		Date:	
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Directions: Identify the central ideas that you encounter throughout the text. Trace the development of those ideas by noting how the author introduces, develops, or refines these ideas in the texts. Cite textual evidence to support your work.

Text:	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell
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Page / Paragraph #	Central Ideas	Notes and Connections
p. 237	Human identity versus wolf identification	<p>“These were girls raised in captivity, volunteers from St. Lucy’s School for Girls.” The sentence shows that the “purebred girls” and the “wolf-girls” have different backgrounds and attend different schools; they do not have a shared culture, so the wolf-girls’ identification as wolves is separate from a human identity.</p> <p>Claudette says, “It made us nervous to meet new humans. There were so many things that we could do wrong!” This makes it clear that the girls do not yet feel comfortable in human society and do not have strong human identities.</p> <p>Claudette says she “felt sorry for” the purebred girls who had been “bred in captivity,” showing that Claudette’s wolf identification determines how she understands the purebred girls.</p> <p>Claudette reports, “Jeanette was learning how to dance,” suggesting she is developing a human identity as she learns to participate more fully in human society.</p>
p. 238	Human identity versus wolf identification	When the girls learn to ride bicycles, the nuns say, “Congratulations! ... Being human is like riding this bicycle. Once you’ve learned how, you’ll never forget,”

		<p>suggesting that this activity represents an important step toward participating in human society.</p> <p>Mirabella cannot ride a bicycle and has to “run after the bicycles, growling out our old names” as the girls pedal faster to get away, showing that Mirabella is having trouble keeping up with the other girls both figuratively (developing a human identity) and literally (she cannot run as fast as the girls can pedal).</p> <p>Claudette reports, “The nuns decided we needed an inducement to dance,” suggesting that the nuns recognize that the girls are not fully part of human society yet and need some reason to leave their wolf identifications behind and assume a human identity.</p>
p. 239	Beauty as a universal element of culture	<p>Claudette and Jeanette cry at the description, written by a human, of wolves in a forest: “The lake-water was reinventing the forest and the white moon above it, and wolves lapped up the cold reflection of the sky.” Both the human author and the wolf-girls appreciate the beauty of the scene and the language.</p> <p>Claudette says, “Long before we could understand what the priest was saying, the music instructed us in how to feel,” showing that the wolf-girls understand the beauty of music, a human art form.</p>
pp. 239–240		<p>Claudette describes the chapel as “the humans’ moon, the place for howling beyond purpose,” showing evidence that she recognizes that both humans and wolves recognize the need for beauty just for its own sake and not for any particular use.</p>

Model Epigraph Effect Tool

Name:		Class:		Date:	
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Directions: Use this tool to organize your analysis of the effects created by Russell’s use of epigraphs. Use the first column to record which stage the epigraph describes, the second column to describe the effects the epigraph creates, and the third column to provide textual evidence of the effect.

Epigraph	Effect Created (e.g. tension, mystery, surprise, humor)	Evidence
<p>“Stage 3: It is common that students who start living in a new and different culture come to a point where they reject the host culture and withdraw into themselves. During this period, they make generalizations about the host culture and wonder how the people can live like they do. Your students may feel that their own culture’s lifestyle and customs are far superior to those of the host country.” (p. 235)</p>	<p>Humor: The language Russell uses to describe the purebred girls, whom the wolf-girls pity, is humorous.</p> <p>The language used to describe the dance is humorous; the dance is supposed to be an “inducement” for the girls to join human culture.</p> <p>Surprise: Russell presents ordinary activities from the</p>	<p>The girls have “frilly-duvet names like Felicity and Beulah” (p. 237).</p> <p>Lavash says, “These girl-girls sure is dumb” (p. 237).</p> <p>When the wolf-girls get frustrated playing checkers they “[shred] the board to ribbons” (p. 237).</p> <p>The dance is called a “Debutante Ball,” suggesting something very fancy, but the wolf-girls and boys are very awkward (p. 238).</p> <p>The name of the newspaper is the <i>Gazette Sophisticate</i>, but the setting is not very sophisticated (p. 238).</p> <p>The name of the nearby town is “West Toowoomba” (p. 238).</p> <p>Claudette is confused by the “many things that we could do wrong” and all the different</p>

	<p>perspective of someone who has never encountered them before and they seem very odd.</p>	<p>sorts of rules “depending on which humans we were with” (p. 237).</p> <p>Checkers is described as “the oblique, fussy movement from square to square” (p. 237).</p> <p>Riding a bicycle is described as “sanctioned pumping” (p. 238).</p> <p>The chapel is described as “the humans’ moon, the place for howling beyond purpose” (pp. 239–240).</p>
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9.1.1

Lesson 10

Introduction

In this Mid-Unit Assessment, students use textual evidence from the first three stages of “St. Lucy’s Home for Girls Raised by Wolves” to craft a multi-paragraph response to the following prompt: Choose and explain one epigraph. Analyze the relationship between that epigraph and the girls’ development in that stage. Students first work in small groups to review their annotated texts, lesson Quick Writes, discussion notes, homework notes, and tools. Then, students write multi-paragraph responses that demonstrate their ability to discuss the relationship of an author’s structural choices to the development of complex characters. The Mid-Unit Assessment is assessed using the 9.1.1 Mid-Unit Text Analysis Rubric.

For homework, students write a brief reflection about how their preparations helped them with the Mid-Unit Assessment or how they might have prepared more effectively.

Standards

Assessed Standard(s)	
RL.9-10.3	Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
RL.9-10.5	Analyze how an author’s choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise.
Addressed Standard(s)	
W.9-10.2.a	Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. <ol style="list-style-type: none"> Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

Assessment

Assessment(s)

Student learning in the first part of this unit is assessed via a multi-paragraph response to the following prompt:

- Choose and explain one epigraph. Analyze the relationship between that epigraph and the girls' development in that stage.

 Student responses will be assessed using the 9.1.1 Mid-Unit Text Analysis Rubric.

High Performance Response(s)

A High Performance Response should:

- Explain one of the first three epigraphs.
 - Stage 1: During this stage, the epigraph says that the girls will be happy settling into the school. The epigraph says that during this stage everything is “new, exciting, and interesting” for the students and that “[i]t is fun” for the students “to explore their new environment” (p. 225).
 - Stage 2: The epigraph reports that the girls will be working hard and under stress, causing them to be unhappy. The epigraph reports this quite objectively, saying that during this stage, “students realize that they must work to adjust to the new culture” and that the “work may be stressful” (p. 229). Specifically, students “may experience a strong sense of dislocation” and “may spend a lot of time daydreaming” (p. 229). The epigraph says that students in this stage often feel “isolated, irritated, bewildered, depressed, or generally uncomfortable” (p. 229).
 - Stage 3: The epigraph describes students choosing to reject the host culture and choosing to retain their identification with the wolf culture because of belief that the wolf culture is better than human culture. The epigraph says that during this stage students “reject the host culture” and “wonder how the people can live like they do” (p. 235). Students “may feel that their own culture’s lifestyle and customs are far superior to those of the host country” (p. 235).
- Demonstrate the ways in which the girls’ development relates to the epigraph.
 - Stage 1: e.g., The narrator explicitly states, “[e]verything was new, exciting, and interesting” (p. 227), and describes the girls as “all hair and snarl and floor-thumping joy” and “buckling in kinetic laughter” (p. 225). This fits with the description in the epigraph. However, the epigraph does not mention that the girls might express their happiness by using wolf behaviors rather than human behaviors. For example, the girls take pleasure in “spraying exuberant yellow streams all over the bunks,” (p. 225) eyeing the “delectable birds” and “doomed squirrels,” and digging

new holes (p. 227). The epigraph also does not describe the girls' discomfort as they adjust. The narrator describes the girls' rooms as "austere" and "foreign," because they are "windowless and odorless" (p. 225). The girls miss their families, too, as is evident when the girls are separated from their brothers, and they "[run] along the shore, tearing at [their] new jumpers in a plaid agitation" (p. 226). Much of their new environment is unpleasant to the girls, whose "noses ached beneath an invisible assault" of human smells (pp. 228–229) and discover that their "own scent had become foreign in this strange place" (p. 229). Finally, there is an element of fear as the girls settle in to their new environment. When the nuns distribute name tags to the new students, "The oldest sister howled something awful and inarticulate, a distillate of hurt and panic" (p. 228) and the "rest of the pack ran in a loose, uncertain circle, torn between our instinct to help her and [their] new fear" (p. 228). The pack senses "some subtler danger afoot" (p. 228) and Mirabella resists the nuns for a full two hours until Sister Maria shoots her with a "tranquilizer dart" (p. 229). These surprising events demonstrate that the epigraph is not a reliable guide to understanding the girls' development, because it may leave out important elements or only partially describe their development.

○ Stage 2:

e.g., As the epigraph states, the girls do not seem to be adjusting easily to St. Lucy's. The narrator uses some of the exact language from the epigraph, stating, "[w]e were all uncomfortable" (p. 229) and "We spent a lot of time daydreaming during this period" (p. 233). The events of the story go beyond the very basic description in the handbook, however, and illustrate the emotional pain that the epigraph describes in objective language. For example, the girls' depression and "dislocation" (p. 229) is evident when the narrator says they "had never wanted to run away so badly in our lives" (p. 229), and describes their yearning for home and the woods. Their discomfort is described in detail as the narrator states, "It was impossible to make the blank, chilly bedroom feel like home" (p. 230). In addition to ignoring the emotional reality of this stage for most of the girls, the epigraph also ignores the experiences of Mirabella. Mirabella is not working at all to adjust to the new culture. Instead, she "love[s] to roam the grounds wagging her invisible tail" (p. 230) and looks "hurt and confused" when the other girls try to correct her behavior (p. 231). Mirabella does not seem to have the "latent instinct" to "be pleasing" in the sight of "someone higher up in the food chain" that has emerged in the other girls during this stage (p. 231). This "latent instinct" (p. 231) causes the other girls to work to meet the nuns' expectations, but Mirabella, apparently lacking this instinct, continues to follow her wolf habits, such as sleeping "curled up beneath the beds or gnawing on a scapula in the garden" (p. 233). She does not "even try to curb her desire to kill things" (p. 234). The epigraph gives a partial account of the girls' development during Stage 2, but the narrator's descriptions of the events during this stage emphasize the emotional strain

in a way that the epigraph does not. The narrator also focuses on Mirabella during this stage, whose experiences suggest that the handbook may not take into account the development of all the girls; it seems to make no allowances for a girl who cannot or will not “work to adjust to the new culture” (p. 229).

○ Stage 3:

e.g., The pack’s interactions with the purebred girl demonstrates ways in which the girls feel superior. For example, the descriptions of the purebred girls make them appear weak and silly, with “pert, bunny noses” and “terrified smiles” (p. 237); Lavash pants, “These girl-girls sure is dumb” (p. 237); Mirabella feels the fresh meat of wolf culture is superior to the “spongy, long-dead foods” served at St. Lucy’s (p. 236). While these interactions suggest that the epigraph accurately describes the girls’ development at this stage, they do not represent the full experience of the girls. For example, despite feeling superior to the human girls in some ways, most of the girls continue to work hard to meet the expectations of the “host culture” (p. 235), suggesting that they value the host culture enough to try to adjust to it. Jeanette is “learning how to dance” (p. 237) and play golf (p. 239); Claudette practices the Sausalito “in secret” in a closet (p. 238) to prepare for the dance; the “chapel is [the pack’s] favorite place” (p. 239). These descriptions reveal that while the girls have moments of feeling superior to human girls, most of them remain committed to adapting to their new culture. Another way in which the handbook is inaccurate is that it does not describe the behavior of all girls at this stage. For example, Mirabella’s behavior is quite different from her sisters’ behavior. It is not clear if Mirabella ignores the nuns because she feels wolf culture is superior or because she is not able to follow their instructions. Claudette reports that Mirabella does not seem to be “aware” that her behavior is a “failing,” (p. 236); she does not “try to earn Skill Points” and does not “even know the word for *walnut*” (p. 236). She continues to behave like a wolf, “shucking her plaid jumper,” battling raccoons, and “doing belly flops into compost” (p. 236). Mirabella does not appear to maintain these wolf-like behaviors because she thinks they are superior to human culture, but because she cannot understand the difference between the values of the two cultures. The handbook offers only a limited understanding of the girls’ development at this stage and ignores the development of girls like Mirabella, who are not “adjusting on the same timetable” (p. 230).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)

- None.*

Vocabulary to teach (may include direct word work and/or questions)
<ul style="list-style-type: none"> None.*
Additional vocabulary to support English Language Learners (to provide directly)
<ul style="list-style-type: none"> None.*

*Because this is not a close reading lesson, there is no specified vocabulary. However, in the process of returning to the text, students may uncover unfamiliar words. Teachers can guide students to make meaning of these words using the strategies outlined in L.9-10.4.a-d.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text: <ul style="list-style-type: none"> Standards: RL.9-10.3, RL.9-10.5, W.9.10.2.a Text: “St. Lucy’s Home for Girls Raised by Wolves, by Karen Russell, pp. 225–240 	
Learning Sequence: <ol style="list-style-type: none"> Introduction of Lesson Agenda Homework Accountability Introduction to the 9.1.1 Mid-Unit Text Analysis Rubric and Checklist 9.1.1 Mid-Unit Assessment Closing 	<ol style="list-style-type: none"> 5% 10% 10% 70% 5%

Materials

- Student copies of the 9.1 Common Core Learning Standards Tool (refer to 9.1.1 Lesson 1)
- Copies of the 9.1.1 Mid-Unit Assessment for each student
- Copies of the 9.1.1 Mid-Unit Text Analysis Rubric and Checklist for each student

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

5%

Begin by reviewing the agenda and the assessed standards for this lesson: RL.9-10.3 and RL.9-10.5. Students first work in small content-based groups to review selected evidence. Then, students complete the Mid-Unit Assessment in which they analyze the relationship between a selected epigraph and the girls' development in that stage.

- ▶ Students look at the agenda.

Activity 2: Homework Accountability

10%

Lead a brief share out on the previous lesson's AIR homework assignment. Instruct students to talk in pairs about how they applied the focus standard RL.9-10.2 or RI.9-10.2 to their AIR texts. Lead a brief share out on the previous lesson's AIR homework assignment. Select several students (or student pairs) to explain how they applied a focus standard to their AIR texts.

- ▶ Students (or student pairs) discuss and share how they applied the focus standard to their AIR texts from the previous lesson's homework.

Ask students to take out their materials for the Mid-Unit Assessment, including all notes, annotations, and lesson Quick Writes.

- ▶ Students take out their materials for the Mid-Unit Assessment.

ⓘ Students demonstrate completion of their homework by having all of their materials organized and accessible for the assessment.

Activity 3: Introduction to the 9.1.1 Mid-Unit Text Analysis Rubric and Checklist 10%

Distribute the 9.1.1 Mid-Unit Text Analysis Rubric and Checklist and explain that students should use this to guide their written responses. Instruct students to read the rubric and checklist independently.

Lead a brief discussion of the Content and Analysis category on the rubric and checklist.

- ① **Differentiation Consideration:** To support students' first use of the rubric and checklist, post or project the following questions for students to answer in pairs:

What reading standards does the rubric include?

☞ The rubric includes RL.9-10.3 and RL.9-10.5.

In your own words, how does the rubric describe mastery of these standards?

☞ Student responses should include:

- Mastery of RL.9-10.3 requires students to explain how the girls develop throughout the story and how they interact with other characters.
- Mastery of RL.9-10.3 requires students to connect the girls' development to important plot events or central ideas.
- Mastery of RL.9-10.5 requires students to explain how Russell's choices about how to arrange the story and order the sequence of events create particular effects.

Lead a brief whole-class discussion based on student responses.

- ① Remind students that although W.9-10.2.a is not an assessed standard on the Mid-Unit Assessment, they should practice introducing the topic and effectively organizing their ideas and evidence as they craft their responses. Students were introduced to W.9-10.2.a in Lesson 7.

Activity 4: 9.1.1 Mid-Unit Assessment

70%

Distribute the 9.1.1 Mid-Unit Assessment and instruct students to write a multi-paragraph response to the following prompt:

Choose and explain one epigraph. Analyze the relationship between that epigraph and the girls' development in that stage.

Ask students to use this unit's vocabulary wherever possible in their written responses and to practice introducing the topic and organizing their ideas and evidence. Explain to students that the Mid-Unit Assessment should include an introductory statement or section. Remind students to use their

annotated text, lesson Quick Writes, discussion notes, homework notes, and tools to write their response.

① Display the prompt for students to see, or provide the prompt in hard copy.

Instruct students to use the remaining class period to write their Mid-Unit Assessment.

▶ Students independently answer the prompt, using evidence from the text.

🗨 See the High Performance Response at the beginning of this lesson.

① Consider encouraging students who finish early to reread and revise their responses.

Activity 5: Closing

5%

Display and distribute the homework assignment. For homework, instruct students to write a brief reflection about how their preparations helped them with the Mid-Unit Assessment or how they might have prepared more effectively.

▶ Students follow along.

Homework

Write a brief reflection about how your preparations helped you with the Mid-Unit Assessment or how you might have prepared more effectively.

9.1.1 Mid-Unit Assessment

Text-Based Response

Your Task: Rely on your reading and analysis of Karen Russell’s “St. Lucy’s Home for Girls Raised by Wolves” to write a multi-paragraph response to the following prompt:

Choose and explain one epigraph. Analyze the relationship between that epigraph and the girls’ development in that stage.

Your writing will be assessed using the 9.1.1 Mid-Unit Text Analysis Rubric.

Guidelines:

Be sure to:

- Closely read the prompt.
- Address all elements of the prompt in your response.
- Paraphrase, quote, and reference relevant evidence to support your claim.
- Organize your ideas in a cohesive and coherent manner.
- Follow the conventions of standard written English.

CCSS: RL.9-10.3, RL.9-10.5

Commentary on the Task:

This task measures RL.9-10.3 because it demands that students:

- Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.

This task measures RL.9-10.5 because it demands that students:

- Analyze how an author’s choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise.

9.1.1 Mid-Unit Text Analysis Rubric

____ / ____ (Total points)

Criteria	4 – Responses at this Level:	3 – Responses at this Level:	2 – Responses at this Level:	1 – Responses at this Level:
<p>Content and Analysis The extent to which the response analyzes how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme.</p> <p>CCSS.ELA-Literacy.RL.9-10.3 Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.</p>	Skillfully analyze how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme.	Analyze how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme.	With partial accuracy, analyze how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme.	Inaccurately analyze how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
<p>Content and Analysis The extent to which the response analyzes how an author’s choices concerning how to structure a text, order events within it, and manipulate time create such effects as mystery, suspense, and surprise.</p> <p>CCSS.ELA-Literacy.RL.9-10.5 Analyze how an author’s choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, suspense, and surprise.</p>	Skillfully analyze how an author’s choices concerning how to structure a text, order events within it, and manipulate time create such effects as mystery, suspense, and surprise.	Accurately analyze how an author’s choices concerning how to structure a text, order events within it, and manipulate time create such effects as mystery, suspense, and surprise.	With partial accuracy, analyze how an author’s choices concerning how to structure a text, order events within it, and manipulate time create such effects as mystery, suspense, and surprise.	Inaccurately analyze how an author’s choices concerning how to structure a text, order events within it, and manipulate time create such effects as mystery, suspense, and surprise.

- A response that is a personal response and makes little or no reference to the task or text can be scored no higher than a 1.
- A response that is totally copied from the text with no original writing must be given a 0.
- A response that is totally unrelated to the task, illegible, incoherent, blank, or unrecognizable as English must be scored as a 0.

9.1.1 Mid-Unit Text Analysis Checklist

Assessed Standards: _____

	Does my writing...	✓
Content and Analysis	Analyze how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme? (RL.9-10.3)	<input type="checkbox"/>
	Analyze how an author’s choices concerning how to structure a text, order events within it, and manipulate time create such effects as mystery, suspense, and surprise? (RL.9-10.5)	<input type="checkbox"/>

9.1.1

Lesson 11

Introduction

In this lesson student pairs read pages 240–243 of “St. Lucy’s Home for Girls Raised by Wolves” (from “Stage 4: As a more thorough understanding of the host culture is acquired” to “The jazz band struck up a tune”). This excerpt describes events leading up to the ball and the girls’ first experience at the ball. Throughout their reading and discussion, students analyze how word choice impacts tone. Student learning is assessed via a Quick Write at the end of the lesson: How does Russell establish tone in this excerpt?

For homework, students preview the following day’s reading, the remainder of Stage 4, and write a brief analysis of how the author establishes tone in the excerpt.

Standards

Assessed Standard(s)	
RL.9-10.4	Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language evokes a sense of time and place; how it sets a formal or informal tone).
Addressed Standard(s)	
SL.9-10.1.c	<p>Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p> <p>c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.</p>

Assessment

Assessment(s)
Student learning is assessed via a Quick Write at the end of the lesson. Students respond to the

following prompt, citing textual evidence to support analysis and inferences drawn from the text.

- How does Russell establish tone in this excerpt?

High Performance Response(s)

A High Performance Response should:

- Determine the tone of the text (e.g., humorous; sad).
- Analyze how specific details impact the tone of the text (e.g., The author establishes Claudette’s sad tone through her description of the ball. Claudette describes how the nuns treat Mirabella like an animal. She explains how Mirabella is alone in a dark corner, “wearing a muzzle” (p. 242) with bows tied to it, dressed in “party culottes ... duct-taped to her knees” (p. 242). Claudette also recalls her own painful emotions when she says, “I felt hot, oily tears squeezing out of the red corners of my eyes” (p. 243) to describe how she felt when she talked with Kyle. In this way, Claudette establishes a sad tone about the way girls are forced to adopt a new culture and experience fear and discomfort at St. Lucy’s).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)

- alpha male (n.) – a male animal having the highest rank in a dominance hierarchy
- inured (adj.) – accustomed to something, especially something unpleasant

Vocabulary to teach (may include direct word work and/or questions)

- None.

Additional vocabulary to support English Language Learners (to provide directly)

- streamers (n.) – long, narrow pieces of colored paper or plastic used as decorations
- eaves (n.) – the lower edge of a roof that sticks out past the wall
- pomade (n.) – a thick substance that is used to style hair
- dungarees (n.) – pants or work clothes made of usually blue denim

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text:	
<ul style="list-style-type: none"> Standards: RL.9-10.4, SL.9-10.1.c Text: “St. Lucy’s School for Girls Raised by Wolves” by Karen Russell, pp. 240–243 	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 5%
2. Homework Accountability	2. 10%
3. Reading and Discussion	3. 70%
4. Quick Write	4. 10%
5. Closing	5. 5%

Materials

- Student copies of the Character Tracking Tool (refer to 9.1.1 Lesson 3)—students may need additional blank copies
- Student copies of the Central Ideas Tracking Tool (refer to 9.1.1 Lesson 5)—students may need additional blank copies
- Student copies of the Short Response Rubric and Checklist (refer to 9.1.1 Lesson 1)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

5%

Begin by reviewing the agenda and the assessed standard for this lesson: RL.9-10.4. In this lesson, students read and discuss the beginning of Stage 4 from “St. Lucy’s Home for Girls Raised by Wolves.” Students’ discussion is going to include an analysis of how the author establishes tone through specific word choices.

- ▶ Students look at the agenda.

Activity 2: Homework Accountability

10%

Instruct students to take out their responses to the previous lesson’s homework assignment. (Write a brief reflection about how your preparation helped you with the Mid-Unit Assessment or how you might have prepared more effectively.) Instruct students to Turn-and-Talk in pairs about their responses to the homework prompt.

☛ Student responses may include:

- Preparing for the Mid-Unit Assessment allowed me to use the best evidence to support my response.
- Preparing for the Mid-Unit Assessment prepared me to respond fully to the prompt.
- Annotating the text and completing the Epigraph Effect Tool prepared me to analyze the text for the Mid-Unit Assessment.
- I could have more effectively prepared for the Mid-Unit Assessment by organizing my tools and annotations.

Activity 3: Reading and Discussion

70%

Instruct students to form pairs. Post or project the following questions for students to discuss.

- ① If necessary to support comprehension and fluency, consider using a masterful reading of the focus excerpt for the lesson.
- ① **Differentiation Consideration:** Consider posting or projecting the following guiding question to support students in their reading throughout this lesson:

How does Claudette describe the ball?

Remind students that *tone* describes the attitude a speaker has towards the subject about which he or she is speaking. Explain that in this activity, students analyze specific word choices that establish Claudette’s tone.

① Consider reminding students that this is an opportunity to apply standard SL.9-10.1.c by participating effectively in a collaborative discussion. Students may focus on posing and responding to questions, incorporating others into the discussion and challenging or verifying ideas and conclusions.

- ▶ Students listen.

Instruct student pairs to read the epigraph on page 240 (from “Stage 4: As a more thorough understanding of the host culture is acquired,” to “their self-confidence grows. Everything begins to make sense”) and answer the following question before sharing out with the class.

What does the *Jesuit Handbook on Lycanthropic Culture Shock* predict will happen to the girls in Stage 4?

- 🗨 The handbook suggests that students acquire a better understanding of the host culture and begin to feel “more comfortable in their new environment” (p. 240) during Stage 4. It also suggests that students develop more self-confidence and “everything begins to make sense” (p. 240) to them.

Lead a brief whole-class discussion of student responses.

Provide students with the following definitions: *alpha male* means “a male animal having the highest rank in a dominance hierarchy” and *inured* means “accustomed to something, especially something unpleasant.”

① Students may be familiar with some of these words. Consider asking students to volunteer definitions before providing them to the class.

- ▶ Students write the definitions of *alpha male* and *inured* on their copies of the text or in a vocabulary journal.

① **Differentiation Consideration:** Consider providing students with the following definitions: *streamers* means “long, narrow pieces of colored paper or plastic used as decorations,” *eaves* means “the lower edge of a roof that sticks out past the wall,” *pomade* means “a thick substance that is used to style hair,” and *dungarees* means “pants or work clothes made of usually blue denim.” Also, consider providing students with a visual to support their understanding of the image of a dagger.

- ▶ Students write the definitions of *streamers*, *eaves*, *pomade*, and *dungarees* on their copies of the text or in a vocabulary journal.

Instruct student pairs to read pages 240–241 (from “‘Hey Claudette,’ Jeanette growled to me on the day before the ball,” to “I was no longer certain of how the pack felt about anything”) and answer the following questions before sharing out with the class.

How do Jeanette’s questions on page 240 relate to the Stage 4 epigraph?

- 🗨️ Jeanette asks Claudette and Mirabella if “everything’s beginning to make sense” (p. 240) to them. This question represents the epigraph’s claim that “everything begins to make sense” (p. 240) for students during Stage 4.

How do the questions on page 240 contribute to Jeanette’s development as a character?

- 🗨️ Jeanette’s focus on the question from the epigraph reveals how she adopts the new culture from St. Lucy’s faster than the other girls.

How does the interaction between Jeanette and Mirabella on page 240 contribute to each character’s development?

- 🗨️ The interaction between Jeanette and Mirabella shows the contrast between the two girls. It demonstrates how Jeanette is adopting human behaviors while Mirabella is committed to keeping her wolf-like behaviors. Jeanette asks questions “politely,” but Mirabella “whimpers” and scratches the other girls violently (p. 240).

How do Claudette’s interactions with Jeanette develop her character?

- 🗨️ Student responses may include:
 - Claudette feels a “gloomy satisfaction” (p. 241) when Jeanette struggles with a word. This establishes that Claudette is jealous or resentful toward Jeanette.
 - When Mirabella drags Jeanette toward the closet, Claudette ignores her. Claudette says, “I was worried only about myself” (p. 241). This shows that Claudette is less concerned about the pack and more concerned about herself. Claudette’s separation from the pack is confirmed when she says, “I was no longer certain of how the pack felt about anything” (p. 241).

- ① Remind students that they should keep track of character development in the text using the Character Tracking Tool.

How does the interaction between Jeanette, Mirabella, and Claudette develop one of the text’s central ideas?

🗨️ Student responses should include:

- The interaction between Jeanette, Mirabella, and Claudette develops the central idea of human identity versus wolf identification.

🗨️ Student responses may include:

- Mirabella represents the girls' instinct to remain like wolves. For example she does things like “whimper” (p. 240) “rak[e] her nails along [other girls'] shins so hard that she drew blood” (p. 240), and “roll[] belly up on the cold floor” (p. 240). Jeanette observes that Mirabella is a “late bloomer” (p. 240) but there is no evidence that Mirabella is adopting any of the behaviors the nuns try to teach her. Jeanette's desire to change and observe the customs of the new culture represents the girls' struggle to fit into human society. For example, Jeanette still “growl[s]” (p. 240) out her speech in one case but she also politely asks questions like, “Have you noticed that everything's beginning to make sense?” (p. 240) which is exactly the kind of behavior the nuns expect her to adopt.
- When Claudette decides she is “worried only about [her]self” (p. 241) instead of protecting Jeanette, a member of the pack, she shows that she is becoming more concerned with herself than she is about the rest of the pack. This is a demonstration of her human identity taking priority over her wolf identification.

① Consider giving students the phrase “individual identity versus group identification” as a tool for discussing the tension between one's identity as an individual and identification as a member of a group. Students have been considering this idea using the phrase “human identity versus wolf identification” in relation to “St. Lucy's Home for Girls Raised by Wolves.” Students explore the central idea of “individual identity versus human identification” throughout the module.

① Remind students that they should keep track of central ideas in the text using the Central Ideas Tracking Tool.

Lead a brief whole-class discussion of student responses.

Instruct student pairs to read pages 241–243 (from “At seven o'clock on the dot, Sister Ignatius blew her whistle” to “The jazz band struck up a tune”) and answer the following questions before sharing out with the class.

① Consider reminding students that *tone* is the attitude that a speaker has towards the subject about which he or she is speaking.

Analyze Claudette's tone in describing her brothers on page 241.

🗨️ Student responses may include:

- Claudette describes Kyle, a boy who used to be a “blustery alpha male” (p. 241) named BTWWWR!, as looking “pained and out of place” (p. 241). She also describes how the brothers “didn’t smell like [her] brothers anymore” (p. 241). By describing how adapting to human society forced her brothers to become something different and uncomfortable, Claudette establishes her sad tone toward the situation.
- Claudette’s recollection of her own emotions at the ball establishes a sad tone. For example, she says, “I felt hot, oily tears squeezing out of the red corners of my eyes” to describe how she felt when she talked with Kyle (p.243).
- Claudette’s memory of the ball as scary and unfamiliar to the pack establishes a sad tone. She describes the balloons as “popping” all around, the streamers as being stuck in her hair “like bats”, and the music as “blasts” of a saxophone.

How does Claudette describe Mirabella at the ball?

🗨️ Mirabella is alone in a dark corner, “wearing a muzzle” (p. 242) with bows tied to it and dressed in “party culottes ... duct-taped to her knees” (p. 242).

How does Claudette’s description of Mirabella establish her attitude toward about St. Lucy’s?

🗨️ As Claudette recalls the specific details about Mirabella’s appearance at the ball, she establishes her tone toward St. Lucy’s. Describing how Mirabella is forced to behave illustrates Claudette’s regret for how the girls were forced to change and adapt to new culture.

How does Russell use specific details to establish Claudette’s tone on pages 242–243?

🗨️ Student responses may include:

- Claudette establishes a humorous tone toward some situations at St. Lucy’s when she includes specific details about the students’ awkwardness. Boys and girls repeat phrases like, “What lovely weather we’ve been having!” (p. 241) and, “It is beginning to look a lot like Christmas” (p. 242), even though one of the nuns has died, because school has not yet taught vocabulary from “Unit 12: How to Tactfully Acknowledge Disaster” (p. 242). Claudette also rubs a “pumpkin muffin” (p. 242) on herself to smell nice for the ball, which is a humorous detail for Claudette to include. Details like Kyle’s words “[y]ou smell astooooounding” (p. 242) also establish a humorous tone toward some events at the ball.
- Overall, Claudette seems to have a sad view of the education process at St. Lucy’s. Claudette’s memory and description of Mirabella at the ball reflects her sad attitude. The nuns treat Mirabella like an animal. She is alone in a dark corner, “wearing a muzzle” (p. 242) with bows tied to it and dressed in “party culottes ... duct-taped to her knees” (p. 242).

Lead a brief whole-class discussion of student responses.

Instruct students to reread the excerpt from today’s lesson (from “Stage 4: As a more thorough understanding of the host culture is acquired” to “The jazz band struck up a tune”) and annotate for specific words and phrases that impact tone. Remind students that annotating for this purpose will prepare them for the lesson assessment.

- ▶ Students reread the excerpt, annotating for words that establish tone.

Activity 4: Quick Write

10%

Instruct students to respond briefly in writing to the following prompt:

How does Russell establish tone in this excerpt?

Instruct students to look at their annotations to find evidence. Instruct students to use this lesson’s vocabulary whenever possible in their written responses. Remind students to use the Short Response Rubric and Checklist to guide their written responses.

- ▶ Students listen and read the Quick Write prompt.

① Display the prompt for students to see, or provide the prompt in hard copy.

Transition to the independent Quick Write.

- ▶ Students independently answer the prompt using evidence from the text.
- 🗨 See the High Performance Response at the beginning of this lesson.

Activity 5: Closing

5%

Display and distribute the homework assignment. For homework, instruct students to read the paragraphs of Stage 4 they did not read during class, pages 243–245 (from “The time has come to do the Sausalito” to “As far as I can recollect, that was our last communal howl”), annotate for words and phrases that establish tone, and write a brief response to the following prompt:

How does the author establish tone in the second half of the Stage 4 narrative?

Ask students to use vocabulary from 9.1.1 wherever possible in their written responses. Also, remind students to use the Short Response Rubric and Checklist to guide their written responses.

- ▶ Students follow along.

Homework

Preview the paragraphs of Stage 4 that you did not read during class, pages 243–245, (from “The time has come to do the Sausalito” to “As far as I can recollect, that was our last communal howl”). Annotate for words and phrases that establish tone, and write a brief response to the following prompt:

How does the author establish tone in the second half of the Stage 4 narrative?

Use vocabulary from 9.1.1 wherever possible in your written responses. Use the Short Response Rubric and Checklist to guide your written responses.

Model Character Tracking Tool

Name:		Class:		Date:	
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Directions: Use this tool to keep track of character development throughout the module. Trace character development in the texts by noting how the author introduces and develops characters. Cite textual evidence to support your work.

Text:	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell
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Character	Trait	Evidence
Mirabella	independent/ persistent	Mirabella keeps her wolf-like behaviors longer than the other girls. For example, she “sprang out of the hall closet and snapped through Jeanette’s homework” (p. 240). She also, “rolled belly-up on the cold stone floor, squirming on a bed of spelling-bee worksheets” (p. 240).
Jeanette	proper	Similar to the Stage 4 Epigraph, Jeanette asks the other girls the question, “Have you noticed that everything’s beginning to make sense?” (p. 240).
Claudette	jealous/ resentful	Claudette feels a “gloomy satisfaction” (p. 241) when Jeanette struggles to pronounce a word.

Model Central Ideas Tracking Tool

Name:		Class:		Date:	
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Directions: Identify the central ideas that you encounter throughout the text. Trace the development of those ideas by noting how the author introduces, develops, or refines these ideas in the texts. Cite textual evidence to support your work.

Text:	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell
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Page / Paragraph #	Central Ideas	Notes and Connections
Pages 240 and 242	Individual identity versus wolf identification	The interaction between Jeanette and Mirabella develops the central idea of human identity versus wolf identification. Mirabella represents the girls’ wolf-like nature (“Mirabella was in a dark corner, wearing a muzzle” (p. 242)). Jeanette’s desire to change and observe the customs of the new culture represents the girls’ struggle to fit into human society (“Have you noticed that everything’s beginning to make sense?” (p. 240)).
241	Individual identity versus group identification	When Claudette decides she is “worried only about [her]self” and “perfect[ing] the Sausalito”(p. 241) instead of protecting Jeanette, a member of the pack, she develops the idea of individual identity versus group identification.

9.1.1

Lesson 12

Introduction

In this lesson, students read and analyze pages 243–245 of “St. Lucy’s Home for Girls Raised by Wolves” (from “The time has come to do the Sausalito” to “As far as I can recollect, that was our last communal howl”). In this excerpt, the second half of Stage 4, Claudette needs help performing the Sausalito dance. Jeanette refuses to help, but Mirabella protects Claudette by tackling her, which disrupts the dance and ultimately leads to Mirabella’s expulsion from St. Lucy’s. During their reading and discussion, students analyze characters’ interactions and how these interactions develop the text’s central ideas. Student learning is assessed via a Quick Write at the end of the lesson: How do the interactions among the girls develop a central idea in this excerpt?

For homework, students read Stage 4 from “St. Lucy’s Home for Girls Raised by Wolves” and respond to the following prompt: The Stage 4 epigraph states, “As a more thorough understanding of the host culture is acquired, your students will begin to feel more comfortable in their new environment.” How accurate is this statement? Use evidence from the text to support your answer.

Standards

Assessed Standard(s)	
RL.9-10.3	Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
Addressed Standard(s)	
SL.9-10.1.b	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i> , building on others’ ideas and expressing their own clearly and persuasively. b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.
L.9-10.4.a, b	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grades 9–10 reading and content</i> , choosing flexibly from a range of

	<p>strategies.</p> <p>a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase.</p> <p>b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., <i>analyze, analysis, analytical; advocate, advocacy</i>).</p>
L.9-10.5.a	<p>Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., euphemism, oxymoron) in context and analyze their role in the text.</p>

Assessment

Assessment(s)
<p>Student learning is assessed via a Quick Write at the end of the lesson. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text.</p> <ul style="list-style-type: none"> • How do the interactions among the girls develop a central idea in this excerpt?
High Performance Response(s)
<p>A High Performance Response should:</p> <ul style="list-style-type: none"> • Identify a central idea developed in the text (e.g., individual identity versus group identification). • Identify interactions among the girls that demonstrate this idea (e.g., Claudette asks Jeanette to help her with the steps of the Sausalito, but Jeanette says, “Not for you” (p. 244). Mirabella tackles Claudette from behind to save her from the dance, and Claudette responds, “I didn’t want your help.” (p. 244)). • Analyze how interactions among characters develop a central idea (e.g., The interactions between Claudette, Jeanette, and Mirabella develop the central idea of individual identity versus group identification. When Claudette is in trouble and wants Jeanette’s help, Jeanette serves herself and refuses to help Claudette. Mirabella, on the other hand, acts to protect the pack. Throughout her interaction with Claudette, Mirabella is “trying to figure out where the danger was so she could protect [Claudette] against it.” (p. 245)).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
<ul style="list-style-type: none"> skulk (v.) – move in a stealthy manner lolling (v.) – sitting, lying, or standing in a lazy, relaxed way chloroformed (adj.) – treated with a poisonous liquid especially so as to produce anesthesia, insensibility, or death
Vocabulary to teach (may include direct word work and/or questions)
<ul style="list-style-type: none"> communal (adj.) – used or shared in common by everyone in a group
Additional vocabulary to support English Language Learners (to provide directly)
<ul style="list-style-type: none"> fawns (n.) – young deer

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
<p>Standards & Text:</p> <ul style="list-style-type: none"> Standards: RL.9-10.3, SL.9-10.1.b, L.9-10.4.a, b, L.9-10.5.a Text: “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 243–245 <p>Learning Sequence:</p> <ol style="list-style-type: none"> Introduction of Lesson Agenda Homework Accountability Reading and Discussion Quick Write Closing 	<ol style="list-style-type: none"> 10% 10% 60% 15% 5%

Materials

- Student copies of the Central Ideas Tracking Tool (refer to 9.1.1 Lesson 5)—students may need additional blank copies
- Student copies of the Character Tracking Tool (refer to 9.1.1 Lesson 3)—students may need additional blank copies

- Student copies of the Short Response Rubric and Checklist (refer to 9.1.1 Lesson 1)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

10%

Begin by reviewing the agenda and the assessed standard for this lesson: RL.9-10.3. Explain that students analyze how the girls interact during an important turning point in the story. Students then analyze how the characters' interactions develop the story's central ideas.

- ▶ Students look at the agenda.

Instruct students to take out their 9.1 Common Core Learning Standards Tool. Inform students that in this lesson they begin to work with two new standards: SL.9-10.1.b and L.9-10.5.a. Ask students to individually read these standards on their tools and assess their familiarity with and mastery of them.

- ▶ Students read and assess their familiarity with standards SL.9-10.1.b and L.9-10.5.a.

Instruct students to talk in pairs about what they think the substandards mean. Lead a brief discussion about these standards.

☞ Student responses may include:

- Engage in productive conversations with a group.
- Make decisions as a group.
- Set rules about decision-making, goal setting, and dividing work among team members.

ⓘ Consider explaining that *collegial* describes “the collective responsibility shared by members of a group or team.”

Lead a brief whole class discussion on rules or norms for this lesson’s collaborative discussions, as described in SL.9-10.1.b. Ask students to share ideas that should guide their discussions in this lesson. Record student responses to post or project during the discussion.

🗨️ Student responses may include:

- Students should allow every group member to contribute.
- The discussion should move quickly enough to allow for discussion of all questions.
- Group members should be polite when disagreeing with each other.
- All claims should be supported by evidence from the text.

Provide students with the following definitions: *word relationships* means “the ways in which words connect and relate to each other to create meaning”; *nuance* means “a very slight difference.”

- ▶ Students write the definitions of *word relationships* and *nuance* on their copies of the text or in their vocabulary journals.

Instruct students to talk in pairs about what they think standard L.9-10.5 means. Lead a brief discussion about the standard.

🗨️ Show how figurative language, nuance, and relationships between words affect the words’ meanings.

① Consider reminding students of their work with figurative language in 9.1.1 Lesson 1.

Instruct students to talk in pairs about what they think substandard L.9-10.5.a means. Lead a brief discussion about the substandard.

🗨️ Student responses may include:

- Explaining the meaning of figures of speech as they are used in a text
- Explaining what figures of speech add to a text

① Consider explaining to students that figures of speech are phrases or expressions that use words in a figurative way rather than in a literal way.

Activity 2: Homework Accountability

10%

Instruct students to take out their responses to the previous lesson’s homework assignment. (Preview the paragraphs of Stage 4 that you did not read during class, pages 243–245 (from “The time has come to do the Sausalito” to “As far as I can recollect, that was our last communal howl”). Annotate for words and phrases that establish tone, and write a brief response to the following prompt: How does the author establish tone in the second half of the Stage 4 narrative?) Instruct students to Turn-and-Talk in pairs about their responses to the homework prompt.

- ▶ Students (or student pairs) discuss and share their responses to the previous lesson’s homework prompt.
- Students may underline the following words and phrases in their copies of the text: “terrified animal” (p. 243), ““The Sausalito ... does not in any way resemble the thing that you are doing”” (p. 243), “Beads of sweat” (p. 243), ““Back to the woods! Back to the woods!”” (p. 244), “never loved someone so much” (p. 244), ““I didn’t want your help.”” (p. 244), ““You have ruined the ball!”” (p. 244), “I told myself I’d done everything I could” (p. 245), etc.
- Student responses may include:
 - Russell establishes Claudette’s sad tone in this excerpt. Like in her earlier descriptions of the ball, Claudette continues to use phrases that describe how scared she was during the ball. She describes herself as a “terrified animal” (p. 243) after Kyle pushes her into the spotlight. She also provides specific details like the “[b]eads of sweat” (p. 243) on her forehead when she cannot remember the steps of the dance.
 - Although the overall tone is sad, Claudette also has a humorous tone toward some of her memories from the dance. For example, Claudette recalls one of the nuns saying, ““The Sausalito ... does not in any way resemble the thing that you are doing”” (p. 243) when she starts pumping instead of dancing.
 - Russell establishes Claudette’s guilty tone about how Mirabella was expelled from St. Lucy’s. Claudette admits she had “never loved someone so much” (p. 244) as she did when Mirabella tackled her, but she shouts, ““I didn’t want your help.”” (p. 244) and ““You have ruined the ball!”” (p. 244). After Mirabella leaves St. Lucy’s, Claudette recalls, “I told myself I’d done everything I could” (p. 245). These details together suggest that Claudette may feel guilty for turning her back on Mirabella.

Activity 3: Reading and Discussion

60%

Instruct students to form pairs. Post or project the questions below for students to discuss. Remind students to refer to the posted rules for collegial discussion. Instruct students to observe the rules in their small groups.

- ① If necessary to support comprehension and fluency, consider using a masterful reading of the focus excerpt for the lesson.
- ① **Differentiation Consideration:** Consider posting or projecting the following guiding question to support students in their reading throughout this lesson:

How do the girls act toward each other in this excerpt?

Provide the following definitions for students: *skulk* means “move in a stealthy manner” and *lolling* means “sitting, lying, or standing in a lazy, relaxed way.”

① Students may be familiar with some of these words. Consider asking students to volunteer definitions before providing them to the class.

- ▶ Students write the definitions of *skulk* and *lolling* on their copies of the text or in a vocabulary journal.

Instruct student pairs to read page 243–244 (from “The time has come to do the Sausalito” to “Not for you’ she mouthed back”) and answer the following questions before sharing out with the class.

How does Claudette react when it is time to do the Sausalito?

- ☞ Claudette tries to avoid the Sausalito, but when Kyle pushes her in the spotlight, she becomes scared and forgets how to dance. Instead of dancing, Claudette’s wolf instincts cause her to “pump and pump” (p. 243).

Why does Claudette describe herself as a “terrified animal”?

- ☞ Claudette describes herself as a “terrified animal” (p. 243) because when she is scared her wolf-like instincts take over and her feet appear to move of their “own accord” (p. 243).

Remind students that *tone* is “the attitude that a speaker has towards the subject about which he or she is speaking.” Explain to students that the mood of a text is the emotional state or feeling that it conveys or evokes.

What details does the author use to reveal how Claudette feels when it is time to do the Sausalito?

How do these descriptions establish mood?

- ☞ The author uses the images of “[b]eads of sweat” on Claudette’s forehead and her “jaws gaping open” (p. 243) to show Claudette’s distress. These descriptions create a tense mood.

How does the interaction between Claudette and Jeanette on pages 243–244 develop each character?

- ☞ Student responses should include:
 - Claudette demonstrates a sincere need when she locks eyes with Jeanette and pleads with “mute intensity” (p. 243) for help with the dance. She also demonstrates a trust that Jeanette will help her (“[Jeanette] would help me, she would tell me what to do” (p. 243).).
 - Jeanette proves that she is more concerned with herself than helping the pack when she refuses to help Claudette.

How does the interaction between Claudette and Jeanette develop a central idea?

☛ The interaction develops the central idea of individual identity versus group identification. Claudette expects help from Jeanette, “[Jeanette] would help me, she would tell me what to do” (p. 243) as if they are part of the same pack. However, Jeanette refuses to help, ““Not for you’ she mouthed back,” (p. 244) putting her own individual success over helping a member of the pack.

- ① Consider reminding students of the term “individual identity versus group identification.” This is a term that can be used throughout the module to describe similar ideas developed in other texts in this module.
- ① Remind students that they should keep track of central ideas in the text using the Central Ideas Tracking Tool.

Lead a brief whole-class discussion of student responses.

Instruct student pairs to read page 244–245 (from “I threw my head back, a howl clawing its way up my throat” to “she could defend me against it. The nuns exchanged glances”) and answer the following questions before sharing out with the class.

- ① **Differentiation Consideration:** Consider providing students with the following definition: *fawns* means “young deer.”
 - ▶ Students write the definition of *fawns* on their copies of the text or in a vocabulary journal.

**What does Claudette mean when she says a howl was “clawing its way up [her] throat” (p. 244)?
What does this figurative language suggest about Claudette’s development during Stage 4?**

☛ This example of figurative language describes Claudette’s urge to howl as a living creature trying to escape. Claudette’s effort not to howl shows that she does not yet “feel more comfortable” or “at home” (p. 240) at St. Lucy’s, and emphasizes the conflict between her wolf and human identities.

- ① Consider explaining that Claudette’s description of the howl is a kind of imagery known as *personification*. Explain that *personification* is a type of figurative language that gives human qualities or characteristics to a nonliving object or idea.
- ① Consider drawing students’ attention to their application of standard L.9-10.5.a through the process of interpreting figurative language.

How does Mirabella react when Claudette needs help with the Sausalito, and why?

- Mirabella sees Claudette asking for help, so she chews through her shackles, tackles Claudette to the ground, and “tr[ies] to shield [Claudette] with her tiny body” (p. 244). Mirabella wants to protect Claudette; Mirabella stays on the dance floor snarling and “trying to figure out where the danger was so that she could defend [Claudette] against it” (p. 245).

How does Claudette want to react to Mirabella? How does Claudette actually react to Mirabella?

- Student responses should include:
 - Claudette wants to “roll over and lick [Mirabella’s] ears” (p. 244) to thank her.
 - Claudette rejects Mirabella and says, “I didn’t want your help” (p. 244). Claudette also tries to impress the nuns: “You have ruined the ball! I said ... hoping the nuns would hear how much my enunciation had improved” (p. 244).

What happens to Mirabella as a result of helping Claudette? How does this develop a central idea?

- The nuns decide to send Mirabella back to the woods because she “cannot adapt” (p. 244) to human culture and expectations, which develops the central idea of individual versus group identification.

Lead a brief whole-class discussion of student responses.

Instruct student pairs to read page 245 (from “In the morning, Mirabella was gone. We checked under all the beds,” to “As far as I can recollect, that was our last communal howl”) and answer the following questions before sharing out with the class.

Provide students with the following definition: *chloroformed* means “treated with a poisonous liquid especially so as to produce anesthesia, insensibility, or death.”

- ▶ Students write the definition of *chloroformed* on their copies of the text or in a vocabulary journal.

How does Claudette’s treatment of Mirabella in this excerpt contribute to her development as a character?

- Student responses may include:
 - Claudette does not thank Mirabella because “everybody was watching” (p. 244). Claudette wants to be accepted in the human culture of St. Lucy’s, so she turns her back on Mirabella even though she admits she had “never loved someone so much, before or since” (p. 244). This shows that Claudette is influenced by what her peers think of her.

- Claudette “[doesn’t] want to face Mirabella” so she prepares a gift with a “[b]est wishes” note for her (p. 245). Claudette says, “I told myself I’d done everything I could” (p. 245) even though she did not defend Mirabella for saving her from the Sausalito. Claudette knows that she did not treat Mirabella well, but Claudette’s desire to fit in at St. Lucy’s is more important to her than her relationship with Mirabella.

① Consider reminding students that they should keep track of character development in the text using the Character Tracking Tool.

Considering the events at the end of Stage 4, what is the meaning of *communal* as Claudette uses it (p. 245)? What word or words similar to *communal* help you to make sense of the meaning of *communal*?

- At the end of the stage, the girls howl together. This suggests that *communal* describes something shared by a group. *Communal* is similar to the word *community*, which also describes a group.

① Consider drawing students’ attention to the application of L.9-10.4.a and L.9-10.4.b through the process of using context and word parts to make meaning of unknown words.

How does the “last communal howl” develop a central idea of the text?

- The “last communal howl” (p. 245) is the final time the girls act together as a pack. Afterward they identify themselves as individuals instead of members of the group. This develops the central idea of individual versus group identification.

① Remind students that they should keep track of central ideas in the text using the Central Ideas Tracking Tool.

Lead a brief whole-class discussion of student responses.

Instruct student pairs to reflect on the rules they created for their discussion. Ask students if observing their rules influenced the discussion. Lead a brief share out of student responses.

Activity 4: Quick Write

15%

Instruct students to respond briefly in writing to the following prompt:

How do the interactions among the girls develop a central idea in this excerpt?

Instruct students to look at their annotations to find evidence. Ask students to use this lesson’s vocabulary wherever possible in their written responses. Remind students to use the Short Response Rubric and Checklist to guide their written responses.

- ▶ Students listen and read the Quick Write prompt.

① Display the prompt for students to see, or provide the prompt in hard copy.

Transition to the independent Quick Write.

- ▶ Students independently answer the prompt using evidence from the text.
- 🗨 See the High Performance Response at the beginning of this lesson.

Activity 5: Closing

5%

Display and distribute the homework assignment. For homework, instruct students to reread Stage 4, pages 240–245 (from “Stage 4: As a more thorough understanding of the host culture is acquired” to “As far as I can recollect, that was our last communal howl”), and respond to the following prompt:

The Stage 4 epigraph states, “As a more thorough understanding of the host culture is acquired, your students will begin to feel more comfortable in their new environment.” How accurate is this statement? Use evidence from the text to support your answer.

Ask students to use this lesson’s vocabulary wherever possible in their written responses. Remind students to use the Short Response Rubric and Checklist to guide their written responses.

Homework

Reread Stage 4, pages 240–245 (from “Stage 4: As a more thorough understanding of the host culture is acquired” to “As far as I can recollect, that was our last communal howl”), and respond to the following prompt:

The Stage 4 epigraph states, “As a more thorough understanding of the host culture is acquired, your students will begin to feel more comfortable in their new environment.” How accurate is this statement? Use evidence from the text to support your answer.

Use this lesson’s vocabulary wherever possible in your written responses. Use the Short Response Rubric and Checklist to guide your written responses.

Model Central Ideas Tracking Tool

Name:		Class:		Date:	
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Directions: Identify the central ideas that you encounter throughout the text. Trace the development of those ideas by noting how the author introduces, develops, or refines these ideas in the texts. Cite textual evidence to support your work.

Text:	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell
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Page / Paragraph #	Central Ideas	Notes and Connections
Pages 243–244	Individual identity versus group identification: Self versus pack	During the Sausalito, Claudette expects help from Jeanette, “[Jeanette] would help me, she would tell me what to do” (p. 243) as if they are part of the same pack. However, Jeanette refuses to help, ““Not for you’ she mouthed back” (p. 244), prioritizing her own personal advancement over helping a member of the pack.
Page 244	Individual identity versus group identification	Claudette does not thank Mirabella for saving her during the Sausalito because “everybody was watching” (p. 244). Her reaction develops the central idea of individual identity versus group identification. In this situation, Claudette wants to be accepted in the human culture of St. Lucy’s. Consequently, she turns her back on Mirabella even though she admits she had “never loved someone so much, before or since” (p. 244).
Page 244	Individual identity versus group identification	The nuns decide to send Mirabella back to the woods because she “cannot adapt” (p. 244) to human culture and expectations. This develops the central idea of individual versus group identification. Even though Mirabella demonstrates qualities such as compassion and loyalty, the nuns send her away because she cannot fit in with the group.

Page 245	Individual identity versus group identification	The “last communal howl” (p. 245) is the final time the girls act together as part of the pack. Afterward they identify themselves as individuals instead of members of the group. This develops the central idea of individual identity versus group identification.
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Model Character Tracking Tool

Name:		Class:		Date:	
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Directions: Use this tool to keep track of character development throughout the module. Trace character development in the texts by noting how the author introduces and develops characters. Cite textual evidence to support your work.

Text:	“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell
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Character	Trait	Evidence
Claudette	trusting	Claudette locks eyes with Jeanette and pleads with “mute intensity” (p. 243) for help with the Sausalito. She also demonstrates a trust that Jeanette will help her, “[Jeanette] would help me, she would tell me what to do” (p. 243).
	easily influenced by social pressure	Claudette “[doesn’t] want to face Mirabella” so she prepares a gift with a “[b]est wishes” note for her (p. 245). Claudette says, “I told myself I’d done everything I could” (p. 245) even though she told Mirabella “You have ruined the ball!” (p. 244) just to look good for the nuns.
Jeanette	selfish	Jeanette refuses to help Claudette when she is in trouble, “‘Not for you,’ [Jeanette] mouthed back” (p. 244).

9.1.1

Lesson 13

Introduction

In this lesson, students read and analyze the conclusion (pp. 245–246) of “St. Lucy’s Home for Girls Raised by Wolves” (from “Stage 5: At this point your students are able to interact effectively” to “I said, telling my first human lie. ‘I’m home’”). In this passage, Claudette returns to visit her family in the cave and notices how she has become different from her family members as a result of her time at St. Lucy’s. Students analyze how the conclusion to the story develops Claudette’s character and refines central ideas. After analyzing Stage 5, students begin to analyze the author’s choice to structure the story in five stages with epigraphs. Students will complete this activity in the next lesson, 9.1.1 Lesson 14. Student learning is assessed via a Quick Write at the end of the lesson: Why is Claudette’s statement “‘I’m home’” her “first human lie”?

For homework, students write a paragraph in response to the following prompt: Review Stage 5. List each of the details of Claudette’s interaction with her mother. How does this interaction develop Claudette’s character? Also for homework, students continue reading their Accountable Independent Reading (AIR) texts through the lens of focus standard RL.9-10.2 or RI.9-10.2 and prepare for a 3–5 minute discussion of their texts based on that standard.

Standards

Assessed Standard(s)	
RL.9-10.2	Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
RL.9-10.3	Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
Addressed Standard(s)	
SL.9-10.1.b	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i> , building on others’ ideas and expressing their own clearly and persuasively. b. Work with peers to set rules for collegial discussions and decision-making (e.g.,

	informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.
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Assessment

Assessment(s)
<p>Student learning is assessed via a Quick Write at the end of the lesson. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text.</p> <ul style="list-style-type: none"> Why is Claudette's statement "'I'm home'" her "first human lie"?
High Performance Response(s)
<p>A High Performance Response should:</p> <ul style="list-style-type: none"> Analyze why Claudette’s statement, “'I’m home’” is her “first human lie” (e.g., Claudette tells her family, “'I’m home’” (p. 246) but evidence from the text suggests that Claudette doesn’t really feel at home in the cave. For example, her mother “recoiled from [Claudette] as if [she] was a stranger,” and Claudette brings a meal of “prosciutto and dill pickles” while her family eats a bull moose (p. 246)).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
<ul style="list-style-type: none"> sloe-eyed (adj.) – having very dark eyes
Vocabulary to teach (may include direct word work and/or questions)
<ul style="list-style-type: none"> None.
Additional vocabulary to support English Language Learners (to provide directly)
<ul style="list-style-type: none"> None.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text: <ul style="list-style-type: none"> Standards: RL.9-10.2, RL.9-10.3, SL.9-10.1.b Text: “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell, pp. 245-246 	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 5%
2. Homework Accountability	2. 10%
3. Reading and Discussion	3. 30%
4. Quick Write	4. 15%
5. Lycanthropic Culture Shock Stage Analysis	5. 35%
6. Closing	6. 5%

Materials

- Copies of the Stage Analysis Tool for each student
- Student copies of the Short Response Rubric and Checklist (refer to 9.1.1 Lesson 1)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

5%

Begin by reviewing the agenda and the assessed standards for this lesson: RL.9-10.2 and RL.9-10.3. Students read the final stage of “St Lucy’s Home for Girls Raised by Wolves” and analyze how the conclusion develops Claudette’s character and refines the story’s central ideas. Students also begin to analyze the author’s choice to structure the story according to five stages from the *Jesuit Handbook of Lycanthropic Culture Shock*.

- ▶ Students look at the agenda.

Activity 2: Homework Accountability

10%

Instruct students to take out their responses to the previous lesson’s homework assignment. (Reread Stage 4, pages 240–245 (from “Stage 4: as a more thorough understanding of the host culture is acquired” to “As far as I can recollect, that was our last communal howl”), and respond to the following prompt: The Stage 4 epigraph states, “As a more thorough understanding of the host culture is acquired, your students will begin to feel more comfortable in their new environment.” How accurate is this statement? Use evidence from the text to support your answer.) Instruct student to form pairs and discuss their written responses to the homework assignment.

☞ Student responses may include:

- The statement “As a more thorough understanding of the host culture is acquired, your students will begin to feel more comfortable in their new environment” (p. 240) seems to be only partially accurate.
- Jeanette seems to have the best understanding of the culture at St. Lucy’s. She asks the other girls, “Have you noticed that everything’s beginning to make sense?” (p. 240). Based on the fact that Claudette looks to Jeanette for help when she is in trouble “[Jeanette] would help me, she would tell me what to do” (p. 243) and that Jeanette is able to “sit[] in the corner, sipping punch through a long straw” (p. 243), Jeanette also seems to feel the most comfortable in the new environment.
- Claudette, on the other hand, seems torn between her wolf identification and her human identity, and is at home with neither. Claudette is unwilling to identify with Mirabella, snapping: “I didn’t want your help” (p. 243) at her when she saves her from the Sausalito; although Claudette is not comfortable with many aspects of human culture as her failure at the Sausalito shows.
- Mirabella seems to have the least understanding of the new culture and is the least comfortable in the new environment. According to Jeanette, Mirabella is a “late bloomer”

(p. 240). Mirabella’s discomfort in the environment is obvious when she must sit “in a dark corner, wearing a muzzle” (p. 242) at the dance.

Lead a brief whole-class discussion of student responses.

Activity 3: Reading and Discussion

30%

Instruct students to form pairs. Post or project the questions below for students to discuss. Instruct students to continue to annotate the text as they read and discuss.

- ① If necessary to support comprehension and fluency, consider using a masterful reading of the focus excerpt for the lesson.
- ① **Differentiation Consideration:** Consider posting or projecting the following guiding question to support students in their reading throughout this lesson:

How has Claudette changed when she returns home?

Instruct student pairs to read pages 245–246 (from “Stage 5: At this point your students are able to interact effectively” to “I said, telling my first human lie. ‘I’m home’”) and answer the following questions before sharing out with the class.

Provide students with the following definition: *sloe-eyed* means “having very dark eyes.”

- ▶ Students write the definition of *sloe-eyed* on their copies of the text or in a vocabulary journal.

What does *The Jesuit Handbook on Lycanthropic Culture Shock* predict will happen to the girls in Stage 5?

- ☞ The *Handbook* suggests that students will be integrated into their new cultural environment. It also suggests that the students will “find it easy to move between the two cultures” (p. 245).

How do the descriptions of food develop the relationship between Claudette and her family?

- ☞ Claudette’s food is “prosciutto and dill pickles in a picnic basket” (p. 246). Her family is all sharing a bull moose in the cave. These differences illustrate one example of how Claudette’s diet and behavior have changed since leaving the cave.

How do Claudette’s family members react when they see her?

- ☞ Claudette’s uncle “drop[s] a thighbone from his mouth,” (p. 246) because he is surprised. Her little brother “start[s] whining in terror” (p. 246). Her mother recoils as if Claudette is a stranger (p. 246).

How do Claudette’s interactions with her family develop a central idea of the text?

- ☛ This interaction develops the central idea of individual identification versus group identity because Claudette has grown away from the group, and now her family does not recognize her. She tries to cover this up by telling her “first human lie” (p. 246).

To what extent does Claudette “find it easy to move between cultures” as described in the Stage 5 epigraph? Cite specific evidence from the text to support your claim.

- ☛ Claudette finds it difficult to move between cultures. As Claudette travels to visit her family in the cave, she cannot remember the path and “every step [makes her] sadder” (p. 246). It is also difficult for Claudette to interact normally with her family because some family members are surprised or afraid to see her.

Lead a brief whole-class discussion of student responses.

Activity 4: Quick Write**15%**

Instruct students to respond briefly in writing to the following prompt:

Why is Claudette's statement “I'm home” her "first human lie"?

Instruct students to look at their annotations to find evidence. Ask students to use this lesson’s vocabulary whenever possible in their written responses. Remind students to use the Short Response Rubric and Checklist to guide their written responses.

- ▶ Students listen and read the Quick Write prompt.

① Display the prompt for students to see, or provide the prompt in hard copy.

Transition to the independent Quick Write.

- ▶ Students independently answer the prompt using evidence from the text.
- ☛ See the High Performance Response at the beginning of this lesson.

Activity 5: Lycanthropic Culture Shock Stage Analysis**35%**

Instruct students to form small groups.

Explain that students are to revisit the story as a whole to analyze the structure of the text. Post or project the following questions for students to discuss in small groups:

How is the whole short story organized or structured?

- It is divided into five parts—the five stages of Lycanthropic Culture Shock. Each section of the story begins with a description of that stage.

Distribute copies of the Stage Analysis Tool. Explain that the headings of each column describe the information students should gather for each stage. Read the column headings aloud for the class. Explain that small groups will have time in the next lesson to complete their analysis and present it to the class.

- ▶ Students follow along.

Instruct students to reread the rightmost column heading (To what extent does the epigraph reflect the girls' actual experience?). Explain that this question may yield a complex, nuanced answer for some stages because each girl's experience is different at St. Lucy's.

- ▶ Students listen.

Instruct students to work in collaborative groups to complete the Stage Analysis Tool. Assign each small group one stage to analyze.

- ▶ Small groups work collaboratively to complete the Stage Analysis Tool.

- See Model Stage Analysis for High Performance Responses.

① If students need additional support, consider modeling how to complete all three columns for one of the stages before assigning small groups to work on the tool.

- See the Model Stage Analysis Tool for sample responses.

① Consider reminding students that this is an opportunity to apply standard SL.9-10.1.b by participating effectively in a collaborative discussion. Students may focus on setting rules for discussion, establishing clear goals and deadlines, and assigning individual roles as needed.

Ask students not to share their responses with the class during this lesson and explain that they will complete their analyses and present their responses in the next lesson.

- ▶ Students listen.

Activity 6: Closing

5%

Display and distribute the homework assignment. For homework, instruct students to write a paragraph in response to the following prompt:

Review Stage 5. List each of the details of Claudette's interaction with her mother. How does this interaction develop Claudette's character?

Ask students to use this lesson's vocabulary wherever possible in their written responses. Remind students to use the Short Response Rubric and Checklist to guide their written responses.

Also for homework, students should continue to read their AIR text through the lens of focus standard, RL.9-10.2 or RI.9-10.2, and prepare for a 3–5 minute discussion of their text based on that standard.

- ▶ Students follow along.

Homework

Write a paragraph in response to the following prompt:

Review Stage 5. List each of the details of Claudette's interaction with her mother. How does this interaction develop Claudette's character?

Use this lesson's vocabulary wherever possible in your written response. Use the Short Response Rubric and Checklist to guide your written response.

Also, continue reading your Accountable Independent Reading text through the lens of focus standard RL.9-10.2 or RI.9-10.2 and prepare for a 3–5 minute discussion of your text based on that standard.

Stage Analysis Tool

Name:		Class:		Date:	
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Directions: Use this tool to gather information from each stage about the relationship between what the epigraph says will happen and the girls’ experiences.

Stage #	What does the epigraph say will happen? (Quotation from the Epigraph)	What is the girls’ experience? (Quotation from the Text)	To what extent does the epigraph reflect the girls’ actual experience? (Analysis)
1			
2			
3			
4			
5			

Model Stage Analysis Tool

Name:		Class:	
Date:			

Directions: Use this tool to gather information from each stage about the relationship between what the epigraph says will happen and the girls’ experiences.

Stage #	What does the epigraph say will happen? (Quotation from the Epigraph)	What is the girls’ experience? (Quotation from the Text)	To what extent does the epigraph reflect the girls’ actual experience? (Analysis)
1	<p>Stage 1:</p> <p>“[E]verything is new, exciting, and interesting.” (p. 225)</p> <p>“It is fun for your students to explore their new environment.” (p. 225)</p>	<p>“The dim bedroom was windowless and odorless.” (p. 225)</p> <p>“Everything was new, exciting, and interesting.” (p. 227)</p> <p>“[Mirabella] backed towards the far corner of the garden ... It took them two hours to pin her down” (p. 228-229)</p>	<p>The girls have never been in a house, let alone a special school. The school is interesting and exciting—but very different from their old homes.</p> <p>The girls find the environment fun, for the most part, but Mirabella is also scared of the new environment.</p>
2	<p>Stage 2:</p> <p>“[S]tudents feel isolated, irritated, bewildered, depressed, or generally uncomfortable.” (p. 229)</p> <p>“They may spend a lot of time daydreaming during this period.” (p. 229)</p>	<p>“The whole pack was irritated, bewildered, depressed. We were all uncomfortable, and between languages.” (p. 229)</p> <p>“We spent a lot of time daydreaming during this period.” (p. 233)</p>	<p>At this point in the girls’ development, they are literally between two different worlds but trying to become bilingual. They want to be able to fit into this human world, but things are different here – and uncomfortable, both physically and emotionally. For instance, the narrator feels physically uncomfortable wearing human shoes since she is used to being on all fours, but she is also emotionally uncomfortable watching</p>

			Mirabella begin to fail at becoming human.
3	<p>Stage 3:</p> <p>“[Students] reject the host culture and withdraw into themselves.” (p. 235)</p> <p>“Your students may feel that their own culture’s lifestyle and customs are far superior to those of the host country.” (p. 235)</p>	<p>“[Mirabella] hated the spongy, long-dead foods we were served” (p. 236)</p> <p>“Jeanette was learning how to dance.” (p. 237)</p> <p>“The following day, Jeanette golfed.” (p. 239)</p> <p>“Things had been so much simpler in the woods.” (p. 238)</p>	<p>Jeanette and Claudette do not appear to reject the host culture. Jeanette even dances and golfs.</p> <p>Mirabella, however, appears to find the wolf culture superior.</p>
4	<p>Stage 4:</p> <p>“Your students feel more at home, and their self-confidence grows.” (p. 240)</p> <p>“Everything begins to make sense.” (p. 240)</p>	<p>Jeanette asks, “Have you noticed that everything’s beginning to make sense?” (p. 240)</p> <p>“inured to our own strangeness” (p. 242)</p> <p>“I was just a terrified animal” (p. 243)</p> <p>“Mirabella cannot adapt!” (p. 244)</p>	<p>Jeanette seems to feel more at home and confident, but Claudette is deeply uncomfortable because of the ball.</p> <p>Mirabella continues to be the least “at home” and is ultimately expelled from St. Lucy’s because she cannot fit in.</p>
5	<p>Stage 5:</p> <p>“They find it easy to move between the two cultures.” (p. 245)</p>	<p>“‘So,’ I said, telling my first human lie. ‘I’m home.’” (p. 246)</p>	<p>Claudette returned to her family in the cave. She finds that everything seems smaller, and not quite like she remembers it. Her family waits patiently for her to tell them about her time at St. Lucy’s, and Claudette begins to oblige. However, she takes on a human characteristic of lying to her family before she begins. This shows that Claudette is able to move between two cultures but she does not necessarily find it easy.</p>

9.1.1 Lesson 14

Introduction

In this lesson, students continue their analysis of the structure of “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell. Small groups prepare to present their analysis of one of the five stages from the story. As groups present their analysis, all students complete a Stage Analysis Tool for the entire short story. Students also engage in a whole-class discussion of Russell’s choice to structure the story according to stages from *The Jesuit Handbook on Lycanthropic Culture Shock*. Student learning is assessed via a Quick Write at the end of the lesson: Analyze the impact of Russell’s choice to use epigraphs to structure the text.

For homework, students continue their Accountable Independent Reading (AIR) through the lens of focus standard RL.9-10.2 or RI.9-10.2 and prepare for a brief discussion of their text based on that standard. For homework, students also review “St. Lucy’s Home for Girls Raised by Wolves” and respond to the following prompt: Select a character from “St. Lucy’s Home for Girls Raised by Wolves.” How does Russell use physical descriptions to develop this character?

Standards

Assessed Standard(s)	
RL.9-10.5	Analyze how an author’s choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise.
Addressed Standard(s)	
SL.9-10.1.c	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i> , building on others’ ideas and expressing their own clearly and persuasively. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
SL.9-10.4	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development,

	substance, and style are appropriate to purpose, audience, and task.
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Assessment

Assessment(s)
<p>Student learning is assessed via a Quick Write at the end of the lesson. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text.</p> <ul style="list-style-type: none"> • Analyze the impact of Russell’s choice to use epigraphs to structure the text.
High Performance Response(s)
<p>A High Performance Response should:</p> <ul style="list-style-type: none"> • Make a claim about the impact of Russell’s choice to use epigraphs to structure the text (e.g., The epigraphs allow the reader to see what the nuns at St. Lucy’s expect the girls to do in each part of the story; structuring the text with epigraphs that represent the five stages of progression as the girls transition to a new culture allows the reader to compare each girl’s different experience to the expectations at St. Lucy’s). • Provide details from the text to support analysis (e.g., the Stage 5 epigraph states that students “find it easy to move between the two cultures” (p. 245). Evidence from the story suggests that this may be only partially true. Claudette is able to “tell[] [her] first human lie” (p. 246) but she does not fit in with her family because she has changed so much from her experience at St. Lucy’s. It appears that Claudette may be able to move between the two cultures, but she does not find it easy to live in either culture).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
<ul style="list-style-type: none"> • None.*
Vocabulary to teach (may include direct word work and/or questions)
<ul style="list-style-type: none"> • None.*
Additional vocabulary to support English Language Learners (to provide directly)
<ul style="list-style-type: none"> • None.*

*Because this is not a close reading lesson, there is no specified vocabulary. However, in the process of returning to the text, students may uncover unfamiliar words. Teachers can guide students to make meaning of these words using the strategies outlined in L.9-10.4.a-d.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text:	
<ul style="list-style-type: none"> Standards: RL.9-10.5, SL.9-10.1.c, SL.9-10.4 Text: “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell 	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 10%
2. Homework Accountability	2. 10%
3. Lycanthropic Culture Shock Stage Analysis	3. 15%
4. Lycanthropic Culture Shock Stage Presentations	4. 30%
5. Text Structure Discussion	5. 20%
6. Quick Write	6. 10%
7. Closing	7. 5%

Materials

- Student copies of the Stage Analysis Tool (refer to 9.1.1 Lesson 13)
- Student copies of the Short Response Rubric and Checklist (refer to 9.1.1 Lesson 1)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

10%

Begin by reviewing the agenda and the assessed standard for this lesson: RL.9-10.5. Students complete their Stage Analysis tools and then present their analyses to the class. They also engage in a brief whole-class discussion about Russell’s choice to structure the story with epigraphs according to five stages.

- ▶ Students look at the agenda.
-

Instruct students to take out their copies of the 9.1 Common Core Learning Standards Tool. Inform students that in this lesson they begin to work with a new standard: SL.9-10.4. Ask students to individually read this standard on their tools and assess their familiarity with and mastery of it.

- ▶ Students read and assess their familiarity with standard SL.9-10.4.

Instruct students to talk in pairs about what they think the standard means. Lead a brief discussion about the standard.

🗨 Student responses may include:

- Focus on how you present information orally, remembering to be clear and logical.
- Present in a way that is compelling and clear for a specific audience.
- Present in a way that is appropriate to the task you are trying to accomplish.

Activity 2: Homework Accountability

10%

Instruct students to talk in pairs about how they applied the focus standard RL.9-10.2 or RI.9-10.2 to their AIR texts. Lead a brief share out on the previous lesson’s AIR homework assignment. Select several students (or student pairs) to explain how they applied the focus standard to their AIR texts.

- ▶ Students (or student pairs) discuss and share how they applied the focus standard to their AIR texts from the previous lesson’s homework.
-

Instruct students to take out their responses to the previous lesson’s homework assignment. (Review Stage 5. List each of the details of Claudette’s interaction with her mother. How does this interaction develop Claudette’s character?) Instruct students to Turn-and-Talk in pairs about their response to Lesson 13’s homework assignment.

🗨 Students should list the following details from page 246 of “St. Lucy’s Home For Girls Raised by Wolves”:

- Claudette's mother "recoil[s] from [Claudette], as if [she] was a stranger."
- Claudette's mother asks "TRRR?" which seems to be Claudette's given name in the pack.
- Claudette's mother "sniff[s] [Claudette] for a long moment" to check if it is really her.
- Claudette's mother "[sinks] her teeth into [Claudette's] ankle, looking proud and sad."
- Claudette's mother looks at her to see a "display of what [she] had learned."
- Claudette lies to her mother when she says, "'I'm home.'"

🗨️ Student responses may include:

- The details of Claudette's interaction with her mother show how much Claudette has changed since she left home. Her own mother does not recognize her at first and "recoil[s] from [Claudette], as if [she] was a stranger" (p. 246). Claudette's mother needs to use her wolf instincts to verify Claudette's identity: she "sniff[s] [Claudette] for a long moment" to check if it is really her (p. 246).
- Claudette is so different that she will likely not fit in with her real family anymore, which makes her mother "proud and sad" (p. 246). When Claudette's mother sinks her teeth into Claudette's ankle, it reflects Mirabella's behavior and the kind of habits Claudette lost after she moved to St. Lucy's. Claudette's final reflection that "'I'm home'" is a lie confirms that Claudette does not feel like a member of the family anymore (p. 246).

Activity 3: Lycanthropic Culture Shock Stage Analysis

15%

Instruct students to return to their groups from the previous lesson and complete the analysis of their assigned stage. Remind students that they present their analyses to the class so every student can complete the Stage Analysis Tool for all five stages.

- ▶ Students return to their groups and prepare for the group presentations.

Activity 4: Lycanthropic Culture Shock Stage Presentations

30%

Instruct each group to share their stage analysis with the class. Instruct students to limit their presentations to two minutes.

- ▶ Students present their stage analyses to the class.

As small groups share their analyses, the rest of the class continues to annotate the text with new ideas and details and complete their Stage Analysis Tools for the stages they have not yet completed.

- ▶ Students annotate their texts and complete their Stage Analysis Tools.

🗨️ See 9.1.1 Lesson 13 for Model Stage Analysis Tool.

- ① As students present their analyses, consider providing reminders and recognizing presentations that demonstrate the skills of SL.9-10.4. Specifically, listen for presentations that are clear, concise, and logical.

Allow students time to complete their Stage Analysis Tools for the stages they have not yet completed.

- ▶ Students complete all stages on the Stage Analysis tool.
- 🗨 See Model Stage Analysis Tool in 9.1.1 Lesson 13 for sample student responses

Activity 5: Text Structure Discussion

20%

Transition to a whole-class discussion on Russell’s structural choices in “St Lucy’s Home for Girls Raised by Wolves.”

Post or project the following questions to guide the discussion. If time allows, encourage students to propose additional questions to propel the conversation.

- ① Consider reminding students that this is an opportunity to apply standard SL.9-10.1.c by participating effectively in a collaborative discussion. Students may focus on posing and responding to questions, incorporating others into the discussion and challenging or verifying ideas and conclusions.

Who is the original audience of *The Jesuit Handbook on Lycanthropic Culture Shock*? How do you know?

- 🗨 The original audience is people like the nuns who care for students like the girls at St. Lucy’s. The epigraphs include language like “your students” (p. 245), which indicates that the handbook was written for teachers of girls like those at St. Lucy’s.

How do the epigraphs affect the reader’s experience with the text?

- 🗨 Student responses may include:
 - Structuring the text using epigraphs allows the reader to follow the characters’ development. For example, the nuns expect the girls to move from a stage in which “everything is new, exciting, and interesting” (p. 225) in the beginning all the way to a point of “find[ing] it easy to move between the two cultures” (p. 245) by the end.
 - Reading the epigraphs before reading about the girls experience allows the reader to predict what will happen in the story. For example, the Stage 4 epigraph says, “Everything begins to

- make sense” (p. 240). This allows the reader to predict that for some girls things will start to make more sense during this stage.
- Some girls experience exactly what the epigraph predicts, but other girls, usually Mirabella, have a different experience. For example, the Stage 2 epigraph says, “students realize that they must work to adjust to the new culture” (p. 229). The reader can compare each girl’s experience to see if they realize they must work to adjust to the new culture. For Mirabella and Jeanette, especially, the experience is very different.

Activity 6: Quick Write

10%

Instruct students to respond briefly in writing to the following prompt:

Analyze the impact of Russell’s choice to use epigraphs to structure the text.

Instruct students to look at their annotations to find evidence. Ask students to use this lesson’s vocabulary whenever possible in their written responses. Remind students to use the Short Response Rubric and Checklist to guide their written responses.

- ▶ Students listen and read the Quick Write prompt.

① Display the prompt for students to see, or provide the prompt in hard copy.

Transition to the independent Quick Write.

- ▶ Students independently answer the prompt using evidence from the text.
- 🗨 See the High Performance Response at the beginning of this lesson.

Activity 7: Closing

5%

Display and distribute the homework assignment. For homework, instruct students to continue reading their AIR texts through the lens of focus standard RL.9-10.2 or RI.9-10.2 and prepare for a 3–5 minute discussion of their text based on the standard.

Also for homework, instruct students to review “St. Lucy’s Home for Girls Raised by Wolves” and write a paragraph in response to the following prompt:

Select a character from “St. Lucy’s Home for Girls Raised by Wolves.” How does Russell use physical descriptions to develop this character?

Ask students to use this lesson’s vocabulary wherever possible in their written responses. Remind students to use the Short Response Rubric and Checklist to guide their written responses.

- ▶ Students follow along.

Homework

Continue reading your Accountable Independent Reading text through the lens of focus standard RL.9-10.2 or RI.9-10.2 and prepare for a 3–5 minute discussion of your text based on that standard.

Review “St. Lucy’s Home for Girls Raised by Wolves” and write a paragraph in response to the following prompt:

Select a character from “St. Lucy’s Home for Girls Raised by Wolves.” How does Russell use physical descriptions to develop this character?

Use this lesson’s vocabulary wherever possible in your written responses. Use the Short Response Rubric and Checklist to guide your written responses.

9.1.1

Lesson 15

Introduction

In this lesson, students consider the text of Karen Russell’s “St. Lucy’s Home for Girls Raised by Wolves” in its entirety as they examine the development of the main character and narrator, Claudette, and the larger question of identity. Students develop their speaking and listening skills by participating in a small-group discussion to consider the following prompt: Has Claudette fully adapted to human society by the end of the story? Students then self-assess their contributions to the discussion and complete the 9.1.1 Lesson 15 Exit Slip in which they compare their ideas before and after the discussion and analyze the arguments and evidence that changed or confirmed their thinking.

For homework, students begin to gather evidence for their responses to the prompt for the End-of-Unit Assessment.

Standards

Assessed Standard(s)	
RL.9-10.3	Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
SL.9-10.1.b, c	<p>Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p> <p>b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.</p> <p>c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.</p>
Addressed Standard(s)	
None.	

Assessment

Assessment(s)

Student learning is assessed via a small-group discussion. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text:

- Has Claudette fully adapted to human society by the end of the story?
- ① The discussion will be assessed using the 9.1 Speaking and Listening Rubric and the 9.1.1 Lesson 15 Exit Slips completed by students at the end of the lesson.

High Performance Response(s)

A High Performance Response should:

- Make a claim about whether Claudette has adapted to human society by the end of the story (e.g., Claudette has adapted fully to human society; Claudette has partially adapted to human society).
- Use textual evidence to support the claim.

A High Performance Response may include the following evidence in support a claim. The text is dense and rich in character development, so High Performance Responses may vary widely:

- By the end of the story Claudette no longer has any of the wolf behaviors she exhibited earlier in the story, so she has fully adapted to human society. She walks on two feet and has to “duck [her] head to enter” (p. 246) the cave instead of “knuckling along the wooden floor on the calloused pads” (p. 226) and she tells “[her] first human lie” because she can no longer truthfully say that she is at home in the cave with her wolf family (p. 246).
- Claudette can manage basic social interactions, such as conversing with Kyle, but she struggles at the dance before graduation when required to manage more complex tasks, such as the Sausalito, and becomes “a terrified animal again” (p. 243). This demonstrates that although Claudette is trying to adapt, she has not fully adapted by the end of the story. Even though she cannot fully function in human society, the end of the story demonstrates that Claudette is also no longer able to function effectively in wolf society, as she visits her family in her “best dress”, brings inappropriate food (“prosciutto and dill pickles”), and feels compelled to tell her “first human lie” when she tells her family, “I’m home” (p. 246).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)

- None.*

Vocabulary to teach (may include direct word work and/or questions)
<ul style="list-style-type: none"> • None.*
Additional vocabulary to support English Language Learners (to provide directly)
<ul style="list-style-type: none"> • None.*

*Because this is not a close reading lesson, there is no specified vocabulary. However, in the process of returning to the text, students may uncover unfamiliar words. Teachers can guide students to make meaning of these words using the strategies outlined in L.9-10.4.a-d.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
<p>Standards & Text:</p> <ul style="list-style-type: none"> • Standards: RL.9-10.3, SL.9-10.1.b, c • Text: “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell <p>Learning Sequence:</p> <ol style="list-style-type: none"> 1. Introduction of Lesson Agenda 2. Homework Accountability 3. Discussion Preparation 4. Small-Group Discussion 5. Self-Assessment of Speaking and Listening 6. Completion of 9.1.1 Lesson 15 Exit Slip 7. Closing 	<ol style="list-style-type: none"> 1. 5% 2. 10% 3. 30% 4. 25% 5. 10% 6. 10% 7. 10%

Materials

- Copies of the Lesson 15 Discussion Prompt for each student
- Copies of the Stage Evidence Gathering Tool for each student
- Copies of the 9.1 Speaking and Listening Rubric and Checklist for standard SL.9-10.1.b, c for each student
- Copies of the 9.1.1 Lesson 15 Exit Slip for each student
- Student copies of the Short Response Rubric and Checklist (refer to 9.1.1 Lesson 1)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

5%

Begin by reviewing the agenda and the assessed standards for this lesson: RL.9-10.3 and SL.9-10.1.b, c. In this lesson, students participate in a jigsaw discussion to explore the extent to which Claudette has adapted to human society by the end of the story. Students assess their own learning using the 9.1 Speaking and Listening Rubric and Checklist and complete the 9.1.1 Lesson 15 Exit Slip to demonstrate their understanding.

- ▶ Students look at the agenda.

Activity 2: Homework Accountability

10%

Instruct students to talk in pairs about how they applied the focus standard RL.9-10.2 or RI.9-10.2 to their Accountable Independent Reading (AIR) texts. Lead a brief share out on the previous lesson’s AIR homework assignment. Select several students (or student pairs) to explain how they applied the focus standard to their AIR texts.

- ▶ Students (or student pairs) discuss and share how they applied the focus standard to their AIR texts from the previous lesson’s homework.

Instruct students to take out their responses to the previous lesson’s homework assignment. (Review “St. Lucy’s Home for Girls Raised by Wolves” and write a paragraph in response to the following prompt: Select a character from “St. Lucy’s Home for Girls Raised by Wolves.” How does Russell use physical descriptions to develop this character?) Instruct students to discuss their responses to the homework assignment.

- ☞ Student responses may include:

- The pack: Russell uses physical descriptions to develop the pack as very wolf-like in their early days at St. Lucy's. Claudette remarks that "[o]ur pack was hirsute and sinewy and mostly brunette. We had terrible posture. We went knuckling along ... on the calloused pads of our fists, baring row after row of tiny, wood-rotted teeth," making the pack sound wild and animal-like (p. 226). Later, during Stage 2, Russell shows the pack's development when Claudette remarks that "[a]lmost everybody was fully bipedal" (p. 230), showing through physical description how the pack is starting to shift from wolf behavior to human behavior.
- Jeanette: The physical descriptions of Jeanette show her rapid progress from wolf characteristics to human characteristics. She is first introduced with "straggly nut-brown hair" that she holds away from her head in an "improvised bristle" (p. 228), making her seem wolf-like, but by Stage 2, she has "cut her pelt into bangs" and is "delicately extend[ing] her former paws to visitors, wearing white kid gloves" (p. 232) as she adapts to the manners and appearance of human girls.
- Mirabella: Mirabella's difficulty in adapting to life at St. Lucy's can be seen through Russell's use of physical description. She is introduced as the most resistant of the pack to the nun's naming of the girls, using her hands to "flatten her ears to the side of her head ... snarling in the most menacing register that an eight-year-old wolf-girl can muster" (pp. 228–229). The gap between Mirabella and the rest of the pack is apparent in the descriptions of her difficulty in walking: as the pack becomes bipedal, Mirabella still has "knobby, oddly muscled legs" and is "still loping around on all fours...her fists blue-white from the strain" (p. 231). The strain of life at St. Lucy's can be seen in Stage 3 when "[Mirabella's] teeth were ground down to nubbins; her hair was falling out...her ribs were poking through her uniform. Her bright eyes had dulled to a sour whiskey color" (p. 236). Similarly, at the Debutante Ball, Mirabella's outfit, which includes "little bows on the muzzle" she has to wear to the party, along with "party culottes" that are "duct-taped to her knees," highlights her failure to adapt (p. 242).
- Claudette: Claudette describes herself in her early days at St. Lucy's as "stumb[ing] around in a daze, [her] mouth black with shoe polish," as she struggles to adjust to St. Lucy's (p. 229). In Stage 2, she continues to show wolf-like characteristics, despite her efforts, for example when she fights with Mirabella on the way to the duck pond, and is found "[h]unched in the long cattails, [her] yellow eyes flashing, shoving ragged hunks of bread into [her] mouth" (p. 234). The tension between Claudette's struggle to gain a human identity and her wolf identification is clear at the Debutant Ball: Claudette, "wearing a white organdy dress with orange polka dots" and her hair in a "high, bouffant hairstyle[]," narrows her eyes at Kyle and flattens her ears when she gets nervous, showing that under pressure, she still goes back to wolf behaviors (p. 242).

Activity 3: Discussion Preparation

30%

Distribute the 9.1 Speaking and Listening Rubric and Checklist for standard SL.9-10.1.b, c. Explain to students that this lesson requires them to continue the work of collaborative discussion outlined in SL.9-10.1.b, c and to self-assess their mastery of these skills. Remind students that these discussion skills scaffold toward future discussions in this unit and module.

Review the 9.1 Speaking and Listening Rubric and Checklist with students, pausing to allow opportunity for students to pose any questions they may have.

① You may consider asking students to read the 9.1 Speaking and Listening Rubric and Checklist independently or in groups.

- ▶ Students review the 9.1 Speaking and Listening Rubric and Checklist.

Distribute the discussion prompt and explain that the purposes of the discussion are to help students to think critically about a prompt and make an evidence-based claim while practicing speaking and listening skills. Instruct students to gather their notes, annotations, and tools and review them for the purpose of making a claim in response to the prompt.

Distribute the Stage Evidence Gathering Tool. Instruct students to identify evidence from each stage that supports their claim, using the Stage Evidence Gathering Tool.

- ▶ Students identify evidence and make a claim in response to the discussion prompt.

🗨 See Model Stage Evidence Gathering Tool for sample student responses.

Activity 4: Small-Group Discussion

25%

Instruct students to form groups of four for a small-group discussion. Explain that first, each student shares a claim about whether Claudette has adapted to human society by the end of the story, providing text evidence to support the claim. Next, other students engage the speaker in discussion about the speaker's claim and evidence, using their own claims and evidence as entry points.

Post or project the following guiding questions for the student discussion groups to consider:

Is each claim fully supported by text evidence? Why or why not?

What additional evidence could support the claims made?

What other claims could be made about whether Claudette has adapted to human society?

① **Differentiation Consideration:** Consider preparing and posting sentence frames as a support for students during the discussion:

- I think Claudette has/has not adapted to human society because — (textual evidence + analysis)
 - I respectfully disagree with you because — (textual evidence + analysis)
 - I can add to that evidence because the text also says — (textual evidence + analysis)
 - ▶ Students engage in discussion about their claims and respond to the claims of others.
- ① Consider reminding students that their responses to the prompt should be nuanced, weighing the significance of various pieces of evidence and taking into account contradictory evidence.
- ① Consider reminding students of their work with SL.9-10.1.b, c as they participate in a collaborative discussion. Instruct students to focus on setting rules for collegial discussion and decision making, establishing individual roles, posing and responding to questions, incorporating others into the discussion, and challenging or verifying ideas and conclusions.

Activity 5: Self-Assessment of Speaking and Listening

10%

Instruct students to self-assess their mastery of the speaking and listening norms and expectations. Instruct students to use the 9.1 Speaking and Listening Rubric and Checklist to assess their application of these skills in their small groups. Also instruct students to provide a 1–2 sentence explanation of the self-assessment.

- ▶ Students self-assess their speaking and listening skills.

Activity 6: Completion of 9.1.1 Lesson 15 Exit Slip

10%

Distribute the Lesson 9.1.1 Lesson 15 Exit Slip. Instruct students to complete the 9.1.1 Lesson 15 Exit Slip independently.

- ▶ Students complete the 9.1.1 Lesson 15 Exit Slip independently.

Activity 7: Closing

10%

Introduce the End-of-Unit Assessment prompt, to which students will respond in a multi-paragraph response in 9.1.1 Lesson 17:

Analyze Claudette’s development in relation to the five stages of Lycanthropic Culture Shock.

Explain that this prompt requires students to explain the significance of the similarities and differences in Claudette’s experience and the stages of Lycanthropic Culture Shock described by the epigraphs.

Display and distribute the homework assignment. For homework, instruct students to write a paragraph in response to the following prompt:

Make a claim about Claudette’s development in each stage.

Instruct students to write one claim for each stage, five claims in total. Ask students to use this unit’s vocabulary wherever possible in their written responses. Remind students to use the Short Response Rubric and Checklist to guide their written responses.

- ▶ Students follow along.

Homework

Write a paragraph in response to the following prompt:

Make a claim about Claudette’s development in each stage.

Write one claim for each stage, five claims in total. Use this unit’s vocabulary wherever possible in your written responses. Use the Short Response Rubric and Checklist to guide your written responses.

Stage Evidence Gathering Tool

Name:		Class:		Date:	
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Directions: Use this tool to gather evidence from each stage about whether Claudette has adapted to human society, and make a claim in response to the prompt.

Prompt: Has Claudette fully adapted to human society by the end of the story?

Stage	Claudette has adapted to human society	Claudette has not adapted to human society
Stage 1		
Stage 2		

Stage 3		
Stage 4		
Stage 5		
<p>Claim:</p>		

Model Stage Evidence Gathering Tool

Name:		Class:		Date:	
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Directions: Use this tool to gather evidence from each stage about whether Claudette has adapted to human society, and make a claim in response to the prompt.

Prompt: Has Claudette fully adapted to human society by the end of the story?

Stage	Claudette has adapted to human society	Claudette has not adapted to human society
Stage 1	<p>Claudette eats cupcakes (p. 226), showing she is able to eat human food.</p> <p>Claudette and the other girls wear “new jumpers” (p. 226).</p>	<p>Claudette and the rest of the pack spray “exuberant yellow streams all over the bunks” to remedy the “odorless” bedroom (p. 225).</p> <p>Claudette’s nose aches “beneath the invisible assault” of “human odor” (p. 227–228).</p> <p>Claudette introduces herself as part of “our pack” (p. 225): she and the other girls throw back their heads “in a celebratory howl” (p. 227) and she says, “The pack used to dream the same dreams back then, as naturally as we drank the same water and slept on the same red scree” (p. 228).</p> <p>Claudette “clamp[s] down on [Sister Maria de la Guardia’s] ankle, straining to close [her] jaws around the wooly XXL sock” (p. 226).</p> <p>Like the rest of the pack, Claudette runs with the other</p>

		<p>girls “in a loose, uncertain circle” and senses “some subtler danger afoot” (p. 228) when the nuns come to give the girls nametags.</p>
<p>Stage 2</p>	<p>Claudette is wearing “square-toed shoes” and learning to walk on two feet instead of four (p. 229).</p> <p>Eventually Claudette and the other girls give up trying to “make [their] scent stick” (p. 230).</p> <p>Claudette follows the nuns’ instructions to tell Mirabella, “Lick your own wounds” (p. 235).</p> <p>“Being around other humans ha[s] awakened a slavish-dog affection” and “[a]n abasing, belly-to-the-ground desire to please” (p. 231).</p> <p>Claudette has learned to see “loping around on all fours” as “unnatural and ridiculous” and can “barely believe it now, the shame of it, that [she] used to locomote like that!” (p. 231).</p> <p>Claudette is “reading at a fifth-grade level, halfway into Jack London’s <i>The Son of the Wolf</i>” (p. 235).</p>	<p>Claudette is homesick: she says that she “had never wanted to run away so badly” in her life (p. 229); “It was impossible to make the blank, chilly bedroom feel like home” (p. 230); she and the other girls dream of “rivers and meat,” especially on “full-moon nights” (p. 229); the moonlight “beckon[s] [her] from the woods” (p. 230).</p> <p>Claudette finds it difficult to “will” her tongue to curl around the “false new names” the nuns have assigned the girls (p. 229): like the rest of the pack, she is “uncomfortable, and between languages” (p. 229).</p> <p>Claudette is not comfortable with human behaviors: she does not automatically walk with her mouth closed and finds it hard to keep her shoes on (p. 229).</p> <p>Claudette finds the etiquette of humans “confounding” and wonders, “How can people live like they do?” (p. 235).</p> <p>When Claudette fights with Mirabella, she “snarl[s] at her and</p>

		<p>then “push[es her] ears back from [her] head” and bites her (p. 234). After the fight the nuns find Claudette “[h]unched in the long cattails, [her] yellow eyes flashing, shoving ragged hunks of bread” into her mouth (p. 234).</p>
<p>Stage 3</p>	<p>Claudette is acquiring human habits: she, along with the other girls, takes “dainty bites of peas and borscht” (p. 236); she meets her “first purebred girls” (p. 237), learns to play checkers (p. 237) and to ride a bicycle (p. 238) as well as trying to learn the Sausalito (p. 238).</p> <p>Claudette wants to separate herself from Mirabella: when the nuns are talking about Mirabella she chooses to identify with the humans rather than with Mirabella, saying “If we were back home, and Mirabella had come under attack; I would have warned her. But the truth is that by Stage 3 I wanted her gone” (p. 236).</p> <p>Claudette is improving her language skills: “none of the pack besides me could read yet” (p. 239).</p> <p>Claudette is losing her wolf identity as she struggles “to conjure up a picture” of the mother while watching clouds</p>	<p>Claudette is uncomfortable with humans: “It made us nervous to meet new humans. There were so many things that we could do wrong! And the rules here were different depending on which humans we were with” (p. 237).</p> <p>Claudette feels “a low mad anger at the nuns” for announcing the dance before the girls are ready (p. 238) and describes how, when the nuns announce the dance, the girls’ “invisible tails went limp” (p. 238), suggesting that like the rest of the pack, she still retains many wolf-like characteristics.</p> <p>Claudette is not “ready to claim a common language with Jeanette” (p. 239), who has made the most progress adapting to human society.</p>

	through the chapel windows (p. 239).	
Stage 4	<p>Claudette ignores Jeanette when she asks for help, saying, “I was worried only about myself. By that stage I was no longer certain of how the pack felt about anything” (p. 241).</p> <p>Claudette refuses Mirabella’s help because “everybody was watching” and it is more important for Claudette to get the nuns’ approval than to acknowledge Mirabella (p. 244).</p> <p>Claudette doesn’t “want to face Mirabella” when she leaves (p. 245). She packs a lunch for Mirabella and sends “a little note” (p. 245).</p> <p>At the dance, Claudette looks like a human girl: the nuns have “swept [her] hair back into [a] high, bouffant hairstyle[.]” (p. 242). She is wearing “a white organdy dress with orange polka dots” (p. 242).</p> <p>Claudette is trying to act like a human girl at the dance: she tries to “mask [her] natural, feral scent” (p. 242).</p>	<p>Claudette is uncomfortable in human settings. Her conversation is limited because she has “only gotten up to Unit 7: Party Dialogue” and has not learned the vocabulary she needs to discuss other topics (p. 242).</p> <p>Claudette still has wolf behaviors when she gets nervous: she “narrow[s] her eyes” and “flatten[s] [her] ears” at Kyle (p. 242), and when she gets anxious because she has to do the Sausalito, “the only thing [her] body could remember how to do was pump and pump” and her feet start “to wiggle out of [her] shoes” (p. 243). In short, she becomes “a terrified animal again” (p. 243).</p>
Stage 5	Claudette needs the woodsman	Claudette remains connected to

	<p>to accompany her on her visit home because she can't remember "how to find the way back on [her] own" (p. 246) and she doesn't recognize that "prosciutto and dill pickles" (p. 246) are not appropriate foods for wolves, suggesting that she has lost touch with wolf culture.</p> <p>Claudette is no longer comfortable in a wolf setting: "[t]he cave looked so much smaller than [she] remembered it" (p. 246), and because she now walks upright on two feet, she has to duck her head to enter the cave.</p> <p>Claudette is no longer part of her wolf family: her brother starts "whining in terror" when he sees her and her mother "recoil[s] from [her], as if [she] was a stranger" (p. 246). She says she tells her "first human lie" when she says, "'I'm home'" (p. 246).</p>	<p>her wolf culture: every step home makes her "sadder" (p. 246) because she realizes that she will not really fit in with her wolf family, even though she loves them. She tells her "first human lie" when she says "'I'm home'" because she does not want to hurt her parents (p. 246).</p>
<p>Claim: Claudette has only partially adapted to human society: she is comfortable in neither wolf nor human culture.</p>		

9.1 Speaking and Listening Rubric

____ / ____ (Total points)

Criteria	4 – Responses at this Level:	3 – Responses at this Level:	2 – Responses at this Level:	1 – Responses at this Level:
<p>Command of Evidence and Reasoning</p> <p>The extent to which the speaker demonstrates preparation for the discussion by explicitly drawing on evidence from texts and/or other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>CCSS.ELA-Literacy.SL.9-10.1</p> <p>Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p> <p>The extent to which the speaker propels conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporates others into the discussion; and clarifies, verifies, or challenges ideas and conclusions.</p> <p>CCSS.ELA-Literacy.SL.9-10.1.c</p> <p>Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the</p>	<p>Skillfully propel conversations by consistently posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; consistently clarify, verify, or challenge ideas and conclusions. (SL.9-10.1.c)</p>	<p>Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; incorporate others into the discussion; clarify, verify, or challenge ideas and conclusions. (SL.9-10.1.c)</p>	<p>Somewhat effectively propel conversations by inconsistently posing and responding to questions that relate the current discussion to broader themes or larger ideas; occasionally incorporate others into the discussion; inconsistently clarify, verify, or challenge ideas and conclusions. (SL.9-10.1.c)</p>	<p>Ineffectively propel conversations by rarely posing and responding to questions that relate the current discussion to broader themes or larger ideas; rarely incorporate others into the discussion; rarely clarify, verify, or challenge ideas and conclusions. (SL.9-10.1.c)</p>

Criteria	4 – Responses at this Level:	3 – Responses at this Level:	2 – Responses at this Level:	1 – Responses at this Level:
discussion; and clarify, verify, or challenge ideas and conclusions.				
<p>Collaboration and Presentation</p> <p>The extent to which the speaker works with peers to set rules for collegial discussions and decision-making, clear goals and deadlines and individual roles as needed.</p> <p>CCSS.ELA-Literacy.SL.9-10.1</p> <p>Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p> <p>CCSS.ELA-Literacy.SL.9-10.1.b</p> <p>Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternative views), clear goals and deadlines, and individual roles as needed.</p>	<p>Skillfully work with peers to set rules for collegial discussions and decision-making, clear goals and deadlines, and individual roles as needed. (SL.9-10.1.b)</p>	<p>Work with peers to set rules for collegial discussions and decision-making, clear goals and deadlines, and individual roles as needed. (SL.9-10.1.b)</p>	<p>Somewhat effectively work with peers to set rules for collegial discussions and decision-making, clear goals and deadlines, and individual roles as needed. (SL.9-10.1.b)</p>	<p>Work ineffectively with peers to set rules for collegial discussions and decision-making, clear goals and deadlines, and individual roles as needed. (SL.9-10.1.b)</p>

- A response that is a personal response and makes little or no reference to the task or text can be scored no higher than a 1.
- A response that is totally copied from the text with no original writing must be given a 0.
- A response that is totally unrelated to the task, illegible, incoherent, blank, or unrecognizable as English must be scored as a 0.

9.1 Speaking and Listening Checklist

Assessed Standard: SL.9-10.1b, c

	Does my writing...	✓
Command of Evidence and Reasoning	Pose and respond to questions that relate the current discussion to broader themes or larger ideas? (SL.9-10.1.c)	<input type="checkbox"/>
	Incorporate others into the discussion? (SL.9-10.1.c)	<input type="checkbox"/>
	Clarify, verify, or challenge ideas and conclusions? (SL.9-10.1.c)	<input type="checkbox"/>
Collaboration and Presentation	Work with peers to set rules for collegial discussions and decision-making? (SL.9-10.1.b)	<input type="checkbox"/>
	Work with peers to set clear goals and deadlines? (SL.9-10.1.b)	<input type="checkbox"/>
	If necessary, work with peers to set individual roles? (SL.9-10.1.b)	<input type="checkbox"/>

9.1.1 Lesson 15 Exit Slip

Name:		Class:		Date:	
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Directions: Explain how the discussion confirmed or changed your ideas about the prompt.

Text: “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell

Prompt: Has Claudette fully adapted to human society by the end of the story?

Response to the prompt before the discussion:

Provide evidence of how the discussion changed or confirmed your ideas:

Model 9.1.1 Lesson 15 Exit Slip

Name:		Class:		Date:	
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Directions: Explain how the discussion confirmed or changed your ideas about the prompt.

Text: “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell

Prompt: Has Claudette fully adapted to human society by the end of the story?

Response to the prompt before the discussion:

Yes, Claudette has fully adapted to human society. She has so fully adapted to human society that she is barely recognizable to her family: she enters their cave on two feet (p. 246) and is so changed that her “mother recoil[s] from [her], as if [she] was a stranger” (p. 246). She tells her “first human lie” by saying, “I’m home,” revealing that she is not really at home with her wolf family anymore.

Or

No, Claudette has not fully adapted to human society. When she gets anxious, she reverts to wolf behavior. She narrows her eyes at Kyle and flattens her ears, (p. 242). When the time comes for the Sausalito, Claudette panics and can only “pump and pump” (p. 243). Claudette’s difficulty at the party indicates that she has not fully adapted to human society, though she is making progress and tries very hard.

Provide evidence of how the discussion changed or confirmed your ideas:

Claudette is not fully at home in either human society or wolf society. She cannot function fully as a human girl, which she shows at the dance. However, she also does not feel at home with her family anymore, which becomes clear when she returns to the cave and her mother “recoil[s] from [her], as if [she] was a stranger” (p. 246).

9.1.1

Lesson 16

Introduction

In this lesson, students prepare for the End-of-Unit Assessment. This lesson prepares students to use introductions and conclusions in their writing as they analyze character development over the course of the story. Students first review evidence they have gathered through notes, annotations, and tools to analyze the relationship between Claudette’s development and the five stages of Lycanthropic Culture Shock. Students review claims and introductions and learn the elements of an effective conclusion. Student learning is assessed via a Quick Write at the end of the lesson: Draft an introductory paragraph in response to the End-of-Unit Assessment prompt: Analyze Claudette’s development in relation to the five stages of Lycanthropic Culture Shock.

For homework, students continue planning and organizing their responses to the End-of-Unit Assessment prompt, including a clear introduction and conclusion.

Standards

Assessed Standard(s)	
RL.9-10.3	Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
RL.9-10.5	Analyze how an author’s choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise.
W.9-10.2.a	Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
Addressed Standard(s)	

W.9-10.2.f	<p>Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.</p> <p>f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>
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Assessment

Assessment(s)
<p>Student learning is assessed via a Quick Write at the end of the lesson. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text:</p> <ul style="list-style-type: none"> • Draft an introductory paragraph in response to the End-of-Unit Assessment prompt: Analyze Claudette’s development in relation to the five stages of Lycanthropic Culture Shock.
High Performance Response(s)
<p>A High Performance Response should:</p> <ul style="list-style-type: none"> • Include the title and author in the first sentence (e.g., in Karen Russell’s “St. Lucy’s Home for Girls Raised by Wolves”). • Make a claim in response to the prompt (e.g., Claudette’s character development follows the stages of Lycanthropic Culture Shock in many ways). • Provide paraphrased examples to support the claim (e.g., In Stage 2, Claudette is working hard to adjust to life at St. Lucy’s and is practicing walking drills, but she still feels bewildered and homesick, as described in the Stage 2 epigraph. By the end of Stage 2, she is beginning to have critical thoughts about human culture, which she recognizes as being Stage 3 thoughts.).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
<ul style="list-style-type: none"> • None.*
Vocabulary to teach (may include direct word work and/or questions)
<ul style="list-style-type: none"> • None.*
Additional vocabulary to support English Language Learners (to provide directly)

- None.*

*Because this is not a close reading lesson, there is no specified vocabulary. However, in the process of returning to the text, students may uncover unfamiliar words. Teachers can guide students to make meaning of these words using the strategies outlined in L.9-10.4.a-d.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text:	
<ul style="list-style-type: none"> • Standards: RL.9-10.3, RL.9-10.5, W.9-10.2.a, W.9-10.2.f • Text: “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell 	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 10%
2. Homework Accountability	2. 10%
3. Introduction of End-of-Unit Assessment	3. 10%
4. Review of Claims and Introductions	4. 15%
5. Quick Write: Drafting an Introduction	5. 35%
6. Writing Instruction: Conclusions	6. 15%
7. Closing	7. 5%

Materials

- Student copies of the 9.1 Common Core Learning Standards Tool (refer to 9.1.1 Lesson 1)
- Copies of the 9.1.1 End-of-Unit Assessment for each student
- Copies of the 9.1.1 End-of-Unit Text Analysis Rubric and Checklist for each student
- Student copies of Short Response Rubric and Checklist (refer to 9.1.1 Lesson 1)
- Student copies of the Stage Evidence Gathering Tool (refer to 9.1.1 Lesson 15)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

10%

Begin by reviewing the agenda and the assessed standards for this lesson, RL.9-10.3, RL.9-10.5, and W.9-10.2.a. In this lesson, students review writing instruction on claims and evidence from Lesson 7 and learn the elements of an effective conclusion. Students also read the End-of-Unit Assessment prompt to which they will respond during the next lesson, and begin to analyze the evidence they have collected.

- ▶ Students look at the agenda.

Instruct students to take out their copies of the 9.1 Common Core Learning Standards Tool. Inform students that in this lesson they begin to work with a new substandard: W.9-10.2.f. Ask students to individually read this substandard on their tools and assess their familiarity with and mastery of it.

- ▶ Students read and assess their familiarity with substandard W.9-10.2.f.

Instruct students to talk in pairs about what they think the substandard means. Lead a brief discussion about this substandard.

- ☞ W.9-10.2.f focuses on writing a conclusion that supports the information and evidence in the response.

Activity 2: Homework Accountability

10%

Instruct students to take out their responses to the previous lesson’s homework assignment. (Write a paragraph in response to the following prompt: Make a claim about Claudette’s development in each

stage. Write one claim for each stage, five claims in total. Use this unit’s vocabulary wherever possible in your written responses. Use the Short Response Rubric and Checklist to guide your written responses.)

🗨 Student responses may include:

- Stage 1:
 - Claudette enjoys exploring her new environment at St. Lucy’s.
 - Claudette’s enjoyment of the new environment at St. Lucy’s is mixed with fear and discomfort.
- Stage 2:
 - Claudette works hard to adapt to St. Lucy’s but feels homesick and bewildered.
- Stage 3:
 - Claudette becomes more aware of the differences between wolf and human culture, and feels an attachment to wolf culture.
- Stage 4:
 - Claudette is becoming more comfortable in human society.
 - Claudette is still not comfortable in human society.
- Stage 5:
 - Claudette can interact effectively in human society.
 - Claudette does not find it easy to move between human and wolf society.

Lead a brief whole-class discussion of student responses.

Activity 3: Introduction of 9.1.1 End-of-Unit Assessment

10%

Transition to independent reading of the 9.1.1 End-of-Unit Assessment prompt:

Analyze Claudette’s development in relation to the five stages of Lycanthropic Culture Shock. Write a multi-paragraph response using evidence from the text to support your analysis. Structure your response using the Stages from The Jesuit Handbook on Lycanthropic Culture Shock.

📘 Display the prompt for students to see, or provide the prompt in hard copy.

- ▶ Students independently read the 9.1.1 End-of-Unit Assessment prompt.

Distribute copies of the 9.1.1 End-of-Unit Text Analysis Rubric and Checklist to each student and instruct students to review the rubric.

- ▶ Students read and assess the 9.1.1 End-of-Unit Text Analysis Rubric and Checklist.

Activity 4: Review of Claims and Introductions

15%

Inform students that in the End-of-Unit Assessment they will have an opportunity to practice the writing skills they have already learned as well try a new writing skill, writing conclusions. Explain to students that in this lesson, they draft an introduction to their End-of-Unit Assessment.

Review writing instruction on claims and introductions from 9.1.1 Lesson 7 by posting or projecting the following questions for students to answer in pairs:

What is a claim?

- Student responses should include:
 - A claim is a statement about a topic or text.
 - A claim should be based on evidence and may be a response or answer to a prompt.

What are the elements of an effective introduction? What is the purpose of an introduction?

- Student responses should include:
 - Introduces the topic by making a claim in response to a prompt
 - Identifies the title and author of the text
 - Provides paraphrased examples to support the claim
 - Organizes the examples logically so that they build upon one another

Activity 5: Quick Write: Drafting an Introduction

35%

Instruct students to respond briefly in writing to the following prompt:

Draft an introductory paragraph in response to the End-of-Unit Assessment prompt: Analyze Claudette’s development in relation to the five stages of Lycanthropic Culture Shock.

- ▶ Students listen and read the Quick Write prompt.
- ① Display the prompt for students to see, or provide the prompt in hard copy.

Transition to the independent Quick Write.

- ▶ Students independently answer the prompt using evidence from the text.
- See the High Performance Response at the beginning of this lesson.
- ① Circulate while students draft and offer support as needed.

- ① Do not collect students' introductions at the end of this lesson since some students may use them to prepare for the End-of-Unit Assessment. Instead, collect the introductions with the End-of-Unit Assessment in the next lesson.

Activity 6: Writing Instruction: Conclusions

15%

Inform students that a conclusion is an important element of a well-structured response. Post or project the following question:

What is the purpose of a conclusion in a piece of writing?

- 🗨 Student responses may include:
- A conclusion ties together the ideas in a piece of writing.
 - A conclusion summarizes the body of a piece of writing.

Explain to students that an effective conclusion:

- Restates the claim
- Reviews how the evidence presented in the body of the writing supports the claim
- Includes a clear final statement that supports the information or explanation presented and explains its importance
 - ▶ Students listen.

Activity 7: Closing

5%

Display and distribute the homework assignment. For homework, instruct students to continue to plan and organize their responses to the End-of-Unit Assessment prompt using the Stage Evidence Gathering Tool and their claims about Claudette's development in each stage (refer to 9.1.1 Lesson 15 homework).

Remind students to remember the instruction on introductions and conclusions and to take home their annotated copies of "St. Lucy's Home for Girls Raised by Wolves," 9.1.1 End-of-Unit Text Analysis Rubric and Checklist, and all notes and tools that will help them with planning for the End-of-Unit Assessment. In addition, remind students that they are be responsible for citing text evidence, including page numbers, in the End-of-Unit Assessment.

- ① Remind students to bring their completed Quick Writes to the next class.
- ▶ Students follow along.

Homework

Continue to plan and organize your response to the End-of-Unit Assessment prompt using the Stage Evidence Gathering Tool and your claims about Claudette’s development in each stage (refer to 9.1.1 Lesson 15 homework).

9.1.1 End-of-Unit Assessment

Text-Based Response

Your Task: Rely on your reading of Karen Russell’s “St. Lucy’s Home for Girls Raised by Wolves” to write a formal multi-paragraph response to the following prompt:

Analyze Claudette’s development in relation to the five stages of Lycanthropic Culture Shock.

Your writing will be assessed using the 9.1.1 End-of-Unit Text Analysis Rubric.

Guidelines:

Be sure to:

- Closely read the prompt
- Respond directly to all parts of the prompt
- Paraphrase, quote, and reference relevant evidence to support your analysis
- Organize your ideas in a cohesive and coherent manner
- Include an introduction and conclusion
- Use precise language appropriate for your task
- Follow the conventions of standard written English

CCSS: RL.9-10.3, RL.9-10.5, W.9-10.2.a, f

Commentary on the Task:

This task measures RL.9-10.3 because it demands that students:

- Analyze how complex characters develop over the course of the text, interact with other characters, and advance the plot or develop the theme.

This task measures RL.9-10.5 because it demands that students:

- Analyze how the author’s choices concerning how to structure a text, order events within it, and manipulate time create such effects as mystery, tension, or surprise.

This task measures substandards W.9-10.2.a and f because it demands that students:

- Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
 - Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
 - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

9.1.1 End-of-Unit Text Analysis Rubric

____/____ (Total points)

Criteria	4 – Responses at this Level:	3 – Responses at this Level:	2 – Responses at this Level:	1 – Responses at this Level:
<p>Content and Analysis</p> <p>The extent to which the response analyzes how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme.</p> <p>CCSS.ELA-Literacy.RL.9-10.3</p> <p>Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.</p>	<p>Skillfully analyze how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme.</p>	<p>Analyze how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme.</p>	<p>With partial accuracy, analyze how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme.</p>	<p>Inaccurately analyze how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme.</p>
<p>Content and Analysis</p> <p>The extent to which the response analyzes how an author’s choices concerning how to structure a text, order events within it, and manipulate time create such effects as mystery, suspense, and surprise.</p> <p>CCSS.ELA-Literacy.RL.9-10.5</p> <p>Analyze how an author’s choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, suspense, and surprise.</p>	<p>Skillfully analyze how an author’s choices concerning how to structure a text, order events within it, and manipulate time create such effects as mystery, suspense, and surprise.</p>	<p>Accurately analyze how an author’s choices concerning how to structure a text, order events within it, and manipulate time create such effects as mystery, suspense, and surprise.</p>	<p>With partial accuracy, analyze how an author’s choices concerning how to structure a text, order events within it, and manipulate time create such effects as mystery, suspense, and surprise.</p>	<p>Inaccurately analyze how an author’s choices concerning how to structure a text, order events within it, and manipulate time create such effects as mystery, suspense, and surprise.</p>
<p>Coherence, Organization, and Style</p> <p>The extent to which the response introduces a topic, organizes complex</p>	<p>Skillfully introduce a topic; effectively organize complex ideas, concepts, and information to make important</p>	<p>Introduce a topic; organize complex ideas, concepts, and information to make important connections and</p>	<p>Somewhat effectively introduce a topic; organize complex ideas, concepts, and information, making</p>	<p>Lack a clear topic; illogically arrange ideas, concepts and information, failing to make connections and distinctions;</p>

<p>ideas, concepts, and information to make important connections and distinctions; includes formatting, graphics, and multimedia when useful to aiding comprehension.</p> <p>CCSS.ELA-Literacy.W.9-10.2 Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.</p> <p>CCSS.ELA-Literacy.W.9-10.2.a Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>The extent to which the response provides a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>CCSS.ELA-Literacy.W.9-10.2.f Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>	<p>connections and distinctions; skillfully include formatting, graphics, and multimedia when useful to aiding comprehension. (W.9-10.2.a)</p> <p>Provide a concluding statement or section that clearly follows from and skillfully supports the information or explanation presented. (W.9-10.2.f)</p>	<p>distinctions; include formatting, graphics, and multimedia when useful to aiding comprehension. (W.9-10.2.a)</p> <p>Provide a concluding statement or section that follows from and supports the information or explanation presented. (W.9-10.2.f)</p>	<p>partial connections and limited distinctions; somewhat effectively include formatting, graphics, and multimedia when useful to aiding comprehension. (W.9-10.2.a)</p> <p>Provide a concluding statement or section that loosely follows from and so ineffectively supports the information or explanation presented. (W.9-10.2.f)</p>	<p>ineffectively include formatting, graphics, and multimedia when useful to aiding comprehension. (W.9-10.2.a)</p> <p>Provide a concluding statement or section that does not follow from or support the information or explanation presented. (W.9-10.2.f)</p>
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- A response that is a personal response and makes little or no reference to the task or text can be scored no higher than a 1.
- A response that is totally copied from the text with no original writing must be given a 0.
- A response that is totally unrelated to the task, illegible, incoherent, blank, or unrecognizable as English must be scored as a 0.

9.1.1 End-of-Unit Text Analysis Checklist

Assessed Standards: _____

	Does my writing...	✓
Content and Analysis	Analyze how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme? (RL.9-10.3)	<input type="checkbox"/>
	Analyze how an author’s choices concerning how to structure a text, order events within it, and manipulate time create such effects as mystery, suspense, and surprise? (RL.9-10.5)	<input type="checkbox"/>
Coherence, Organization, and Style	Introduce a topic? (W.9-10.2.a)	<input type="checkbox"/>
	Organize complex ideas, concepts, and information to make important connections and distinctions? (W.9-10.2.a)	<input type="checkbox"/>
	When useful to aiding comprehension, include formatting, graphics, and multimedia? (W.9-10.2.a)	<input type="checkbox"/>
	Provide a concluding statement or section that follows from and supports the explanation or analysis? (W.9-10.2.f)	<input type="checkbox"/>

9.1.1

Lesson 17

Introduction

In this final lesson of the unit, the End-of-Unit Assessment, students craft a formal multi-paragraph response to the following prompt: Analyze Claudette’s development in relation to the five stages of Lycanthropic Culture Shock. Students review the annotated text, lesson Quick Writes, discussion notes, and homework notes to organize their ideas. Using the text as well as their tools, notes, annotations, and lesson Quick Writes, students write responses using relevant and sufficient evidence to support their claims. Student responses are assessed using the 9.1.1 End-of-Unit Text Analysis Rubric.

For homework, students continue to read their Accountable Independent Reading (AIR) texts and prepare for a brief discussion of how they applied a focus standard, RL.9-10.2 or RI.9-10.2, to their texts.

Standards

Assessed Standard(s)	
RL.9-10.3	Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
RL.9-10.5	Analyze how an author’s choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise.
W.9-10.2.a, f	<p>Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.</p> <p>a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>

Addressed Standard(s)

None.

Assessment**Assessment(s)**

Student learning is assessed via a formal multi-paragraph response at the end of the lesson. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text.

- Analyze Claudette’s development in relation to the five stages of Lycanthropic Culture Shock.

 Student responses will be assessed using the 9.1.1 End-of-Unit Text Analysis Rubric.

High Performance Response(s)

A High Performance Response should:

- Introduce the topic by making a claim in response to the prompt.
- Identify the title and author of the prompt.
- Explain each epigraph.
- Analyze the ways in which Claudette’s development follows or differs from each stage of Lycanthropic Culture Shock.
- Provide a strong conclusion.

A High Performance Response may include the following evidence to support the analysis:

- Introduction:** Karen Russell uses epigraphs from *The Jesuit Handbook on Lycanthropic Culture Shock* to organize her short story, “St. Lucy’s Home for Girls Raised by Wolves.” The epigraphs provide short descriptions of how the humans running the school think the girls will develop at particular stages of the girls’ education. Each epigraph is followed by the memories of Claudette, the narrator of the story, who was a student at St. Lucy’s. Claudette’s development sometimes mirrors the stages described in the epigraphs, but often differs in significant ways. As a whole, the epigraphs do not reliably describe Claudette’s development.
- Stage 1 Text Evidence and Analysis:** The epigraph suggests that new students will be happy during the first stage of their education at St. Lucy’s, because “everything is new, exciting, and interesting” for the students (p. 225). Claudette describes the fun she has with other members of a pack as they explore the environment of St. Lucy’s, as the girls spray “exuberant yellow streams all over the bunks” (p. 225), but this fun is mixed with anxiety, as when the girls sense “some subtler danger afoot” (p. 228) when the nuns approach the girls to give them names. Claudette’s

enjoyment of the new environment at St. Lucy's is therefore mixed with fear and discomfort.

- **Stage 2 Text Evidence and Analysis:** The epigraph suggests that the girls will find this stage difficult because of the effort needed to adjust to the human society and because of the emotional difficulties that they will encounter as they adjust. The epigraph describes this period as one when the girls “must work to adjust to the new culture” and a time when the girls may “feel isolated, irritated, bewildered, depressed, or generally uncomfortable” (p. 229). Claudette relates the girls’ “walking drills” during this period and says, “I remember how disorienting it was to look down and see two square-toed shoes instead of my own four feet” and remarks that the pack “had never wanted to run away so badly (p. 229). Claudette’s development closely fits the description of the epigraph, then, as she works hard to adapt to St. Lucy’s.
- **Stage 3 Text Evidence and Analysis:** The epigraph suggests that during this period students “come to a point where they reject the host culture and ... may feel that their own culture’s lifestyle and customs are far superior to those of the host country” (p. 235). During Stage 3, Claudette still feels very close to her wolf background. Claudette explains that she “felt sorry” for the purebred girls, wondering “what it would be like to be bred in captivity, and always homesick for a dimly sensed forest, the trees you’ve never seen” (page 237). Claudette therefore becomes more aware of the differences between wolf and human culture, and feels an attachment to wolf culture.
- **Stage 4 Text Evidence and Analysis:** The epigraph claims that during this stage the “students will begin to feel more comfortable” and that “[e]verything begins to make sense” (p. 240). The epigraph suggests that by this stage, the girls will be adjusting smoothly to the demands of St. Lucy’s. The events of this part of the story reveal how different Claudette’s experiences of Stage 4 are from the handbook’s descriptions. During Stage 4 the nuns organize a Debutante Ball for the wolf-girls and Claudette struggles to meet the expectations of the dance, including her disastrous efforts to perform the Sausalito. This results in her becoming “just a terrified animal again” (p. 243), which makes it clear that Claudette is still not comfortable in human society.
- **Stage 5 Text Evidence and Analysis:** The epigraph announces that at Stage 5 the students “are able to interact effectively in the new ... environment” and that they “find it easy to move between the two cultures” (p. 245). According to the epigraph, girls in Stage 5 can function effectively in both human society and wolf society. The final events of the story contradict this, as when Claudette encounters her wolf family her wolf identity seems to have disappeared entirely. Her brother starts “whining in terror” and Claudette says, “My mother recoiled from me, as if I was a stranger” (p. 246) suggesting that Claudette does not “find it easy to move between the two cultures” (p. 245). She may have gained a human identity, but she has also lost her wolf identity. Overall, Claudette does not find it easy to move between human and wolf society.
- **Conclusion:** In “St. Lucy’s Home for Girls Raised by Wolves,” Karen Russell uses epigraphs from the imaginary *Jesuit Handbook on Lycanthropic Culture Shock* to demonstrate how the experiences of

the narrator, Claudette, are similar to and different from the expectations of the people running the school. Claudette’s development rarely follows the *Handbook’s* descriptions exactly. Instead, her experiences often demonstrate that the wolf-girls’ adjustment to human society is very complicated and sometimes very painful. The differences between Claudette’s experiences and the descriptions in the *Handbook* show that the task of moving easily between the wolf and human cultures is far more difficult than the people who wrote the handbook suggest.

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
<ul style="list-style-type: none"> None.*
Vocabulary to teach (may include direct word work and/or questions)
<ul style="list-style-type: none"> None.*
Additional vocabulary to support English Language Learners (to provide directly)
<ul style="list-style-type: none"> None.*

*Because this is not a close reading lesson, there is no specified vocabulary. However, in the process of returning to the text, students may uncover unfamiliar words. Teachers can guide students to make meaning of these words using the strategies outlined in L.9-10.4.a-d.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
<p>Standards & Text:</p> <ul style="list-style-type: none"> Standards: RL.9-10.3, RL.9-10.5, W.9-10.2.a, f Text: "St. Lucy's Home for Girls Raised by Wolves" by Karen Russell <p>Learning Sequence:</p> <ol style="list-style-type: none"> Introduction of Lesson Agenda Homework Accountability 9.1.1 End-of-Unit Assessment Closing 	<ol style="list-style-type: none"> 5% 10% 80% 5%

Materials

- Student copies of the 9.1.1 End-of-Unit Assessment (refer to 9.1.1 Lesson 16)
- Student copies of the 9.1.1 End-of-Unit Text Analysis Rubric and Checklist (refer to 9.1.1 Lesson 16)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

5%

Begin by reviewing the agenda and the standards for this lesson: RL.9-10.3, RL.9-10.5 and W.9-10.2.a, f. In this lesson, students complete their End-of-Unit Assessment for 9.1.1, relying on their reading and analysis of “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell to write a multi-paragraph response analyzing the development of the narrator, Claudette, in relation to the text’s epigraphs.

- ▶ Students look at the agenda.

Activity 2: Homework Accountability

10%

Instruct students to take out their responses to Lesson 16’s homework assignment. (Continue to plan and organize your response to the End-of-Unit Assessment prompt using the Stage Evidence Gathering Tool and your claims about Claudette’s development in each stage (refer to 9.1.1 Lesson 15 homework).) Instruct students to Turn-and-Talk in pairs about their homework responses.

- ☞ See Model Stage Evidence Gathering Tool in 9.1.1 Lesson 15 for sample student responses.

Instruct students to take out any additional materials for the End-of-Unit Assessment, such as their notes, annotations, Quick Writes, and tools including Epigraph Effect Tool and Character Development Tool.

- ▶ Students take out their materials for the End-of-Unit Assessment.
- ① Students demonstrate completion of their homework by having all of their materials organized and accessible for the assessment.

Activity 3: 9.1.1 End-of-Unit Assessment

80%

Explain to students that because it is a formal writing task, the End-of-Unit Assessment should include an introductory statement that introduces the topic of their multi-paragraph response, well-organized textual evidence that supports the analysis, and a concluding statement that articulates the information presented in the response. Remind students to use proper grammar, capitalization, punctuation, and spelling.

Instruct students to write a multi-paragraph response to the following prompt:

Analyze Claudette’s development in relation to the five stages of Lychanthropic Culture Shock.

Remind students to use the 9.1.1 End-of-Unit Text Analysis Rubric to guide their writing responses. Ask students to use this unit’s vocabulary wherever possible in their written responses.

- ① Display the prompt for students to see, or provide the prompt in hard copy.

Ask students if they have remaining questions about the assessment prompt.

Review the 9.1.1 End-of-Unit Text Analysis Rubric and Checklist. Remind students to revisit the rubric once they are finished with the assessment to ensure they have fulfilled all the criteria.

- ▶ Students review the 9.1.1 End-of-Unit Text Analysis Rubric and Checklist.

Remind students as they write to refer to their notes, tools, and annotated text from previous lessons.

- ▶ Students independently answer the prompt using evidence from the text.
- 🗨 See the High Performance response at the beginning of this lesson.

Activity 4: Closing

5%

Display and distribute the homework assignment. For homework, instruct students to continue to read their AIR texts through the focus standard RL.9-10.2 or RI.9-10.2, and prepare for a 3–5 minute discussion of their texts based on that standard.

- ▶ Students follow along.

Homework

Continue reading your Accountable Independent Reading text through the lens of RL.9-10.2 or RI.9-10.2 and prepare a 3–5 minute discussion of your text based on that standard.

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St. Lucy's Home for Girls Raised by Wolves

Stage 1: The initial period is one in which everything is new, exciting, and interesting for your students. It is fun for your students to explore their new environment.

—from *The Jesuit Handbook on
Lycanthropic Culture Shock*

At first, our pack was all hair and snarl and floor-thumping joy. We forgot the barked cautions of our mothers and fathers, all the promises we'd made to be civilized and ladylike, couth and kempt. We tore through the austere rooms, overturning dresser drawers, pawing through the neat piles of the Stage 3 girls' starched underwear, smashing lightbulbs with our bare fists. Things felt less foreign in the dark. The dim bedroom was windowless and odorless. We remedied this by spraying exuberant yellow streams all over the bunks. We jumped from bunk to bunk, spraying. We nosed each other midair, our bodies buckling in kinetic laughter. The nuns watched us from the corner of the bedroom, their tiny faces pinched with displeasure.

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"Ay caramba," Sister Maria de la Guardia sighed. "*Que barbaridad!*" She made the Sign of the Cross. Sister Maria came to St. Lucy's from a halfway home in Copacabana. In Copacabana, the girls are fat and languid and eat pink slivers of guava right out of your hand. Even at Stage 1, their pelts are silky, sun-bleached to near invisibility. Our pack was hirsute and sinewy and mostly brunette. We had terrible posture. We went knuckling along the wooden floor on the calloused pads of our fists, baring row after row of tiny, wood-rotted teeth. Sister Josephine sucked in her breath. She removed a yellow wheel of floss from under her robes, looping it like a miniature lasso.

"The girls at our facility are backwoods," Sister Josephine whispered to Sister Maria de la Guardia with a beatific smile. "You must be patient with them." I clamped down on her ankle, straining to close my jaws around the woolly XXL sock. Sister Josephine tasted like sweat and freckles. She smelled easy to kill.

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We'd arrived at St. Lucy's that morning, part of a pack fifteen-strong. We were accompanied by a mousy, nervous-smelling social worker; the baby-faced deacon; Bartholomew, the blue wolfhound; and four burly woodsmen. The deacon handed out some stale cupcakes and said a quick prayer. Then he led us through the woods. We ran past the wild apiary, past the felled oaks, until we could see the white steeple of St. Lucy's rising out of the forest. We stopped short at the edge of a muddy lake. Then the deacon took our brothers. Bartholomew helped him to herd the boys up the ramp of a small ferry. We girls ran along the shore, tearing at our new jumpers in a plaid agitation. Our brothers stood on the deck, looking small and confused.

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Our mothers and fathers were werewolves. They lived an outsider's existence in caves at the edge of the forest, threatened by frost and pitchforks. They had been ostracized by the local farmers for eating their silled fruit pies and terrorizing the heifers. They had ostracized the local wolves by having sometimes-thumbs, and regrets, and human children. (Their condition skips a generation.) Our pack grew up in a green purgatory. We couldn't keep up with the purebred wolves, but we never stopped crawling. We spoke a slab-tongued pidgin in the cave, inflected with frequent howls. Our parents wanted something better for us; they wanted us to get braces, use towels, be fully bilingual. When the nuns showed up, our parents couldn't refuse their offer. The nuns, they said, would make us naturalized citizens of human society. We would go to St. Lucy's to study a better culture. We didn't know at the time that our parents were sending us away for good. Neither did they.

That first afternoon, the nuns gave us free rein of the grounds. Everything was new, exciting, and interesting. A low granite wall surrounded St. Lucy's, the blue woods humming for miles behind it. There was a stone fountain full of delectable birds. There was a statue of St. Lucy. Her marble skin was colder than our mother's nose, her pupil-less eyes rolled heavenward. Doomed squirrels gamboled around her stony toes. Our diminished pack threw back our heads in a celebratory howl—an exultant and terrible noise, even without a chorus of wolf brothers in the background. There were holes everywhere!

We supplemented these holes by digging some of our own. We interred sticks, and our itchy new jumpers, and the bones of the friendly, unfortunate squirrels. Our noses

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ached beneath an invisible assault. Everything was smudged with a human odor: baking bread, petrol, the nuns' faint woman-smell sweating out beneath a dark perfume of tallow and incense. We smelled one another, too, with the same astounded fascination. Our own scent had become foreign in this strange place.

We had just sprawled out in the sun for an afternoon nap, yawning into the warm dirt, when the nuns reappeared. They conferred in the shadow of the juniper tree, whispering and pointing. Then they started towards us. The oldest sister had spent the past hour twitching in her sleep, dreaming of fatty and infirm elk. (The pack used to dream the same dreams back then, as naturally as we drank the same water and slept on the same red scree.) When our oldest sister saw the nuns approaching, she

instinctively bristled. It was an improvised bristle, given her new, human limitations. She took clumps of her scraggly, nut-brown hair and held it straight out from her head.

Sister Maria gave her a brave smile.

“And what is your name?” she asked.

The oldest sister howled something awful and inarticulate, a distillate of hurt and panic, half-forgotten hunts and eclipsed moons. Sister Maria nodded and scribbled on a yellow legal pad. She slapped on a name tag: HELLO, MY NAME IS _____! “Jeanette it is.”

The rest of the pack ran in a loose, uncertain circle, torn between our instinct to help her and our new fear. We sensed some subtler danger afoot, written in a language we didn’t understand.

Our littlest sister had the quickest reflexes. She used her hands to flatten her ears to the side of her head. She

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backed towards the far corner of the garden, snarling in the most menacing register that an eight-year-old wolf-girl can muster. Then she ran. It took them two hours to pin her down and tag her: HELLO, MY NAME IS MIRABELLA!

“Stage 1,” Sister Maria sighed, taking careful aim with her tranquilizer dart. “It can be a little overstimulating.”

Stage 2: After a time, your students realize that they must work to adjust to the new culture.

This work may be stressful and students may experience a strong sense of dislocation. They may miss certain foods. They may spend a lot of time daydreaming during this period. Many students feel isolated, irritated, bewildered, depressed, or generally uncomfortable.

Those were the days when we dreamed of rivers and meat. The full-moon nights were the worst! Worse than cold toilet seats and boiled tomatoes, worse than trying to will our tongues to curl around our false new names. We would snarl at one another for no reason. I remember how disorienting it was to look down and see two square-toed shoes instead of my own four feet. Keep your mouth shut, I repeated during our walking drills, staring straight ahead. Keep your shoes on your feet. Mouth shut, shoes on feet. Do not chew on your new penny loafers. Do not. I stumbled around in a daze, my mouth black with shoe polish. The whole pack was irritated, bewildered, depressed. We were all uncomfortable, and between languages. We had never wanted to run away so badly in our lives; but who did we have to run back to? Only the curled black grimace of the mother. Only the father, holding his tawny head between his

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paws. Could we betray our parents by going back to them? After they’d given us the choicest part of the woodchuck, loved us at our hairless worst, nosed us across the ice floes and abandoned us at St. Lucy’s for our own betterment?

Physically, we were all easily capable of clearing the low stone walls. Sister Josephine left the wooden gates wide open. They unlatched the windows at night so that long fingers of moonlight beckoned

us from the woods. But we knew we couldn't return to the woods; not till we were civilized, not if we didn't want to break the mother's heart. It all felt like a sly, human taunt.

It was impossible to make the blank, chilly bedroom feel like home. In the beginning, we drank gallons of bathwater as part of a collaborative effort to mark our territory. We puddled up the yellow carpet of old newspapers. But later, when we returned to the bedroom, we were dismayed to find all trace of the pack musk had vanished. Someone was coming in and erasing us. We sprayed and sprayed every morning; and every night, we returned to the same ammonia eradication. We couldn't make our scent stick here; it made us feel invisible. Eventually we gave up. Still, the pack seemed to be adjusting on the same timetable. The advanced girls could already alternate between two speeds: "slouch" and "amble." Almost everybody was fully bipedal.

Almost.

The pack was worried about Mirabella.

Mirabella would rip foamy chunks out of the church pews and replace them with ham bones and girl dander. She loved to roam the grounds wagging her invisible tail. (We all had a hard time giving that up. When we got excited, we would fall to the ground and start pumping our backsides.

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Back in those days we could pump at rabbit velocities. Que horror! Sister Maria frowned, looking more than a little jealous.) We'd give her scolding pinches. "Mirabella," we hissed, imitating the nuns. "No." Mirabella cocked her ears at us, hurt and confused.

Still, some things remained the same. The main commandment of wolf life is Know Your Place, and that translated perfectly. Being around other humans had awakened a slavish-dog affection in us. An abasing, belly-to-the-ground desire to please. As soon as we realized that someone higher up in the food chain was watching us, we wanted only to be pleasing in their sight. Mouth shut, I repeated, shoes on feet. But if Mirabella had this latent instinct, the nuns couldn't figure out how to activate it. She'd go bounding around, gleefully spraying on their gilded statue of St. Lucy, mad-scratching at the virulent fleas that survived all of their powders and baths. At Sister Maria's tearful insistence, she'd stand upright for roll call, her knobby, oddly muscled legs quivering from the effort. Then she'd collapse right back to the ground with an ecstatic *oomph!* She was still loping around on all fours (which the nuns had taught us to see looked unnatural and ridiculous—we could barely believe it now, the shame of it, that we used to locomote like that!), her fists blue-white from the strain. As if she were holding a secret tight to the ground. Sister Maria de la Guardia would sigh every time she saw her. "*Caramba!*" She'd sit down with Mirabella and pry her fingers apart. "You see?" she'd say softly, again and again. "What are you holding on to? Nothing, little one. Nothing."

Then she would sing out the standard chorus, "Why can't you be more like your sister Jeanette?"

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The pack hated Jeanette. She was the most successful of us, the one furthest removed from her origins. Her real name was GWARR!, but she wouldn't respond to this anymore. Jeanette spiffed her penny loafers until her very shoes seemed to gloat. (Linguists have since traced the colloquial origins of

“goody two-shoes” back to our facilities.) She could even growl out a demonic-sounding precursor to “Pleased to meet you.” She’d delicately extend her former paws to visitors, wearing white kid gloves.

“Our little wolf, disguised in sheep’s clothing!” Sister Ignatius liked to joke with the visiting deacons, and Jeanette would surprise everyone by laughing along with them, a harsh, inhuman, barking sound. Her hearing was still twig-snap sharp. Jeanette was the first among us to apologize; to drink apple juice out of a sippy cup; to quit eyeballing the cleric’s jugular in a disconcerting fashion. She curled her lips back into a cousin of a smile as the traveling barber cut her pelt into bangs. Then she swept her coarse black curls under the rug. When we entered a room, our nostrils flared beneath the new odors: onion and bleach, candle wax, the turnipy smell of unwashed bodies. Not Jeanette. Jeanette smiled and pretended like she couldn’t smell a thing.

I was one of the good girls. Not great and not terrible, solidly middle of the pack. But I had an ear for languages, and I could read before I could adequately wash myself. I probably could have vied with Jeanette for the number one spot, but I’d seen what happened if you gave in to your natural aptitudes. This wasn’t like the woods, where you had to be your fastest and your strongest and your bravest self. Different sorts of calculations were required to survive at the home.

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The pack hated Jeanette, but we hated Mirabella more. We began to avoid her, but sometimes she’d surprise us, curled up beneath the beds or gnawing on a scapula in the garden. It was scary to be ambushed by your sister. I’d bristle and growl, the way that I’d begun to snarl at my own reflection as if it were a stranger.

“Whatever will become of Mirabella?” we asked, gulping back our own fear. We’d heard rumors about former wolf-girls who never adapted to their new culture. It was assumed that they were returned to our native country, the vanishing woods. We liked to speculate about this before bedtime, scaring ourselves with stories of catastrophic bliss. It was the disgrace, the failure that we all guiltily hoped for in our hard beds. Twitching with the shadow question: Whatever will become of me?

We spent a lot of time daydreaming during this period. Even Jeanette. Sometimes I’d see her looking out at the woods in a vacant way. If you interrupted her in the midst of one of these reveries, she would lunge at you with an elder-sister ferocity, momentarily forgetting her human catechism. We liked her better then, startled back into being foamy old Jeanette.

In school, they showed us the St. Francis of Assisi slide show, again and again. Then the nuns would give us bags of bread. They never announced these things as a test; it was only much later that I realized that we were under constant examination. “Go feed the ducks,” they urged us. “Go practice compassion for all God’s creatures.” Don’t pair me with Mirabella, I prayed, anybody but Mirabella. “Claudette”—Sister Josephine beamed—“why don’t you and Mirabella take some pumpernickel down to the ducks?”

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“Ohhkaaythankyou,” I said. (It took me a long time to say anything; first I had to translate it in my head from the Wolf.) It wasn’t fair. They knew Mirabella couldn’t make bread balls yet. She couldn’t even undo the twist tie of the bag. She was sure to eat the birds; Mirabella didn’t even try to curb her

desire to kill things—and then who would get blamed for the dark spots of duck blood on our Peter Pan collars? Who would get penalized with negative Skill Points? Exactly.

As soon as we were beyond the wooden gates, I snatched the bread away from Mirabella and ran off to the duck pond on my own. Mirabella gave chase, nipping at my heels. She thought it was a game. “Stop it,” I growled. I ran faster, but it was Stage 2 and I was still unsteady on my two feet. I fell sideways into a leaf pile, and then all I could see was my sister’s blurry form, bounding towards me. In a moment, she was on top of me, barking the old word for tug-of-war. When she tried to steal the bread out of my hands, I whirled around and snarled at her, pushing my ears back from my head. I bit her shoulder, once, twice, the only language she would respond to. I used my new motor skills. I threw dirt, I threw stones. “Get away!” I screamed, long after she had made a cringing retreat into the shadows of the purple saplings. “Get away, get away!”

Much later, they found Mirabella wading in the shallows of a distant river, trying to strangle a mallard with her rosary beads. I was at the lake; I’d been sitting there for hours. Hunched in the long cattails, my yellow eyes flashing, shoving ragged hunks of bread into my mouth.

I don’t know what they did to Mirabella. Me they separated from my sisters. They made me watch another slide

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show. This one showed images of former wolf-girls, the ones who had failed to be rehabilitated. Long-haired, sad-eyed women, limping after their former wolf packs in white tennis shoes and pleated culottes. A wolf-girl bank teller, her makeup smeared in oily rainbows, eating a raw steak on the deposit slips while her colleagues looked on in disgust. Our parents. The final slide was a bolded sentence in St. Lucy’s prim script: **DO YOU WANT TO END UP SHUNNED BY BOTH SPECIES?**

After that, I spent less time with Mirabella. One night she came to me, holding her hand out. She was covered with splinters, keening a high, whining noise through her nostrils. Of course I understood what she wanted; I wasn’t that far removed from our language (even though I was reading at a fifth-grade level, halfway into Jack London’s *The Son of the Wolf*).

“Lick your own wounds,” I said, not unkindly. It was what the nuns had instructed us to say; wound licking was not something you did in polite company. Etiquette was so confounding in this country. Still, looking at Mirabella—her fists balled together like small, white porcupines, her brows knitted in animal confusion—I felt a throb of compassion. *How can people live like they do?* I wondered. Then I congratulated myself. This was a Stage 3 thought.

Stage 3: It is common that students who start living in a new and different culture come to a point where they reject the host culture and withdraw into themselves. During this period, they make generalizations about the host culture and wonder how the people can live like they do. Your students may feel that their own culture’s lifestyle and customs are far superior to those of the host country.

The nuns were worried about Mirabella, too. To correct a failing, you must first be aware of it as a failing. And there was Mirabella, shucking her plaid jumper in full view of the visiting cardinal. Mirabella, battling a raccoon under the dinner table while the rest of us took dainty bites of peas and borscht. Mirabella, doing belly flops into compost.

“You have to pull your weight around here,” we overheard Sister Josephine saying one night. We paused below the vestry window and peered inside.

“Does Mirabella try to earn Skill Points by shelling walnuts and polishing Saint-in-the-Box? No. Does Mirabella even know how to say the word *walnut*? Has she learned how to say anything besides a sinful ‘HraaaHA!’ as she commits frottage against the organ pipes? No.”

There was a long silence.

“Something must be done,” Sister Ignatius said firmly. The other nuns nodded, a sea of thin, colorless lips and kettle-black brows. “Something must be done,” they intoned. That ominously passive construction; a something so awful that nobody wanted to assume responsibility for it.

I could have warned her. If we were back home, and Mirabella had come under attack by territorial beavers or snow-blind bears, I would have warned her. But the truth is that by Stage 3 I wanted her gone. Mirabella’s inability to adapt was taking a visible toll. Her teeth were ground down to nubbins; her hair was falling out. She hated the spongy, long-dead foods we were served, and it showed—her ribs were poking through her uniform. Her bright eyes had dulled to a sour whiskey color. But you couldn’t show Mirabella the slightest kindness anymore—she’d never leave you alone! You’d have to sit across from her at meals, shoving

her away as she begged for your scraps. I slept fitfully during that period, unable to forget that Mirabella was living under my bed, gnawing on my loafers.

It was during Stage 3 that we met our first purebred girls. These were girls raised in captivity, volunteers from St. Lucy’s School for Girls. The apple-cheeked fourth-grade class came to tutor us in playing. They had long golden braids or short, severe bobs. They had frilly-duvet names like Felicity and Beulah; and pert, bunny noses; and terrified smiles. We grinned back at them with genuine ferocity. It made us nervous to meet new humans. There were so many things that we could do wrong! And the rules here were different depending on which humans we were with: dancing or no dancing, checkers playing or no checkers playing, pumping or no pumping.

The purebred girls played checkers with us.

“These girl-girls sure is dumb,” my sister Lavash panted to me between games. “I win it again! Five to none.”

She was right. The purebred girls were making mistakes on purpose, in order to give us an advantage. “King me,” I growled, out of turn. “*I say king me!*” and Felicity meekly complied. Beulah pretended not to mind when we got frustrated with the oblique, fussy movement from square to square and shredded the board to ribbons. I felt sorry for them. I wondered what it would be like to be bred in captivity, and always homesick for a dimly sensed forest, the trees you’ve never seen.

Jeanette was learning how to dance. On Holy Thursday, she mastered a rudimentary form of the Charleston. “*Brava!*” The nuns clapped. “*Brava!*”

Every Friday, the girls who had learned how to ride a

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bicycle celebrated by going on chaperoned trips into town. The purebred girls sold seven hundred rolls of gift-wrap paper and used the proceeds to buy us a yellow fleet of bicycles built for two. We’d ride the bicycles uphill, a sanctioned pumping, a grim-faced nun pedaling behind each one of us. “Congratulations!” the nuns would huff. “Being human is like riding this bicycle. Once you’ve learned how, you’ll never forget.” Mirabella would run after the bicycles, growling out our old names. HWRAA! GWARR! TRRRRRRR! We pedaled faster.

At this point, we’d had six weeks of lessons, and still nobody could do the Sausalito but Jeanette. The nuns decided we needed an inducement to dance. They announced that we would celebrate our successful rehabilitations with a Debutante Ball. There would be brothers, ferried over from the Home for Man-Boys Raised by Wolves. There would be a photographer from the *Gazette Sophisticate*. There would be a three-piece jazz band from West Toowoomba, and root beer in tiny plastic cups. The brothers! We’d almost forgotten about them. Our invisible tails went limp. I should have been excited; instead, I felt a low mad anger at the nuns. They knew we weren’t ready to dance with the brothers; we weren’t even ready to talk to them. Things had been so much simpler in the woods. That night I waited until my sisters were asleep. Then I slunk into the closet and practiced the Sausalito two-step in secret, a private mass of twitch and foam. Mouth shut—shoes on feet! Mouth shut—shoes on feet! Mouthshutmouthshut . . .

One night I came back early from the closet and stumbled on Jeanette. She was sitting in a patch of moonlight on the windowsill, reading from one of her library books. (She was

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the first of us to sign for her library card, too.) Her cheeks looked dewy.

“Why you cry?” I asked her, instinctively reaching over to lick Jeanette’s cheek and catching myself in the nick of time.

Jeanette blew her nose into a nearby curtain. (Even her mistakes annoyed us—they were always so well intentioned.) She sniffled and pointed to a line in her book: “The lake-water was reinventing the forest and the white moon above it, and wolves lapped up the cold reflection of the sky.” But none of the pack besides me could read yet, and I wasn’t ready to claim a common language with Jeanette.

The following day, Jeanette golfed. The nuns set up a miniature putt-putt course in the garden. Sister Maria dug four sandtraps and got old Walter, the groundskeeper, to make a windmill out of a lawn mower engine. The eighteenth hole was what they called a “doozy,” a minuscule crack in St. Lucy’s marble dress. Jeanette got a hole in one.

On Sundays, the pretending felt almost as natural as nature. The chapel was our favorite place. Long before we could understand what the priest was saying, the music instructed us in how to feel. The choir director—aggressively perfumed Mrs. Valuchi, gold necklaces like pineapple rings around her

neck—taught us more than the nuns ever did. She showed us how to pattern the old hunger into arias. Clouds moved behind the frosted oculus of the nave, glass shadows that reminded me of my mother. The mother, I'd think, struggling to conjure up a picture. A black shadow, running behind the watery screen of pines.

We sang at the chapel annexed to the home every morning. We understood that this was the humans' moon, the

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place for howling beyond purpose. Not for mating, not for hunting, not for fighting, not for anything but the sound itself. And we'd howl along with the choir, hurling every pitted thing within us at the stained glass. "Sotto voce." The nuns would frown. But you could tell that they were pleased.

Stage 4: As a more thorough understanding of the host culture is acquired, your students will begin to feel more comfortable in their new environment. Your students feel more at home, and their self-confidence grows. Everything begins to make sense.

"Hey, Claudette," Jeanette growled to me on the day before the ball. "Have you noticed that everything's beginning to make sense?"

Before I could answer, Mirabella sprang out of the hall closet and snapped through Jeanette's homework binder. Pages and pages of words swirled around the stone corridor, like dead leaves off trees.

"What about you, Mirabella?" Jeanette asked politely, stooping to pick up her erasers. She was the only one of us who would still talk to Mirabella; she was high enough in the rankings that she could afford to talk to the scruggliest wolf-girl. "Has everything begun to make more sense, Mirabella?"

Mirabella let out a whimper. She scratched at us and scratched at us, raking her nails along our shins so hard that she drew blood. Then she rolled belly-up on the cold stone floor, squirming on a bed of spelling-bee worksheets. Above us, small pearls of light dotted the high, tinted window.

Jeanette frowned. "You are a late bloomer, Mirabella! Usually, everything's begun to make more sense by Month

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Twelve at the latest." I noticed that she stumbled on the word *bloomer*. HraaaHA! Jeanette could never fully shake our accent. She'd talk like that her whole life, I thought with a gloomy satisfaction, each word winced out like an apology for itself.

"Claudette, help me," she yelped. Mirabella had closed her jaws around Jeanette's bald ankle and was dragging her towards the closet. "Please. Help me to mop up Mirabella's mess.

I ignored her and continued down the hall. I had only four more hours to perfect the Sausalito. I was worried only about myself. By that stage, I was no longer certain of how the pack felt about anything.

At seven o'clock on the dot, Sister Ignatius blew her whistle and frog-marched us into the ball. The nuns had transformed the rectory into a very scary place. Purple and silver balloons started popping all around us. Black streamers swooped down from the eaves and got stuck in our hair like bats. A full yellow moon smirked outside the window. We were greeted by blasts of a saxophone, and fizzy pink drinks, and the brothers.

The brothers didn't smell like our brothers anymore. They smelled like pomade and cold, sterile sweat. They looked like little boys. Someone had washed behind their ears and made them wear suspended dungarees. Kyle used to be a blustery alpha male, BTWWWR!, chewing through rattlesnakes, spooking badgers, snatching a live trout out of a grizzly's mouth. He stood by the punch bowl, looking pained and out of place.

"My stars!" I growled. "What lovely weather we've been having!"

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"Yees," Kyle growled back. "It is beginning to look a lot like Christmas." All around the room, boys and girls raised by wolves were having the same conversation. Actually, it had been an unseasonably warm and brown winter, and just that morning a freak hailstorm had sent Sister Josephina to an early grave. But we had only gotten up to Unit 7: Party Dialogue; we hadn't yet learned the vocabulary for Unit 12: How to Tactfully Acknowledge Disaster. Instead, we wore pink party hats and sucked olives on little sticks, inured to our own strangeness.

The nuns swept our hair back into high, bouffant hairstyles. This made us look more girlish and less inclined to eat people, the way that squirrels are saved from looking like rodents by their poofy tails. I was wearing a white organdy dress with orange polka dots. Jeanette was wearing a mauve organdy dress with blue polka dots. Linette was wearing a red organdy dress with white polka dots. Mirabella was in a dark corner, wearing a muzzle. Her party culottes were duct-taped to her knees. The nuns had tied little bows on the muzzle to make it more festive. Even so, the jazz band from West Toowoomba kept glancing nervously her way.

"You smell astooounding!" Kyle was saying, accidentally stretching the diphthong into a howl and then blushing. "I mean—"

"Yes, I know what it is that you mean," I snapped. (That's probably a little narrative embellishment on my part; it must have been months before I could really "snap" out words.) I didn't smell astounding. I had rubbed a pumpkin muffin all over my body earlier that morning to mask my natural, feral scent. Now I smelled like a purebred girl, easy to kill. I narrowed my eyes at Kyle and flattened my ears, something I

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hadn't done for months. Kyle looked panicked, trying to remember the words that would make me act like a girl again. I felt hot, oily tears squeezing out of the red corners of my eyes. *Shoesonfeet!* I barked at myself. I tried again. "My! What lovely weather—"

The jazz band struck up a tune.

“The time has come to do the Sausalito,” Sister Maria announced, beaming into the microphone. “Every sister grab a brother!” She switched on Walter’s industrial flashlight, struggling beneath its weight, and aimed the beam in the center of the room.

Uh-oh. I tried to skulk off into Mirabella’s corner, but Kyle pushed me into the spotlight. “No,” I moaned through my teeth, “noooooo.” All of a sudden the only thing my body could remember how to do was pump and pump. In a flash of white-hot light, my months at St. Lucy’s had vanished, and I was just a terrified animal again. As if of their own accord, my feet started to wiggle out of my shoes. *Mouth shut*, I gasped, staring down at my naked toes, *mouthshutmouthshut*.

“Ahem. The time has come,” Sister Maria coughed, “to do the Sausalito.” She paused. “The Sausalito,” she added helpfully, “does not in any way resemble the thing that you are doing.”

Beads of sweat stood out on my forehead. I could feel my jaws gaping open, my tongue lolling out of the left side of my mouth. What were the steps? I looked frantically for Jeanette; she would help me, she would tell me what to do.

Jeanette was sitting in the corner, sipping punch through a long straw and watching me pant. I locked eyes with her, pleading with the mute intensity that I had used to beg

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her for weasel bones in the forest. “What are the steps?” I mouthed.

“The steps!”

“The steps?” Then Jeanette gave me a wide, true wolf smile. For an instant, she looked just like our mother. “Not for you,” she mouthed back.

I threw my head back, a howl clawing its way up my throat. I was about to lose all my Skill Points, I was about to fail my Adaptive Dancing test. But before the air could burst from my lungs, the wind got knocked out of me. *Oomph!* I fell to the ground, my skirt falling softly over my head. Mirabella had intercepted my eye-cry for help. She’d chewed through her restraints and tackled me from behind, barking at unseen cougars, trying to shield me with her tiny body. “*Caramba!*” Sister Maria squealed, dropping the flashlight. The music ground to a halt. And I have never loved someone so much, before or since, as I loved my littlest sister at that moment. I wanted to roll over and lick her ears, I wanted to kill a dozen spotted fawns and let her eat first.

But everybody was watching; everybody was waiting to see what I would do. “I wasn’t talking to you,” I grunted from underneath her. “I didn’t want your help. Now you have ruined the Sausalito! You have ruined the ball!” I said more loudly, hoping the nuns would hear how much my enunciation had improved.

“You have ruined it!” my sisters panted, circling around us, eager to close ranks. “Mirabella has ruined it!” Every girl was wild-eyed and itching under her polka dots, punch froth dribbling down her chin. The pack had been waiting for this moment for some time. “Mirabella cannot adapt! Back to the woods, back to the woods!”

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The band from West Toowoomba had quietly packed their instruments into black suitcases and were sneaking out the back. The boys had fled back towards the lake, bow ties spinning, snapping

suspenders in their haste. Mirabella was still snarling in the center of it all, trying to figure out where the danger was so that she could defend me against it. The nuns exchanged glances.

In the morning, Mirabella was gone. We checked under all the beds. I pretended to be surprised. I'd known she would have to be expelled the minute I felt her weight on my back. Walter came and told me this in secret after the ball, "So you can say yer good-byes." I didn't want to face Mirabella. Instead, I packed a tin lunch pail for her: two jelly sandwiches on saltine crackers, a chloroformed squirrel, a gilt-edged placard of St. Bolio. I left it for her with Sister Ignatius, with a little note: "Best wishes!" I told myself I'd done everything I could.

"Hooray!" the pack crowed. "Something has been done!"

We raced outside into the bright sunlight, knowing full well that our sister had been turned loose, that we'd never find her. A low roar rippled through us and surged up and up, disappearing into the trees. I listened for an answering howl from Mirabella, heart thumping—what if she heard us and came back? But there was nothing.

We graduated from St. Lucy's shortly thereafter. As far as I can recollect, that was our last communal howl.

Stage 5: At this point your students are able to interact effectively in the new cultural environment. They find it easy to move between the two cultures.

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One Sunday, near the end of my time at St. Lucy's, the sisters gave me a special pass to go visit the parents. The woodsman had to accompany me; I couldn't remember how to find the way back on my own. I wore my best dress and brought along some prosciutto and dill pickles in a picnic basket. We crunched through the fall leaves in silence, and every step made me sadder. "I'll wait out here," the woodsman said, leaning on a blue elm and lighting a cigarette.

The cave looked so much smaller than I remembered it. I had to duck my head to enter. Everybody was eating when I walked in. They all looked up from the bull moose at the same time, my aunts and uncles, my sloe-eyed, lolling cousins, the parents. My uncle dropped a thighbone from his mouth. My littlest brother, a cross-eyed wolf-boy who has since been successfully rehabilitated and is now a dour, balding children's book author, started whining in terror. My mother recoiled from me, as if I was a stranger. TRRR? She sniffed me for a long moment. Then she sank her teeth into my ankle, looking proud and sad. After all the tail wagging and perfunctory barking had died down, the parents sat back on their hind legs. They stared up at me expectantly, panting in the cool gray envelope of the cave, waiting for a display of what I had learned.

"So," I said, telling my first human lie. "I'm home."

Grade Level: 9th Grade Subject: ELA		Theme: How is our community defined?	
Unit Topic & Summary			
<p>From EngageNY:</p> <p>“The first unit of Module 9.1 introduces students to skills, practices, and routines that support the close reading of texts, a process central to the curriculum. In this unit, students learn to annotate text, establish and support text-based claims, participate in evidence-based discussions, and write focused, text-based analyses of literature.</p> <p>In 9.1.1, students read and analyze Karen Russell’s short story, “St. Lucy’s Home for Girls Raised by Wolves,” focusing on how Russell’s structural choices develop complex characters and central ideas.</p> <p>This unit includes a Mid-Unit Assessment that requires students to analyze the relationship between a self-selected epigraph and the events that follow that epigraph. Successful responses rely on text evidence, drawn from students’ annotations and notes, to demonstrate the students’ understanding of how Russell’s structural choices contribute to the development of complex characters (RL.9-10.3 and RL.9-10.5).”</p> <p>In addition to exploring character development and the central themes of the ELA anchor text, students will also analyze the cross-grade level theme of defining community by making connections between the unit’s anchor text, additional informational texts, and their own experiences through structured discussion experiences and short writing assignments.</p>			
End of Unit Goals			
Identity Goals		Service-Learning Goals	
Students will explore what it means to belong to have a cultural identity.		Students will explore the relationship between culture and community and what that relationship means for community needs.	
Intellectual Goals		Criticality Goals	
Students will learn about the relationship between culture and colonization.		Students will learn about the history of cultural boarding schools and how people reclaim their culture.	
Skill Goals & Content Standards			
<ul style="list-style-type: none"> ⌚ Read closely for textual details ⌚ Annotate texts to support comprehension and analysis ⌚ Engage in productive evidence-based discussions about text ⌚ Collect and organize evidence from texts to support analysis in writing ⌚ Make claims about texts using specific textual evidence <p>RL.9-10.1: Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.9-10.2: Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an</p>			

objective summary of the text.

RL.9-10.3: Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.

RL.9-10.4: Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language evokes a sense of time and place; how it sets a formal or informal tone).

RL.9-10.5: Analyze how an author's choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise.

W.9-10.2.a, f: Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

SL.9-10.1.b, c: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.

c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.

SL.9-10.4: Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

L.9-10.4.a, b: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 9–10 reading and content, choosing flexibly from a range of strategies.

a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.

b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., analyze, analysis, analytical; advocate, advocacy).

L.9-10.5.a: Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

a. Interpret figures of speech (e.g., euphemism, oxymoron) in context and analyze their role in the text.

Text Set*
<p>“St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell “Survivors of Indian boarding schools tell their stories” by Gretchen Millich, WKAR News “What is Culture” by LiveScience “The US has spent more money erasing Native languages than saving them” by Rebecca Nagle</p>
End of Unit Performance Assessment
<p>The unit concludes with an End-of-Unit Assessment that asks students to write a multi-paragraph response analyzing the character development of the narrator, Claudette, in relation to the five stages of development presented in The Jesuit Handbook on Lycanthropic Culture Shock. A successful response draws on text evidence from each section of the story to demonstrate how Claudette develops as a complex character over the course of the text. A successful response also demonstrates an ability to establish and support a claim and includes an introduction and conclusion (RL.9-10.3 and W.9-10.2.a, f).</p>

Learning Outline**	
<p><i>Identity Objective:</i> Explore how identity is shaped by your environment.</p> <p><i>Skill Objective & Target Standard(s):</i> Read closely for textual details. Engage in productive evidence-based discussions about text. Annotate texts to support comprehension and analysis Collect and organize evidence from texts to support analysis in writing Make claims about texts using specific textual evidence RL.9-10.4, RL.9-10.1, RL.9-10.3, SL.9-10.1c, L.9-10.4a, W.9-10.2a</p> <p><i>Intellectual Objective:</i> Explore the meaning of culture and colonization.</p> <p><i>Criticality Objective:</i> Explain how culture is perceived by in-group and out-group members.</p> <p><i>Service Objective:</i> Explore how community is defined.</p> <p><i>Lesson Texts:</i> “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell “What is Culture” by LiveScience Additional texts to support student learning, if necessary.</p> <p><i>Lesson Assessment:</i> How does an author’s specific language choices impact the development of characters?</p>	<p>Total Lesson Time (in minutes): approx. 250 minutes Day(s) in Unit: approx. 5</p>
<p><i>Identity Objective:</i> Explore how identity is shaped by your community.</p>	<p>Total Lesson Time (in minutes): approx. 200 minutes Day(s) in Unit: approx. 4</p>

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<p><i>Skill Objective & Target Standard(s):</i> Read closely for textual details. Engage in productive evidence-based discussions about text. Annotate texts to support comprehension and analysis Collect and organize evidence from texts to support analysis in writing Make claims about texts using specific textual evidence RL.9-10.2, RL.9-10.3, RL.9-10.5, SL.9-10.1c, L.9-10.4a-b, W.9-10.2a <i>Intellectual Objective:</i> Explore how colonization can impact culture. <i>Criticality Objective:</i> Explore the history of cultural boarding schools in the US. <i>Service Objective:</i> Explore how community needs shift as the community definition shifts. <i>Lesson Texts:</i> “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell “Survivors of Indian boarding schools tell their stories” by Gretchen Millich, WKAR News Additional texts to support student learning, if necessary. <i>Lesson Assessment:</i> How does an author express and develop the theme of a story?</p>	
<p><i>Identity Objective:</i> Explore how identity is shaped by your community. <i>Intellectual Objective:</i> Explore how colonization can impact culture. <i>Criticality Objective:</i> Explore the history of cultural boarding schools in the US. <i>Service Objective:</i> Explore how community needs shift as the community definition shifts. <i>Skill Objective & Target Standard(s):</i> Read closely for textual details. Engage in productive evidence-based discussions about text. Annotate texts to support comprehension and analysis Collect and organize evidence from texts to support analysis in writing Make claims about texts using specific textual evidence RL.9-10.3, RL9-10.2, RL.9-10.5, W.9-10.2a-d <i>Lesson Texts:</i> “St. Lucy’s Home for Girls Raised by Wolves” by</p>	<p>Total Lesson Time (in minutes): approx. 100 minutes Day(s) in Unit: approx. 2</p>

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<p>Karen Russell <i>Lesson Assessment:</i> How does an author use text structure to develop their characters and theme?</p>	
<p><i>Identity Objective:</i> Explore how one determines their cultural identity. <i>Intellectual Objective:</i> Explore the impact of embracing a culture collectively. <i>Criticality Objective:</i> Explore how a culture can survive with collective action. <i>Service Objective:</i> Explore how community needs shift as the community definition shifts. <i>Skill Objective & Target Standard(s):</i> Read closely for textual details. Engage in productive evidence-based discussions about text. Annotate texts to support comprehension and analysis Collect and organize evidence from texts to support analysis in writing Make claims about texts using specific textual evidence RL.9-10.3, RL9-10.2, RL.9-10.4, L.9-10.4a-b, L.9-10.5a, SL.9-101a-d <i>Lesson Texts:</i> “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell “The US has spent more money erasing Native languages than saving them” by Rebecca Nagle Additional texts to support student learning if necessary. <i>Lesson Assessment:</i> How do characters’ behaviors impact readers’ understanding of the theme?</p>	<p>Total Lesson Time (in minutes): approx. 150 Day(s) in Unit: approx. 3</p>
<p><i>End of Unit Assessment</i> <i>Skill Objective & Target Standard(s):</i> Make claims about texts using specific textual evidence W.9-10.2a,f <i>Lesson Texts:</i> “St. Lucy’s Home for Girls Raised by Wolves” by Karen Russell</p>	<p>Total Lesson Time (in minutes): approx. 150 minutes Day(s) in Unit: approx. 3</p>

*Additional texts will be added to help support students in meeting all unit objectives.

**Teachers are encouraged to use their professional judgement to modify and adjust the learning outline to fit their students. The goal is for teachers to help students reach proficiency on stated objectives. The learning outline is a guideline, first and foremost.

Section 1.3 - Education Plan :: Attachment 6 - School Calendar

The Bryan Allen Stevenson School of Excellence
 Section 3 - Attachment 6 - School Calendar and Schedule

Aug 2023							Sep 2023							Oct 2023						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
		1	2	3	4	5						1	2							
6	7	8	9	10	11	12	3	4	5	6	7	8	9	1	2	3	4	5	6	7
13	14	15	16	17	18	19	10	11	12	13	14	15	16	8	9	10	11	12	13	14
20	21	22	23	24	25	26	17	18	19	20	21	22	23	15	16	17	18	19	20	21
27	28	29	30	31			24	25	26	27	28	29	30	22	23	24	25	26	27	28
														29	30	31				

Nov 2023							Dec 2023							Jan 2024						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4						1	2		1	2	3	4	5	6
5	6	7	8	9	10	11	3	4	5	6	7	8	9	7	8	9	10	11	12	13
12	13	14	15	16	17	18	10	11	12	13	14	16	17	14	15	16	17	18	19	20
19	20	21	22	23	24	25	18	19	20	21	22	23	24	21	22	23	24	25	26	27
26	27	28	29	30			25	26	27	28	29	30	31	28	29	30	31			

Feb 2024							Mar 2024							Apr 2024						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3						1	2		1	2	3	4	5	6
4	5	6	7	8	9	10	3	4	5	6	7	8	9	7	8	9	10	11	12	13
11	12	13	14	15	16	17	10	11	12	13	14	15	16	14	15	16	17	18	19	20
18	19	20	21	22	23	24	17	18	19	20	21	22	23	21	22	23	24	25	26	27
25	26	27	28	29			24	25	26	27	28	29	30	28	29	30				
							31													

May 2024							June 2024							July 2024						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4						1		1	2	3	4	5	6	
5	6	7	8	9	10	11	2	3	4	5	6	7	8	7	8	9	10	11	12	13
12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20
19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27
26	27	28	29	30	31		23	24	25	26	27	28	29	28	29	30	31			
							30													

**The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 6 - School Calendar and Schedule**

Important Dates
Teacher Professional Development (PD)
School Closed
School Beginning and End Dates
Interim Report Dates
Half-Days for Students
Summer Programming

2022

August	14-31	Teacher Professional Development - All Teachers
September	1	Teacher Professional Development - All Teachers
	4	School Closed (Labor Day)
	5	First Day of School
	25	Interim Reports
	26	Early Dismissal for Students (Half-Day PD)
October	13	Early Dismissal for Students (Half-Day PD)
November	3	Professional Development - No School for Students
	10	School Closed (Veteran's Day)
	20	Early Dismissal for Students (Half-Day for Grades)
	21-24	Thanksgiving Holiday
December	7	Interim Reports
	19	Professional Development - No School for Students
	20-30	Winter Break

**The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 6 - School Calendar and Schedule**

2023

January	1	School Closed (New Year's Day)
	15	School Closed (Dr. Martin Luther King Jr. Day)
	26	No School for Students (Grading Day)
February	9	Early Dismissal for Students (Half-Day PD)
	14	School Closed (President's Day)
	23	Interim Reports
March	15	Early Dismissal for Students (Half-Day Conferences)
April	1-5	Spring Break
	26	Early Dismissal for Students (Half-Day PD)
May	3	Interim Reports
	27	School Closed (Memorial Day)
	30-31	Early Dismissal for Students (Half-Day Final Exams)
June	3-4	Early Dismissal for Students (Half-Day Final Exams)
	6	Last Day of School for Students
	11	Last Day of School for Teachers
	24	Summer Programming Begins
July	4	School Closed (Independence Day)

Quarter I – 9/5 - 11/3	Quarter II – 11/6 - 1/31	Quarter III – 2/1 - 4/12	Quarter IV – 4/15 - 6/6
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The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 6 - School Calendar and Schedule

6th Grade	Monday	Tuesday	Wednesday	Thursday	Friday
8:10 - 8:35	Student Arrival & Breakfast				
8:39 - 9:14	Morning Meeting in Advisory				
9:18 - 10:38	Block A - 1	Block B - 1	Block A - 2	Block B - 2	Synthesis Day
10:42 - 11:42	Block A - 2	Block B - 2	Block A - 3	Block B - 3	
11:46 - 2:02	Lunch (11:46 - 12:16) Free Time (12:18 -12:38) Block C begins at 12:42				Lunch
	Block A - 3	Block B - 3	Block A - 4	Block B - 4	Synthesis Day
2:06 - 3:06	Block A - 4	Block B - 4	Block A - 1	Block B - 1	
3:10 - 4:25	Service	Club	Service	Club	Service/Club Flex
4:30	Dismissal				

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 6 - School Calendar and Schedule

7th Grade	Monday	Tuesday	Wednesday	Thursday	Friday
8:10 - 8:35	Student Arrival & Breakfast				
8:39 - 9:14	Morning Meeting in Advisory				
9:18 - 10:38	Block A - 1	Block B - 1	Block A - 2	Block B - 2	Synthesis Day
10:42 - 11:42	Block A - 2	Block B - 2	Block A - 3	Block B - 3	
11:46 - 2:02	Block A - 3	Block B - 3	Block A - 4	Block B - 4	
	Block C ends at 1:06 Lunch (1:10 - 1:40) Free Time (1:42 -2:02)				Lunch
2:06 - 3:06	Block A - 4	Block B - 4	Block A - 1	Block B - 1	Synthesis Day
3:10 - 4:25	Service	Club	Service	Club	Service/Club Flex
4:30	Dismissal				

Sample Half-Day Schedule

6th Grade	Monday
8:10 - 8:35	Student Arrival & Breakfast
8:39 - 9:14	Morning Meeting in Advisory (35 mins)
9:18 - 10:28	Block A - 1 (70 mins)
10:32 - 11:42	Block A - 2 (70 mins)
11:46 - 12:56	Lunch (11:46 - 12:16) (30 mins)
	Service Block (12:21 - 12:56) (35 mins)
1:00	Dismissal

The Bryan Allen Stevenson School of Excellence

Section 3 - Attachment 6 - School Calendar and Schedule

Understanding the School Day

- **Morning Advisory:** Students will be given time to reflect on the day, build school culture and lead during this time. This will be small group time where all students will gather together with their Advisory teachers. Advisory teachers will follow their students through graduation, providing them with academic and socio-emotional support.
- **Academic Blocks:** Students will have 60 to 80 min classes in rotating blocks. The block scheduling promotes an increased depth of content instruction and encourages student-led learning. The rotation ensures that students get to be with all of their teachers at the times of day that are most optimal for them. For instance, some students do best in the morning while others are more focused after lunch. Additionally, academic blocks to better prepare students for college and career expectations in post-secondary life.
- **Service/Club Flex:** BASSE, INC. is committed to community service and development. Students will research the needs of the community and create, develop, and implement community-based projects three times per week throughout the school year in our extended school day. On days students are not fulfilling their service requirements, students will participate in a variety of clubs based on student interests. Students will engage with debate, chess, music, writing, language, sports, and other activities during this time. All BASSE students are required to participate in a club activity.
- **Synthesis Day:** BASSE is committed to giving students choice and leadership. Students will have the opportunity to guide their own learning during Synthesis Day, completing long-term service or academic projects, getting extra help or tutoring, enriching their content knowledge in a subject area of interest, or participating in small groups. At the beginning of the school year, students will receive more guidance on how to structure their day with the goal of their having complete autonomy by the second half of the school year. Teachers will monitor and facilitate learning and support as needed.

Why an extended school day?

BASSE, INC. believes in providing students with a rigorous and challenging academic experience while deeply immersing them in community opportunities and career experiences. We know that in order to accomplish both, we will need a little additional time each day.

Additionally, we recognize that the majority of our students have working parents. In order to better support the interests of our students and families, we opted to align our operational hours with those of the average work schedule to save our parents and caregivers time and money.

Total Annual Instructional Hours: 1,094.5 (Academic Blocks + Service/Club Blocks)

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 6 - School Calendar and Schedule

6th Grade Teacher	Monday	Tuesday	Wednesday	Thursday	Friday
7:50 - 8:10	Teacher Arrival and Morning Prep/Self-Care				
8:10 - 8:35	Student Arrival & Breakfast				
8:39 - 9:14	Morning Meeting in Advisory				
9:18 - 10:38 80 minutes	Block A - 1	Block B - 1	Block A - 2 Planning 40 - Ind./40 - Team	Block B - 2	Synthesis Day 140 40 - RTI 60 - Planning 40 - Content Room Duty (CRD)
10:42 - 11:42 60	Block A - 2 Planning	Block B - 2	Block A - 3	Block B - 3	
11:46 - 2:02 30 - Lunch 20 - Duty 80 - Class	Lunch (11:46 - 12:16) Free Time (12:18 - 12:38) Block C begins at 12:42				Lunch 30 - Lunch 20 - Duty
	Block A - 3	Block B - 3	Block A - 4	Block B - 4 Planning 40 - Ind./40 - Team	Synthesis Day 140 40 - CRD 40 - Collaborative Planning 60 - Independent Study Duty
2:06 - 3:06 60	Block A - 4	Block B - 4 Planning	Block A - 1	Block B - 1	
3:10 - 4:25 75	Service	Club Content Plan	Service	Club Cross- Curricular Plan	Service/Club Flex
4:30	Dismissal				

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 6 - School Calendar and Schedule

Understanding the Teacher Schedule

Every day, teachers will have at least 70 minutes of individual planning time (including morning prep), a duty-free lunch, and 20 minutes of duty where they're monitoring student free time.

Most days, teachers will have collaborative planning with their grade level or content teams. These team-level meetings will be used to analyze student data, provide professional development from lead teachers, share observations, challenges, and facilitate collaborative problem-solving.

On Synthesis Days, teachers will have a variety of responsibilities, in addition to individual and collaborative planning time. Teachers may be responsible for providing response-to-intervention (RTI) instruction, facilitating a content room (CR), or monitoring an independent study room (ISR). Content rooms will be for students who are receiving additional support in a specific subject area. For instance, a student who needs additional time to work on their ELA instruction would go to the ELA content room to work with peers and ELA teachers to receive that support. An independent study room would be for students who don't need additional support but who may want to enrich their skills. For example, a student who excels in all of their course work would use this time to work on a cross-curricular project where they are connecting their science and math coursework. RTI, CRs, and ISRs would be available throughout Synthesis Days, and students' individual schedules would be selected each week in their advisory block (as guided by their PLP).

Finally, teachers would lead the service block every other day and use "club" days as collaborative planning time or, if they choose, to lead a club.

Section 1.3 - Education Plan :: Attachment 7 - Hourly Attendance Survey

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 7 - Hourly Attendance Survey



**BRYAN ALLEN STEVENSON
SCHOOL OF EXCELLENCE**

2023 - 2024 School Year

Number of school attendance days	173
Number of full days	163
Number of half days	10
Number of instructional hours in a day	5 (on average)*
Number of hours in a full day	7.85**
Number of hours in a half-day	4

*An average of a typical five-day week with 4 academic blocks per day (1400 minutes total) and 2 service-learning blocks (150 minutes total). Some weeks would have an additional 75 minutes of service-learning (for a weekly total of 225 minutes).

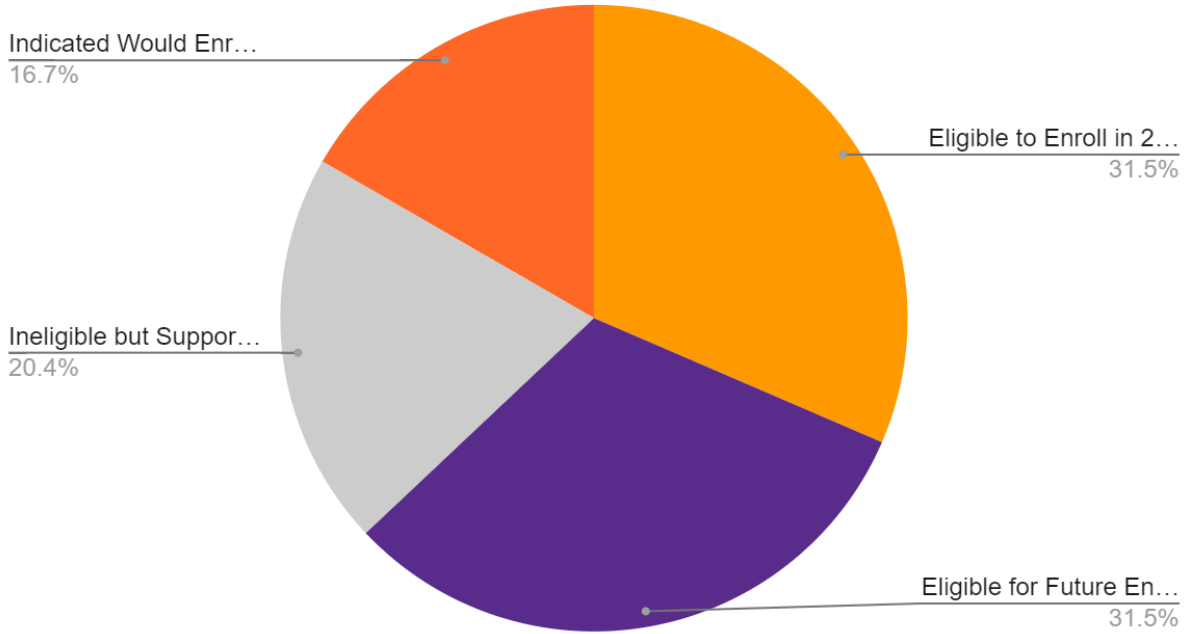
**This includes transition time (4 minutes between classes)

Section 1.3 - Education Plan :: Attachment 8 - Parent Support Survey

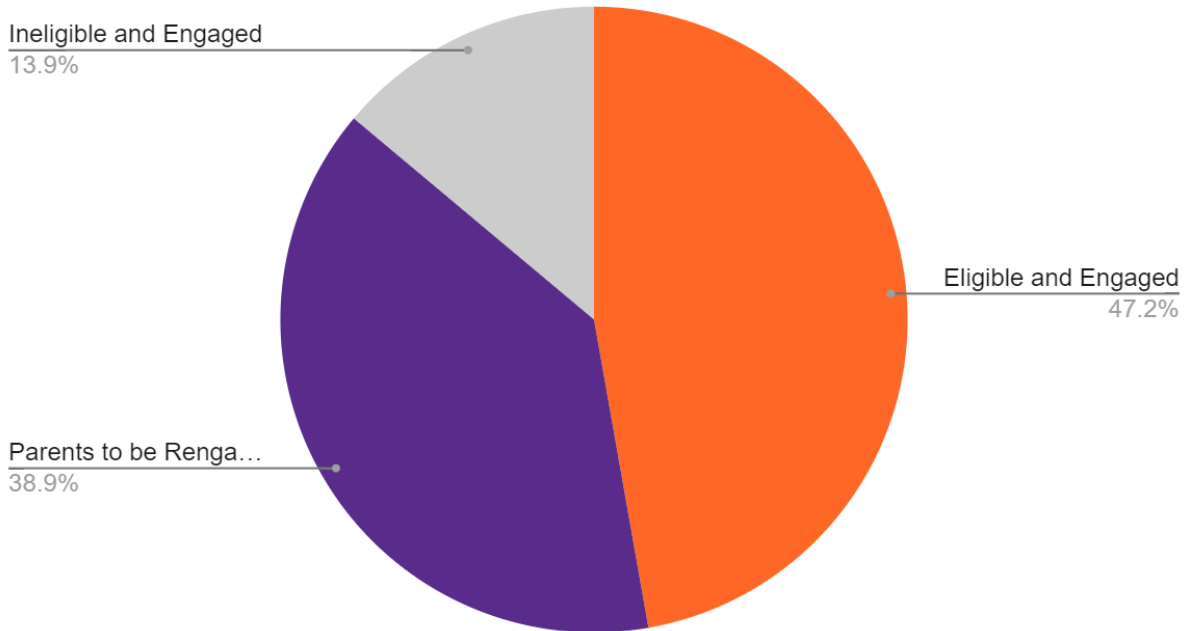
The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 8 - Parent Support Surveys

Parent Signature Pie Charts

Parent Interest



Parent Engagement



First Name	Last Name	Email Address	Zip Code	Interest Level	Grade Level Your Child Will Be in 2023	Volunteer Interest	How Parent Engaged
Jennifer	Mihalics	jennifer.mihalics@gmail.com	19966	I am interested in finding out more information about BASSE.	7th grade		"Form Sign-up"
Pamela	Batten	pdb406@gmail.com	19968	I am interested in finding out more information about BASSE.	10th - 12th grade	The BASSE Parent Advisory Board	"Form Sign-up"
Lori	Pritchett	ljp65@verizon.net	19966	I am interested in finding out more information about BASSE.	Kindergarten - 4th grade		"Form Sign-up"
Tamela	Duffy	blessed6807@gmail.com	19952	I am interested in finding out more information about BASSE.	6th grade		"Form Sign-up"
Rhona	Perkins	rhonalev@yahoo.com	19711	I am interested in finding out more information about BASSE.	Kindergarten - 4th grade	The BASSE Parent Advisory Board, The BASSE Student Advisory Board	"Form Sign-up"
Jaime	Mcneill	jmbarkley85@gmail.com	19940	I would select BASSE as first choice for my child(ren) in the fall of 2023.	Kindergarten - 4th grade, 6th grade		"Form Sign-up"
Kasey	Cordell	nursekaseymae@yahoo.com	19966	I would select BASSE as first choice for my child(ren) in the fall of 2023.	5th grade, 7th grade, 8th grade	The BASSE Parent Advisory Board	"Form Sign-up"
Jenna	Spruill	jenspr2011@yahoo.com	19966	I am interested in finding out more information about BASSE.	Kindergarten - 4th grade, 7th grade		"Form Sign-up"
Nicole	West	nicolewestrealtor@gmail.com	19947	I would select BASSE as first choice for my child(ren) in the fall of 2023.	6th grade, 10th - 12th grade		"Form Sign-up"
allison	maione	allison_21230@yahoo.com	19960	I would select BASSE as first choice for my child(ren) in the fall of 2023.	7th grade	The BASSE Parent Advisory Board	"Form Sign-up"
Ryan	Nessa	rnessa661@gmail.com	19947	I would select BASSE as first choice for my child(ren) in the fall of 2023.	8th grade	The BASSE Parent Advisory Board	"Form Sign-up"
Sherly	Gustin	sherlygustin@yahoo.com	19973	I would select BASSE as first choice for my child(ren) in the fall of 2023.	8th grade		"Form Sign-up"
Kyra	McCray	kaykymac@icloud.com	19901	I am interested in finding out more information about BASSE.	Kindergarten - 4th grade	The BASSE Parent Advisory Board	"Form Sign-up"
Samantha	Simile	samanthajean07@gmail.com	19973	I am interested in finding out more information about BASSE.	Kindergarten - 4th grade		"Form Sign-up"
Latoya	Camper	latoya.hopkins@aol.com	19956	I am interested in finding out more information about BASSE.	8th grade	The BASSE Parent Advisory Board	"Form Sign-up"
Sharone	Winstead	sharonewinstead@aol.com	19960	I am interested in finding out more information about BASSE.	9th grade		"Form Sign-up"
Victoria	Lee-Bland	leeblandvictoria@yahoo.com	19966	I am interested in finding out more information about BASSE.	10th - 12th grade	The BASSE Student Advisory Board	"Form Sign-up"
Kara	Alo	kaloboysndogs3@gmail.com	19966	I am interested in finding out more information about BASSE.	Kindergarten - 4th grade, 7th grade, 8th grade	The BASSE Parent Advisory Board	"Form Sign-up"
Tracy	Mitchell	tracylynn1998@yahoo.com	19973	I am interested in finding out more information about BASSE.	9th grade		"Form Sign-up"
Michelle	Keenan	michelle.keenan20@gmail.com	19947	I am interested in finding out more information about BASSE.	Kindergarten - 4th grade, 6th grade, 8th grade	The BASSE Parent Advisory Board	"Form Sign-up"
William	Lee-Bland	crookedarm7@aol.com	19966	I am interested in finding out more information about BASSE.	10th - 12th grade	The BASSE Parent Advisory Board	"Form Sign-up"
samantha	minnick	sminnick209@yahoo.com	19947	I would select BASSE as first choice for my child(ren) in the fall of 2023.	6th grade		"Form Sign-up"
Cristiana	Miranda	cristianam2014@icloud.com	19968	I am interested in finding out more information about BASSE.	Kindergarten - 4th grade, 7th grade, 10th - 12th grade		"Form Sign-up"
Amber	Lewis	mrs.alewis12@aol.com	19805	I am interested in finding out more information about BASSE.	6th grade	The BASSE Parent Advisory Board	"Form Sign-up"
Stefani	Mowbray	stefdavemad@gmail.com	19966	I would select BASSE as first choice for my child(ren) in the fall of 2023.	7th grade	The BASSE Parent Advisory Board	"Form Sign-up"
Jamika	Jenkins	jamikajenkins2@gmail.com	19966	I would select BASSE as first choice for my child(ren) in the fall of 2023.	Kindergarten - 4th grade, 6th grade, 7th grade	The BASSE Parent Advisory Board	"Form Sign-up"
Jinni	Forcucci	jforcucci11@gmail.com	19971	I would select BASSE as first choice for my child(ren) in the fall of 2023.	9th grade	The BASSE Parent Advisory Board, The BASSE Student Advisory Board	"Form Sign-up"

Monica	Glickman	mmglickman@comcast.net	19973	I would select BASSE as first choice for my child(ren) in the fall of 2023.	9th grade		"Form Sign-up"
Ginny	Layfield	ginlayfield@yahoo.com	19947	I am interested in finding out more information about BASSE.	5th grade		"Form Sign-up"
Leah	Bradford	Leah.bradford3695@yahoo.com	19966	I am interested in finding out more information about BASSE.	Kindergarten - 4th grade, 9th grade, 10th - 12th	The BASSE Parent Advisory Board	"Form Sign-up"
Shannon	Swails	shannonswails74@yahoo.com	19966	I am interested in finding out more information about BASSE.	9th grade		"Form Sign-up"
David	Yurkovich	david@devilsparty.com	19968	I would select BASSE as first choice for my child(ren) in the fall of 2023.	8th grade		"Form Sign-up"
Valerie	Oliphant	voliphant@comcast.net	19956	I am interested in finding out more information about BASSE.	8th grade		"Form Sign-up"
Sarah	Pusey	slbpusey@gmail.com	19966	I am interested in finding out more information about BASSE.	9th grade		"Form Sign-up"
Joseph	Lawson	josephlawson@gmail.com	19958		5th grade		"New Paper Sign- Up"
Ali	Myers	acmyers1126@gmail.com	19968		Kindergarten - 4th grade		"New Paper Sign- Up"
Deborah	Ross	dsross12sr@gmail.com	19963	I would select BASSE as first choice for my child(ren) in the fall of 2023.	Kindergarten - 4th grade, 6th grade		"New Paper Sign- Up"
Victoria	Bowler	godschild01953@gmail.com	19956	I would select BASSE as first choice for my child(ren) in the fall of 2023.	6th grade, 10th - 12th grade		"New Paper Sign- Up"
Laura	East	lauralockerman@gmail.com	19968	I would select BASSE as first choice for my child(ren) in the fall of 2023.	9th grade		"New Paper Sign- Up"
Jennifer	Morley	morleyhoper@gmail.com	19968	I am interested in finding out more information about BASSE.	10th - 12th grade		"New Paper Sign- Up"
Erin	McCall	rileyg4@gmail.com	19968	I am interested in finding out more information about BASSE.	Kindergarten - 4th grade		"New Paper Sign- Up"
Amanda	Shaffer	atomlinson22@aol.com	19968	I am interested in finding out more information about BASSE.	Kindergarten - 4th grade		"New Paper Sign- Up"
Diane	Seratrue	haleybe@verizon.net	19968	I would select BASSE as first choice for my child(ren) in the fall of 2023.	6th grade		"New Paper Sign- Up"
Brooke	Lowe	bmlowe@hotmail.com	19966	I would select BASSE as first choice for my child(ren) in the fall of 2023.	5th grade		"New Paper Sign- Up"
		mindiprice23@gmail.com					"Old Sign-up"
		fryberger61@gmail.com					"Old Sign-up"
		mswest4056@verizon.net					"Old Sign-up"
		lovejoi29@hotmail.com					"Old Sign-up"
		lindsaylopez6282@yahoo.com					"Old Sign-up"
		yanette84@hotmail.com					"Old Sign-up"
		scc66@yahoo.com					"Old Sign-up"
Donnell	Smack	smackdonnell@gmail.com	19973	I would select BASSE as first choice for my child(ren) in the fall of 2023.	7th grade	The BASSE Parent Advisory Board	"Old Sign-up"
		tshowell@connectionscsp.org					"Old Sign-up"
		ejmstands@yahoo.com					"Old Sign-up"
		tammymarlette@me.com					"Old Sign-up"
		hereiamj76@gmail.com					"Old Sign-up"
		dayurkovich@icloud.com					"Old Sign-up"
Kathy	Ebner	kaebner@comcast.net	19960	I would select BASSE as first choice for my child(ren) in the fall of 2023.	10th - 12th grade		"Old Sign-up"
		vmednikova@gmail.com					"Old Sign-up"
		angela.carter@ymail.com					"Old Sign-up"
Nina	Foltz	nina.foltz@delaware.gov	19956	I would select BASSE as first choice for my child(ren) in the fall of 2023.	Kindergarten - 4th grade, 10th - 12th grade	The BASSE Parent Advisory Board	"Old Sign-up"
		juliew8442@yahoo.com					"Old Sign-up"
		fatnice@gmail.com					"Old Sign-up"
		alexannewilliams46@gmail.com					"Old Sign-up"
		vcurtis25@gmail.com					"Old Sign-up"
		jennifercropper@gmail.com					"Old Sign-up"

Maureen	Botti Eschbach	mbotti77@hotmail.com	19958	I would select BASSE as first choice for my child(ren) in the fall of 2023.	Kindergarten - 4th grade	The BASSE Student Advisory Board	"Old Sign-up"
		asorden890@gmail.com					"Old Sign-up"
		tecolag@aol.com					"Old Sign-up"
Eli	Ramos	eli_ramos@verizon.net	19958	I am interested in finding out more information about BASSE.	10th - 12th grade		"Old Sign-up"
		djones8208@gmail.com					"Old Sign-up"
Lynne	Betts	Lynne03betts@yahoo.com	19973	I am interested in finding out more information about BASSE.	Kindergarten - 4th grade		
Tracey	Condonkneifl	traceycondonkneifl@gmail.com	19963	I am interested in finding out more information about BASSE.	6th grade	The BASSE Parent Advisory Board, The BASSE Student Advisory Board	



Make BASSE a Reality for Sussex County Students!

SIGN UP TO SHOW YOUR INTEREST

BASSE is a free public charter school in Sussex County planning to open in fall 2023. We're now recruiting for grades 6-7.

As a service-learning secondary school, we will provide meaningful, personalized experiences and leadership opportunities for our students. Combined with a challenging academic curriculum, BASSE will offer students a unique chance to explore, achieve, and positively impact their school and their community.

We need your help to open our doors.

To open our new charter school, we must apply to the Delaware Department of Education. An important part of the application is the level of support in the community for our school.

If you plan to submit an application for your child(ren) in the fall 2023 school year, or you're interested in learning more, please [complete the brief form below](#). This helps us measure support for our new school. Keep in mind, you're not obligated to enroll your child if you complete the form.

As a parent, we know you have questions.

We've compiled some frequently asked questions to help you decide if BASSE would be right for your child(ren).

What is a public charter school?	+
How will my child benefit from attending BASSE?	+
How will Sussex County benefit from having BASSE in the community?	+
How will BASSE keep families involved and informed?	+
Who is Bryan Allen Stevenson?	+
What can my child expect during a typical day at BASSE?	+

BASSE

Bryan Allen Stevenson School of Excellence

Language

How many students will BASSE admit?	+
What if there are too many applicants?	+
How is BASSE funded?	+
Where will BASSE be located?	+
How will my child get to BASSE?	+

Express Your Interest

By answering the questions below, we can measure support for our new school. We may share this information with the Department of Education as part of our charter application.

First Name *

Last Name *

Email *

Phone *

ZIP Code *

Grade level your child will enter in the fall of 2023 (Please select as many as apply if you have more than one child.) *

- Kindergarten – 4th grade
 5th grade
 6th grade
 7th grade
 8th grade
 9th grade
 10th – 12th grade

Interest level (Please select one.) *

- I would select BASSE as first choice for my child(ren) in the fall of 2023.
 I am interested in finding out more information about BASSE.

How did you hear about BASSE? (Please select one.) *

- Through a friend, family, or acquaintance
 Flyer in the community
 Yard sign
 Postcard in the mail
 Social media
 Online ad

Show off your BASSE Pride

We'd love to send a thank you gift full of BASSE swag! Provide your address below and we'll ship it out.

Address

City

State/Province



Zip/Postal

Get Involved

Help us make BASSE a reality!

Volunteer Interest

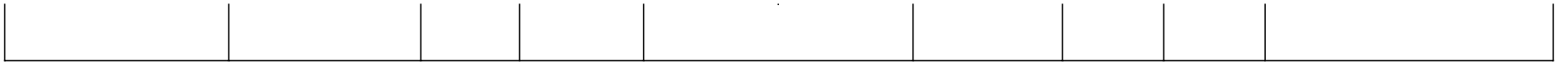
- The BASSE Parent Advisory Board
- The BASSE Student Advisory Board

By submitting this form, I understand that my child is not obligated to enroll in BASSE once the school opens. I also understand that BASSE will abide by the following [data use policy](#).

SEND »

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[PRIVACY POLICY](#)



**Section 1.3 - Education Plan :: Attachment 9 - Enrollment and
Withdrawal Policies**

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 9 - Enrollment and Withdrawl Policies

2023 - 2024 BASSE Enrollment & Withdrawal Policy

Admissions

To be eligible for admission to the Bryan Allen Stevenson School of Excellence (BASSE): a student must be eligible to enter

- the 6th or 7th grade in the 2023-2024 school year;
- the 6th, 7th, or 8th grade in the 2024-2025 school year;
- the 6th through 9th grades in the 2025-2026 school year;
- the 6th through 10th in the 2026-2027 school year;
- the 6th through 11th in the 2027-2028 school year;
- all grades, 6th through 12th, in the 2028-2029 school year.

The student and their family must be Delaware residents.

BASSE will not discriminate against any student in the admission process because of their race, religion, creed, color, sex, disability, or national origin, or due to the student's school district of residence providing a per-student local expenditure lower than another student seeking admission. The only exceptions to restrict student admissions are:

- Age and/or grade-level eligibility, or
- By lottery in the case of over-enrollment

An electronic version of the application for the school will be available to submit online. Additionally, families who are more comfortable may download, print, and mail their applications to BASSE. For families unable to access the school website, BASSE will provide them with paper copies of the application upon request.

Preferences

The selected preferences of BASSE will be:

- Students residing within the regular school district in which BASSE is located
- Students who have a specific interest in BASSE's teaching methods, philosophy, or educational focus
- Siblings of students currently enrolled at the school

Students who have a specific interest in BASSE's teaching methods, philosophy, and education focus will need to submit a video essay, voice memo, presentation, or piece of writing that demonstrates their interest in the BASSE program. A detailed description of this application supplement will be provided with the application on the website and will be explained during parent workshops and recruitment events.

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Section 3 - Attachment 9 - Enrollment and Withdrawl Policies

Timeline

BASSE Student Recruitment & Enrollment Timeline*	
<i>Recruitment & Pre-Application</i>	
Student Recruitment Engagement	Ongoing Online and In-Person (Ads, Social Media, Mailers, etc.)
Student Recruitment Events	June 2023 - December 2023, Monthly
School Choice Parent Workshop #1	August 2023
School Choice Parent Workshop #2	September 2023
School Choice Parent Workshop #3	October 2023
<i>Application</i>	
BASSE Begins Accepting Applications	November 6, 2023
BASSE Application Closes at 11:59 PM*	January 10, 2023
BASSE Notifies All Home LEAs of Received Applications	By January 26, 2023
BASSE Begins Action on Approved Applications	February 29, 2023
BASSE Notifies Parents and Home LEAs of Application Action	By March 8, 2023
BASSE Receives in Notice of Intent from Parents in Writing	By March 15, 2023
<i>Lottery**</i>	
BASSE Performs Lottery for Surplus Applications	March 4, 2023
BASSE Notifies Parents and Home LEAs of Lottery Results and Application Action	By March 8, 2023
<i>Enrollment</i>	
BASSE Enrolls Students for Fall 2023	Beginning March 21, 2023

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Section 3 - Attachment 9 - Enrollment and Withdrawl Policies

BASSE Hosts Open House for Students and Families Enrolled for Fall 2023	August 31, 2023
BASSE Notifies DDOE of Fall 2023 Projected Enrollment Total	November 30, 2023 - January 30, 2024

*The dates selected are based on the school choice process outlined at <https://www.schoolchoicede.org/>. BASSE will align its timeline when the 2023-2024 dates are released.

**If there are remaining seats, BASSE will continue to receive applications until we are at capacity.

Lottery*

In the case that the number of applications exceeds the number of openings after preference is given to students who meet the preference criteria above, BASSE will hold a lottery on March 4, 2023.

The lottery process will be blind so that all students will have an equal chance of being offered a spot in the remaining available seats. Depending on the type and amount of applications received, the lottery will be run manually or via a computerized method.

Waiting Lists

BASSE will continue to accept applications until we have reached capacity. Students eligible for admission but not selected due to a lack of capacity will be placed on a ranked waiting list until September 5, 2023.

Withdrawals

Application Withdrawal

Any parent who previously applied for their student to attend BASSE may withdraw their application at any time prior to action on the application by our board by giving written notice.

Withdrawal from School

A parent may apply to withdraw their child's enrollment at BASSE prior to the end of their enrollment period by submitting a written application to the BASSE no later than December 1 for enrollment during the following school year. BASSE will then follow the policy outlined in 14 Del. C. § 407 (c) - (i).

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Re-Enrollment

Accepted BASSE students will remain enrolled until graduation, provided that the student continues to meet the requirements for enrollment.

A student's right to remain enrolled may be terminated prior to graduation if

- a. The student fails to continue to comply with BASSE's requirements for attending school or class, or
- b. Multiple violations of BASSE's student code of conduct.

Records

BASSE will maintain on file a written statement signed by the parent or guardian of each enrolled child acknowledging that the student will attend BASSE for at least one complete school year per 14 Del. C. § 506 (c) (3).

Each parent will need to sign and submit this document after BASSE receives their notice of intent in order for their child to continue in the enrollment process.

Section 1.3 - Education Plan :: Attachment 10 - Remote Learning Plan

The Bryan Allen Stevenson School of Excellence
Section 3 - Attachment 10 - Remote Learning Plan

BASSE Remote Learning Plan*
<i>Phase 1</i> <i>Full-Remote</i>
<p><u>Student Learning</u></p> <p>The goal of the full-remote learning model is to provide students with a well-rounded education in the content areas that would be offered if students were attending in-person. Students will attend classes in both synchronous and asynchronous formats, with instruction being provided by their regularly assigned teachers. Teacher office hours will also be provided.</p> <p><u>Health & Safety</u></p> <p>Students and their families will be responsible for monitoring their health. However, the school’s nurse will be available for consultation during the full-remote school model.</p> <p><u>Wraparound Services</u></p> <p><i>Nutrition</i></p> <p>Meals (breakfast and lunch) will be provided by curbside pick-up at the school and at hub stops for all families in need of this service, including those who reside outside of school district limits.</p> <p><i>Mental Health Supports</i></p> <p>Students will still have access to mental health supports, including wellness checks and regular appointments remotely during the full-remote model.</p> <p><i>Technology</i></p> <p>All students will be provided with a device, such as a Chromebook, to allow them to participate in synchronous and asynchronous instruction. If a student needs access to the internet, the school will support the student by providing a hot-spot or connecting the student with discounted internet access from a local provider. Students will also be given the opportunity to participate in the WAVE program. “WAVE is a nonprofit that helps families by providing highly qualified guides to help students with remote learning in small groups called Pods. WAVE’s mission is educational equity. We strive to make our essential services available to all through a charitable model and partnerships with families, employers, and schools,” (wavedelaware.com).</p>

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Section 3 - Attachment 10 - Remote Learning Plan

Typical Student Day

On a typical student day (Monday-Thursday), a student would be expected to:

- Participate in live synchronous lessons with their teacher
- Complete work asynchronously
- Participate in club and service time either synchronously or asynchronously

On Fridays (which is typically BASSE's Synthesis Day), students will complete work asynchronously with access to teacher support via the school's learning management system (most likely Schoology) and an education communication application, such as [Remind](#). Teachers will also hold office hours, which students will be encouraged to attend.

A sample schedule is included below:

8:40 - 9:15 Advisory

9:20 - 10:30 Block A1

- 9:20 - 9:50 Period 1 Live instruction
- 9:50 - 10:30 Period 1 Asynchronous Work

10:35 - 11:45 Block A2

- 10:35 - 11:05 Period 2 Live Instruction
- 11:05 - 11:45 Period 2 Asynchronous Work

11:45 -12:35 Lunch and Midday Free Time

12:40 -1:50 Block A3

- 12:40 - 1:10 Period 3 Live Instruction
- 1:10 - 1:50 Period 3 Asynchronous Work

1:55-3:05 Block A4

- 1:55 - 2:25 Period 4 Live Instruction
- 2:25 - 3:05 Period 4 Asynchronous Work

3:05 - 4:25 Service/Club Block

Typical Teacher Day

On a typical teacher day, a teacher would be expected to:

- Instruct live synchronous lessons
- Plan lessons, including developing and publishing asynchronous work for students
- Lead their club both with synchronous and asynchronous options
- Give feedback to students on their work
- Contact parents and families to build relationships and update them on their students' progress
- Attend professional development provided by BASSE or DDOE

On Fridays (typically BASSE's Synthesis Day), teachers will monitor the school's learning management system (most likely Schoology) and their education communication application for messages from students needing support. They will hold office hours, hold PLCs, plan

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Section 3 - Attachment 10 - Remote Learning Plan

collaboratively, and make parent and family contacts.

A sample schedule is included below:

8:40 - 9:15 Advisory

9:20 - 10:30 Block A1

- 9:20 - 9:50 Period 1 Live instruction
- 9:50 - 10:30 Period 1 Asynchronous Work

10:35 - 11:45 Block A2

- 10:35 - 11:05 Period 2 Live Instruction
- 11:05 - 11:45 Period 2 Asynchronous Work

11:45 -12:35 Lunch and Midday Free Time

12:40 -1:50 Block A3

- Individual Teacher Planning Period

1:55-3:05 Block A4

- 1:55 - 2:25 Period 7 Live Instruction
- 2:25 - 3:05 Period 7 Asynchronous Work

3:05 - 4:25 Service/Club Block

School Calendar Modification

Teacher Start Date: August 14, 2022

Teacher End Date: June 11, 2023

Total Teacher Days: 196

Student Start Date: September 5, 2022

Student End Date: June 6, 2023

Total Student Hours: 1,094.5

BASSE Remote Learning Plan

Phase 2

Hybrid & Remote

Student Learning

The goal of the hybrid learning model is to provide students with a well-rounded education in the content areas that would be offered if students were attending in-person; this is both for students learning remotely at home and students who choose to learn in-person. Students will attend classes in both synchronous and asynchronous formats, with instruction being provided by their regularly assigned teachers. Teacher office hours will also be provided.

Health & Safety

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Section 3 - Attachment 10 - Remote Learning Plan

Remote

Students and their families will be responsible for monitoring their health. However, the school's nurse will be available for consultation.

Hybrid

Students choosing to participate in in-person instruction will be required to complete a [symptom pre-screen](#) before attending school. Students must wear masks and follow all social distancing guidelines. BASSE will follow and implement health and safety protocols aligned with CDC and the Delaware Division of Public Health. BASSE will provide cleaning supplies (i.e., wipes and hand sanitizer), basic health supplies (bandaids, feminine products, etc.), and PPE (gloves and masks) to teachers for their classrooms. The basic health supplies in classrooms will help limit students' traffic to the nurse's office and help keep that environment as sanitary as possible.

Wraparound Services

Nutrition

Remote

Meals (breakfast and lunch) will be provided by curbside pick-up at the school and at hub stops for all families in need of this service, including those who reside outside of school district limits.

Hybrid

Students who qualify will be provided both breakfast and lunch at school. Students must follow all masking guidelines when eating.

Mental Health Supports

Students will still be able to access mental health supports, including wellness checks and regular appointments both remotely and when attending in-person instruction.

Technology

Remote

All students will be provided with a device, such as a Chromebook, to allow them to participate in synchronous and asynchronous instruction. If a student needs access to the

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internet, the school will support the student by providing a hot-spot or connecting the student with discounted internet access from a local provider.

Hybrid

All students will be provided with a device, such as a Chromebook, to allow them to participate in synchronous and asynchronous instruction. Students will be expected to bring their devices to school for in-person instruction on the days they are physically in the building.

Typical Student Day

The student days for hybrid and remote students will closely mirror the full-remote learning model to provide consistency for students if the school returns to the full-remote model.

On a typical student day (Monday-Thursday), a student would be expected to:

- Participate in live synchronous lessons with their teacher, either in-person or remotely
- Complete assignments, either in-person or remotely
- Participate in club and service time either synchronously or asynchronously

An alternating student attendance schedule will be developed depending on student enrollment. For instance, half of the student body would attend classes in-person M-T (attending W-Th remotely).

On Fridays (which is typically BASSE’s Synthesis Day), students will complete work asynchronously with access to teacher support via the school’s learning management system (most likely Schoology) and an education communication application such as Remind. Teachers will also hold office hours, which students will be encouraged to attend.

Sample Student Schedule - Hybrid

Sample Student Schedule - Remote

8:10 - 8:35 Student Arrival and Breakfast

8:40 - 9:15 Advisory

9:20 - 10:30 Block A1

10:35 - 11:45 Block A2

11:45 -12:35 Lunch and Midday Free Time*

12:40 -1:50 Block A3

1:55-3:05 Block A4

3:05 - 4:25 Service/Club Block

4:30 - Student Dismissal

*Lunch will be held in classrooms to maintain the same schedule for hybrid and remote students while also following CDC guidelines. Students would be allowed to participate in free time in a large open space, such as the gym or outdoors (weather and student safety)

8:40 - 9:15 Advisory

9:20 - 10:30 Block A1

10:35 - 11:45 Block A2

11:45 -12:35 Lunch and Midday Free Time

12:40 -1:50 Block A3

1:55-3:05 Block A4

3:05 - 4:25 Service/Club Block

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Section 3 - Attachment 10 - Remote Learning Plan

permitting).	
<i>Typical Teacher Day</i>	
<p>On a typical teacher day, a teacher would be expected to:</p> <ul style="list-style-type: none"> ● Instruct live synchronous lessons, with access for both in-person and remote students ● Plan lessons, including developing and publishing asynchronous work for students ● Lead their club both with synchronous and asynchronous options, with accessibility for both in-person and remote students ● Give feedback to students on their work ● Contact parents and families to build relationships and update them on their students' progress ● Attend professional development provided by BASSE or DDOE <p>On Fridays (typically BASSE's Synthesis Day), teachers will monitor the school's learning management system (most likely Schoology) and their education communication application for messages from students needing support. They will hold office hours, hold PLCs, plan collaboratively, and make parent and family contacts.</p> <p>A sample schedule is included below:</p> <p><u>8:10 - 8:35 Student Arrival and Breakfast</u> <u>8:40 - 9:15 Advisory</u> <u>9:20 - 10:30 Block A1</u> <u>10:35 - 11:45 Block A2</u> <u>11:45 -12:35 Lunch and Midday Free Time*</u> <u>12:40 -1:50 Planning</u> <u>1:55-3:05 Block A4</u> <u>3:05 - 4:25 Service/Club Block</u> <u>4:30 - Student Dismissal</u></p> <p>*If student numbers permit, a socially distanced lunch will take place in the cafeteria. Otherwise, lunch will be held in classrooms to maintain the same schedule for hybrid and remote students while also following CDC guidelines. In-person teaching staff will develop an equitable classroom monitoring schedule for both Lunch and Free Time.</p>	
<i>School Calendar Modification</i>	
<p>Teacher Start Date: August 15, 2022 Teacher End Date: June 13, 2023 Total Teacher Days: 192</p> <p>Student Start Date: September 6, 2022 Student End Date: June 8, 2023</p>	

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Total Student Hours: 1,094.5

BASSE Remote Learning Plan

Phase 3
Fully Open (Inclement Weather Plan)

Student Learning

In the case of inclement weather, students will be able to easily slide back into the fully remote learning schedule to avoid an interruption to their learning. Students will follow the schedule as outlined in the Full-Remote Learning Plan.

Wraparound Services

Nutrition

As long as it is safe for staff, meals (breakfast and lunch) will be provided by curbside pick-up at the school and at hub stops for all families in need of this service, including those who reside outside of school district limits.

Mental Health Supports

Students will still be able to access mental health supports, including wellness checks and regular appointments.

Technology

All students will be provided with a device, such as a Chromebook, to allow them to participate in synchronous and asynchronous instruction. If a student needs access to the internet, the school will support the student by providing a hot-spot or connecting the student with discounted internet access from a local provider.

Typical Student Day

8:40 - 9:15 Advisory

9:20 - 10:30 Block A1

- 9:20 - 9:50 Period 1 Live instruction
- 9:50 - 10:30 Period 1 Asynchronous Work

10:35 - 11:45 Block A2

- 10:35 - 11:05 Period 3 Live Instruction
- 11:05 - 11:45 Period 3 Asynchronous Work

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11:45 -12:35 Lunch and Midday Free Time

12:40 -1:50 Block A3

- 12:40 - 1:10 Period 5 Live Instruction
- 1:10 - 1:50 Period 5 Asynchronous Work

1:55-3:05 Block A4

- 1:55 - 2:25 Period 7 Live Instruction
- 2:25 - 3:05 Period 7 Asynchronous Work

3:05 - 4:25 Service/Club Block

Typical Teacher Day

8:40 - 9:15 Advisory

9:20 - 10:30 Block A1

- 9:20 - 9:50 Period 1 Live instruction
- 9:50 - 10:30 Period 1 Asynchronous Work

10:35 - 11:45 Block A2

- 10:35 - 11:05 Period 3 Live Instruction
- 11:05 - 11:45 Period 3 Asynchronous Work

11:45 -12:35 Lunch and Midday Free Time

12:40 -1:50 Block A3

- Individual Teacher Planning Period

1:55-3:05 Block A4

- 1:55 - 2:25 Period 7 Live Instruction
- 2:25 - 3:05 Period 7 Asynchronous Work

3:05 - 4:25 Service/Club Block

Instructional Delivery (Grades 9-12)

Synchronous Delivery

Teachers will deliver live instruction via Zoom. Teachers will be expected to use various teaching methods including, but not limited to, direct instruction/lecture, visual aids to be presented on-screen, small group interactive activities, and discussion, both whole group and small group.

Asynchronous Delivery

Teachers will provide assignments that directly correlate with and extend the learning that happens during the live instruction portion of the class period. Students are expected to submit their work using the school’s learning management system via a variety of applications including, but not limited to Pear Deck, Flip Grid, and the Google Suite for Education.

Teachers will provide office hours during which students can log in to ask questions and seek

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extra help.

*BASSE's Remote Learning Plan is appropriate for all secondary students, 6-12.

Section 1.4 - Performance Management

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Section 4 - Performance Management

1.4 Performance Management

14 Del. C. §§ 512(4)-(7)

The DDOE will evaluate every charter school's performance annually and for renewal purposes according to a set of academic, financial, and organizational performance standards, known as the Charter Performance Framework, which will be incorporated into the Performance Agreement. (**Note!** The Performance Agreement is enforceable as part of the school's Charter Contract.)

- The academic performance standards will be in accordance with 14 *Del. C.* § 512(4) and will consider status, growth, and comparative performance based on federal, state, and school-specific measures.
 - The financial performance standards will be based on standard accounting and industry standards for sound financial operation.
 - The organizational performance standards will be based primarily on compliance with legal obligations, including the fulfillment of the Board's fiduciary obligations related to sound governance.
 - The Charter Performance Framework may be found [here](#):
 - Guidance Documents for the Delaware School Success Framework (DSSF), Organizational Performance Framework and Financial Performance may be found [here](#).
1. Explain how the school's Board and School Leadership Team will measure and evaluate the academic progress of individual students, student cohorts, and the school as a whole throughout the school year, at the end of each academic year, and for the term of the charter contract.

The instructional staff and school leadership team will consistently and continuously monitor individual students' academic progress, student cohorts, and the school as a whole throughout the school year. Academic progress will be measured during the year through End of Unit Assessments, Growth to Goal Data Sets, and their progress to College and Career Ready.

- *End of Unit Assessments* - At the end of each academic unit, students will complete a summative assessment that allows them to demonstrate what skills they successfully mastered within that unit of study. These assessments will be common across grade levels so that we can compare students in different cohort groups.
- *Growth to Goal Data Sets* - at the beginning of each school year, students will complete a teacher-developed performance assessment that will assess students' current levels, including their reading comprehension level, math skills, and writing ability. Individual academic goals will be extrapolated from this performance assessment. Progress towards these goals will be measured based on student performance on similar performance assessments administered throughout the school year. A report on the individual students' progress towards their end of the school year goals will be sent

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home with their report cards. In grades 6 through 10, these assessments will be quarterly, and beginning in grade 11, it will be biannually (mid-winter and late spring). All performance assessments will be common so that students can be compared across cohort groups.

- *College and Career Readiness Data Sets* - In lieu of Growth to Goal data, in grade 12, students will be held accountable for meeting at least one of the measures listed in the [Delaware School Success Framework](#) (page 20) prior to graduating. Additionally, students' successful completion of their academic-service project and the subsequent paper will be included in this measure. Students' progress to completing these three measures will be tracked closely throughout their senior year, with their College and Career Measure tracked by their College and Career Counselor and their Academic Advisory Teacher throughout their entire academic career at BASSE.
 - The Framework Reference Guide lists several different options that students can meet to demonstrate their college or career readiness. In our understanding of the Delaware School Success Framework Reference Guide, schools should report out students' progress in all metrics of college and career readiness.
 - The Delaware Accountability—Technical Operation Manual for 2019-2020 states, "CCP is the percent of students who have demonstrated readiness for postsecondary education and a career after high school through success in one or more of the identified CCP indicators." Students have many options to demonstrate their preparedness for College and Career, and it would be a disservice to our future students to select a single metric to measure our diverse student population.
 - BASSE plans to report out on all required metrics, in accordance to the guidance outlined above.
- *Standardized Tests* - All students will take the Smarter Balance Assessment in grades 6, 7, and 8 and the SATs in their 11th-grade year. To prepare students for taking these assessment, students in grades 6-8 will receive support in becoming familiar with the structure of the Smarter Balance assessment through strategically planned practice assessments, and in 9th and 10th grade will take the appropriate PSATs. Additionally, certain International Baccalaureate exams will be available for students to take. Students' scores on these assessments will be included in the school's achievement data.

Each year, throughout the school year and at a retreat during the summer, the Board and School Leadership team will analyze the academic data collected and make recommendations for improving the data and closing gaps in academic achievement. They will also track how this data aligns with the student performance goals outlined in this document.

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2. Explain how the school will collect and analyze student academic achievement data, use the data to refine and improve instruction, and report the data to the school community. Identify the person(s), position(s), and/or entities that will be responsible and involved in the collection and analysis of assessment data.

The school will collect and analyze student achievement data to refine and improve instruction by providing training in Professional Learning Communities (PLC) to increase educator effectiveness and results for all students by prioritizing, monitoring, and coordinating resources for educator learning. Teachers will reflect on the goals created and implement specific Look Fors in lessons/classrooms. Participants will have opportunities to reflect on and share the positive points of their implementations and areas where the team needs to grow. There will be timed writing using flexible grouping in which participants will review multiple strategies for grouping students while the students are working through the writing process. There will be dedicated time in the schedule for teachers to collaborate across disciplines and grade-levels to evaluate the data and plan in ways that will best support student achievement. BASSE will use research-based models, such as Data Wise, to support the PLCs' structure and success.

The school leadership team, primarily the Dean of Academic Excellence, will collect and analyze the entire building's assessment data. The Dean of Academic Excellence's process will be replicated by grade-level, content-level, and individual student-level teams. Every instructional staff member in the building impacts assessment data, so each academic team member must be involved in the analysis process.

3. Describe the corrective actions the school will take, pursuant to 14 *Del. C.* § 512(5), if it falls short of student academic achievement expectations or goals at the school-wide, classroom, or individual student level. Explain what would trigger such corrective actions and who would be responsible for implementing them.

All students will be involved in the Multi-Tiered System of Support (MTSS). If a student receiving Tier 1 instruction alone fails to meet the academic standards, they will be moved forward in the MTSS process. In this process, instruction is differentiated based on student performance and assessment results, and any interventions implemented are research-based and offered in small-group or individualized settings for six weeks, depending on the student's support tier. The student's academic support team will initiate this process if a student's individual academic progress is insufficient.

If a pattern reveals itself from students' data in the same class, grade-level, or building-wide, the problem then lies in the instruction itself. Similar to the MTSS process implemented for students, interventions such as coaching and professional development will be provided to the appropriate educators in small-groups or as individuals. Issues with instruction at the classroom- or grade-level will be addressed with the teacher(s) delivering classroom content. The Dean of Academic Excellence will increase the teachers' support and analyze data with them. Additionally, our partnerships with Jounce Partners and Relay Graduate School of

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Section 4 - Performance Management

Education will give the Dean of Academic Excellence additional resources to support these teachers.

If the data reveals that the instructional issues are building-wide, the initial steps of corrective action are the same: the entire instructional staff will receive a ramp-up of coaching and instructional support. To further determine the root causes of the issue, school staff will review the instructional materials, school culture, classroom environments, and survey students and families. If deemed necessary, the Dean of Academic Excellence will reach out to the International Baccalaureate Organization to support curriculum implementation. The instructional issues could also be caused by other issues, such as staff members' lack of cultural competency. If it is determined that another problem, beyond content instruction, is the primary reason instruction is failing, the appropriate professional development will be delivered. At all levels of intervention for staff, progress monitoring is tantamount to ensure progress is being made to improve student achievement.

4. Describe how state data systems will be used and monitored to support informed decision-making in the areas of academic performance, organizational management, and financial viability. Include any coordinated professional development intended to sustain these processes.

BASSE will utilize the Delaware System of Student Assessments portal applications, such as the Test Information Distribution Engine (TIDE) to manage the testing process, the Assessment Viewing Application (AVA), and other portal applications to support our academic decision making. We will also utilize the training and certifications application to provide the proper training to the relevant staff members.

BASSE will also use PerformancePLUS, eSchoolPLUS, and Data Service Center to track student achievement data, manage financial systems, and other organizational necessities. BASSE will provide continuous professional development on the data management systems to our faculty and staff.

5. Describe how the School Leadership Team will oversee and monitor compliance with statutory requirements as measured by the Organizational Framework. Include any additional organizational goals and targets that the school will have. State the goals clearly in terms of the measures or assessments that the school plans to use.

The BASSE School Leadership Team and Board of Directors will oversee and monitor compliance with the requirements outlined and measured by the Organizational Framework as defined in the table below.

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Section 4 - Performance Management

Indicator & Measures	School Leadership Team & Board Committee Responsible	Frequency of Reports
<p>Education Program</p> <ul style="list-style-type: none"> a. Mission Fidelity b. Applicable State and Federal Requirements c. Students with Disabilities (SWDs) d. English Learners (ELs) 	<p>Dean of Academic Excellence is responsible for all sections and will receive additional support from:</p> <ul style="list-style-type: none"> a. Education Committee which will include at least one Board Member, one Teacher Representative, one Parent & Family Representative, and one Student Representative b. Education Committee as well as staff members responsible for services for Students with Disability, Test Coordination, and the Development Committee. c. Staff members responsible for providing services to Students with Disabilities d. Staff members responsible for services to English Learners 	<ul style="list-style-type: none"> a. Bi-Annually b. Quarterly c. Monthly d. Monthly
<p>Governance and Reporting</p> <ul style="list-style-type: none"> a. Governance and Public Stewardship b. Oversight of School Management c. Reporting Requirements 	<p>Executive Director is responsible for all sections and will receive additional support from:</p> <ul style="list-style-type: none"> a. Governance Committee and Financial Committee b. Governance Committee c. Governance Committee 	<p>Bi-Annually</p>
<p>Students and Staff</p> <ul style="list-style-type: none"> a. Student Rights b. Requirements on Teacher Certification and Hiring Staff 	<p>Executive Director is responsible for all sections and will receive additional support from:</p> <ul style="list-style-type: none"> a. Governance Committee b. Executive Committee 	<ul style="list-style-type: none"> a. Quarterly b. Bi-Annually
<p>Facilities, Transportation, Health, and Safety</p>	<p>Executive Director & Dean of Community Partnership are responsible for all sections and will receive additional support from:</p> <ul style="list-style-type: none"> • Executive Committee 	<p>Bi-Annually</p>

6. Describe any mission-specific academic goal(s) that the school plans to use. State your mission-specific goal(s) clearly in terms of the measure(s) to be used, the rationale(s) for each

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measure, and the targets that you plan to use to assess student academic performance against these goals. (**Note!** mission-specific goals are optional unless you are proposing to serve students at-risk of academic failure.)

The Bryan Allen Stevenson School of Excellence has three mission-specific goals that we plan to use.

The first of these are students' development of 21st Century Skills. According to the nonprofit Battelle for Kids, 21st-century skills "ensure student success in a world where change is constant and learning never stops." The P21 Framework covers such skills as, the mastery of key subjects and themes, learning and innovation skills, information, media, technology skills, and life and career skills. BASSE's innovative design will provide multiple opportunities to assess students' development of the aforementioned skills through traditional means of assessment, as well as student performance tasks, portfolios, and reflection surveys.

The second mission-specific goal is to provide all of our students with real-world professional experiences. Our students must have professional experiences before they graduate high school to be best prepared for their post-secondary experiences. Providing students with opportunities to learn about workplace culture and apply the knowledge they've gained in the classroom to the real world will be critical for their success.

Students will first complete a Summer Intensive Program (SIP) prior to their junior year. During the SIP, students will be paired with a community organization, such as a nonprofit, or service provider, such as a hospital, to learn about their organization, their visions and missions, and the challenges they're facing through job shadowing and completion of internship-like tasks. The SIP will also allow students to develop their final ideas for their Individualized Service Practicum (ISP). The ISP will continue students' real-world working experience; students will embed themselves in a community organization or service provider to complete a service project that will promote their sponsor organization's mission. School-time will be allotted for students to complete this work at the organization, providing them with even more real-world work time.

The final mission-specific goal is each student's successful completion of a service-learning project, also known as their Individualized Service Practicum. Academic service-learning is a form of experiential education where learning occurs through a cycle of action and reflection as students apply what they are learning in their classes to community issues. Students will have three major service-learning project experiences over the course of their student life at BASSE.

During the middle grades, including their freshman year of high school, the first of these takes place as they work on a class-based service-learning projects. These initial projects will be teacher-driven to guide the students to success and provide them with an experience to draw from as they gain independence. Gradually, students will lead their projects as a class demonstrating their preparedness to enter the next phase of the service-learning design. The second phase of service-learning projects occurs during the students' sophomore year with small groups of like-minded students. These students will work together to design and

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Section 4 - Performance Management

implement their projects developed from knowledge and skills gained in their middle school and freshman years and research completed in the first semester of sophomore year. Finally, students will complete a two-year service-learning project, the ISP. Students will individually select their partner organization (with support from their Advisory Teacher and the Community Partnerships department), their project's focus and design, and conduct the necessary research to implement their project by the end of their senior year. Students will also be required to document this experience either through a traditional paper or through a unique portfolio (which will include a written component).

7. If you are proposing to serve students who are at-risk of academic failure, pursuant to 14 DE Admin. Code § 275.4.2.1.5, describe the expected performance of each student on the State's mandatory assessments in each grade during the initial charter period and what, if any, portion of the Performance Framework (see links below) shall or shall not apply to the school, or shall be modified to more appropriately measure the performance of the school. (**Note!** Applicants proposing to serve students who are at-risk of academic failure are required to have one or more mission-specific goals.)

[Delaware School Success Framework](#)

BASSE is not proposing to predominantly serve students who are at-risk of academic failure. However, the school is intentionally designed to support all students, regardless of how they are performing academically before coming to us. Students who need additional supports or alternative assessments will be evaluated and in partnership with the school support team and their families, and at such time appropriate scaffolds, modifications, accommodations, and alternative measures will be designed and implemented to provide the best academic (and social-emotional) outcome for the student.

Section 1.5 - Staffing

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Section 5 - Staffing

1.5 Staffing

14 Del. C. § 512(6)

Staff Structure [14 Del. C. § 512(6)]

1. Provide, as **Attachment 11**, organizational charts that show the school governance, management, and staffing structure in Year 1 and at full expansion. (**Note!** The organizational charts will be compared against the budget figures supplied elsewhere. The provided organizational charts and budget must align.) The organizational charts and accompanying descriptions should clearly delineate the roles and responsibilities of – and lines of authority and reporting among – the Board, staff, any related bodies (such as advisory bodies or parent/educator councils), and any external organizations that will play a role in managing the school. The organizational charts and accompanying notes or roster should identify the following:
 - a. Year 1 positions with position descriptions, including those for administrative, instructional, and non-instructional personnel;
 - b. The number of classroom educators, Paraprofessionals, any specialty educators, and contracted professional services, such as Speech Therapists, Physical Therapists, etc.;
 - c. Operational and support staff;
The reporting structure for the proposed school; and
 - d. The educator-student ratio, as well as the ratio of adults to students for the school.

(**Note!** The School Nurse must hold a valid standard certificate as a School Nurse, a bachelor's degree in Nursing, and a current Registered School Nurse license pursuant to 14 DE Admin Code § 1582.)

2. If the school is part of a network of schools and/or would contract with a Charter Management Company or other education management provider, clearly show the network/provider's role in the organizational structure of the school. Explain how the relationship between the Board and the school administration will be managed.

BASSE is not a part of a network of schools, nor are there plans for BASSE to work with a Charter Management Company.

Staffing Plans, Management, and Evaluation [14 Del. C. § 512(6)]

1. Explain the relationship that will exist between the proposed charter school and its employees, including whether the employees will be at-will and whether the school will use employment contracts. If the school will use contracts, explain the nature and purpose of the contracts.

All faculty and staff will be state employees, subject to all employee rules and regulations, and will receive opportunities for benefits and retirement packages as such. All employees will sign an employment agreement upon their hiring. The purpose of the contract is to outline the employee/employer relationship, identify the employee's compensation and benefits, and detail the duties to be performed by the employee. Our new employee orientation will explain the school's core values, vision, and mission. Each new employee will be given an overview of the benefits program and will complete all necessary paperwork prior to employment.

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All employment at BASSE will be “at will;” this means that both employees and the school have the right to terminate employment at any time, with or without advance notice (though all parties may request and should try to give thirty days’ notice), and, with or without cause. However, BASSE will not discharge employees for exercising their right to vote or their political affiliation, answering the call for military service or jury duty, exercising their right of association, filing a worker’s compensation claim, or receiving an order for wage garnishment.

2. Outline the proposed school’s salary ranges and employment benefits for all employees, as well as any incentives or reward structures that may be part of the compensation system. Explain the school’s strategy for retaining high-performing educators.

See the attached budget sheets for an outline of proposed salary ranges and employment benefits for BASSE staff. Salaries for the school leader are based on comparable salaries for these positions at other Delaware charter schools. Teaching staff, counselor, and nurse salaries are calculated at the average salaries for DE charter schools as outlined in the budget sheets (Attachment 19).

The BASSE model is a unique and innovative model that will attract teachers looking to teach in an innovative school. BASSE will offer continuous professional development, including training in culturally responsive practices. Teachers will have ample planning and collaboration time, access to affinity spaces, and ways to develop their leadership as teacher leaders. These offerings will retain both educators who are highly motivated to continue to be at their best and educators of color. The school will naturally retain high-performing teachers who seek a rewarding and innovative environment in which to teach.

Finally, BASSE acknowledges that teaching can be a challenging and stressful profession. Harper (2019) from K12Drive discusses how teachers go into the education field because they love children and young people and want to empower them develop their full potential. However, while teaching has always been stressful to some extent, those stresses are intensified for a number of reasons including increased pressures to produce results evidenced by testing, behavioral management and other concrete metrics. Consequently, teachers are experiencing increased vicarious trauma when dealing with greater numbers of children dealing with adverse experiences, mental health challenges and other disruptive developmental stressors. Teacher stress negativity impacts the well-being of the school’s culture and climate which ultimately impact the quality of education students receive. The stress teachers experience is also “contagious” to some degree, transforming negative energy to students; this cycle of stress can affect student behavior causing a ripple effect in schools in the overall school environment. Additionally, stressed teachers are more likely to experience burnout and leave the school or the profession altogether, affecting efforts at teacher retention. BASSE plans to support teachers by giving them time and resources, specifically during Synthesis Days and other planning periods and professional days to practice self-care in ways that promote wellness. For example, the teacher’s lounge could offer sensory soothing opportunities such as essential oils, a tea station, calming sounds, and meditative play and creation opportunities like

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Section 5 - Staffing

sand play and coloring. These offerings would be determined by BASSE’s future staff, but we are as committed to the well-being of our teachers as we are to the well-being of our students.

- Describe the plan and timeline for recruiting and selecting the teaching staff and other educators/professional staff. Describe the school’s plan for meeting the educator certification requirements of the Delaware Charter Law, 14 Del. C. § 507, which includes ensuring that non-certified educators are participating in a Delaware approved alternative certification program. Describe any pre-service training that prepares new educators while providing an additional staff screening period for the School Leadership Team.

Recruitment Timeline		
Posting	Position	Start Date
Spring 2020	Community Outreach Coordinator	September 2020 (Hired)
Spring 2020	School Launch Partner	December 2020 (Hired)
Summer 2021	Executive Director	Fall 2021 (Hired)
Summer 2021	Director of Development	Fall 2021 (Hired)
February 2023	Teachers, Paraprofessionals, Office Staff, Cafeteria, Custodial, Nurse, Etc.	May 2023 - August 2023

BASSE has built partnerships with several local education preparation programs, including Delaware State University, Relay Graduate School of Education, Teach For America Delaware, and University of Delaware Alternative Certification program to make sure BASSE created the most diverse, prepared, and equitable workforce for our students. To achieve BASSE’s mission and ensure rigorous academic opportunities for students, BASSE believes a diverse set of experiences is required to meet our students’ needs. Please see our predictions for teacher experience and recruitment below:

<i>Expected Teacher Experience Demographics</i>	
Novice Teachers	New Teacher (1-3 yrs experience)
25%	25%
Experienced Teachers (3-9 yrs experience)	Expert Teachers (10+ yrs experience)
25%	25%

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Section 5 - Staffing

BASSE will prioritize recruitment to ensure a diverse staff of teachers. We will work with local and regional universities to help us recruit staff, develop professional development, and build a strong teacher pipeline.

4. Outline the school's procedures for hiring and dismissing school personnel, including the school's process for conducting criminal background checks.

The process for hiring the school leader, teachers, and other school staff will include:

- Recruitment and screening
- Review of credentials, background, experience, and references
- Sample lesson (if applicable)
- Writing sample (if applicable)
- Interviews with the school leaders and/or Board, students, and parents
- A sample teach (if applicable) and
- Recommendations and contract approvals by the Board

As part of the pre-employment process, all employees and Board members will be required to complete a criminal background check through the Delaware State Police.

In cases where termination is necessary to ensure a safe and productive learning environment for the students, the following will guide the termination process:

- In consultation with the Board Chair, the Executive Director, and if necessary, the Deans of Academic Excellence or Community Partnerships, and will make the recommendation to the Board for termination of an employee.
- The employee may appeal this decision to the Board by initially informing the Board Chair of the intent to appeal in writing.
- The employee will meet with the Board and the school leader(s) that recommended them for termination.
- The Board will render a final decision.
- Employees may also be dismissed through the DPAS II process explained in #5 below. The complete procedures for hiring and dismissal may be found in the Employee Handbook.

5. Describe how the School Leadership Team will use the Delaware Performance Appraisal System (DPAS) as required by Delaware Code and regulations or propose an alternative system. Also, explain how the school will use educator evaluation processes to provide support for educators and ultimately make decisions about retention, promotion, and advancement.

Explain how the school will handle unsatisfactory educator performance, as well as educator changes and turnover.

BASSE's Dean of Academic Excellence will complete the online DPAS II Evaluator Training or the Delaware Teacher Growth and Support System (DTGSS), whichever is required by the state at the time of opening, accessible via the Professional Development Management System (PDMS)

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during the school's planning year, as required for all new administrators in Delaware public schools. BASSE will note that DTGSS aligns closely to our foundational belief about the professional abilities of teachers to drive their own growth in supporting student-centered learning and the value of highly effective coaching and support from the building's instructional leader. If possible, when opening, BASSE would prefer to implement the DTGSS for the aforementioned reasons.

Regardless of the evaluation system available to BASSE, the school leader will also attend the recommended training for new administrators, offered in the fall of the planning year. Any BASSE educators who need to complete the online teacher training or specialist training course, available through PDMS, will do so prior to their first evaluations.

The Dean of Academic Excellence will ensure that all observations and related materials are entered into the Evaluation Reporting System (ERS) as required by the State. To ensure fidelity to the selected evaluation system, the Board and Executive Director will monitor the Dean's progress toward teacher evaluation timelines. The Board and Executive Director will request feedback from the state to ensure that reports are accurate and complete. Periodically, the Board will request that external "experts" in the selected evaluation system review or audit the evaluation reports and provide feedback on their accuracy and thoroughness.

The evaluation process will provide the backbone for feedback on teacher practice and related responsibilities in the building. Teachers who have the highest and most consistent summative ratings and who have demonstrated commitment to continuous improvement may be considered for advancements, promotions, and extra responsibilities within the building. Teachers who have summative ratings of that demonstrate the need for significant growth in their practice will be provided with written expectations, targeted coaching, and support, and, if necessary, improvement plans targeted at enhancing their performance. Ultimately, teachers who do not demonstrate the necessary growth and continue to exhibit patterns of ineffective teaching after receiving the necessary support may be subject to dismissal.

Employees with unacceptable job performance will be notified that their performance must be improved both in writing and verbally; they will be provided with any needed professional development and support to make improvements. In the most extreme cases (e.g., employee actions or words that harm or threaten to endanger students' well-being and behavior that creates an irrevocable breach of trust), employees may be terminated immediately. Should a teaching vacancy arise in the middle of the year, it will be filled using BASSE recruitment and selection support.

6. Explain how and when the Board will evaluate the Principal/School Leader. What evaluation tool will be used? What key performance criteria will be examined? How will student academic growth be factored into the Principal/School Leader's evaluation?

An annual performance review will occur with the Dean of Academic Excellence, the Executive Director, and eventually, the Dean of Community Partnerships respectively, with the Board. A mid-year checkpoint will take place to gauge each school leader's performance. Each evaluation

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will include parent and student voices, and in the case of the Dean of Community Partnerships, community partner voices.

The Board Chair will attend the state training for evaluators of administrators, and the Board will use the evaluation for Administrators to evaluate the various school leaders in the ways appropriate for their role. If the DDOE provides new guidance on evaluating administrators, the Board will take that into advisement. Particular attention will be given to the mission-specific goals of providing a service-learning curriculum, connecting students to real-world learning experiences, creating a school culture that promotes the development of 21st Century skills, and how the school leaders support those goals.

Because the Dean of Academic Excellence is ultimately responsible for student learning in the school, their evaluation will include a review of the DeSSA scores and student progress. The Dean of Community Partnerships will be assessed on how successfully students complete service-learning opportunities and implement any innovations they create.

7. What mechanisms or options will the Board leverage to address unsatisfactory leadership performance, should it occur, as well as turnover? What cut points within established metrics might trigger different courses of action in regards to the oversight of the Principal/School Leader?

While student academic performance will not be the sole criterion for discipline or termination of the school leader, the underperformance of the students on state assessments for consecutive years may necessitate a constructive re-evaluation of the Dean of Academic Excellence's ability to guide the school, and a corrective plan should be scheduled for the subsequent academic year. If improvement does not occur, the Board will consider termination based on the evaluation.

Similarly, if the Dean of Community Partnerships cannot secure or adequately manage the partnerships that allow students to complete their service requirements, the Dean will be required to undergo an improvement process similar to the Dean of Academic Excellence. If improvement does not occur, the Board will consider termination based on the evaluation.

Additionally, the evaluation of school climate and culture, both in the traditional school building and when students are out in the community, will impact the effectiveness of the Deans. If the school climate and culture become and are consistently negative, similar improvement processes will be implemented, with the potential for termination if significant growth is not achieved.

Mismanagement of school resources resulting in jeopardizing the school's finances and operational metrics will result in a hearing and immediate dismissal of the Executive Director, if appropriate.

Professional Development [14 Del. C. § 512(6)]

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1. Describe the professional development plan, including standards and opportunities that will be offered to the staff. Identify who will be responsible for developing, leading, and evaluating professional development at the school. This description should explain how professional development for the faculty will support the educational program and build capacity to improve student achievement. The plan must include the following:
 - a. A schedule and explanation of professional development that will take place prior to school opening. Explain what the focus will be during this induction period and how educators will be prepared to deliver any unique or particularly challenging aspects of the curriculum and instructional methods;

BASSE teachers, staff, and board will engage in a series of professional learning experiences before opening our school. BASSE has created a Diversity, Equity, Inclusion statement and will engage in training with nationally renowned expert, Dr. Howard Stevenson focused on culturally responsive teaching and historical responsive literacy training. Additionally, BASSE has partnered with Jounce Partners who will conduct classroom management training focused on ensuring academic excellence and equity for all students.

Additionally, in response to Gov. Carney's Executive Order 24, BASSE will prioritize creating a trauma-informed school environment, and all teachers and staff, at all levels, will engage in trauma-informed training prior to the opening of the school. Our teachers will also engage in training focused on social-emotional learning. This includes specific training regarding the implementation of the Neurosequential Education Model, as developed by Dr. Bruce Perry.

Opening a school after the coronavirus pandemic will require a focused commitment to an ever-changing school environment and landscape. We will require every employee to engage in health and safety training with a focus on a pandemic response. We will utilize guidance from the CDC and the Delaware Department of Health and Social Services. Additionally, all staff will be engaged in training for conducting virtual learning. This training is required for all staff because everyone needs to understand how to engage in a virtual format so our school can best support our students and families.

All staff will engage in multiple safety training and drills before the school's opening to ensure all staff are prepared to react in an emergency event.

Since BASSE intends to be an IB school, our Dean of Academic Excellence will attend the National IB conference in Washington, DC (or virtually) to envision how IB will work in our school environment.

Given we are a new school, all staff will report three-weeks before the first day of school for training. This will allow ample time for teachers to receive this essential professional development as well as build relationships as a staff.

Additionally, all teachers and relevant staff will be instructed on how to register for and complete their non-academic mandatory training (appropriate to their years of experience, positions, and other criteria) following the requirements outlined in the state code. These

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instructions will be provided to the relevant parties once the training becomes accessible by the state. BASSE's school leadership team will create a calendar of the appropriate training opportunities and provide individuals with clear information about which trainings they are required to complete and by when. The school leadership team will track that each faculty and staff member has completed the appropriate training by the established deadline.

See an example schedule below:

Pre-Opening Professional Learning	Hours
<i>Week 1: Creating a Culturally Responsive School</i>	
BASSE: Understanding our Approach	Half-Day (3 hrs)
Schools, Peace and Our Future	Half-Day (3 hrs)
Creating a Diverse, Equitable and Inclusive Environment for Our Students	Half-Day (3 hrs)
Understanding culturally responsive teaching	Half-Day (3 hrs)
Integrating Historical Responsive Literacy into Daily Lessons	Half-Day (3 hrs)
<i>Week 2: Health & Safety Training</i>	
Keeping our spaces safe, clean and healthy	Half-Day (3 hrs)
Preparing our staff and students for a pandemic	Half-Day (3 hrs)
Crisis Response	Half-Day (3 hrs)
Understanding a Trauma-Informed Approach	Half-Day (3 hrs)
Caring for the social-Emotional wellbeing of ourselves and students	Half-Day (3 hrs)
<i>Week 3: Creating a Safe Responsive Classroom Environment (In-Person or Virtual)</i>	
Integrating the Learning Management System in Daily Lessons	Half-Day (3 hrs)
Understanding Multi-Tiered Academic Supports (Virtual or In-Person)	Half-Day (3 hrs)
Creating a Data-Driven Culture	Half-Day (3 hrs)
Personalized Learning: Individualized Student Learning Plans	Half-Day (3 hrs)
Restorative Justice Practices in the Classroom	Half-Day (3 hrs)

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If it is necessary to hire staff mid-year, they would also receive professional development to prepare them to teach successfully in the BASSE environment. See a sample draft of the mid-year professional development schedule [here](#).

Finally, in compliance with the DDOE's Comprehensive Induction Plan, the Dean of Academic Excellence will operate as BASSE's mentoring and induction site coordinator for the Comprehensive Induction Plan. Once BASSE hires our initial founding teachers, BASSE will identify a lead grade level teacher (as outlined in our Organizational Chart in Section 1.5 of the original charter application) to serve as Lead Mentor.

- b. The expected number of days/hours for professional development throughout the school year, and an explanation of how the school's calendar, daily schedule, and staffing plan will be structured to accommodate this plan. Specify when educators will have time for common planning or collaboration and how such time will typically be used;

Mandatory state requirement for professional development requires 45-60 mins of teacher prep per day. BASSE will meet or exceed that requirement for teachers. Additionally, teachers will receive specified collaborative planning time across grade-levels and content-areas. This will be scheduled during the school-day and on Synthesis Days where our schedule is more flexible for both our teachers and students. Please see the staff calendar and student schedule for more information.

- c. An explanation of how professional development will be aligned with the interim (e.g. classroom, diagnostic, formative) assessments and staff evaluation processes, and how it will be adjusted during the year to address areas of need that are identified;

Per Delaware requirements, and based on the experience level of the teacher, our leadership team will conduct formal and informal, summative and formative classroom observations at multiple points throughout the school year. In hiring our School Launch Partner, BASSE made a strategic decision to ensure our founding school leader was an instruction leader first, hence the Dean of Academic Excellence. Building these skill sets through our partnership with Jounce will ensure our school focuses on high-touch academic support and coaching.

Depending on the needs that arise from our Dean of Academic Excellence's informal and formal evaluations, they will be responsible for planning and facilitating the appropriate professional development for the instructional staff in need. If our Dean needs additional support in providing these services, they will work with the Executive Director to outsource the professional development or send the teacher to an appropriate conference or training. This professional development could support as few as one teacher and as many as the entire faculty.

- d. An explanation of how the professional development program will be evaluated to assess its effectiveness and success.

Led by department heads, our professional development program will be evaluated annually by a panel that includes school leaders, members of the board of directors, and student leadership.

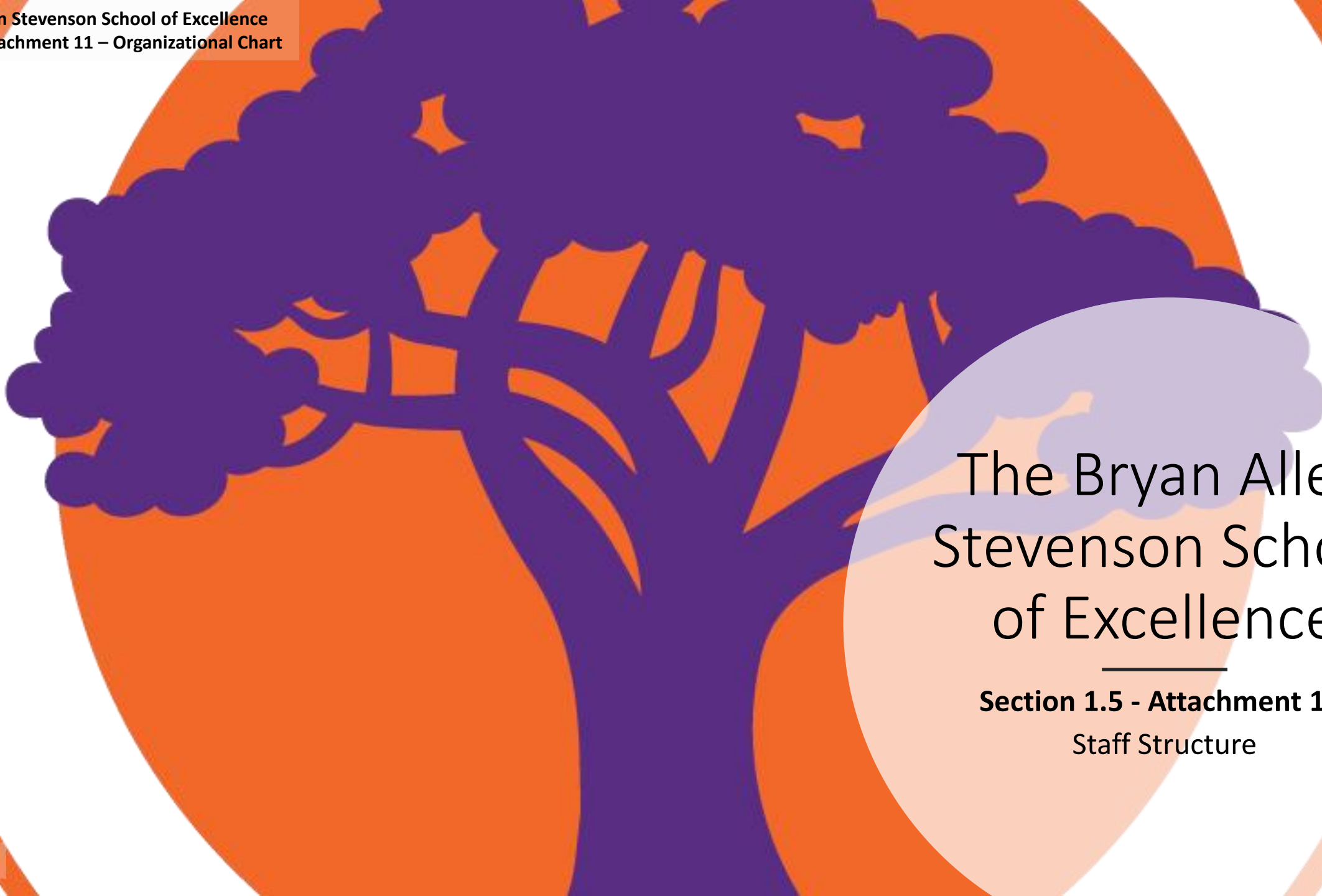
The Bryan Allen Stevenson School of Excellence

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- e. An explanation of the school's system for providing coaching and professional development for the School Leader. Explain how the school will know what coaching and professional development the School Leader needs.

BASSE's Dean of Academic Excellence will start as the School Launch Partner three years prior to the opening of BASSE. The School Launch Partner will engage in a two-year fellowship and training program, including hands-on learning, observation, and coaching in Delaware schools. Jounce Partners (see School Launch Partner Attachment) will continue to provide ongoing coaching and evaluation of BASSE's Dean of Academic Excellence throughout the school's inaugural years and growth. BASSE has a deep belief in the importance of our school leadership's ongoing learning and growth and will provide continued opportunities for growth and learning throughout the calendar year. Additionally, the Dean of Academic Excellence will be evaluated by the executive board with input from students, parents, and the community.

Section 1.5 - Staffing :: Attachment 11 - Organizational Chart



The Bryan Allen Stevenson School of Excellence

Section 1.5 - Attachment 11:
Staff Structure

Staff Descriptions

BASSE Executive Board: the formal organizational link between the school and the community, with the goal of creating the foundation of the school and responsible for the trajectory of the Bryan Allen Stevenson School of Excellence.

Executive Director: Acts as the conduit running between the board and everyday management of the school. Serves as the primary public face and voice of the school. Realizes the vision of the Board into results.



Staff Descriptions Cont.



Dean of Academic Excellence (Academic Head of School):

Responsible for ensuring execution of rigorous academic curriculum. Manages and coaches educators to effectively create the ideal learning environment for students.

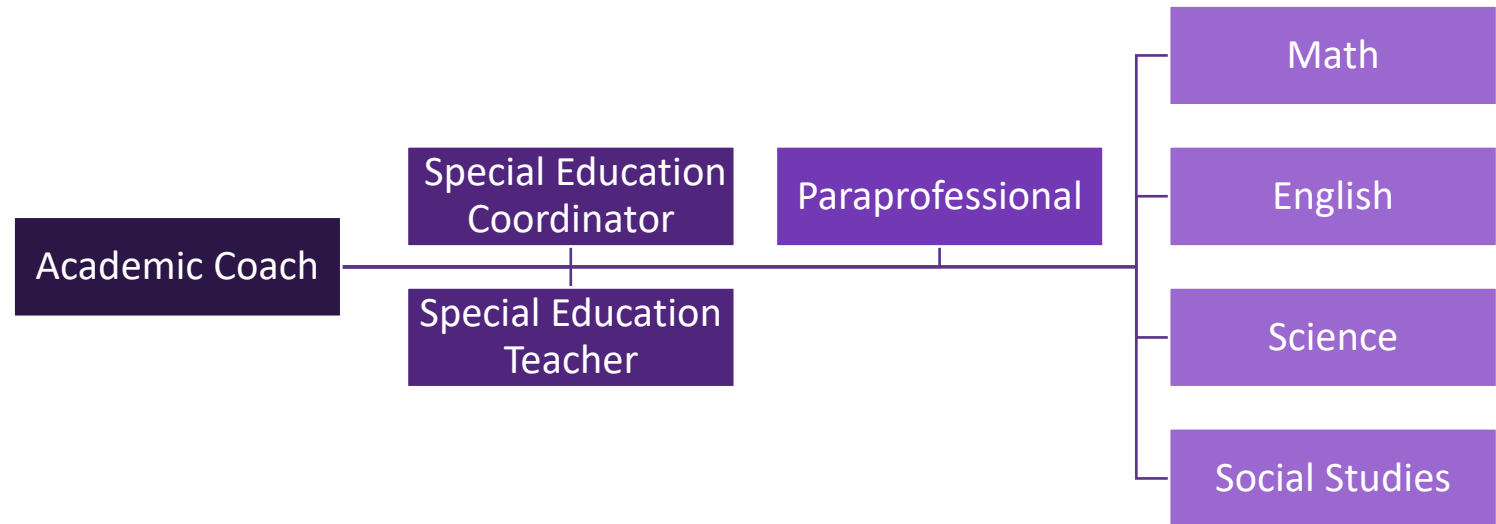
- **Academic Coaches:** Each grade level will have an instructional expert with the purpose of designing and guiding curriculum and instructional practices in alignment with the vision of the academic dean. Content coaches will work with individual instructors to ensure students are reaching grade level benchmarks and lead collaborative planning across the grade level. Academic coaches will work together to ensure alignment across the grade levels. All academic coaches will be certified teachers who may also teach courses as needed.
- **Teachers:** Teachers are the content leaders and experts at BASSE. Each teacher will be qualified according to Delaware State Standards and be a content expert in their field.
- **Special Education Coordinator:** BASSE understands the importance of providing all students, especially our students with identified academic and behavioral needs, with the support they need to be successful. The Special Education Coordinator will oversee the creation and implementation of students Individualized Education Plans (IEP) to ensure compliance with all state and federal guidelines and success for our students.
- **Paraprofessionals:** Paraprofessionals are critical to ensuring personalized learning for each student at BASSE. Each paraprofessional will work closely with teachers and coaches to support students personalized learning plans.



Grade-Level Teams at BASSE

Each team will have four core content teachers (who may be dual-certified), access to a paraprofessional, and the special education teacher(s). The special education teacher(s) will serve as the case manager for students' IEPs and a partner for the content teachers.

Academic coaches will work directly with the special education coordinator to help plan collaborative planning sessions around differentiation and implementation of special services.



Staff Descriptions Cont.



Director of Development: The primary goal of this role is to help lead the school to financial sustainability. In close partnership with the Executive Director, the Director of Development will help secure grants and other funding to support the school. The Director of Development will also be responsible for building relationships with community organizations and partners who will eventually become student service-learning partners as well as long term supporters of the school. This role will set up BASSE for success many of the Director of Development's responsibilities will transition to the Dean of Community Partnership in years 4 and 5.

Dean of Community Partnerships (Culture and Service Head of School): This role acts as the co-head of school by creating and cultivating relationships between the Bryan Allen Stevenson School of Excellence and the surrounding community and acts as the primary manager of "school life". This Dean promotes and supports interaction between students and the community oversees the development of service-learning opportunities for students to have an impact locally, and for community leaders to enrich students through practical simulations and externships. Additionally, this dean will work directly with the Executive Director to support and supervise the wrap-around services, supports, and non-academic staff for students.

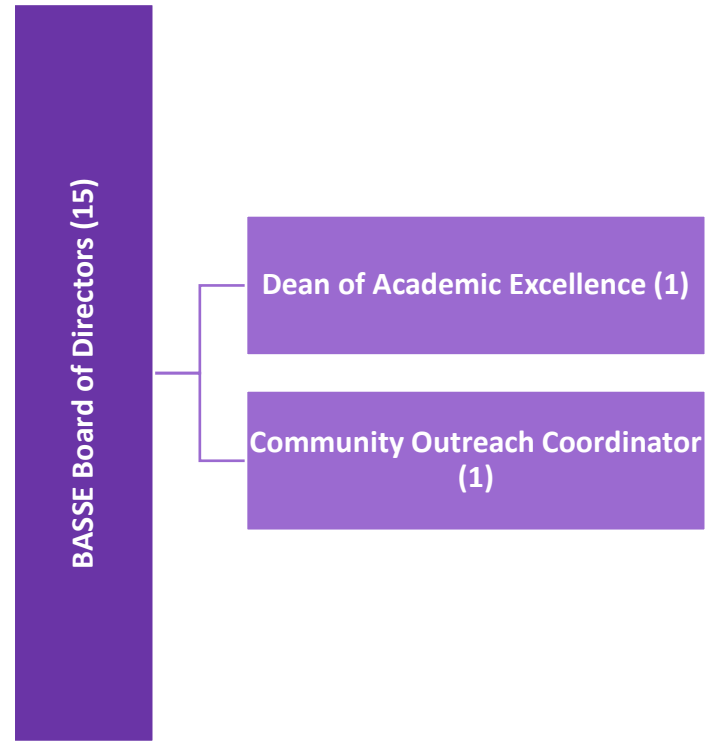
Counselors: BASSE's school counselors work to support the academic, social emotional, and career needs of all students. Our college and career counselor will work specifically with our upperclassman students to plan for their post-secondary lives.

Staff Descriptions

- **Office Staff:** Works to ensure smooth operation of day-to-day function of the school. Office staff is key to welcoming community members into our home of learning. Additionally, effective and reliable office staff creates stability that students and caregivers can trust.
- **Cafeteria Staff:** Clean and healthy nutrition is important to nourish students to keep them healthy and energized throughout the academic calendar. The school cafeteria may be the one place where some students may get a truly healthy meal in their day to day lives.
- **Custodial Staff:** A clean and hazardous free environment makes for a welcoming feeling where guests and students are comfortable and want to spend long stretches of time in. Effective janitorial/custodial staff will also lend to keeping learning zones dust and allergen free.
- **School Nurse:** Provide and administer basic medical care for students. The school nurse is the first responder for medical emergencies occurring on school grounds. By attending to the health and medical needs for students, the school nurse will help bolster the success rate of students by neutralizing or minimizing the effects of adverse health conditions.
- **Contracted Professional Services:** BASSE will hire additional contracted services as needed, based on the student enrollment, demographics, and 504/IEP requirements. These roles may include, but are not limited to: speech therapist, physical therapist, occupational therapist, etc.

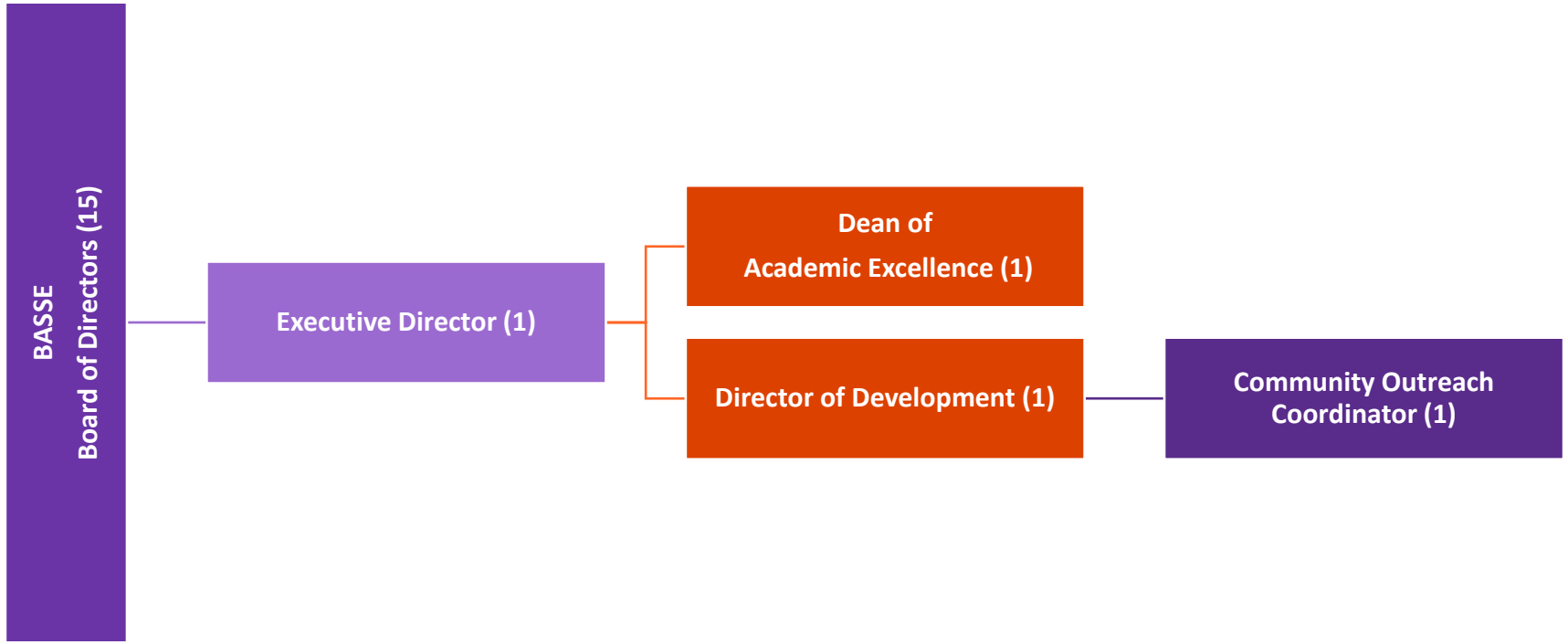


The Bryan Allen Stevenson School of Excellence
Section 5 – Attachment 11 – Organizational Chart



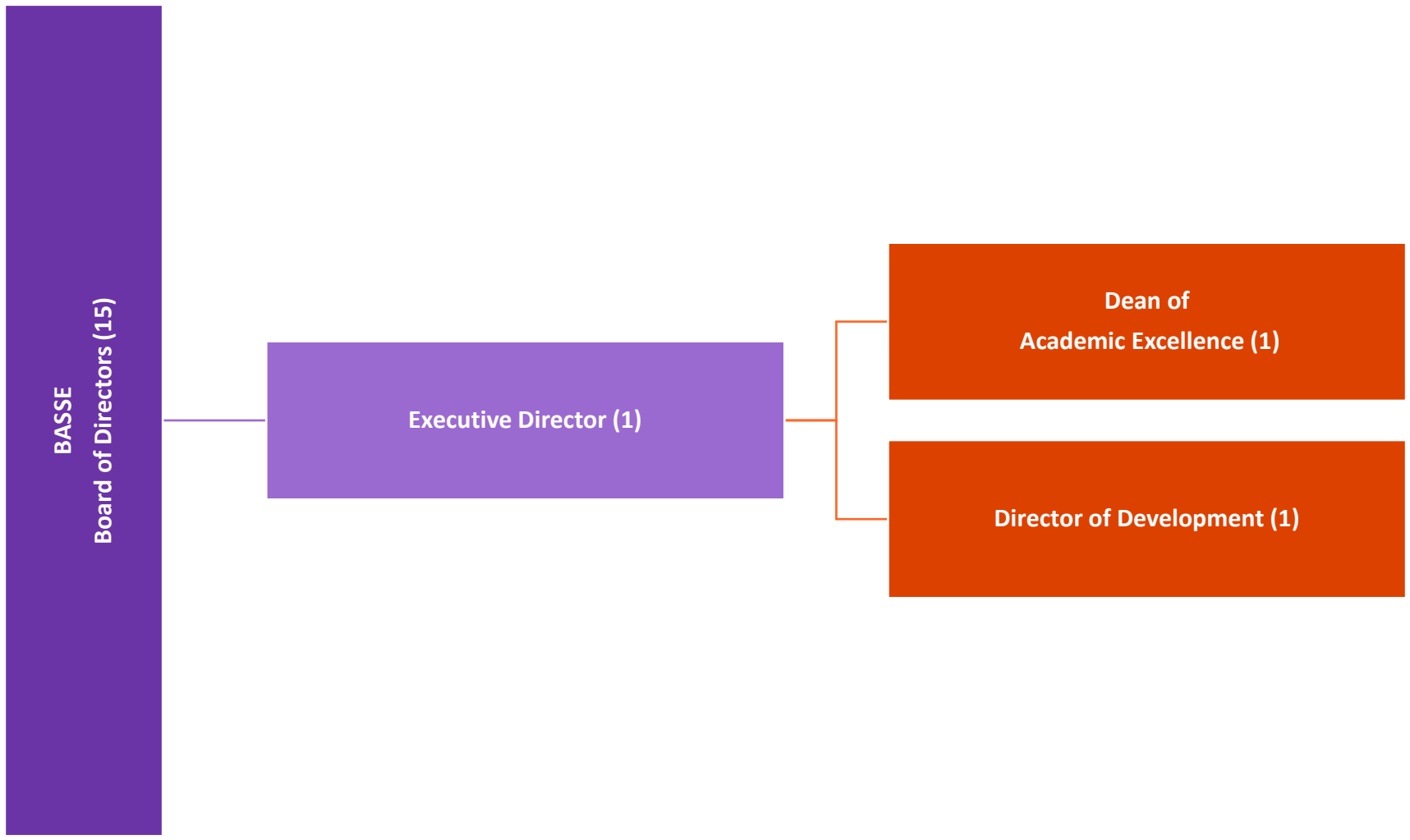


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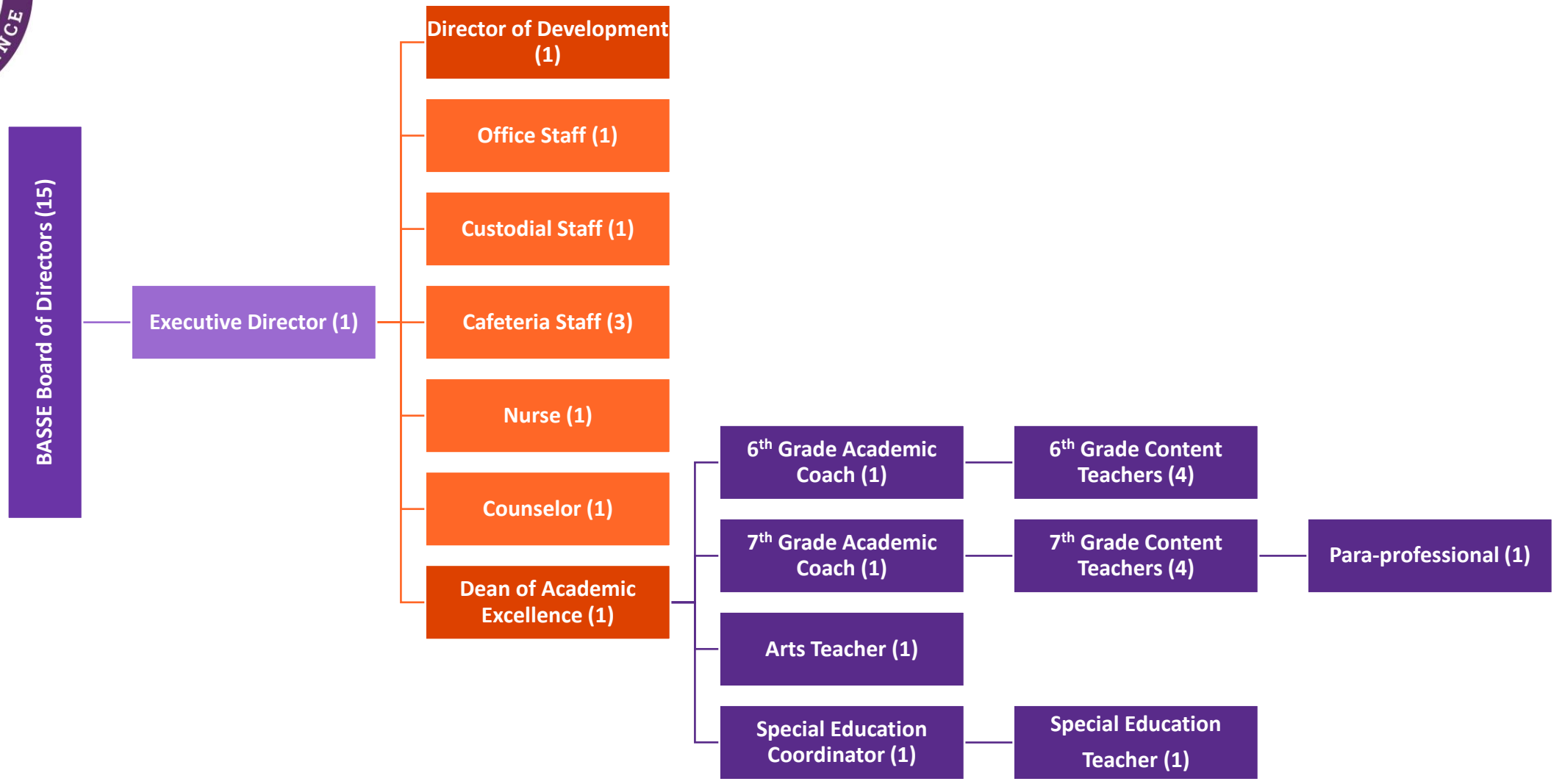


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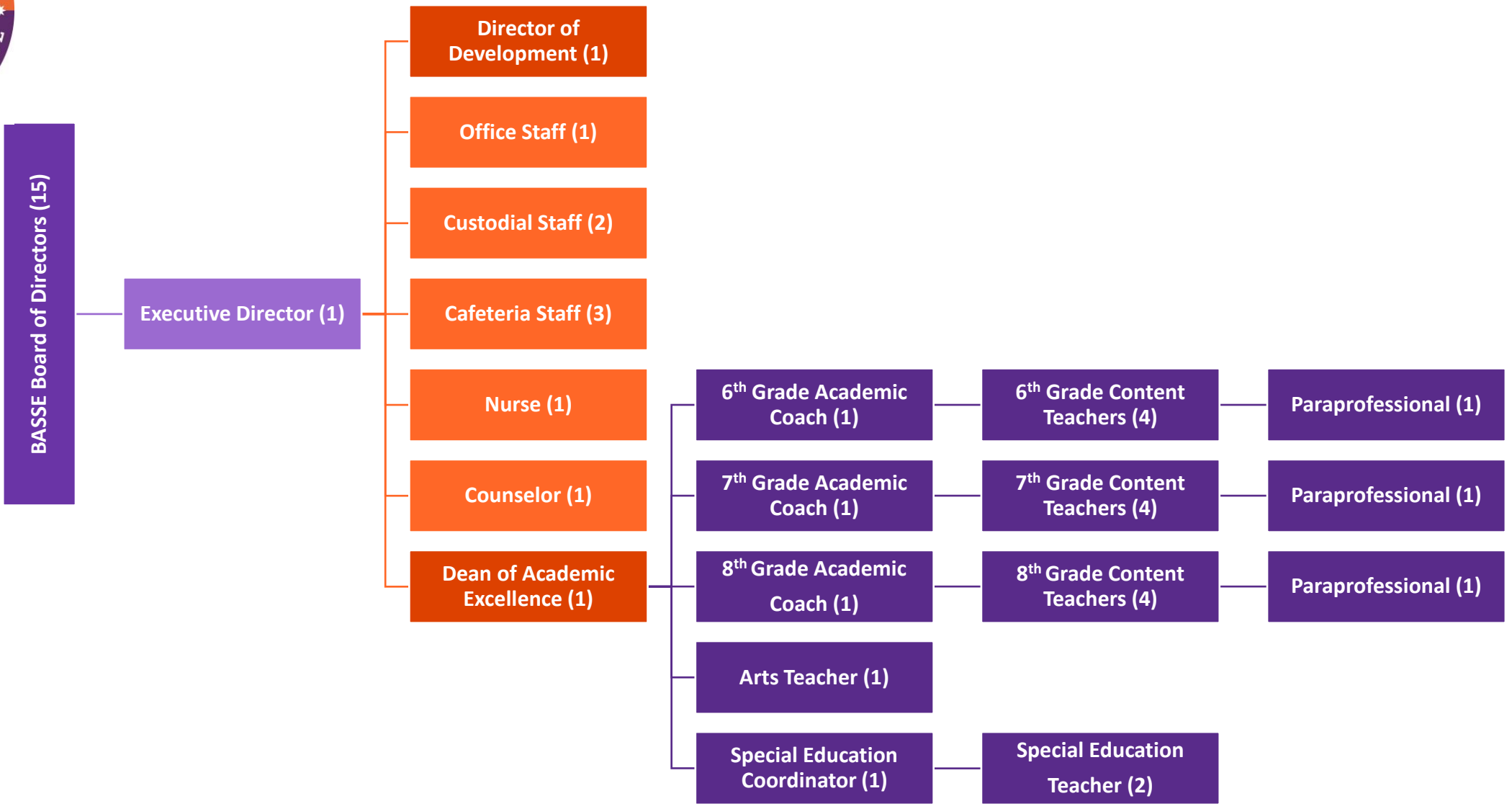


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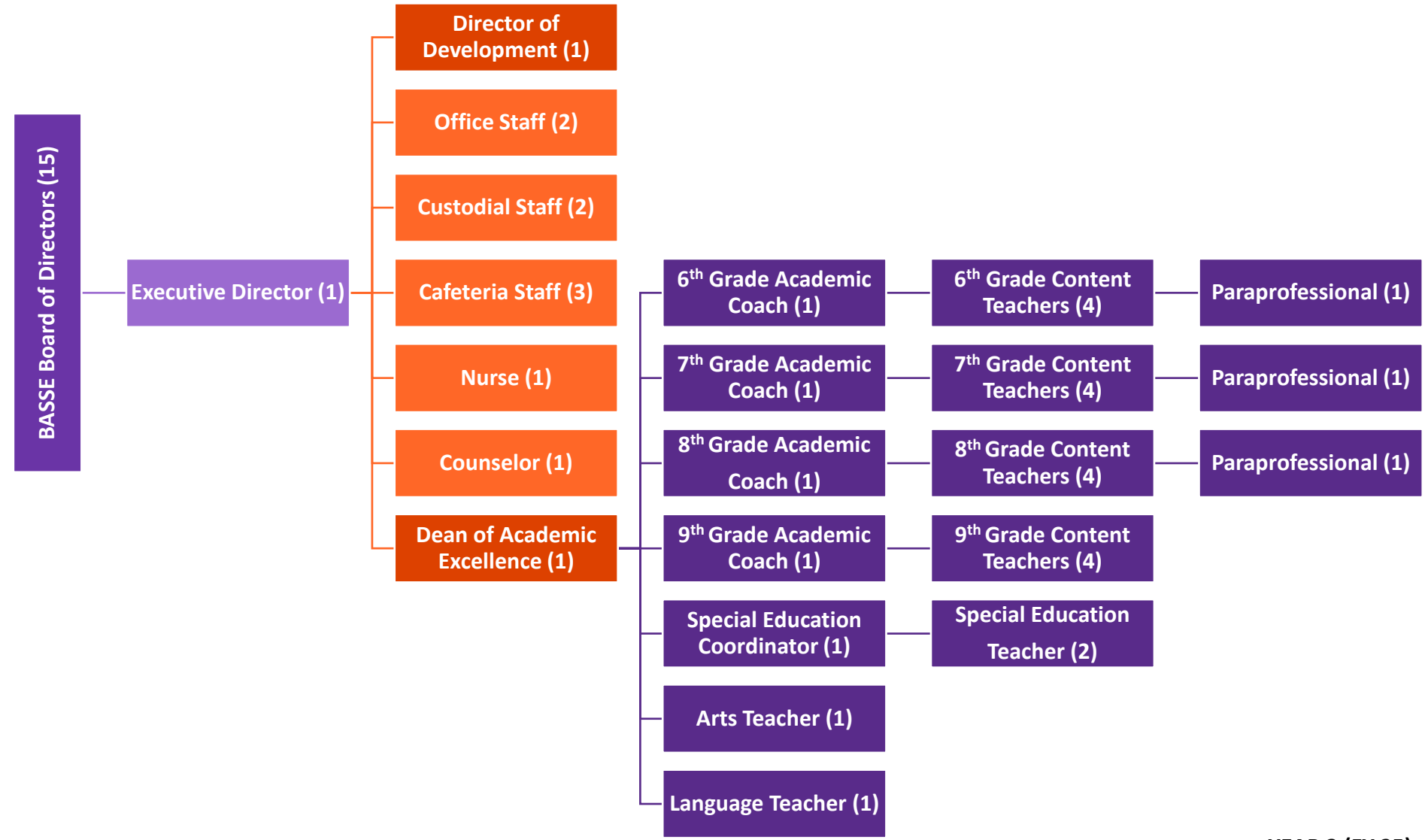


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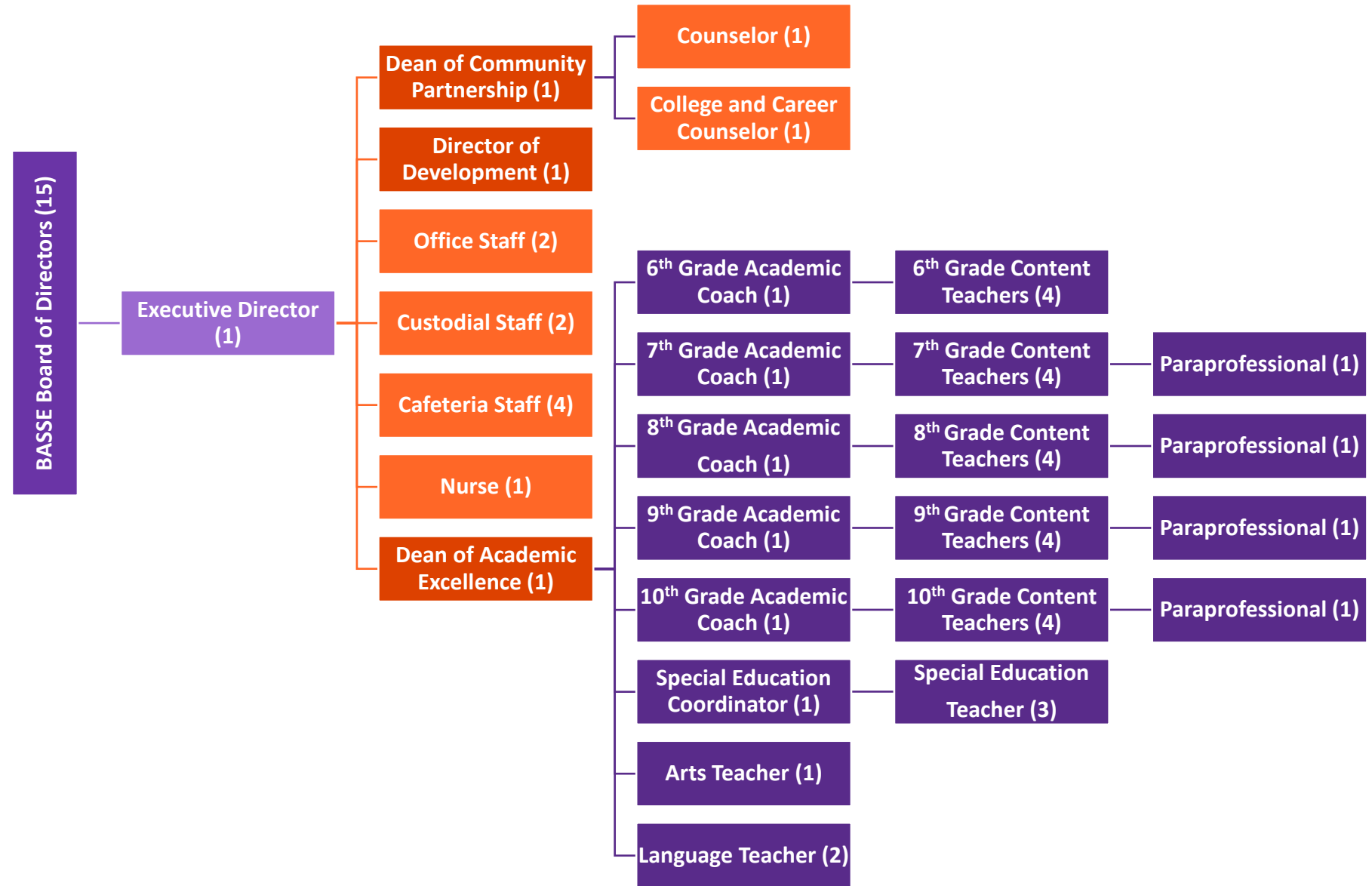


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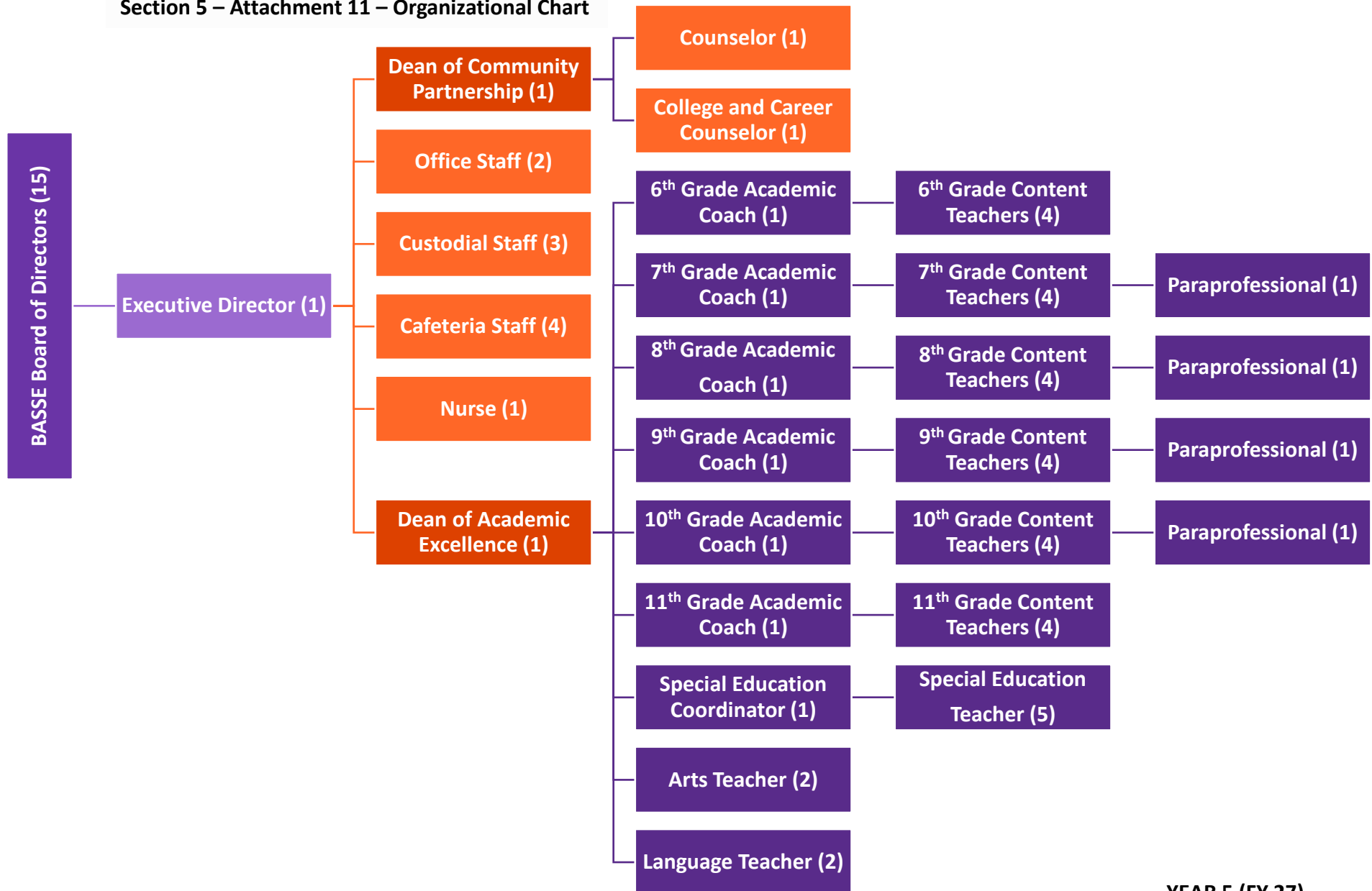


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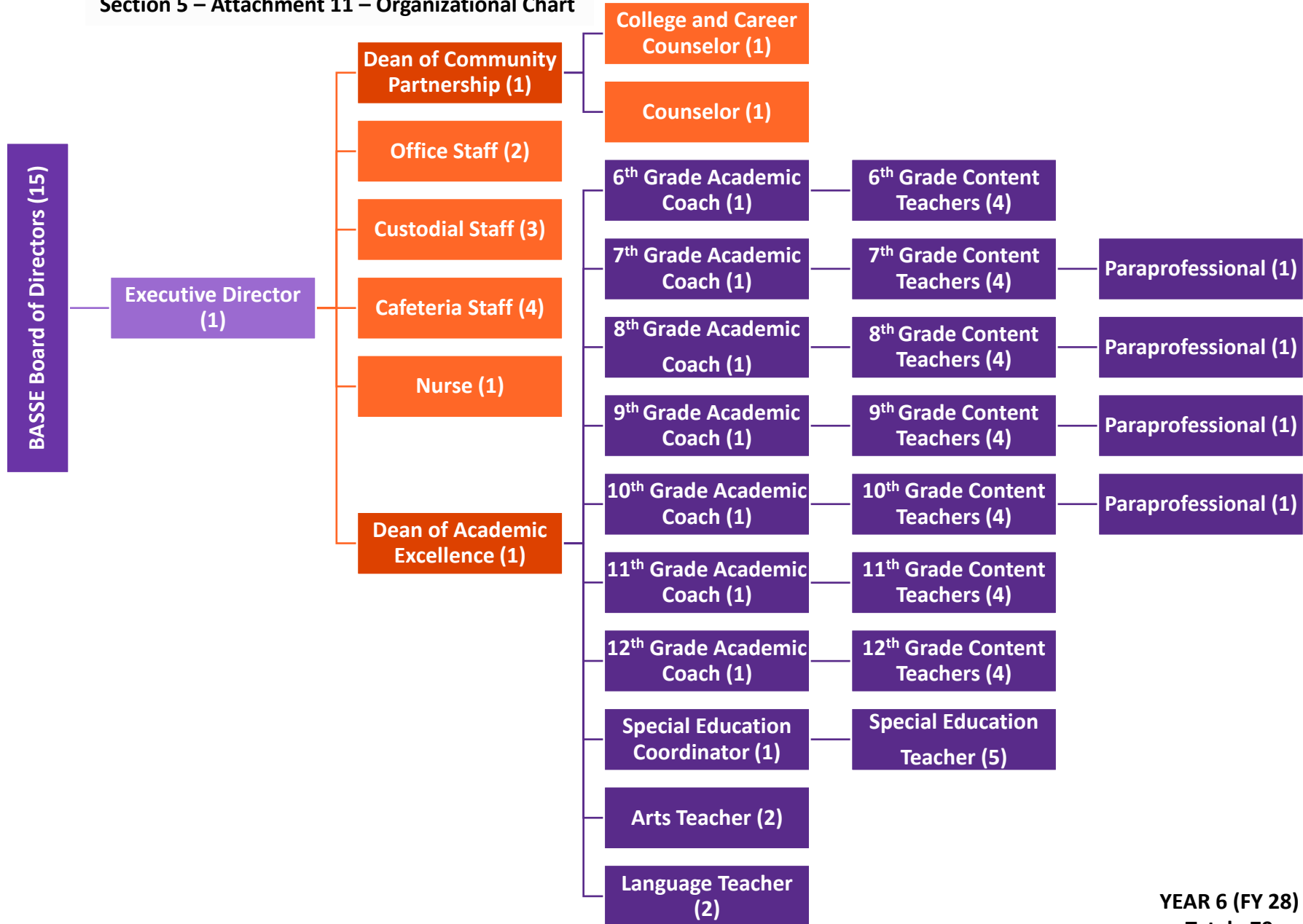


**The Bryan Allen Stevenson School of Excellence
Section 5 – Attachment 11 – Organizational Chart**





**The Bryan Allen Stevenson School of Excellence
Section 5 – Attachment 11 – Organizational Chart**



Educator Student Ratio/Adult Student Ratio*

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Educator to Student Ratio	≈1:16 (15:250)	≈1:15 (23:350)	≈1:16 (29:450)	≈1:15 (37:550)	≈1:14 (45:650)	1:15 (50:750)
Adult to Student Ratio w/ Board	≈1:6 (39:250)	≈1:7 (48:350)	≈1:8 (55:450)	≈1:8 (65:550)	≈1:8 (74:650)	≈1:9 (79:750)
Adult to Student Ratio w/o Board	≈1:10 (24:250)	≈1:11 (33:350)	≈1:11 (40:450)	≈1:11 (50:550)	≈1:11 (59:650)	≈1:12 (64:750)

*These numbers are based on BASSE’s current projected enrollment at 100%

Section 1.6 - Governnace and Management

The Bryan Allen Stevenson School of Excellence
Section 6 - Governance and Management

1.6 Governance and Management

14 *Del. C.* §§ 512(1)-(2), (6) and (9)

Charter Management Company

(Note! If the applicant plans to contract with a Charter Management Company, the applicant must complete the Charter Management Company and Highly Successful Charter School Operator Supplement in addition to the application narrative. The Supplement includes the Highly Successful School Operator Capacity section as well as the Portfolio Review and Performance Record section.)

Legal Status and Governing Documents [14 Del. C. § 512(2)]

1. Identify the name of the organizing corporation, date of incorporation, and names of the corporation's officers and the office held by each.

Organization Name: Proximate Network, INC.

Date: February 27, 2018

Officers: Please see attached (please note the Board of Directors of Proximate Network, INC currently the same as the Board of Directors for BASSE).

Organization Name: The Bryan Allen Stevenson School of Excellence, INC

Date: May 22, 2018

Officers: Please see attached

2. Attach a copy of the Articles of Incorporation, a copy of the Board bylaws, and Board policies of the corporation as **Attachment 12**.

Pursuant to 14 *Del. C.* § 512(1) and (2), the bylaws must be consistent with the provisions of the Freedom of Information Act, 29 *Del. C.* Ch. 100 (related to public bodies, public records, and open meetings) and provide for representation of the school's educators and parents of students on the Board.

The by-laws must demonstrate that the Applicant's business is restricted to the opening and operation of charter schools, before school programs, after school programs, and educationally-related programs offered outside of the traditional school year.

3. Provide, as **Attachment 13**, the completed and signed Compliance Certification Statement.
4. Provide, as **Attachment 14**, the completed and signed Application Certification Statement.

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Section 6 - Governance and Management

Governing Board [14 Del. C. §§ 512(1)-(2), (6) and (9)]

1. **Governance Philosophy.** Explain the general philosophy of governance that will guide the proposed school, including the nature and extent of involvement by key stakeholder groups. Please make sure to distinguish management versus governance responsibilities.

The cornerstone of the Bryan Allen Stevenson School of Excellence (BASSE) is community. This includes adherence to the laws and regulations within the state of Delaware. Excellence and equity are the pillars on which BASSE is built. The governance committee strives to ensure these pillars support the school and our fellow Delawareans and the state as a whole. School management is meant to enforce and activate the guidelines and structure of the governance team. In order to fully embody excellence and equity, the board of directors has committed to these values. BASSE will follow our stated policies and guidelines to ensure a safe and stable educational home for students.

2. **Structure and Composition.** Describe the size, current and desired composition, powers, and duties of the Board. Identify key skills, areas of expertise, and constituencies that will be represented on the Board. Explain how this governance structure and composition will help ensure that:
 - a. The school will be an educational and operational success; and
 - b. There will be active and effective representation of key stakeholders. (Note: Pursuant to 14 Del. C. § 512(1), the Board must ensure representation by an educator from at least one of the charter schools operated by the Board and at least one parent of a student enrolled in a charter school operated by the Board.)

Currently, the Board of Directors is 15 individuals. The purpose of keeping our board small is to ensure accountability for tasks and responsibility for decisions made. All board members have ties to the state of Delaware. The board includes career educators, members with legal and financial expertise, and community members. Leadership envisions board seats for community leaders, parents, and a student leadership seat. The entire board has a personal commitment and connection specifically to education in Delaware. With extensive classroom experience and educational administration experience, The Bryan Allen Stevenson School of Excellence board has a proven track record of success that is a part of the school's DNA. Our board currently includes a Sussex County parent and a Sussex County teacher. Once the school opens, two of these seats will be made available to a BASSE student parent and a BASSE teacher. We will also have three student board members.

3. **Roles.** Describe the primary roles of the Board and how it will interact with the Principal/School Leader and any advisory bodies. List all currently-identified Board members and their intended roles, and summarize their interests in and qualifications for serving on the school's Board.

The board of directors' primary goal is to be the foundational support for the leadership and staff of BASSE. Additionally, the board of directors will directly connect the school, community, and stakeholders. Ultimately, the board of directors' role is to set the strategic vision for BASSE,

The Bryan Allen Stevenson School of Excellence

Section 6 - Governance and Management

in partnership with BASSE executive staff and ensure the BASSE is living its mission and vision as outlined in this application to the highest standard of excellence.

All BASSE Board Members and their individual roles are outlined in Section 1.2:

- **Executive Committee:** This committee is composed of BASSE's Executive Officers and will execute primary oversight over the Executive Director, who will manage all other BASSE staff.
 - **Finance Committee:** The finance committee's primary role will be to manage and provide oversight of BASSE's budget. The finance committee will work with BASSE's Executive Director to fiscal plan and manage BASSE's financial health.
 - **Governance Committee:** The governance committee will serve the primary role of reviewing all contracts, addressing serious personnel issues, and serve as the moral and ethical guide for BASSE, supporting the Executive Director with legal matters and advice, as needed.
 - **Development Committee:** The development committee's primary role will be to serve as the fundraising support to the Executive Director.
 - **Community Engagement Committee:** The community engagement committee will provide support to the Executive Director and BASSE's leadership team, as needed, related to event planning, community outreach, and student enrollment.
 - **Land and Construction:** The land and construction committee's primary role is to provide support and oversight over the development of the maintenance and building of BASSE's temporary and permanent campuses.
 - **Education Committee:** The education committee's primary role will be a thought-partner with the Dean of Academic Excellence regarding curriculum and instruction. Additionally, this committee will help support the evaluation of the school's educational program and serve on the hiring committee of academic staff, as requested.
4. As **Attachment 15**, provide a completed and signed Charter School Board Member Information Form for each proposed Board member.
 5. As **Attachment 16**, provide a completed and signed Charter School Board Member Disclosures Form for each proposed Board member.
 6. **Procedures.** Explain the procedure by which Board members have been and will be selected. How will the Board fulfill its responsibilities? What will be the planned frequency and focus of meetings? Identify any standing subcommittees the Board expects to have. Describe how the school and Board will comply with Freedom of Information Act, 29 *Del. C.Ch.* 100 (related to public bodies, public records, and open meetings).

The Bryan Allen Stevenson School of Excellence

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The BASSE Board is selected based on their connection to and high esteem for education in Delaware. The board chair has individual interviews with the board candidates to gauge their interest in the school and vision for academics in Delaware. Following interviews, the potential board member must provide their resume to the board, and they are invited to a board meeting session with the other tapped candidates. At the conclusion of the meeting, current board members vote on the new candidates.

Meetings are held monthly with quarterly retreats to review where we have been and assess where we would like to go. The board has multiple sub-committees based on our board members' expertise and the needs of the school, including governance, curriculum, community outreach, finance, and development. The sub-committees will vary annually depending on what support the school leaders need. Our secretary tracks meeting minutes, and our vice board chair manages all documentation related to board meetings in order to comply with the Freedom of Information Act, 29 *Del. C.Ch.* 100.

7. School Oversight

- a. Describe how the Board will approach its oversight role. Describe the metrics or progress indicators that the Board will consider in its analysis of the school, as well as how the Board will receive this information (i.e., dashboard) and from whom (i.e., Principal/School Leader, Business Manager, committees). Be sure to include both the academic, financial and operational metrics, and the frequency with which the Board will review these metrics.

The BASSE board understands that it has ultimate oversight and that, ultimately, we are accountable for the school's progress. The board is involved directly with the school's progress monitoring with different subcommittees assigned to different aspects of the process. The board will receive its information from the informational dashboards available to us and the school leadership team: the Executive Director, the Dean of Academic Excellence, and the Dean of Community Partnerships. To review the frequency in which the Board will engage in this process, please see section 1.4, question 5.

- b. Describe the financial policies and procedures that the Board and administration will implement and follow in order to ensure that the school remains fiscally solvent and that appropriate internal controls are implemented.

Overall, the primary financial principal for the Bryan Allen Stevenson School of Excellence is acting in students' best interest. This overarching approach considers current and future students to ensure that long term success is never leveraged merely to be put at an immediately advantageous position. All financial decisions are reviewed by OmniVest financial team (BASSE's contracted accounting firm), the finance committee, and approved through a majority vote of the Board of Directors. The OmniVest financial team, the finance chair, and the governance chair ensure that BASSE adheres to all statutory educational/charter requirements.

The OmniVest financial team, the finance committee, and the board of director follow the procedure of (1) maintaining a balanced regular reserve fund and keeping an emergency

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reserve fund, (2) maintenance and replacement of assets and facilities, (3) long-term forecasting and funding for the future, and (4) active advocacy of a balanced budget.

Specializing in school management, OmniVest assists schools in operating in an efficiently run, high-quality manner. As an independent, education-based company, OmniVest Properties Management specializes in the planning, design, development, construction, financing, and management of schools. They have hands-on experience in the development and operations of over 150 private and public schools in 18 states, coast to coast. Additionally, OmniVest and BASSE are receiving support on the Delaware school fiscal management system from Michelle Lambert, an expert in school finance management across various school settings in Delaware, including charter schools.

During BASSE's initial years of operations, Ms. Lambert will contract with BASSE to assist the Executive Director and other relevant staff in managing First State Financials (FSF) and the Payroll Human Resources Statewide Technology (PHRST) while OmniVest receives training in these statewide systems. Please see Ms. Lambert's [scope of work](#) linked in this section.

- c. Describe an, at a minimum, annual process for evaluating whether financial allocations have effectively supported the school in carrying out its mission and meeting its goals.

OmniVest will conduct the primary process for evaluating financial allocation and efficacy. Additionally, BASSE will conduct an annual retreat at the conclusion of every school year where OmniVest along with the finance and governance committees will report on the current state of the budget and compare our financial forecast moving forward to our long-term data-driven financial schedule while accounting for operational necessities and BASSE community (inclusive of student and staff) recommendations. BASSE community recommendations and operational necessities will be linked to the academic baseline figures and BASSE's rigorous academic goals and standards.

- d. Identify the enrollment threshold that would compel the Board to delay opening the school and explain why.

The Board would be compelled to delay opening the school if BASSE did not reach a minimum of 250 enrolled students. The state maintains a minimum enrollment requirement of 200 students. Internally, the board has set a figure of 250 students to account for attrition and late enrollment.

- e. Describe how the Board and School Leadership Team will utilize the school's mission in everyday practice and decision-making?

When the Board hires the School Leadership Team, it will be expected that those staff members will embody the school's mission in their daily work. The Board's various committees will ensure that the mission lives in the plans for the school and the execution of those plans. The School Leadership Team's annual evaluations will provide the Board with the opportunity to measure how embedded the mission is in the practices of the school. Additionally, the board

The Bryan Allen Stevenson School of Excellence

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will expand to 18 to provide seats for three students who will offer practical insight as to how the Board's mission is being realized on a day to day basis.

- f. Describe the School Leader contract. Identify whether there will be performance targets in that contract and, if so, what they are.

During year one, the Executive Director and the Dean of Academic Excellence will be under one-year at-will contracts, which will include co-designed and approved performance targets based on state performance standards to be renewed only following an assessment of their annual achievements. Achievements include academic metrics, as well as the adherence to and promotion of the Board's vision and the core tenants upon which the school was founded. Furthermore, students' educational and cultural trajectory, cultural cohesion, and in-roads made with the Sussex County community at large will also impact what is recognized as school leadership success.

8. **Board Improvement.** Explain the plan for increasing the capacity of the Board. What kinds of orientation or training will new Board members receive? Describe how the Board will evaluate itself and what steps it will take to continually improve its capacity to govern. Describe how current and future Board members will comply with any statutory or regulatory requirement related to the training of Board members.

BASSE's board of directors will assemble a handbook for distribution to all new Board members, who will be expected to maintain the high standard for our school's values throughout their board term. Current board members will fill out a self-evaluation of performance annually and meet with the Executive Director of the Bryan Allen Stevenson School of Excellence to review. If the Board member is not meeting expectations, that Board member will be given a probation period to improve, and if significant improvement is not made, the Board member will be asked to resign. A review of the conflict of interest policy will occur annually and revised as the law mandates. Additionally, the board will participate in the school board training provided by the Delaware Department of Education. The BASSE board has requested to participate in this training in advance of submitting this application, which clearly represents our commitment to excellence in governance.

BASSE's annual board of directors calendar includes four retreats. These retreats provide space for ongoing professional learning and training. The board of directors will also be required to participate in at least one training with staff during the pre-opening three-week learning cycle offerings, and all board members are encouraged to participate in all training during that learning cycle.

9. **Board Continuity.** Describe how, and on what timeline, new Board members will be recruited and added. Explain how the Board will screen successor members of the Board to ensure continuing compliance with the requirements that the Board be qualified to operate a charter school and to implement the school's proposed educational program.

The board member terms and structure are outlined in the attached bylaws. BASSE's bylaws are structured so that each year there is new membership and the termination of prior membership

The Bryan Allen Stevenson School of Excellence

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in some capacity. There will be student, staff, community, and parent representation on the Board, in addition to founding members.

10. **Ethics and Conflicts of Interest.** Describe the Board's ethical standards and procedures for identifying and addressing conflicts of interest and compliance with the State Code of Conduct.

All board members are dedicated and have some connection to the academic community in Delaware. Board members understand and take responsibility for how their actions reflect on the organization and the Delaware community as a whole. The governance committee is dedicated to ensuring that the Board's actions on behalf of the BASSE abide by the local, state, and federal rules and regulations. Our board recognizes that by being a member of this board, they are always representative of our school. Furthermore, all board members joined the board in order to educate students and understand that often students learn by observing the actions of the adults around them. The board has signed and adopted a Conflict of Interest Policy, and all board members were required to disclose all potential conflicts. Several board members have participated in the state's ethics training, and the board members who have not participated in this training will be required to before school opening. Please see the [attached certificates](#) of the board members who have completed the training.

Advisory Bodies [14 Del. C. §§ 512(1)-(2) and (6)]

1. Describe any advisory bodies or councils to be formed, including the roles and duties of these bodies. Describe the following: the planned composition of the advisory body; the strategy for achieving that composition; the role of parents, students, and educators (if applicable); and the reporting structure as it relates to the school's governing body and leadership.

A Parent-Teacher Organization will be formed utilizing a co-chair model to share responsibilities governing the group and moderating this council and council meetings. This group will be a listening ear to amplify the will of those whom they represent. One co-chair will each also hold a seat on the board of directors or advisory board to advocate for the ideas, opinions, and grievances of the individuals they represent in board meetings. These co-chairs will be elected positions to be held for one year. Mirroring this format, students will elect student body representatives and executives, with the student body president also holding the position for one year and having a board seat. Student representatives and executives will also hold regular meetings among their constituents and have the same duties to their representative group as the PTO co-chairs.

Grievance Process [14 Del. C. § 512(9)]

1. Explain the process that the school will follow should a parent, student or staff member have an objection to a governing board policy or decision, administrative procedure, or practice at the school.

Parents, students, and staff members will each have a representative on the board to ensure that each group understands the decision-making process and the underlying reasoning on which those decisions are based. It is the duty of these representatives to advocate for their

The Bryan Allen Stevenson School of Excellence

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constituents during board meetings, share information with the members of their respective groups, and hold open meetings where ideas, objections, and grievances can be shared. Representatives will bring any ideas, objections, and grievances to board meetings to address these issues. Should further detail, investigation, or debate be required, a panel assembly featuring the interested parties will be held to reach thoughtful and well-rounded solutions.

2. Identify the goals of the Board of Directors in terms of monitoring and resolving staff and parent complaints.

BASSE's main goal is to create and maintain a harmonious learning environment for students. All staff and parent complaints will be examined through school leadership with input from the governance committee. The interest of students is always the top priority.

The Board of Directors is open and flexible to recommendations and looks to resolve complaints as soon as possible to ensure that the learning environment remains effective. Ultimately, the Directors' actions, including handling difficult situations, are meant to provide a stable educational home.

**Section 1.6 - Governnace and Management :: Attachment 12 - Articles
of Incorporation, Board Bylaws and Policies**



HARVARD BUSINESS SERVICES, INC.

16192 COASTAL HIGHWAY
LEWES, DELAWARE 19958-9776
Phone: (302) 645-7400 (800)-345-2677
Fax: (302) 645-1280
www.delawareinc.com

Miss Alonna Berry
16683 Sand Hill Rd
Milton, DE 19968

Dear Miss Berry,

We would like to convey our congratulations to you and The Bryan Allen Stevenson School of Excellence, INC.. We hope you enjoy terrific success with your new company. Thank you for giving us the opportunity to serve you as your incorporator and Delaware Registered Agent. You are now our valued client and we want to increase your success in any way we can.

Name: **The Bryan Allen Stevenson School of Excellence, INC.**
Date of Incorporation: May 22, 2018
Delaware file number: **6896598** HBS Record ID Number: 366072

Enclosed is the Recorded Copy of your Certificate of Incorporation. Please review the information on the certificates and insert them in your corporate kit.

Please remember these three things in the future:

1. We must be made aware of any address changes. You may provide this information to us via email (mail@delawareinc.com) or phone (800-345-2677 ext. 6903). This will ensure that we remind you of the following two things:

2. Delaware franchise tax and report are due March 1st each year. If the tax and report are not filed at the State of Delaware by March 1st, a \$200 late penalty plus 1.5% interest monthly will be imposed by the State of Delaware and your company will become delinquent. Failure to file the tax two years in a row will cause the company to become void.

3. Your annual registered fee of \$50 is due on the anniversary month of your corporation. If the registered agent fee is not received by the due date, a \$25 late penalty will be imposed. Failure to pay the registered agent fee within 3 months of the due date may lead to the loss of your registered agent, which could cause your company to become forfeit with Delaware.

We would like to thank you once again, and wish you the best of luck. You can help us by telling a friend or business associate about our services. We work hard to keep things simple for you and your associates when it's time to incorporate.

Sincerely,

Filing Department
Harvard Business Services, Inc.

State of Delaware
Secretary of State
Division of Corporations
Delivered 02:49 PM 05/22/2018
FILED 02:49 PM 05/22/2018
SR 20184141923 - File Number 6896598

CERTIFICATE OF INCORPORATION
OF
The Bryan Allen Stevenson School of Excellence, INC.

A NON-STOCK CORPORATION

FIRST: The name of the corporation is: The Bryan Allen Stevenson School of Excellence, INC.

SECOND: Its registered office in the State of Delaware is located at 16192 Coastal Highway, Lewes, Delaware 19958, County of Sussex. The registered agent in charge thereof is Harvard Business Services, Inc.

THIRD: The purpose of this tax deductible non-profit organization shall be to engage in any lawful activity for which corporations may be organized under the General Corporation Law of Delaware. In addition the purpose of this non-profit organization is to foster critically conscious students who are self-empowered, community-minded leaders who advocate for change.

This corporation is organized exclusively for charitable, religious or educational purposes within the meaning of section 501(c)(3) of the Internal Revenue Code. Notwithstanding any other provision of these Articles, the corporation shall not carry on any other activities not permitted to be carried on (a) by a corporation exempt from Federal income tax under section 501 (c)(3) of the Internal Revenue Code of 1986 (or the corresponding provision of any future United States Internal Revenue Law) or (b) by a corporation contributions to which are deductible under section 170 (c)(2) of the Internal Revenue Code of 1986 (or the corresponding provision of any future United States Internal Revenue Law.)

INUREMENT OF INCOME: No part of the net earnings of the corporation shall inure to the benefit of, or be distributable to, its members, trustees, directors, officers of the corporation, or any private persons (except that the corporation shall be authorized and empowered to pay reasonable compensation for services rendered), and no member, trustee, or officer shall be entitled to share in the distribution of any of the corporate assets upon dissolution of the corporation.

LEGISLATIVE OR POLITICAL ACTIVITIES: No substantial part of the activities of the corporation shall be the carrying on of propaganda, or otherwise attempting, to influence legislation and the corporation shall not participate in or intervene (including the publishing or distribution of statements) any political campaign on behalf of any candidate for public office. (except as otherwise provided by Internal Revenue Code section 501(h).

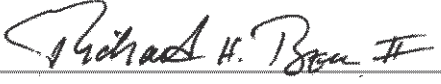
DISSOLUTION CLAUSE: Upon the dissolution of the corporation, the Board of Trustees shall, after paying or making provisions for the payment of all the liabilities of the corporation, dispose of all the assets of the corporation exclusively for the purposes of the corporation in such manner, or to such organization or organizations organized and operated exclusively for charitable, educational, religious, or scientific purposes as shall at the time qualify as an exempt organization or organizations under section 501(c)(3) of the Internal Revenue Code of 1986 (or the corresponding provision of any future United States Internal Revenue Law), as the Board of Trustees shall determine. Any assets not so disposed of shall be disposed of by the Court of Common Pleas of the county in which the principal office of the corporation is then located, exclusively for such purposes or to such organization or organizations, as said court shall determine, which are organized and operated exclusively for such purposes.

FOURTH: No capital stock shall ever be issued, no dividends shall ever be paid, and the Corporation shall be operated on a non-profit basis in furtherance of its Corporate purposes, and any surplus shall be used to further such purposes.

FIFTH: The Corporation may have members, but not shareholders, and shall be governed by a Board of Directors who shall be selected in the manner provided in the By-Laws.

SIXTH: The name and address of the incorporator is Harvard Business Services, Inc., 16192 Coastal Highway, Lewes, DE 19958.

I, the undersigned, for the purpose of forming a corporation under the laws of the State of Delaware do make and file this certificate, and do certify that the facts herein stated are true; and have accordingly signed below, this May 22, 2018.

Signed and Attested to by: 
Harvard Business Services, Inc., Incorporator
By: Richard H. Bell, II, President

**BYLAWS OF THE BRYAN ALLEN STEVENSON SCHOOL OF EXCELLENCE, INC.
A Delaware Not-for-Profit Corporation**

ARTICLE I: POWERS AND FUNCTIONS OF DIRECTORS

Subject to limitation imposed by law, the Certificate of Incorporation, or by these bylaws, all corporate powers shall be exercised by or under the authority of the Board of Directors (the “Board”). The Board has the power to manage the property and business of this corporation (the “Corporation”). The members of the Corporation (the “Members”) shall have no voting rights, other than as provided by the General Corporation Law of the State of Delaware and the provisions of these bylaws.

Without limiting the foregoing, the Board shall conduct business of the Corporation including:

- i. Adopting the bylaws of the Corporations;
- ii. Determining the general policies and strategic planning of the Corporation;
- iii. Establishing the annual budget and approving major expenditures;
- iv. Selecting projects and approving the overall budget of said projects;
- v. Approving the administrative budget of the Corporation;
- vi. Approving the annual financial statement of the Corporation; and
- vii. Electing officers and filling vacancies in said offices as may occur from time to time during the year.

ARTICLE II: MEETING OF THE BOARD

Section 1. Compliance with Delaware Code

The Board shall conduct its meeting within the State of Delaware as if it were a “public body” as defined in 29 Del. Code § 10002(a) and according to the requirements of Chapter 100 of said Title 29 (the “Act”), including provisions relating to the open meetings requirements of the Act. In addition to the published notices required by the Act, notices of each meeting of the Board shall be forwarded to its members by any method, which preserves proof of such notice.

Section 2. Quorum

A quorum for the transaction of business at any meeting of the Board shall consist of one-third of the voting directors then serving, except as may otherwise be required by law. An act of the majority of directors present and voting at a duly called meeting shall be the act of the Board, except as may otherwise be provided elsewhere in these bylaws.

Section 3. Reliance

A member of the Board, or of any committee thereof shall, in performance of his or her duties be fully protected in relying in good faith upon the records of the Corporation and upon such information,

opinions, reports or statements presented to the Corporation by any of its officers, or employees, or committees of the Board, or by any other person as to matters the member reasonably believes are within such other person's professional or expert competences and who has been selected with reasonable care by or on behalf of the Corporation.

ARTICLE III: MEMBERSHIP OF THE BOARD

Section 1. Number

The Board shall consist of at least five (5), but no more than fifteen (15) members. The initial Board shall consist of 15 members. However, the number of directors constituting the Board may be reduced as a result of a vacancy or increased upon the election of additional members as provided in Section 7 and 5, respectively, of this Article III.

Section 1a. Classes of Directors

The Board of Directors shall be divided into four classes.

Class I shall be the members of the founding board and their replacements.

Class II shall be members of the community-at-large elected to the Board pursuant to Section 5 and 7 of this Article III.

Class III. Once the Charter School has opened, at least one member of the Board shall be a certified Delaware teacher employed at the school elected to the Board pursuant to Section 5 and 7 of this Article III.

Class IV. Once the Charter School has opened, at least one member of the Board shall be a parent of a student enrolled at the school and elected to the Board pursuant to Sections 5 and 7 of this Article III.

Section 3. Voting Rights

Each director shall have one vote. All directors shall be deemed to constitute a single class for voting purposes.

Section 4. Liability

No director shall be personally liable for the debts, liabilities or obligations of the Corporation.

Section 5. Election and Term

The initial directors of the Corporation shall be selected by the Incorporator pursuant to written action. Directors shall, in their discretion, elect additional eligible directors to Class I, II, III, and IV pursuant to

an affirmative vote of a majority of all directors of the Corporation, provided that the limit on the number of directors set forth above in Section 1 of this Article III shall not be exceeded.

Directors in Class I may be categorized as Class IA or Class IB. Directors in Class IA shall have initial terms of three years. Directors in Class IB shall have an initial term of one year, Directors in Class II shall have terms of two years. After the initial term of director in Class I or Class II shall have expired, a successor to such director shall be elected by the affirmative vote of a majority of the remaining directors whose terms have not then expired. The remaining directors may also elect by affirmative vote of a majority to renew the term of a Class I or Class II director.

Each successor director in Class III Directors shall serve terms of one year.

Each successor director in Class IV Directors shall serve terms of two years. After the initial term of a director in Class III or Class IV has expired, a successor to such director shall be elected by the affirmative vote of a majority of the remaining directors whose terms have not then expired.

Each successor director shall be elected to serve in the same class of directors as his/her predecessor.

Section 6. Chair of the Board

The Board shall elect, at its original meeting and each annual meeting, a Chair of the Board (the “Chair”) who shall be a director and who shall hold office until the next annual meeting of the Board and until elected and qualified or until his or her earlier resignation or removal by an act of the board. The Chair shall preside at meetings of the Members of the Corporation and of the Board.

In the absence of the Chair a Vice-Chair shall preside at meetings of the members of the Board.

Section 7. Vacancies

Any vacancy on the board shall reduce the number of directors constituting the whole Board and the number of duly elected and acting directors until such time, if any, as an additional eligible director is elected pursuant to Section 5 of this Article III.

Section 8. Removal

A director may be removed from the Board with or without cause by an affirmative vote of at least a majority of directors.

Section 9. Compensation

Directors shall serve without compensation.

Section 10. Resignation

Any director may resign from a committee of the Board, an office of the Board, or the board itself by giving written to the Chair or the Secretary. Any such resignation shall take effect on the date of receipt of such notice or at any later time therein specified, and, unless otherwise specified, the acceptance of such resignation shall not be necessary to make it effective.

ARTICLE IV: COMMITTEES OF THE BOARD

Section 1. Establishment by Chair

The Chair of the Board may appoint, or may provide for the appointment of, committees consisting of directors with such duties and powers as the Chair may, from time to time, designate and prescribe, except as indicated in Section 2 and 3 below. In the absence or disqualification of any member of any committee and any alternate member in his or her place, the Chair may appoint another member of the Board to act at the meeting in place of any such absent or disqualified member. The Chair may, from time to time, suspend, alter, continue or terminate any of such committees or the powers and functions thereof.

Without limiting the foregoing, the Chair shall initially provide for the following committees: Executive Committee and Finance Committee.

Section 2. Executive Committee

The Executive Committee shall consist of the Chair, Vice Chair, the Secretary and the Treasurer. The Executive Committee shall have and may exercise all the powers and authority of the Board, except as otherwise provided by law. Without limiting the foregoing, the Executive Committee shall approve of the Corporation's administrative budget, including the compensation of any employees.

Section 3. Finance Committee

The Finance Committee shall consist of the Chair, the Secretary, the Treasurer and two others directors to be appointed by the Chair. The Finance Committee shall be responsible for establishing an annual budget, and an administrative budget, including the compensation of any employees.

Section 4. Action

Unless otherwise provided in the resolution of the Board designating a committee, a majority of the members of the whole committee shall constitute a quorum unless the committee shall consist of one or two members, in which case one member shall constitute a quorum. All matters properly brought before the committee shall be determined by a majority vote of the committee.

Section 5. Procedures

Each committee may determine the procedural rules for meeting and conducting its business and shall act in accordance therewith, except as otherwise provided by law. Adequate provision shall be made for notice to all members of any committee of all meetings of that committee.

ARTICLE V: MEMBERS

Section 1. Annual Meeting

An annual meeting of the Members of the Corporation shall be held immediately preceding the annual meeting of directors at such place, on such date, and at such time established by the Board.

Section 2. Special Meetings

Special meetings of the members of the Corporation may be held at the call of the Chair for any purpose or purposes. Such a request shall state the purpose of the proposed meeting.

Section 3. Compliance with Act Notice

A notice of any annual or special meeting, setting forth the time, date and place of the meeting, shall be given by the Secretary in person, by mail, by telephone or electronically not less than ten (10) days in advance of the meeting to each Member at the address last shown on the records of the Corporation. Unless otherwise indicated in the notice thereof, any and all business may be transacted at any annual or special meeting. In addition to the provisions of the §3, all meetings of the Members shall be conducted pursuant to and in compliance of the Act.

Section 4. Quorum

At any meeting of the Members, a quorum for the transaction of business shall consist of one-third of all the Members of the Corporation, except to the extent that a greater number of Members may otherwise be required by law. An act of the majority of Members present and voting shall be the act of the members, except as may otherwise be required by these laws.

Section 5. Waiver or Consent

The transaction of business at any meeting of the members of the Company shall be, however called and noticers an wherever held, shall be as valid as though held at a meeting after regular call and notice, if a quorum is present and it, either before or after the meeting, each of the Members present sign a written waiver or notice or consent to the holding of the meeting or an approval of the minutes. All such waiters, consents, or approvals shall be expressed in writing and filed with the corporate records or make a part of the minutes of the meeting; provided, however, that no such action shall be valid if taken in such a way as would not comply with the Act.

ARTICLE VI: OFFICERS

Section 1. Officers

The officers of the Corporation shall consist of the Chair, Vice Board Chair, Secretary, Treasurer, and such assistant to the Secretary or Treasurer, as the Board may deem necessary. The officers shall perform such duties as described in this Article and shall receive no compensation for these services, except otherwise expressly noted. Only members of the Board may serve as the Chair, Vice Chair, Treasurer, and Secretary. Any person may hold more than one office.

Section 2. Election and Term

The officers of the Corporation shall be elected by, and serve at the pleasure of, the Board. The initial officers shall be elected for one-year terms provided that an officer appointed to fill a vacancy shall serve for the remainder of the term of his or her predecessor, and provided further that an officer shall serve until his or her successor is elected and qualified in accordance with these bylaws.

Section 3. Vacancies

A vacancy in any of the offices of the Corporation may be filled for the unexpired term by appointment by the Chair.

Section 4. Chair

The Board Chair shall preside at all meetings of the Board and all meetings of the members of the Corporation. The Chair shall serve as the principal executive officer of the corporation. The Chair shall see that all orders and resolutions of the Board and the Executive Committee or other committees of the Board are carried into effect. The Chair shall also have general supervision and direction of the officers and shall see that their duties and those assigned to the other directors are properly performed.

Section 5. Vice Chair

The Vice Board Chair shall have such duties as prescribed from time to time by the Board Chair or by the Board. In the absence or disability of the Chair, the Vice Board Chair shall perform all the duties of the Board Chair.

Section 6. Secretary

The Secretary shall attend all sessions of the board and all meetings of the members and act as clerk thereof, and record all votes of the corporation and the minutes of all its transactions in a book to be kept for that purpose, and shall perform like duties for all the committees of the Board of Directors when required. He/she shall give, or cause to be given, notice of all meetings as may be required under the provisions of these bylaws or by law, and such other duties as may be prescribed by the Board of

Directors or President, under whose supervision shall be.

Section 7. Treasurer

The treasurer shall be responsible for the oversight of the custody of all funds of the Corporations, shall generally supervise the accounting and bookkeeping of the Corporation, shall regularly report to the Board as to the financial condition of and results of the operation of the Corporation, and shall have such other powers and duties as may be prescribed from time to time by the Chair of the Board.

ARTICLE VII: EXECUTION ON INSTRUMENTS

Section 1. Checks, Drafts, and Orders for Payment of Money

All checks, drafts and orders for payment of money shall be signed in the name of the Corporation and shall be signed by two of the following officers: The Treasurer and the Chair or the Treasurer and the Vice Chair.

Section 2. Contracts

All contracts, conveyances or other instruments which have been authorized by the Board shall be executed in the name and on behalf of the Corporation, and have affixed thereto the corporation seal, by the Secretary of the Corporation or his or her delegate.

ARTICLE VIII: INDEMNIFICATION

Section 1. Right to Indemnification

The corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person who was or is made or is threatened to be made a party or is otherwise involved in any motion, suit, or proceeding, whether civil, criminal, administrative or investigative (a "proceeding:") by reason of the fact that he, or a person for whom he is the legal representative, is or was a director or officer of the Corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust or enterprise or nonprofit entities, including service with respect to employee benefits plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonable incurred by such person. The Corporation shall be required to indemnify a person in connection with a proceeding (or part thereof) initiated by such person only if the preceding (or part therefor) was authorized by the Board of the Corporation.

Section 2. Prepayment of Expenses

The Corporation shall pay the expense (including attorney's fees) incurred in defending any proceeding in advance of its final disposition, provided, however that the payment of of expenses incurred by a director

or officer in advance of the final disposition of the proceeding shall be made only upon receipt of an undertaking by the director or officer to repay all amounts advanced if it should be ultimately determined that the director or officer is not entitled to be indemnified under this Article or otherwise.

Section 3. Claims

If a claim for indemnification or payment of expenses under this Article is not paid in full within sixty days after a written claim therefore has been received by the Corporation, the claimant may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of the prosecuting such claim. In any such action the Corporation shall have the burden of proving that the claimant was not entitled to the requested indemnification or payment of expenses under the applicable law.

Section 4. Nonexclusively of Rights

The rights conferred on any person by this Article VIII shall not be exclusive of any other rights which such person may have or hereafter acquire under any statute, provision of the certificate of incorporation, these bylaws, an agreement, vote of Member or disinterested director or otherwise.

Section 5. Other Indemnification

The Corporation's obligation, if any, to indemnify any person who was or is serving at its request as director, officer, employee or agent of another corporation, partnerships, joint venture, trust or other enterprise or nonprofit entity shall be reduced by any amount such person may collect as indemnification from such other corporation, partnership, joint venture, trust, enterprise or nonprofit enterprise.

Section 6. Liability Insurance

The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee, or agent of the Corporation, or is or was serving at the request of the Corporation as director, officer employee, or agent of another corporation, partnership, joint venture, trust or other enterprise against liability asserted against him and incurred by him in any such capacity; or assisting out of his status as such, whether or not the Corporation would have the power or the obligation to indemnify him against such liability under the provisions of this Article VIII.

Section 7. Amendment or Repeal

Any repeal or modification of the foregoing provisions of this Article VIII shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification.

ARTICLE IX: CORPORATE SEAL

The Board shall provide a corporate seal, containing the name of the Corporation, which seal shall be in the charge of the Secretary.

ARTICLE X: AMENDMENT OF BYLAWS

These bylaws may be amended, suspended or repealed by the affirmative vote of two-thirds of all Directors at any meeting of the Directors or by unanimous written consent of all Members.

ARTICLE XI: GIFTS

The Board may accept, on behalf of the Corporation, any contribution, gift, bequest or devise for the general purpose, or any special purpose, of the Corporation.

ARTICLE XII: FISCAL YEAR

The fiscal year of the Corporation shall commence on the first day of July each year.

THE BRYAN ALLEN STEVENSON SCHOOL OF EXCELLENCE, INC.
BOARD RESOLUTION
Effective JULY, 2018

Upon proper motion and in accordance with the bylaws of The Bryan ALlen Stevenson School of Excellence, the Board unanimously adopted the following resolution.

Resolved, that the Board hereby approves and adopts the bylaws attached hereto, dated *effective* July 2018, as amended therein, by this written consent.



Chair



Vice Chair



Secretary

(BASSE Logo)

CONFLICT OF INTEREST POLICY

The Bryan Allen Stevenson School of Excellence relies on the good faith of its Board Members, Executive Officers and Key Employees in the exercise of their responsibilities to the Bryan Allen Stevenson School of Excellence. Board Members, Executive Officers and Key Employees acting on behalf of the Bryan Allen Stevenson School of Excellence should exercise independent judgment and should make all business judgments in the best interests of the Bryan Allen Stevenson School of Excellence. Board Members, Executive Officers and Key Employees must avoid situations in which their personal activities are or may appear to be in conflict with their responsibilities to the Bryan Allen Stevenson School of Excellence. The purpose of this Conflict of Interest Policy is to ensure that the deliberations and decisions of the Charter School are made in the best interests of the Charter School and to protect the interests of the Bryan Allen Stevenson School of Excellence when it is contemplating entering into a transaction, contract, or arrangement that might benefit the private interest of a Board Member, Executive Officer or Key Employee. A Board Member, Executive Officer or Key Employee may not use his or her position with respect to the Bryan Allen Stevenson School of Excellence, or confidential corporate information obtained by him or her relating to the Bryan Allen Stevenson School of Excellence, in order to achieve a financial benefit for himself or herself or for a third person.

Because it is not possible to list all situations or relationships that might create conflicts of interest problems, and because each situation must be evaluated based on its individual facts, Board Members, Executive Officers and Key Employees must promptly disclose to the appropriate source, as designated in the policy, any facts or circumstances that might constitute a conflict of interest or give the appearance of such a conflict. Board Members, Executive Officers and Key Employees are encouraged to obtain assistance from the Executive Director or Board President of the Bryan Allen Stevenson School of Excellence to determine if a conflict exists and, if so, how it should be resolved.

SECTION 1.

As used herein, the following terms shall have meanings ascribed thereto:

“BASSE” means Bryan Allen Stevenson School of Excellence.

“Board Member” means a member of the Board of Trustees of the Bryan Allen Stevenson School of Excellence.

“Board of Trustees” means the Bryan Allen Stevenson School of Excellence School Board of Trustees.

"Conflict" or "Conflict of Interest" means use by a Board Member, Executive Officer or key Employee of the Bryan Allen Stevenson School of Excellence of his or her office or employment or any confidential information received through his or her position, office or employment for the private pecuniary benefit of himself or herself, a member of his or her family or a business in which he or she is a shareholder or owner or in which his or her family is a shareholder or owner or is otherwise associated.

"Contract" means an agreement or arrangement for the acquisition, use or disposal by the Bryan Allen Stevenson School of Excellence of consulting or other services or of supplies, materials, equipment, land or other personal or real property. The term shall also mean a compensation arrangement, including, but not limited to, one relating to salary, wages, retirement or other benefits, whether or not in writing, between the Bryan Allen Stevenson School of Excellence as one party and a Board Member, Executive Officer, Key Employee or entity in which a Board Member, Executive Officer, Key Employee, or a member of such persons' family has a direct or indirect ownership or investment interest.

“Executive Officer” means the chairman of the board, the president, every vice president, the secretary and the treasurer of the Bryan Allen Stevenson School of Excellence and any other officer listed in the Bylaws of the Bryan Allen Stevenson School of Excellence, unless such officer is excluded, by resolution of the Board of Trustees or by the Bryan Allen Stevenson School of Excellence, from participation (other than in the capacity of a Board Member) in major policymaking functions of the Bryan Allen Stevenson School of Excellence and the officer does not actually participate therein.

“Key Employee” means a person who participates, or has authority to participate (other than in the capacity of a Board Member), in major policymaking functions of the Bryan Allen Stevenson School of Excellence, regardless of whether he or she has an official

title, or the officer is serving without salary or other compensation. Not by way of limitation of the foregoing, Key Employee also includes any individual employed by the Bryan Allen Stevenson School of Excellence who is responsible for taking or recommending official action of a nonministerial nature with regard to contracting or procurement or (2) any other activity where the official action has greater than a economic impact on the interests of any person.

SECTION 2

All interested Board Members, Key Employees and Executive Officers shall provide the Board of Trustees with written notice of all conflicts of interest. Specifically, any BASSE Board Member, Executive Officer or Key Employee who has an interest in a Contract or other transaction presented to the Board of Trustees or a committee thereof for authorization, approval or ratification shall make a prompt and full disclosure of his or her interest to the Board of Trustees or committee prior to its acting on such contract or transaction. Such disclosure shall include any relevant and material facts known to such person about the Contract or transaction that might reasonably be construed to be adverse to the interest of BASSE.

No Board Member shall cast a vote on any matter which has a direct or indirect bearing on services to be provided by that Board Member, a member of such person's family any organization which such Board Member represents, or any organization in which such Board Member, or a member of his or her family, has a direct or indirect ownership or investment interest or is otherwise interested or affiliated, which would directly or indirectly financially benefit such Board Member. All such services will be fully disclosed to the Board of Trustees present at the meeting at which such Contract shall be considered. Furthermore, as stated in the Bylaws, all Board Members will be non-salaried, but may receive reasonable reimbursement of school related expenses.

Additionally, and not by way of limitation of the foregoing, all interested parties promptly upon becoming aware thereof, shall notify the Board of Trustees in writing of the following (each an "Interested Transaction"):

1. A Board Member, Executive Officer, or Key Employee is related by blood or marriage to another Board Member, Executive Officer, Key Employee of BASSE.
2. A Board Member, Executive Officer, or Key Employee is related by blood or marriage to any other employee or independent contactor of BASSE.
3. A BASSE employee in a supervisory capacity is related to another BASSE employee whom he or she supervises.
4. A Board Member, Executive Officer, Key Employee, or any other BASSE employee receives payment from BASSE for any subcontract, goods, or services

other than as part of his or her regular job responsibilities or as reimbursement for reasonable expenses incurred but only to the extent consistent with the Bylaws and Board of Trustee policy.

5. A Board Member, Executive Officer, Key Employee, or any other BASSE employee obtains or reasonably anticipates that he or she may obtain personal, financial, or professional, or political gain at the expense of BASSE.

SECTION 3.

Following full disclosure of a possible Conflict of Interest or any Interested Transaction, the Board of Trustees shall determine whether a Conflict of Interest exists and, if so, the Board of Trustees shall vote to authorize or reject the transaction and/or condition in question. Both votes shall be by majority vote without counting the vote of any interested Board Member.

SECTION 4.

Any Board Member who is involved in any potential Conflict of Interest or other Interested Transaction shall abstain from any such votes, such abstention and the reason therefore being included in the minutes of any such deliberation and vote. A Board Member, Executive Officer or Key Employee shall not participate in any discussion or debate of the Board of Trustees, or any committee thereof, in which the subject of discussion is a Contract, transaction, or situation in which there may be a Conflict of Interest involving him or her. However, after disclosure of the potential Conflict of interest or other Interested Transaction, such person may make a presentation at the board or committee meeting, but shall leave the meeting following his or her presentation.

1. He or she shall not be present at the Executive Session of the board or committee meeting during the discussion of, and the vote on, the transaction or arrangement that results in the potential conflict of interest.
2. The chairperson for the board or committee shall, if appropriate, appoint a disinterested person or committee to investigate alternatives to the proposed transaction or arrangement.
3. After exercising due diligence, the board or committee shall determine whether BASSE can obtain a more advantageous transaction or arrangement with reasonable efforts from a person or entity that would not give rise to a conflict of interest.

SECTION 5.

The minutes of the Board of Trustees and all committees shall contain:

1. The names of the persons who disclosed or otherwise were found to have an actual or possible conflict of interest, the nature of the conflict of interest, any action taken to determine whether a conflict of interest was present, and the Board of Trustees' or committee's decision as to whether a conflict of interest in fact existed.
2. The names of the persons who were present for discussions and votes relating to the transaction or arrangement, the content of the discussion, including any alternatives to the proposed transaction or arrangement, and a record of any votes taken in connection with the proceedings.

SECTION 6.

A voting member of the Board of Trustees who receives compensation, directly or indirectly, from BASSE for services is precluded from voting on matters pertaining to that member's compensation.

A voting member of any committee whose jurisdiction includes compensation matters and who receives compensation, directly or indirectly, from BASSE for services is precluded from voting on matters pertaining to that member's compensation.

No voting member of the Board of Trustees or any committee whose jurisdiction includes compensation matters and who receives compensation, directly or indirectly, from BASSE, either individually or collectively, is prohibited from providing information to any committee regarding compensation.

SECTION 7.

No Board Member, Executive Officer, Key Employee or other BASSE employee shall participate in the selection, award, or administration of a procurement transaction in which federal or state funds are used, where, to his/her knowledge, any of the following has a financial interest in that transaction:

1. The BASSE employee, Key Employee, Executive Officer, or Board Member;
2. Any member of his/her family;
3. An organization in which any of the above is an officer, owner, director, trustee, or employee; or
4. A person or organization with whom any of the above is negotiating or has any arrangement concerning prospective employment.

SECTION 8.

A Contract or Interested Transaction may be rendered void by the Board of Trustees if entered into without full disclosure of the personal interests of a Board Member, Executive Officer, or other BASSE employee. The existence of any of the above-listed conditions shall likewise render a Contract or transaction voidable by the Board of Trustees unless full disclosure of personal interests is made in writing to the Board of Trustees and such Contract or transaction was duly approved by the Board with full knowledge of such interest.

SECTION 9.

The disinterested Trustees are authorized to impose by majority vote other reasonable sanctions as necessary to recover associated costs against a Board Member, Executive Officer, Key Employee, or other BASSE employee for failure to disclose a Conflict of Interest or Interested Transaction as required hereunder or for any appearance of a Conflict.

SECTION 10.

Appeal from sanctions imposed pursuant to Sections 6 and 7 above, shall be prescribed by law in those courts with jurisdiction over both the parties and the subject matter of the appeal.

SECTION 11.

In the event that BASSE incurs costs or attorney fees as a result of legal action, litigation, or appeal brought by or on behalf of an interested Board Member, Executive Officer, Key Employee, or other BASSE employee due to a Conflict of Interest and consequent sanctions, and, in the event that BASSE prevails in such legal action, litigation, or appeal, the Board of Trustees, on behalf of BASSE, shall be entitled to recover all of its costs and attorney fees.

SECTION 12.

In the event that BASSE is notified of a possible violation of the Conflict of Interest Policy the below events shall occur.

1. If the board or committee has reasonable cause to believe that a member has failed to disclose actual or possible conflicts of interest, it shall inform the member of the basis for such belief and afford the member an opportunity to explain the alleged failure to disclose. All such discussions shall be held in an Executive Session.
2. If, after hearing the response of the member and making such further investigation as may be warranted under the circumstances, the board or committee determines that the member has in fact failed to disclose an actual or possible conflict of interest, it shall take appropriate disciplinary and corrective action.

SECTION 13.

A copy of this policy shall be given to all Board Members, Executive Officers and Key Employees upon commencement of such person's relationship with BASSE or to the extent such a person is already a Board Member, Executive Officer or Key Employee at the time of the adoption hereof, immediately upon the adoption hereof. Each Board Member, Executive Officer or Key Employee shall sign and date the policy at the beginning of his or her term of service or at the Annual Board Meeting. Failure to sign does not nullify the policy.

The signed copy of this policy will be kept with the official minutes.

SECTION 14.

Each Board Member, Executive Officer and Key Employee shall annually sign a statement which affirms such person:

1. Has received a copy of BASSE's Conflict of Interest Policy;
2. Has read and understands the policy;
3. Has agreed to comply with the policy; and
4. Understands that BASSE is a not-for-profit organization and in order to maintain its federal tax exemption it must engage primarily in activities which accomplish one or more of its tax-exempt purposes.

TO THE EXTENT THAT ANYTHING IN THIS POLICY COULD BE CONSTRUED TO CONFLICT WITH APPLICABLE STATE AND/OR FEDERAL LAWS, THE APPLICABLE STATE AND/OR FEDERAL LAWS CONTROL.

ADOPTED this _____ day of _____, 2021

President, Board of Trustees

Conflict of Interest Questionnaire

The following questionnaire must be completed annually by every director, principal officer and member of a committee with governing board-delegated powers. Responses to this questionnaire should relate to relationships that occurred from January 1, 20xx to December 31, 20xx. Once you have completed this questionnaire, please sign and date in the space provided and return it to the Executive Director:

1. I have read, understand, and will comply with BASSE's Conflict of Interest Policy.
2. To the best of my knowledge, neither I, nor any family member of mine, is presently engaged in, nor will I or any of my immediate family members engage in, any business activity which would be in conflict with or would be a violation of BASSE's Conflict of Interest Policy or which would constitute a prohibited Conflict of Interest under BASSE's Conflict of Interest Policy.
3. I confirm that I have not received, directly or indirectly, any salary payments, loans, gifts or fringe benefits of any kind or any free service, discounts or other fees from any person/organization engaged in any transaction with BASSE.
4. I understand that an intentional violation by me of BASSE's Conflict of Interest Policy or of a knowing misrepresentation or omission of disclosure on this Certification may result in serious consequences including, but not limited to, the termination of my relationship with BASSE.
5. I am not aware of any way in which I have violated BASSE's Conflict of Interest Policy.
6. I understand that if I become aware of any existing or potential violation of BASSE's Conflict of Interest Policy, I shall immediately notify the Chairman of the Board of BASSE.

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If I have not checked all of the above statements, I am describing below my reason(s) as well as any known violations of the Conflict of Interest Policy or areas of actual or potential conflicts of interest:

I understand that I must immediately update the above at any time circumstances may arise which would change this continuing certification, and I agree to do so.

NAME : _____
(Please print)

SIGNATURE: _____

DATE: _____

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Section 6 - Attachment 12 - Articles of Incorporation, Board Bylaws, and Policies



The Bryan Allen Stevenson School of Excellence Charter School (BASSE), under the direction of the Board of Directors, is required to establish and maintain adequate accounting records and internal control procedures. Internal control consists of five components: control environment, risk assessment, control activities, information and communication, and monitoring. The objectives of internal control relate to financial reporting, operations, and compliance. The financial policies and procedures outlined in this document will highlight the internal accounting procedures for The Bryan Allen Stevenson School of Excellence Charter School (BASSE).

The Charter School and all levels of management of The Bryan Allen Stevenson School of Excellence Charter School's (BASSE) fiscal operations are expected to uphold these policies and procedures and are responsible for preventing and detecting instances of fraud and related misconduct and for establishing and maintaining proper internal controls that provide security and accountability of the resources of the school.

Any employee with reasonable basis for believing fraudulent or related misconduct has occurred should report such incidents to the appropriate authority within the school, the charter authorizer, or the Office of the Inspector General.

Internal control policies provided will ensure compliance with generally accepted audit principles (GAAP) includes The Bryan Allen Stevenson School of Excellence Charter School (BASSE) maintaining governance and management procedures, and financial controls that will include: budgeting, accounting, and payroll procedures; financial reporting, and internal control procedures for disbursement, fixed assets, payroll, purchases, and receipts. It will also provide BASSE with the foundation to properly safeguard its assets, implement management's internal policies, provide compliance with state and federal laws and regulations and produce timely and accurate financial information. A fundamental concept in a good system of internal control is the segregation of duties. Although the size of BASSE's accounting staff prohibits complete adherence to this concept, implementing the following practices will improve existing internal control without impairing efficiency. Internal controls are hereby adopted in the following areas:

- 100. General Accounting Procedures**
- 200. Cash Management Procedures**
- 300. Management Reporting Procedures**
- 400. Purchasing Procedures**
- 500. Payroll Procedures**
- 600. School Property Procedures**

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Section 6 - Attachment 12 - Articles of Incorporation, Board Bylaws, and Policies

Compliance with Laws

BASSE will follow all the relevant laws and regulations that govern Charter Schools within the state of Delaware. Additionally, U.S. Government laws and regulations that relate to grant funding will be adopted as the grant funding is received.

Record Keeping

To provide an accurate and auditable record of all financial transactions, the school's books, records, and accounts are maintained in conformity with generally accepted accounting principles (GAAP) as required by Delaware statutes, applicable to Charter Schools.

Further, the school specifically requires that:

- No funds or accounts may be established or maintained for purposes that are not fully and accurately described within the books and records of the school.
- Receipts and disbursements must be fully and accurately described in the books and records.
- No false entries may be made on the books or records nor any false or misleading reports issued.
- Payments may be made only to the contracting party and only for the actual services rendered or products delivered. No false or fictitious invoices may be paid.

Segregation of Duties-separating duties between different employees will be executed to reduce the opportunity for any one person to commit fraud. This system will create double-check procedures to eliminate clerical errors. The employee who handles record keeping will not have physical custody of the asset.

Access-physical controls will ensure that only authorized employees will access school assets. This system includes controls for lockboxes for petty cash and accounts from which funds are drawn. Physical controls will also include passwords to authorized individuals in order to track who accesses school accounting records and when.

Authorization- BASSE will develop specific written procedures for financial transactions, including a list of the people with authority to approve each type of transaction. All approvals will be reviewed by the Executive Director and/or board to prevent fraudulent transactions. Major transactions will require approval from more than one person.

Verification-The Executive Director and governing board will periodically review all ledger accounts for accuracy. The person reviewing the accounts for accuracy will not be the person who was involved in preparing the report. The reviewing person will sign and date the document as proof of his/her approval. These reviews will be submitted to an external auditor on a regular basis. The Executive Director and governing board will review financial metrics to identify fraud or improperly recorded transactions.

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100. GENERAL ACCOUNTING PROCEDURES

101. General Accounting System Design

Control Objective

To establish a coding structure that supports financial reporting and management's decision-making.

Major Controls

A. Accounts Payable Clerk Trained in Chart of Accounts/Coding Structure

The school will use correct coding as per the First State Financials (FSF) accounting system. To support decision-making, the BASSE Executive Team, will be trained in this coding structure, including designations for grants or other funding to be accounted for separately.

B. Prohibiting Adjustments

No transaction shall be posted to a prior year or prior month by BASSE's accounting staff; nor shall any transaction be changed or deleted by BASSE's accounting staff. If deemed necessary, BASSE's accounting firm with prior board approval shall make such adjustments.

C. Establishment of Control Accounts

Control accounts for fixed assets, accounts receivable and accounts payable will be established with subsidiary detail listings and will be reconciled monthly to these control accounts.

D. Use of Contra Accounts

If necessary, the accounting structure provides for offsetting contra accounts (e.g. an allowance for doubtful accounts, accumulated depreciation) to adjust historical cost to current levels for financial reporting purposes.

102. General Ledger Activity

Control Objective

To ensure that all General Ledger entries are current, accurate, and complete.

Major Controls

A. Timeliness of Entries

All entries are made soon after the underlying accounting event to ensure the financial records and reporting is current.

B. Support Documentation

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All entries are supported by adequate documentation that clearly indicates the justification and authorization for the transaction.

C. Audit Trail

A complete audit trail is maintained by the use of reference codes, from source documentation through the books of original entry and general ledger, to periodic reporting statements.

Procedures

1. Financial data on source documentation is verified against original documents (e.g., invoice, purchase order, etc.) by the BASSE Finance Committee (consisting of the BASSE Executive Board and Executive Director) before forwarding to the accountant firm for entry into the accounting system.
2. Each source document in the accounting system is reviewed by the BASSE Finance Committee and approved by BASSE Treasurer.
3. Provision is made for using recurring General Journal entries for certain transactions, such as recording the monthly portion of prepaid insurance.
4. Non-recurring entries, such as for correcting entries, recording accruals, and recording non-cash transactions, are prepared as circumstances warrant and on an as needed basis.
5. All entries in the books of original entry (e.g., cash receipts journal and disbursements) are made soon after the accounting event from authorized forms and are prepared and reviewed by qualified accounting personnel at BASSE's accountant firm.
6. All General Journal entries are supported by General Journal Vouchers that have supporting documentation attached and are approved by the Controller of BASSE's accountant firm.

103. General ledger Close-Out

Control Objective

To ensure the accuracy of financial records and reports.

Major Controls

A. Trial Balance

Monthly, a trial balance is prepared by BASSE's accountant firm to ensure the accuracy of the general ledger account balances.

B. Reconciliation of General Ledger Control Accounts with Subsidiary Ledgers

Reconciliations are prepared on a monthly basis.

Procedures

1. At the end of each month, a trial balance of all general ledger accounts is prepared by BASSE's accountant firm.

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2. Reconciliation between the general ledger control accounts and the subsidiary ledgers are completed by BASSE's accountant firm.
3. At fiscal year end and after the annual audit, all income and expense accounts are closed out, and the general ledger balances are agreed to the audited financial statements.

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200. CASH MANAGEMENT PROCEDURES

201. Cash Receipts

Control Objective

To record cash receipts completely and accurately and to prevent the diversion of cash assets.

Major Controls

A. Cash Receipts Policies

BASSE has internal control systems in place to monitor cash receipts and ensure that deposits are made in a timely manner.

B. Internal Accounting Controls

- Opening of mail is assigned to an employee with responsibilities independent of access to files or documents pertaining to accounts receivable or cash accounts.
- Listed receipts and credits are compared to accounts receivable and bank deposits.
- General Ledger control accounts are reconciled with Accounts Receivable Subsidiary Ledger.

Procedures

1. All incoming mail is opened by BASSE's Executive Team.
2. Bank statements will be received directly and opened by BASSE's Executive Team.
3. All checks are restrictively endorsed (for deposit only) immediately by BASSE's Executive Team (using the school stamp).
4. If no cash is present, the envelope will be sealed and sent through the US mail. If cash is present, the BASSE's Executive Team will verify deposited funds prior to sealing the envelope and making the deposit in person
5. A copy of each check to be deposited is made and attached to a copy of the deposit slip and deposit receipt and submitted to the school's accountant firm to be filed to provide support for all deposits.
6. The accountant firm inputs journal entries.
7. BASSE's Executive Team makes deposits on a daily or no later than on a weekly basis. If deposits are made other than daily, the deposit is maintained in a school safe with limited access.
8. All receipts will be deposited intact. No disbursements will be made from cash or check receipts prior to deposit.
9. BASSE's Executive Team will record each cash payment received in a number receipt book with a duplicate for the payer. Cash shall be locked in a secure location until taken to the bank.
10. BASSE's Executive Team will receive a copy of all deposit reports for review then it will be forwarded to the accountant firm.
11. Reconciliation of cash receipts to deposit slips and receipts and bank statements are performed by the accountant firm on a monthly basis.
12. BASSE's Executive Team and the accountant firm will reconcile the bank statement monthly.
13. The Treasurer of the Board will receive monthly statements of checks paid on all accounts.

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202. Cash Disbursements

Control Objective

To disburse cash for authorized purposes and record cash disbursements completely and accurately.

Major Controls

- Special check protective paper.
- Check printing through appropriate software.
- Match disbursement records against accounts payable/open invoice files.
- Bank statements reconciled to cash accounts and any outstanding checks verified by BASSE's accountant firm, if applicable.
- Supporting documentation canceled to prevent resubmission for payment.
- Detailed comparison of actual vs. budget disbursements on a periodic basis.
- Separation of duties to the extent possible for an organization the size BASSE.

Procedures

1. Upon receipt of invoice, the Executive Director indicates on the invoice that the prices, quantity, shipping, and cash discounts are correct and that goods and/or services have been received by initialing such.
2. Invoices are reviewed then by the Executive Director who will sign authorizing the payment of the invoices.
3. Prior to payment, all invoices will be approved (indicated by initialing) by a member of the Board and/or Executive Director, who will code the invoice with an appropriate expense or other chart of accounts line item number, class and job number (where applicable).
 - a. By approving an invoice, a member of the board and/or Executive Director indicates that it has been reviewed by a member of the board and/or Executive Director and authorizes a check.
 - b. BASSE's accountant firm will be aware of all conditions and specifications on a contract or order have been satisfactorily fulfilled. The accountant firm will be responsible for timely follow-up on discrepancies and payment.
4. The Executive Director sends the invoices to the accountant firm.
5. The accounting Specialist at the accountant firm shall confirm the entry of the invoices into the accounting system by using a rubber stamp which provides spaces to indicate the date entered and the account number on the invoice.
6. When an invoice is paid, a copy of the check stub is stamped to the corresponding invoice. Canceled invoices are filed alphabetically.
7. The accountant firm will prepare checks on a weekly basis.
8. Checks require two signatures, unless otherwise noted on the check, typically BASSE's Executive Director, and/or Chair Treasurer of the Board. Checks are mailed directly to BASSE for review and signature then mailed to the vendor.
9. On a periodic basis, cash disbursement records are matched against accounts payable/open invoice files for any discrepancies.

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10. Bank statements are reconciled soon after receipt by the accountant firm.

203. Cash Management with Federal Funds

BASSE will comply with applicable methods and procedures for payment that minimize the time elapsing between the transfer of funds and disbursement by the District, in accordance with the Cash Management Improvement Act at 31 CFR Part 205. Generally, the District receives payment from the State Department of Education on a reimbursement basis. 2 C.F.R. § 200.305. However, if the District receives an advance in federal grant funds, the District will remit interest earned on the advanced payment quarterly to the federal agency consistent with 2 C.F.R. § 200.305(b)(9).

According to guidance from the U.S. Department of Education (ED), when calculating the interest earned on ED grant funds, regardless of the date of obligation, interest is calculated from the date that the federal funds are drawn down from the (Financial Accounting Information) FAI or G5 system until the date on which those funds are disbursed by the LEA.

Interest would not accrue if the LEA uses nonfederal funds to pay the vendor and/or employees prior to the funds being drawn down from the FAI or G5 system, commonly known as a reimbursement.

Payment Methods

A. Reimbursements

The LEA will initially charge federal grant expenditures to nonfederal funds.

BASSE will request reimbursement for actual expenditures incurred under the federal grants. The School will reconcile at least quarterly the actual expenses incurred prior to submitting a reimbursement request to the Executive Director for approval. The request will include a summary of the expenses incurred with the original supporting documents having been approved and file per the Cash Disbursement Section 202 above. Reimbursement requests will be submitted on the school's form with a cover letter explaining the request to the Delaware Department of Education, either in hard copy or electronically on DDOE's designated portal. All reimbursements are based on actual disbursements, not on obligations.

DDOE will process reimbursement requests within selected timeframe.

Consistent with state and federal requirements, BASSE will maintain source documentation supporting the federal expenditures (invoices, time sheets, payroll stubs, etc.) and will make such documentation available for the Delaware Department of Education review upon request.

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Reimbursements of actual expenditures do not require interest calculations.

B. Advances

To the extent BASSE receives advance payments of federal grant funds, BASSE will strive to expend the federal funds on allowable expenditures as expeditiously as possible. Specifically, BASSE attempts to expend all drawn downs of federal funds within 72 hours of receipt.

BASSE will hold federal advance payments in interest-bearing accounts, unless an allowable exception applies. BASSE will begin to calculate interest earned on cash balances once funds are deposited into BASSE's account.

C. Interest

Interest will be calculated consistent with DDOE regulations. Total federal grant cash balances will be calculated on cash balances per grant and applying the prevailing interest rate that BASSE received on its demand deposits. The School will remit interest earned on grant funds annually to the U.S. Department of Health and Human Services Payment Management System (regardless of the federal awarding agency for the grant) through an electronic medium using either Automated Clearing House (ACH) network or a Fedwire Funds Service payment. 2 C.F.R. § 200.305(b)(9). BASSE may retain up to \$500 of interest earned per year.

300. MANAGEMENT REPORTING PROCEDURES

301. Budgets

- A. BASSE prepares an annual operating budget of revenues and expenses and a capital budget. These budgets and projections are reviewed and approved by the Board of Directors on or before June 30 each year and modified, as necessary.
- B. Financial statements displaying budget vs. actual results are prepared by the accountant firm and reviewed by Audit/Finance Committee and presented to the Board of Directors at each monthly board meeting.

Control Objective

To effectively support the preparation of the annual budget and its periodic review.

Major Controls

A. Budget Process

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The accountant firm and the Audit/Finance Committee work with the charter administrative leadership (including Executive Director) to prepare the annual operating and capital budgets, with input from department heads. The budgets are submitted to the Board of Directors for review and approval.

B. Internal Accounting Controls

Accuracy and completeness of the budgets and projection.

Procedures

1. Each spring, BASSE's leadership assesses each department's needs for the upcoming school year, including staffing and capital expenditures and provides this data to the accountant firm.
2. In preparation of the annual operating and capital budgets and cash flow projection, the accountant firm prepares preliminary budgets for review by the charter administrative leadership in consultation with the Audit/Finance Committee.
3. To support the budgets and projection estimates, the accountant firm prepares current year-to-date financial data with projections of year-end totals.
4. The charter administrative leadership in consultation and the Audit/Finance Committee reviews the budgets submitted for completeness and reasonableness.
5. The Audit/Finance Committee presents the proposed budget to the Board of Directors for review, discussion, and (as necessary) amendment.
6. The Board of Directors approves and adopts the final budgets by June 30 each year.
7. The adopted budget totals are entered in the general ledger by the accountant firm for the new fiscal year, in order to prepare budget to actual reports.
8. The adopted budget is submitted to the state reporting system by the accountant firm. The FSF Reconciliation Certification form will be reviewed and submitted quarterly to the Division of Accounting (DOA) in accordance with the FSF close-out schedule.

302. Financial Reporting

Control Objective

To ensure the accuracy, completeness, and timeliness of financial reporting to support decision-making.

Major Controls

A. Schedule

Monthly financial reports are prepared based on a pre-determined schedule and reviewed by the Executive Director and Board of Directors.

B. Review and Approval

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Financial reports are reviewed for accuracy and completeness.

C. Audit

The annual financial statements of the school are audited by a certified public accounting firm.

Procedures

1. The accountant firm committee prepares monthly budget vs. actual financial reports and the Audit/Finance Committee presents the reports at the Board of Directors meetings.
2. The school submits an audit of its financial statements by a qualified certified public accounting firm, in accordance with Governmental Auditing Standards and the Delaware Charter School Law.
3. The school shall submit the audited financial statements to DDOE, the DE House of Representatives, and the DE State Senate by December 30.

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400. PURCHASING PROCEDURES

BASSE procures only those items and services that are required to perform the mission and/or fill a bona fide need. Procurements are made using best value contracting which includes assessing the best value considering quality, performance and price. BASSE will use a competitive procurement process set by Federal Uniform Guidance unless the State or funder code sets a more restrictive process, which requires sound business practices for purchases less than \$10,000-micro-purchases. BASSE will also select the best value by obtaining three written or documented quotes for supplies/equipment and construction, repairs, maintenance or work of any nature equal to or greater than \$10,001 and less than \$21,700-small purchases. Finally, a formal bid process will be used for items greater than, in which three bids will be received and evaluated using a formal evaluation process. Professional service contracts (excluding those for construction, reconstruction, repairs, maintenance, or work of any nature upon any school building or school property), professional skill contracts, and personal service contracts are exempt from competitive bidding and quotation requirements unless total cost is greater than \$249,999.

BASSE adheres to the following objectives:

1. Procurements will be completely impartial based strictly on the merits of supplier and contractor proposals and applicable related considerations such as delivery, quantity, experience with charter schools, etc.
2. Make all purchases in the best interests of the school and its funding sources.
3. Obtain quality supplies/services needed for delivery at the time and place required.
4. Buy from responsible and dependable sources of supply.
5. Obtain maximum value for all expenditures.
6. Deal fairly and impartially with all vendors.
7. Be above suspicion of unethical behavior at all times; avoid any conflict of interest, related parties or even the appearance of a conflict of interest in the Charter School supplier relationships.

BASSE will execute a Purchase Order for necessary purchases and it shall be approved by the BASSE finance committee. Approval is contingent upon the school's budget and availability of funds.

Control Objective

To ensure that goods and services are acquired at fair and reasonable prices and the highest personal standards of conduct are maintained in all relationships with vendors, suppliers, and subcontractors.

Major Controls

A. Purchase Requirements

BASSE has developed cost-effective and efficient purchase requirements in order to achieve full and open competition, meet delivery schedules, control inventory and material, and expedite purchases.

B. Encouraging Competition

BASSE utilizes the following procurement guidelines:

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- a. *Micro-Purchases: Purchases under the aggregate dollar amount of \$10,001.* - BASSE uses sound business practices when procuring goods and services for amounts less than \$10,000. Expenditures in excess of \$500 but less than \$10,000 are permitted when sufficient funds remain in the budget and the price is determined to be reasonable. For purchases greater than \$500 and less than \$10,000, a minimum of two written quotes must be maintained. Such expenditures must be authorized by the BASSE Finance Committee.
- b. *Small Purchases from \$10,001 to \$21,700 for supplies/equipment and **construction, repairs, or maintenance on School facilities*** - Written or documented-price quotations from at least 3 qualified and responsible vendors are required for purchase of supplies costing at least \$10,001 but less than \$21,700, or in the case of services other than construction, maintenance, or repair on School facilities, where the total cost does not exceed the \$249,999 federal threshold at which formal competitive bidding or competitive proposals are required. If fewer than three qualified vendors exist in the market area within which it is practicable to obtain quotations, a memo shall be kept on file containing such fact. Written records of telephonic price quotations must be maintained on file for 3 years and must contain: the date of quotation, name of vendor, vendor representative name, list and description of supplies quoted, and price of same. It is illegal to evade the provisions of this section 24 P.S. § 8-807.1 by purchasing materials piece-meal for the purposes of avoiding bidding or quotation requirements for transactions which should in the exercise of reasonable discretion and prudence be conducted as one transaction. Contracts/agreements for services must not extend beyond five years without generating a request for proposals and completing the bid process.
- c. *Purchases greater than \$21,700 for supplies/equipment and construction, repairs, or maintenance, on School facilities* - Bids may be awarded by the Board only after due advertisement once a week for three weeks in not less than two newspapers of general circulation. Proof of advertisement must be kept to show that a reasonable number of qualified vendors were invited to bid. It is illegal to evade the provisions of this section 24 P.S. § 8-807.1 by purchasing materials piece-meal for the purposes of avoiding bidding or quotation requirements for transactions which should in the exercise of reasonable discretion and prudence be conducted as one transaction.
- d. The Board recognizes that emergencies may occur when imminent danger exists to persons or property or the continuance of existing school classes is threatened, and time for bidding cannot be provided because of the need for immediate action.
- e. Professional service contracts (excluding those for construction, reconstruction, repairs, maintenance, or work of any nature upon any school building or any school property), professional skill contracts, and personal service contracts are exempt from competitive bidding and quotation requirements unless the total cost is \$250,000 or more.

C. Selecting the Vendor

BASSE selects the most responsive and responsible vendor to provide required materials and services and promotes competition in order to obtain fair and reasonable prices. Vendors are

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evaluated on a variety of criteria including cost, integrity, record of past performance, financial and technical resources, responsiveness/suitability to school's need, etc.

D. Internal Accounting Controls

- All expenditures are approved by the Executive Director in accordance to the budget authorized by the Board of Directors.
- Contracts over \$10,000 require the approval of the Board of Directors.
- Adoption of policy requires the reporting of unethical conduct to management and subsequent restitution of any gain resulting from such conduct.

Procedures

Purchase Requirements

1. After approval of the annual budget, school's leadership (Academic Directors, Director of Operations, and the Executive Director) reviews the school's needs to uncover patterns of orders, and opportunities for clustering orders, to achieve volume discounts.
2. In preparing purchase requisitions, the Executive Director or designee identifies minimum needs.

Processing Purchase Orders

1. Purchase Orders are forwarded Executive Director or review and approval.
2. Purchase Orders include the following:
 - A description of items ordered
 - A cost estimate
 - The required delivery information
 - A statement of the nature and purpose of the procurement
3. Purchase Orders are approved by the Executive Director after review of the remaining budget.

Obtaining Bids and Quotations

1. The department head requests bids or quotations verbally or in writing on transactions expected to be between \$10,001 and \$21,700. Items greater than \$21,700 will require formal bid requests and evaluation before **Purchase Order** is issued.
2. In evaluating bids received, the external management organization performs and documents a cost or price analysis as one of the bid criteria.

Negotiation and Award

1. Consistent with BASSE's goal of expanding opportunities for minority business enterprises, companies which are minority or women owned, to the extent they are available locally and qualified, are given an opportunity to bid on a procurement in BASSE's selection process.

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2. Award may be made to other than the low bidder in circumstances where the higher bid demonstrates best value contracting procedures to the school. In such situations, the BASSE Executive Team shall prepare a justification statement for such awards, furnishing a brief explanation of the factors leading to such a decision.
3. If at any point during the term of the contract the cost of said contract does increase by 10%, the Board must again vote on the approval or denial of said contract. Solicitation of new quotes or bids may not be required.

Non-Competitive Proposals

Purchases up to \$10,000 (Micro-Purchases)

1. Micro-purchase means a purchase of supplies or services using simplified acquisition procedures, the aggregate amount of which does not exceed \$10,000. The micro-purchase method is used in order to expedite the completion of its lowest-dollar small purchase transactions and minimize the associated administrative burden and cost. Procurement by micro-purchase is the acquisition of supplies or services, the aggregate dollar amount of which does not exceed the micro-purchase threshold.
2. To the extent practicable, BASSE distributes micro-purchases equitably among qualified suppliers. The Executive Director will use sound business practices in reviewing micro-purchases.
3. Micro-purchases may be awarded without soliciting competitive quotations if BASSE considers the price to be reasonable. BASSE maintains evidence of this reasonableness in the records of all micro-purchases.

Purchases between \$10,000 and \$21,700 for supplies, equipment or construction, maintenance or repairs to the School facilities or \$249,999 in cases of other services (Small Purchase Procedures)

1. Small purchase procedures are those relatively simple and informal procurement methods for securing services, supplies, or other property that do not cost more than \$21,700 for supplies, equipment or construction, maintenance or repairs to BASSE facilities or \$249,999 in cases of other services. If small purchase procedures are used, price or rate quotations are obtained from an adequate number of qualified sources, see Encouraging Competition above.
2. BASSE uses sound business practices when determining the necessity for small purchases.

Purchases Over \$21,700 for supplies, equipment and construction, maintenance, or repairs on the School facilities or \$249,999 for other services

1. *Sealed Bids (Formal Advertising)*: For purchases over \$21,700 or \$249,99, bids are publicly solicited, and a firm fixed price contract (lump sum or unit price) is awarded to the responsible bidder whose bid, conforming with all the material terms and conditions of the invitation for bids, is the lowest in price. The sealed bid method is the preferred method for procuring construction, if the following conditions apply:
 - A complete, adequate, and realistic specification or purchase description is available;
 - Two or more responsible bidders are willing and able to compete effectively for the business; and

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- The procurement lends itself to a firm fixed price contract and the selection of the successful bidder can be made principally on the basis of price.
2. If sealed bids are used, the following requirements apply:
 - Bids must be solicited from an adequate number of known suppliers, providing them sufficient response time prior to the date set for opening the bids, for state, local, and tribal governments, the invitation for bids must be publicly advertised;
 - The invitation for bids, which will include any specifications and pertinent attachments, must define the items or services in order for the bidder to properly respond;
 - All bids will be opened at the time and place prescribed in the invitation for bids, and for local and tribal governments, the bids must be opened publicly;
 - A firm fixed price contract award must be made in writing to the lowest responsive and responsible bidder.
 3. Where specified in bidding documents, factors such as discounts, transportation cost, and life cycle costs must be considered in determining which bid is lowest. Payment discounts will only be used to determine the low bid when prior experience indicates that such discounts are usually taken advantage of. Any or all bids may be rejected if there is a sound documented reason.
 4. *Competitive Proposals:* The technique of competitive proposals is normally conducted with more than one source submitting an offer, and either a fixed price or cost-reimbursement type contract is awarded. It is generally used when conditions are not appropriate for the use of sealed bids. If this method is used, the following requirements apply:
 - Requests for proposals must be publicized and identify all evaluation factors and their relative importance. Any response to publicized requests for proposals must be considered to the maximum extent practical;
 - Proposals must be solicited from an adequate number of qualified sources; and
 - Contracts must be awarded to the responsible firm whose proposal is most advantageous to the program, with price and other factors considered.
 5. BASSE may use competitive proposal procedures for qualifications-based procurement of architectural/engineering (A/E) professional services whereby competitors' qualifications are evaluated, and the most qualified competitor is selected, subject to negotiation of fair and reasonable compensation. The method, where price is not used as a selection factor, can only be used in procurement of A/E professional services. It cannot be used to purchase other types of services though A/E firms are a potential source to perform the proposed effort.
 6. BASSE selects the most responsive and responsible vendor to provide A/E professional services and promoted competition in order to obtain fair and reasonable prices. Vendors are evaluated on a variety of criteria including:
 - a. Cost
 - b. Integrity
 - c. Record of past performance
 - d. Financial and technical resources
 - e. Responsiveness/ Suitability to school's needs

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7. *Contract/Price Analysis*: BASSE performs a cost or price analysis in connection with every procurement action in excess of \$21,700, including contract modifications. 2 C.F.R. § 200.323(a). A cost analysis generally means evaluating the separate cost elements that make up the total price, while a price analysis means evaluating the total price, without looking at the individual cost elements.
8. The method and degree of analysis is dependent on the facts surrounding the particular procurement situation; however, the Executive Director must come to an independent estimate prior to receiving bids or proposals. 2 C.F.R. § 200.323(a). The Executive Director in consultation with the accountant firm will undertake a formal analysis.
9. When performing a cost analysis, the Executive Director negotiates profit as a separate element of the price. To establish a fair and reasonable profit, consideration is given to the complexity of the work to be performed, the risk borne by the contractor, the contractor's investment, the amount of subcontracting, the quality of its record of past performance, and industry profit rates in the surrounding geographical area for similar work. 2 C.F.R. § 200.323(b).

Noncompetitive Proposals (Sole Sourcing)

1. Procurement by noncompetitive proposals is procurement through solicitation of a proposal from only one source and may be used only when one or more of the following circumstances apply:
 - The item is available only from a single source;
 - The public exigency or emergency for the requirement will not permit a delay resulting from competitive solicitation;
 - The federal awarding agency or pass-through entity expressly authorizes noncompetitive proposals in response to a written request from the District; or
 - After solicitation of a number of sources, competition is determined inadequate.
2. If the above circumstances apply, the Executive Director in consultation with the accountant firm will undertake a procedure to abide with the non-competitive proposals.
3. A cost or price analysis will be performed for noncompetitive proposals when the price exceeds \$21,700.

A. Full and Open Competition

1. All procurement transactions must be conducted in a manner providing full and open competition consistent with 2 C.F.R § 200.319. In order to ensure objective contractor performance and eliminate unfair competitive advantage, contractors that develop or draft specifications, requirements, statements of work, or invitations for bids or requests for proposals must be excluded from competing for such procurements. Some of the situations considered to be restrictive of competition include but are not limited to:
 - Placing unreasonable requirements on firms in order for them to qualify to do business;
 - Requiring unnecessary experience and excessive bonding;

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- Noncompetitive pricing practices between firms or between affiliated companies;
- Noncompetitive contracts to consultants that are on retainer contracts;
- Organizational conflicts of interest;
- Specifying only a “brand name” product instead of allowing “an equal” product to be offered and describing the performance or other relevant requirements of the procurement; and
- Any arbitrary action in the procurement process.

2. EDGAR further requires the following to ensure adequate competition.

Geographical Preferences Prohibited

1. BASSE must conduct procurements in a manner that prohibits the use of statutorily or administratively imposed state, local, or tribal geographical preferences in the evaluation of bids or proposals, except in those cases where applicable federal statutes expressly mandate or encourage geographic preference. When contracting for architectural and engineering (A/E) services, geographic location may be a selection criterion provided its application leaves an appropriate number of qualified firms, given the nature and size of the project, to compete for the contract.

Prequalified Lists

1. BASSE must ensure that all prequalified lists of persons, firms, or products which are used in acquiring goods and services are current and include enough qualified sources to ensure maximum open and free competition. Also, the District must not preclude potential bidders from qualifying during the solicitation period.

Solicitation Language

1. BASSE must ensure that all solicitations incorporate a clear and accurate description of the technical requirements for the material, product, or service to be procured. Such description must not, in competitive procurements, contain features which unduly restrict competition. The description may include a statement of the qualitative nature of the material, product or service to be procured and, when necessary, must set forth those minimum essential characteristics and standards to which it must conform if it is to satisfy its intended use. Detailed product specifications should be avoided if at all possible.

- A. When it is impractical or uneconomical to make a clear and accurate description of the technical requirements, a “brand name or equivalent” description may be used as a means to define the performance or other salient requirements of procurement. The specific features of the named brand which must be met by offers must be clearly stated; and identify all requirements which the offerors must fulfill and all other factors to be used in evaluating bids or proposals. 2 C.F.R Federal Procurement System Standards

Avoiding Acquisition of Unnecessary or Duplicative Items

1. BASSE must avoid the acquisition of unnecessary or duplicative items. Additionally, consideration is given to consolidating or breaking out procurements to obtain a more economical purchase. And, where appropriate, an analysis must be made of leases versus purchase alternatives, and other appropriate analysis to determine the most economical approach.

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2. These considerations are given as part of the process to determine the allowability of each purchase made with federal funds. Please see Allowability of Costs Policy for written procedures on determining allowability.

Use of Federal Excess and Surplus Property

1. BASSE considers the use of federal excess and surplus property in lieu of purchasing new equipment and property whenever such use is feasible and reduces project costs.

Debarment and Suspension

1. BASSE awards contracts only to responsible contractors possessing the ability to perform successfully under the terms and conditions of a proposed procurement. Consideration will be given to such matters as contractor integrity, compliance with public policy, record of past performance, and financial and technical resources.

2. BASSE may not subcontract with or award subgrants to any person or company who is debarred or suspended. For all contracts over \$25,000 the District verifies that the vendor with whom the District intends to do business with is not excluded or disqualified. 2 C.F.R. Part 200, Appendix II(1) and 2 C.F.R. §§ 180.220 and 180.300.

3. The Executive Director with consultation from the accountant firm will ensure in their internal procurement process that each contractor is not debarred or suspended.

Maintenance of Procurement Records

1. BASSE must maintain records sufficient to detail the history of all procurements. These records will include but are not necessarily limited to the following: rationale for the method of procurement, selection of contract type, contractor selection or rejection, the basis for the contract price (including a cost or price analysis), and verification that the contractor is not suspended or debarred.

Time and Materials Contracts

1. BASSE may use a time and materials type contract only (1) after a determination that no other contract is suitable; and (2) if the contract includes a ceiling price that the contractor exceeds at its own risk. Time and materials type contract means a contract whose cost to BASSE is the sum of: the actual costs of materials, and direct labor hours charged at fixed hourly rates that reflect wages, general and administrative expenses, and profit.

2. Since this formula generates an open-ended contract price, a time-and-materials contract provides no positive profit incentive to the contractor for cost control or labor efficiency. Therefore, each contract must set a ceiling price that the contractor exceeds at its own risk. Further, BASSE must assert a high degree of oversight in order to obtain reasonable assurance that the contractor is using efficient methods and effective cost controls.

Settlements of Issues Arising Out of Procurements

1. BASSE alone is responsible, in accordance with good administrative practice and sound business judgment, for the settlement of all contractual and administrative issues arising out of procurements. These issues include, but are not limited to, source evaluation, protests, disputes, and claims. These

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standards do not relieve BASSE of any contractual responsibilities under its contracts. Violations of law will be referred to the local, state, or federal authority having proper jurisdiction.

Protest Procedures to Resolve Dispute

1. BASSE maintains protest procedures to handle and resolve disputes relating to procurements and, in all instances, discloses information regarding the protest to the awarding agency.
2. Protest procedures must be in accordance with state and federal law. As a potential issue arises, a more formal procedure will be adopted by the school.

Intergovernmental agreements (IGAs)

If BASSE enters into an intergovernmental agreements (IGAs) to procure goods or services from Intermediate Units or other LEAs using federal funds, then competitive methods of procurement must be used. When joining together in a joint procurement for goods or services using federal funds, BASSE and/or the IU is responsible for ensuring that the purchasing organization or collective conducting the joint procurement complies with applicable federal regulations, including the competitive requirements for procurements under §200.320(a)-(d), unless the requirements for sole source procurement are met under §200.320(f). Similarly, when using federal funds to purchase shared or common services from LEAs or IUs, the IGA used for such purchase must be compliant with §200.320(a)-(d), unless the requirements for a sole source procurement are met under §200.320(f). In addition, BASSE must examine the suitability of sole source procurement on a case-by-case basis and ensure that costs in all cases can be documented to be reasonable.

500. PAYROLL PROCEDURES

- A. All salaried employees (including 10-month teachers and staff) are paid on a 12-month, bi-weekly schedule from July 1 to the following June 30.
- B. Employee's time is recorded electronically via hand scanner and by using the state of Delaware system. The records are downloaded and manually entered into a bi-weekly payroll report and forwarded to the accountant firm.
- C. All employee payroll amounts are calculated based upon approved rates included in the individual's personnel file.
- D. Any changes to the pay rates or benefits are properly authorized.
- E. All payroll taxes—including employee/employer pension deductions—and benefits are properly calculated, and any deposits made in a timely manner.
- F. Payroll liabilities and expenses are recorded in the general ledger by the accountant firm.
- G. All payroll tax reports are prepared in a timely manner and reviewed by a designated individual for accuracy prior to filing.
- H. Payroll procedures are organized under six categories: personnel requirements, personnel data, timekeeping, preparation of payroll, payroll payment, and payroll withholdings.
- I. No payroll checks will be issued without complete recorded time in the system.
- J. The BASSE Executive Team will review the payroll checks before they are distributed.
- K. Voluntary terminations will be paid on the regular pay date. Involuntary terminations will be paid on day of separation

501. Personnel Requirements

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Control Objective

To ensure that BASSE hires only those employees—full or part-time—that it absolutely needs and exerts tight control over hiring new employees.

Major Controls Payroll Policies

BASSE has adopted payroll policies for installing new employees on the payroll system and removing terminated employees from the system, as well as monitoring vacation, personal and sick pay.

Procedures

New Employees

1. Requests for new employees are initiated by BASSE's administrative leadership and compared with the approved annual personnel budget.
2. A New Hire/Change Form is initiated when hiring a new employee. Included on this form is the approved pay rate. Information on this form is reviewed by the BASSE Executive Team, confirmed by the Executive Director and communicated to the accountant firm and outside payroll service provider.
3. New employees complete all proper tax forms.
4. An FBI criminal history background check, Delaware criminal history background check, and Delaware child abuse clearance for each new employee must be submitted to the school prior to the first day of work. These reports are placed in the personnel files. In addition, new hires must submit a sexual misconduct/abuse disclosure form from each of their previous employers that were child related.

Personal Time and Sick Pay

1. Salaried full-time employees receive 10 sick days based on the terms of the employee contract or as noted in Delaware's state law.
2. Employee is required to provide at least one-week advanced notice to the BASSE Executive Team for a vacation and at least one week for a personal time request. Employees receive 3 personal days and accrue vacation time.
3. Employees' earned sick time, personal leave and vacation balances are adjusted monthly to reflect time earned and taken and reviewed by the BASSE Executive Team.
4. Sick leave taken is monitored against each employee's available sick time on an electronic spreadsheet and reviewed by the BASSE Executive Team and periodically by the Executive Director.
5. Before any paid time off is paid, a Staff Leave Slip is to be prepared by the employee, which is reviewed and approved by the BASSE Executive Team based on procedures established by the Executive Director.
6. Employees are not compensated for nor are they permitted to carry over unused personal leave, unless otherwise noted in the Board approved Employee Handbook.

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502. Personnel Data

Control Objective

To calculate and record payroll data accurately and completely for all employees.

Major Controls

- A precise paper trail covering all transactions.
- Changes in personnel data approved by responsible officials.
- Separate payroll and personnel files periodically reviewed and reconciled.

Procedures

1. Changes to personnel data are initiated with a New Hire/Change Form when making changes in new hires, terminations, pay rate changes, or payroll deductions.
2. The Executive Director authorizes any change to payroll data.
3. Authorized changes are communicated to the accountant firm who notifies the payroll service provider.
4. A copy of the New Hire/Change Form is retained in the employee's personnel file.

503. Preparation of Payroll & Timekeeping

Control Objective

To ensure that payment of salaries and wages is accurately calculated.

Major Controls

- Time records or contracts are periodically reconciled with payroll records.
- Labor hours are accurately recorded using time clock and any corrections to timekeeping records, including the appropriate authorizations and approvals, are documented on the time sheet forwarded to the accountant firm.
- The BASSE Executive Team monitors the overall integrity of timekeeping.
- Reconciliation of hours charged on time clock to time sheet and attendance records.
- The responsibility for checking the accuracy of payroll calculations is separated from the responsibility for payroll preparation to the extent possible for the size of BASSE.

Procedures Time Clock

1. All hourly and salary employees scan in and out using a hand reader.
2. Any errors in clocking in or out are to be communicated by the employee to the BASSE Executive Team who makes manual adjustments.
3. The BASSE Executive Team uses data about each employee's hours worked from the time clock to prepare a time sheet/spreadsheet for all employees.
4. The Executive Director reviews all payroll entries contained on the spreadsheet prepared by the BASSE Executive Team prior to submission to the accountant firm.
5. The school-wide payroll report is forwarded to the accountant firm on a bi-weekly basis.

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6. The payroll reports received from the payroll service provider (e.g., calculations, payrolls and payroll summaries) are compared with time sheets, pay rates, payroll deductions, compensated absences etc., by the accountant firm.
7. The accountant firm verifies gross pay and payroll deductions.
8. The total hours and number of employees are compared with the totals in the Payroll Register by the BASSE Executive Team and the accountant firm.
9. The Payroll Register is reviewed and approved by the accountant firm prior to the payroll company issuing final paychecks/direct deposits.

504. Payroll Payment

Control Objective

To ensure payment for salaries and wages by check or direct deposit is made only to employees entitled to receive payment.

Major Controls

- Pre-numbered checks are used and all check numbers are accounted for.
- A complete audit trail on all payroll checks and direct deposit with authorizing signatures at each juncture is maintained.
-

Procedures

1. Payroll Register is approved by the accountant firm prior to payroll company cutting and signing checks/direct deposit.
2. Payroll payments by check or direct deposit are distributed by BASSE for forwarding to employees and payroll register is filed.
3. The BASSE Executive Team controls and monitors all undelivered payroll checks.
4. The payroll bank account is reconciled monthly by the accountant firm.

505. Payroll Withholdings Control Objective

Control Objective

To ensure that payment withholdings are correctly reflected and paid to the appropriate third parties.

Major Controls

A. Reconciliation of Payment and Payroll Withholdings

Payroll withholdings are recorded in the appropriate General Ledger control accounts and reconciled with payments made to third parties.

B. Internal Accounting Controls

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The payroll service provider calculates payroll withholdings, which are reviewed and verified by the accountant firm.

Procedures

1. The payroll service provider calculates payroll withholdings—including employee/employer pension deductions—for each employee. These are summarized by pay period and recorded in General Ledger.
2. Payments for payroll withholdings are reconciled with the amounts recorded in the General Ledger control accounts by the accountant firm.
3. The accountant firm reviews the accuracy and timeliness of payments made to third parties—including employee/employer pension deductions—for payroll withholdings.
4. Original withholding and benefit election forms, maintained in the employee file, are prepared by employee and reviewed and approved on a periodic basis by the Executive Director/ BASSE Executive Team and/or the accountant firm.
5. The accountant firm prepares, and files required documents for employee/employer pension deduction reports and all government reports.

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600. SCHOOL PROPERTY PROCEDURES

BASSE maintains detailed records of all government-furnished property and equipment with an Identification and segregation of property and equipment acquired through government contracts.

601. Identification of Property

All employees must sign for phones and computers. The IT Department keeps and maintains a master list of all equipment.

602. Recording and Reporting of Property

Control Objective

To control completely and accurately record fixed asset acquisitions in order to safeguard fixed assets from loss.

Procedures

BASSE maintains a log identifying all property in its possession, as follows:

1. Name and description
2. Serial number, model number, or other identification
3. Whether title vests with BASSE or a governmental entity
4. Vendor name, acquisition date, and cost
5. Location and condition of the equipment
6. Ultimate disposition data, including date of disposal and sales price or method of disposal

603. Physical Inventories

Control Objective

To ensure that all recorded assets exist and are in use.

Procedures

1. BASSE performs a physical inventory of all property in its possession or control on an annual basis.
2. The physical inventory records include each asset, the related control number, location, a brief description of its condition, and, if applicable, the grant source from which it was purchased.
3. The physical inventory is reconciled to the detailed fixed asset subsidiary ledger, and differences, if any, are investigated and reconciled.

604. Disposal of Property and Equipment

- A.** No item of property or equipment shall be removed from the premises without prior approval from the Executive Director or the Board of Directors.

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- B. BASSE has adopted standard disposition procedures for the school staff to follow, which include an Asset Disposal Form, which identifies the asset, the reason for disposition, and signature of the requester. The form also allows for an identification of the asset's book value, condition of the asset, and supervisory approval or denial.
- C. When property is retired, the appropriate asset in the fixed asset subsidiary will be adjusted and properly reflected in the general ledger.

605. Recordkeeping Over Property & Equipment

Control Objective

To completely and accurately record fixed asset acquisitions, transfers, and dispositions on a current basis.

Major Controls

A. Capitalization Policies

BASSE follows generally accepted accounting principles as applicable to special purpose business-type activity government entities. All fixed assets purchased are capitalized in the year of purchase and recorded in the general ledger. BASSE follows the policy of capitalizing all fixed assets purchased greater than \$2,500 per unit. Similar items purchased in the same timeframe and items related to the same project or purchase can be pooled together for capitalization and depreciation.

B. Fixed Asset Classification

Fixed assets are accounted for by the following classifications: land, building, equipment, leasehold improvements, equipment, furniture, and computer hardware and software.

C. Complete Record of P&E Acquisition Costs

The fixed assets subsidiary ledger contains the full history of each capital asset acquired: original acquisition cost, and any costs incurred to prepare the asset for use.

Procedures

1. Asset acquisitions, transfers, and dispositions are entered in the fixed assets subsidiary ledger on a periodic basis.
2. The fixed assets subsidiary ledger is reconciled with the control account in the general ledger on a monthly basis. Any differences are analyzed and resolved by the Executive Director and accountant firm.

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606. Depreciation

Procedures

BASSE capitalizes all fixed assets when acquired and records the historical cost of these items in the general ledger. In accordance with generally accepted accounting principles as they relate to special purpose business-type activity, government entities, under GASB 34, depreciation expense must be recorded in the general ledger. BASSE will use the straight-line method of depreciation over the assets useful life as determined as follow:

- Computers 3 years
- Office Equipment 5 years
- Cars & Light Trucks 5 years
- School Buses 8-10 years
- Office Furniture 5 years
- Leasehold Improvements Useful life or life of lease, whichever is less
- Building Improvements 20 years

607. Property & Equipment Acquired Through Government Grants/Contracts

Control Objective

To assure that property and equipment are properly obtained, used, and managed during the performance of government grants or contracts.

Major Controls

A. Record keeping

BASSE maintains detailed records on all property and equipment.

B. Custody

All property and equipment, when not in use, is stored in a secure area.

C. Inventory

All property and equipment are inventoried.

Procedures

1. All property and equipment acquired through government grants or contracts are assigned tag numbers and properly identified with this number in the fixed asset subsidiary ledger.
2. On an annual basis, the BASSE Executive Team inventories all property and equipment and ensures that fixed assets are being used for the purpose intended.

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3. If necessary, BASSE obtains approval from the appropriate government agency for the disposition property and equipment acquired through a government grant or contract, and the Executive Director authorizes the disposition as described in the previous section.

ADDITIONAL MISCELLANEOUS ITEMS

The accountant firm's Controller is responsible for receiving bank statements, canceled checks, and appropriate advices. The accountant firm's Controller methodically reviews such items before completing the bank reconciliation. Unusual items noted during the review shall be investigated promptly. BASSE's external auditor's review and verify the bank reconciliations during the course of the audit.

The accountant firm's Controller shall approve journal entries.

The Board of Directors or designee is responsible for implementing additional procedures where necessary to ensure proper internal controls.

Petty Cash Policy

BASSE may maintain a petty cash account to provide for on-site incidental expenses. The current petty cash revolving balance is set at \$500 (replenished as needed) and may be changed at any time by vote of the Board of Directors. Use of the petty cash account for other than incidental purposes should be discouraged, and every effort is made to utilize the standard purchasing/AP system whenever possible. The BASSE Executive Team sends a spreadsheet of what has been spent once a year and normally only request a check once or twice a year from the Accountant Firm.

Procedures

1. The Petty Cash account is maintained by the BASSE Executive Team, with the Executive Director responsible for review and authorization of all petty cash transactions.
2. Disbursements of petty cash do not occur without authorization from Executive Director.
3. Disbursements from the petty cash fund are available for expenditures at the discretion of the Executive Director and may only be made for approved expenditures.
4. The person requesting funds from the petty cash account must complete and submit the Petty Cash Request form and submit it to the BASSE Executive Team for Executive Director approval.
5. If requesting reimbursement, original receipt(s) must be attached to the Petty Cash Request form.
6. If cash is requested upfront to make a payment or purchase, the original receipt(s) must be returned within 24 hours of the date the cash was received along with any unused cash.
7. Once reviewed and approved (signed by the Executive Director), the request is forwarded to the BASSE Executive Team who processes the request and disperses the cash.

Credit/Debit Card Policy (if applicable)

The Bryan Allen Stevenson School of Excellence

Section 6 - Attachment 12 - Articles of Incorporation, Board Bylaws, and Policies

BASSE has a debit/credit card to increase flexibility for key staff members. The card is not intended to be used as a replacement for normal purchasing simply for convenience. The debit/credit card may be used in certain instances when the standard purchase-order based purchasing system is not feasible. These instances include but are not limited to:

1. Meeting/Conference expenses
2. Travel
3. Online purchases where purchase orders are not accepted
4. Catalog purchases
5. School-related event expenses
6. Maintenance supply and equipment purchases
7. Major off-site printing/copying needs
8. Minor/miscellaneous purchases (i.e. small staff gifts, decor items, refreshments for staff meetings/gatherings, student awards and staff/family incentive items)

Procedures

1. The Executive Director and BASSE Executive Team are the only users for the credit/debit card.
2. An invoice, catalog pages, web page, or other form of back-up documentation (including payee and cost information) is submitted to the BASSE Executive Team.
3. The invoice is forwarded to the accountant firm who processes the request. The BASSE Executive Team and/or the Executive Director monthly reconciles credit/debit documentation and invoices.

Check Policy

BASSE distributes checks for school-related purchases and payments which require check payments (as opposed to credit/debit), and for parent/student refunds and employee reimbursements of any amount.

Procedures

1. There is a waiting period of fifteen (15) to thirty (30) days for ALL checks.
2. The Executive Director will be responsible for all blank checks.
3. The person requesting a check must complete a Check Request Form and submit it to the BASSE Executive Team for Executive Director approval.
4. An invoice, receipt(s) or backup documentation (including payee and cost information) must be attached to the Check Request Form.
5. Once reviewed and approved (signed by the Executive Director or designated members of the Board of Directors), the request is forwarded to the BASSE Executive Team who processes the request. Checks are not printed on-site. Approved check requests are forwarded to the accountant firm once weekly. Occasionally, "rush" requests are faxed or emailed to the accountant firm. Once processed, checks are sent to the school for the authorized signers to sign and distribute. Two authorized signatures are required.
6. Voided checks will have "VOID" written boldly in ink on the face and have the signature portion of the check torn out. Voided checks will be kept on file.
7. In no event will:
 - a. invoices be paid unless approved by an authorized signer
 - b. blank checks (checks without a date or payee designated) be signed in advance

The Bryan Allen Stevenson School of Excellence

Section 6 - Attachment 12 - Articles of Incorporation, Board Bylaws, and Policies

- c. checks be made out to "cash", "bearer", "petty cash", etc.
- d. checks be prepared on verbal authorization, unless approved by the Executive Director.
8. In the event that it is necessary to issue a duplicate check for checks in an amount over \$15, a stop payment will be ordered at the bank on the original check.
9. On all checks outstanding over 90 days, the Executive Director should take appropriate action.

E. TRAVEL & EXPENSES

BASSE recognizes that employees may be required to travel or incur other expenses in relationship to their work at BASSE. BASSE will ensure adequate controls are in place, travel and expenditures are appropriate, and provide a uniform and consistent approach for timely reimbursement.

Procedures:

1. Each employee will complete an expense voucher if any traveling is done. Vouchers should include all expenses. Vouchers will reflect reimbursement sources other than BASSE.
2. Mileage to and from residence will not be paid by BASSE.
3. The expense voucher will be submitted within 60 days for payment, with a total, signed by the employee, authorized for payment by the Executive Director.
4. Reimbursement will be based upon current travel policies. Receipts must be attached to the expense voucher for lodging, transportation, and receipts for meals where required.
5. Incomplete expense vouchers will be returned.
6. Employees and board members will be reimbursed for travel and other related expenses at the rate set by the Board. The Executive Director must approve employee travel and workshop expenditures prior to their occurrence. BASSE will reimburse no more than the standard mileage rate for the business use of a car as established by the IRS. BASSE will reimburse meal expenses incurred in direct connection with BASSE employment, or a per diem rate per day. The mileage rate and per diem rate will be established annually by the board.

The Bryan Allen Stevenson School of Excellence

Section 6 - Attachment 12 - Articles of Incorporation, Board Bylaws, and Policies

The effective date for implementation of the UGG procurement standards for the School will start for the fiscal year beginning on or after July 1, 2022.

TO THE EXTENT THAT ANYTHING IN THIS POLICY COULD BE CONSTRUED TO CONFLICT WITH APPLICABLE STATE AND/OR FEDERAL LAWS, THE APPLICABLE STATE AND/OR FEDERAL LAWS CONTROL.

REVISED this _____ day of _____, 2022

President

Secretary

**Section 1.6 - Governnace and Management :: Attachment 13 - Signed
Compliance Certification Statement**

The Bryan Allen Stevenson School of Excellence

Section 6 - Attachment 13 - Signed Compliance Certification Statment

Attachment 11 - Compliance Certification Statement

14 Del. C. §§ 512(1)-(14)

The Board of Directors of this charter school certifies that it will materially comply with all applicable laws, rules, regulations, and provisions of the charter relating to the education of all students enrolled at the school.

1/3/2022

_Date of Signature

The Bryan Allen Stevenson School of Excellence

Name of the Charter School

We have reviewed the Delaware Charter Law (14 *Del. C.* Ch. 5) and 14 DE Admin. Code § 275 in Department of Education regulations (Regulation 275), and have based the responses in this renewal application on the review of these documents.



Signature of the Chairperson of the Board of Directors

Print/Type Name:	Chantalle J. Ashford
Title (if designated):	Co- Board Chair

**Section 1.6 - Governnace and Management :: Attachment 14 -
Application Certification Statement**

The Bryan Allen Stevenson School of Excellence
Section 6 - Attachment 14 - Application Certification Statement

Name of School:	The Bryan Allen Stevenson School of Excellence
Location:	Georgetown, DE

I hereby certify that the information submitted in this application for a charter school is true to the best of my knowledge and belief; that this application has been approved by the school’s Board of Directors; and that, if awarded a charter, the school shall continue to be open to all students on a space available basis, and shall not discriminate on the basis of race, color, national origin, creed, sex, gender identity, ethnicity, sexual orientation, mental or physical disability, age, ancestry, athletic performance, special need, proficiency in the English language or a foreign language, or prior academic achievement. This is a true statement, made under the penalties of perjury.



1/3/2022

Signature: Chairperson of Board of Directors (or designated signatory authority)

Date

Print/Type Name:	Chantalle J. Ashford
Title (if designated):	Co-Board Chair
Date of approval by board of directors:	January 1, 2022

**Section 1.6 - Governnace and Management :: Attachment 15 and 16 -
Board Member Information and Disclosure Forms**

2.6 Charter School Board Member Information Form

Attachment 13

14 *Del. C. § 512*(1), (3), (6) and (9)

To be completed individually by each proposed charter school board member

Serving on a public charter school board of directors is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the Delaware Department of Education (DDOE) requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold:

- (1) To give application reviewers a clearer introduction to the Founding Group behind each school proposal in advance of the applicant interview, and to be better prepared for the interview/Initial Meeting; and
- (2) To encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. The name of the charter school on whose board you intend to serve:

The Bryan Allen Stevenson School of Excellence

2. Full name: Bradley Owens

Home Address: 1607 Beech Street, Wilmington, DE 19802

Business Name and Address: Social Contract, LLC. 112 French St., Wilmington, DE 19802

Telephone Number: 302-745-7380

E-mail address: owensb302@gmail.com

3. Brief educational and employment history (no narrative response is required if résumé and professional biography are attached).

Résumé and professional biography are attached

4. Indicate whether you currently or have previously served on a board of a school district, another charter school, a non-public school, or any not-for-profit corporation (to the extent not otherwise indicated in your response to Item 3, above).

Yes

Does not apply to me

5. Why would you like to serve on the board of the proposed charter school?

To be a part of something bigger than myself; a part of something that lasts beyond the lifespan of a single person and can influence individuals and the greater community in perpetuity. BASSE is that “something,” and serving as a board member seems like the best way for me to take part and add value.

6. What is your understanding of the appropriate role of a public charter school board member?

To provide general oversight and guidance for the school by following the essential legal duties of care and loyalty to the organization, and by ensuring that it carries out its mission in accordance with its bylaws and applicable laws and regulations.

7. Describe any previous experience you have that is relevant to serving on the charter school’s board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective charter school board member.

As highlighted by my resume and bio, nonprofit management is familiar territory. From 2010 to 2019, I managed 501(c)(3) fund with the Delaware Community Foundation (the Jordyn K. Owens Memorial Foundation Fund; dissolved in 2019). While in law school (2013-15), I worked in a law clinic as a “student attorney” for nonprofit organizations (i.e., clients of the law clinic). In that role, I provided legal guidance to nonprofit organizations, facilitated board trainings, and resolved various legal issues as presented. Although I have not served as a board member of a nonprofit org, I have worked for multiple nonprofit organizations, including Delaware Center for Justice and Connections Community Support Programs.

8. Describe the specific knowledge and experience that you would bring to the board.

As highlighted by my resume and bio (and my answer to question 7 above), I bring experience managing a nonprofit fund, I have legal knowledge and expertise applicable to nonprofit management, and I have relevant work experience as an employee of several nonprofit organizations.

9. Indicate whether you have submitted the results of a criminal background check and check of the Child Abuse Registry according to the instructions provided in the charter application.

Yes

No
**Per discussion with the DDOE, all Board members will submit this information after submission of the charter application, due to challenges with scheduling during COVID-19.*

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

The Bryan Allen Stevenson School of Excellence (BASSE) INC. is founded on the life philosophy and principles of Bryan Allen Stevenson, a fellow Delawarean, renowned civil rights attorney, and a leading social justice advocate. For example, Mr. Stevenson frequently talks about the power of *proximity* as an essential element required for making positive change in this world. Mr. Stevenson's guiding principles and life's work have influenced every board member of BASSE; and it is these principles—including the power of proximity—that provide the foundation of BASSE.

BASSE will be a free public service-learning high school in Sussex County, opening with grades nine and ten, with a strong focus on academic rigor and social justice. Our deep belief is in our children and that they are our future; therefore, they require deep investments in their learning both in the classroom and outside of the classroom. BASSE will provide a rigorous, interdisciplinary curriculum to support students in using their gained skills and knowledge to complete service projects in the community. Through collaboration with local community organizations, nonprofits, and service organizations, students will become proximate with community needs and develop novel solutions.

BASSE aims to develop the capacity for leadership in the youth of Sussex County through the passion of learning, the joy of providing service, and the power of proximity.

2. What is your understanding of the school's proposed educational program?

The proposed education program at BASSE is an innovative model that is designed to help students discover who they are and who they want to be as citizens and influencers in their communities and beyond. The BASSE model is one that combines challenging academic experiences and real-world experiences with service-learning, the International Baccalaureate curriculum, and cross-curricular thematic units. The model is student centered. Each student will complete a personalized learning plan (in collaboration with their families and school staff). Furthermore, social-emotional learning is a school-wide focus. BASSE students will have the opportunity to develop their ability to think independently and apply their knowledge to the real world in partnership with local community organizations and businesses, completing service projects that will make a positive impact and empower their ability to be community leaders.

3. What do you believe to be the characteristics of a successful charter school?

In addition to providing an innovative solution to education in its community, a successful charter school must practice sound decision making, with financial responsibility and an effective governance structure that can provide oversight and leadership for the school. The school's primary goal must be student-centered to provide the best educational options for students and families in the community.

4. How will you know that the school is succeeding (or not) in its mission?

BASSE's primary role is educating and activating youth as advocates for change. By applying our innovative approach, we will (1) increase the capacity of collective impact through community partnerships, (2) accelerate the education ecosystem, (3) provide opportunities for students to apply knowledge and skills beyond the classroom, and (4) activate young community leaders to build pathways for leadership within Sussex County. The role of BASSE is to prepare, educate, motivate, and inspire such advocates.

BASSE will provide a diverse set of experiences for students, creating a more equitable and inclusive learning environment for all students. This will lead to success and is related to College and Career Readiness. BASSE students will meet or exceed the State's SAT standard, but more importantly, they will be prepared to thrive in their community beyond high school.

Governance

1. Describe the role that the board will play in the school's operation.

The board will primarily be responsible for ensuring the school follows the rules and regulations of the state and federal government (duty of obedience). Furthermore, the board will provide general oversight of school, ensure fiscal viability, hire and evaluate leadership, fundraise, manage the relationship between the community and school, and engage with the community.

2. Provide a forecast of where you see the school after its first year of operation and then again in four years.

After the first year of operation, BASSE will establish and evaluate areas of strength and areas for growth. Board members will provide feedback based on annual metrics and all other relevant information related to school testing, finances, HR policies, curriculum, discipline, and development. Additionally, after the first year BASSE will re-evaluate the 5-year strategic plan and conduct an internal audit.

After the first four years, BASSE will focus on long-term sustainability. BASSE will prioritize the evaluation of results and forward planning. As the school progresses into year five, BASSE will have consistent student enrollment, an established brand recognized by the community, a long-term strategic plan, and several successful audits to demonstrate viability.

3. What specific steps do you think the board will need to take to ensure that the school is successful?

Ensuring sustainable funding is essential to success. BASSE leadership and board members will review and research examples of success as well as pitfalls for past and present charters in Delaware to gain insight and perspective from experts in the field (e.g., Delaware Charter School Network, existing charters in Sussex County and across the state, DDOE, etc.). Other vital elements of success include community engagement and trust-building with key stakeholders.

Additionally, BASSE will develop clear and consistent policies and procedures (e.g., student, staff, and organization handbooks). Additionally, BASSE will establish ways to monitor progress through checkpoint meetings with staff, students, and stakeholders.

4. What is your responsibility and what course of action would you take if you believed that one or more members of the school's board were acting unethically or not in the best interests of the school?

I will act in accordance with the legal duties of care and loyalty to the organization to ensure that both myself and other members are acting in the best interests of the school. The overall goal is to provide an environment where board members, employees, and stakeholders feel comfortable speaking candidly; thus, BASSE has included an ethical clause in its bylaws to ensure BASSE can appropriately address any ethical issues as they arise. Additionally, BASSE will establish an ethics committee (with representation from the board, the students, the staff, and the community) to deal with case-by-case situations.

Furthermore, the majority of the board attended the required State of Delaware Ethics training to establish the following steps for any ethical concerns: 1) take concern to the executive committee of board or other leadership if the executive committee is committing the infraction, 2) per bylaws and code of conduct, establish an ethics committee to hear and assess the complaint, 3) ethics committee will make a decision on how to handle the situation, which could include, removal from the board.

2.7 Charter Board Member Disclosures Form

Attachment 14

14 *Del. C. § 511(q)*

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. *If so, please describe the precise nature of your relationship.*

I / we do not know prospective board members.

Yes; I/we do know prospective board members. I know board member Alonna Berry through a mutual employer, Social Contract, LLC. I know the rest of the board members through interaction on this board and development BASSE.

2. Indicate whether you or your spouse knows any person who is, or has been in the last two years, a school employee. *If so, describe the precise nature of your relationship.*

I / we do not know any such school employees.

Yes; I/we do know such school employees. The description of the relationship follows.

3. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee, or agent of an entity). *If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.*

I / we do not know any such persons.

Yes; I/we do know such persons.

4. Indicate if you, your spouse, or other immediate family members have any ownership or financial interest in the charter school, including but not limited to the building and real property to be used in the operation of the charter school, or anticipate conducting, or are conducting, any business with the school. *If so, describe the precise nature of your ownership or financial interest in the school and/or the business that is being or will be conducted.*

I / we do not expect to conduct any such business.

Yes; I/we do such business. The precise nature of the ownership or financial interest in the school and/or the business that is being or will be conducted follows.

- B. If the school intends to contract with a Charter Management Company, indicate whether you or your spouse knows any employees, officers, owners, directors, or agents of that provider. *If so, please describe the precise nature of the relationship.*

Not applicable because the school does not intend to contract with a charter management company.

I / we do not know any such persons.

Yes, I/we do know such persons.

6. If the school contracts with a Charter Management Company, please indicate whether you, your spouse, or other immediate family members have a direct or indirect ownership, employment, contractual, or management interest in the provider. *If so, please describe the precise nature of the interest.*

Not applicable.

I / we have no such interest.

Yes, I/we have a direct or indirect ownership, employment, contractual or management interest in the provider.

7. If the school plans to contract with a Charter Management Company, indicate if you, your spouse, or other immediate family member anticipate conducting, or are conducting, any business with the provider. *If so, describe the precise nature of the business that is being or will be conducted.*

Not applicable.

I / we or my family do not expect to conduct any such business.

Yes. We or my family do expect to conduct such business.

8. Indicate whether you, your spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school. *If so, please describe the precise nature of the relationship.*

Does not apply to me, my spouse, or family.

Yes. I, my spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school.

9. Indicate whether there are any potential ethical or legal conflicts of interests that would, or are likely to exist, should you serve on the school's board. *If so, describe the potential ethical or legal conflicts of interest.*

None

Yes. A description of the potential ethical or legal conflicts(s) of interest follows.

Certification

I hereby certify that the information above is true and accurate. I further certify that I will notify the Delaware Department of Education in writing if my answers to the questions on this form should change.

Bradley Owens

Name (Printed)

DocuSigned by:
Brad Owens
04DD8D9450884C6...

Signature

12/27/2021

Date

2.6 Charter School Board Member Information Form

Attachment 13

14 *Del. C. § 512*(1), (3), (6) and (9)

To be completed individually by each proposed charter school board member

Serving on a public charter school board of directors is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the Delaware Department of Education (DDOE) requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold:

- (1) To give application reviewers a clearer introduction to the Founding Group behind each school proposal in advance of the applicant interview, and to be better prepared for the interview/Initial Meeting; and
- (2) To encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. The name of the charter school on whose board you intend to serve:

The Bryan Allen Stevenson School of Excellence

2. Full name: Derick D. Dailey

Home Address: 1213 Walnut Street, Unit 1302, Philadelphia, PA 19107

Business Name and Address: Davis & Gilbert LLP, New York, NY

Telephone Number: 267-303-1992

E-mail address: ddailey6@gmail.com

3. Brief educational and employment history (no narrative response is required if résumé and professional biography are attached).

Résumé and professional biography are attached

4. Indicate whether you currently or have previously served on a board of a school district, another charter school, a non-public school, or any not-for-profit corporation (to the extent not otherwise indicated in your response to Item 3, above).

Yes

Does not apply to me

5. Why would you like to serve on the board of the proposed charter school?

I would like to serve on the board of BASSE because I believe in its mission and vision. I also believe that such a school is desperately needed for many students and families in Delaware.

6. What is your understanding of the appropriate role of a public charter school board member?

A charter school board member's primary role is to provide oversight of the proposed charter school. It's role is also to provide support to the Executive Team.

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective charter school board member.

See Resume.

8. Describe the specific knowledge and experience that you would bring to the board.

See Resume.

9. Indicate whether you have submitted the results of a criminal background check and check of the Child Abuse Registry according to the instructions provided in the charter application.

Yes

No

**Per discussion with the DDOE, all Board members will submit this information after submission of the charter application, due to challenges with scheduling during COVID-19.*

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

The Bryan Allen Stevenson School of Excellence (BASSE) INC. is founded on the life philosophy of Bryan Allen Stevenson, a native Delawarean, renowned lawyer, and social justice advocate.

BASSE will be a free public service-learning high school in Sussex County, opening with grades nine and ten, with a strong focus on academic rigor and social justice. BASSE will provide a rigorous, interdisciplinary curriculum to support students in using their gained skills and knowledge to complete service projects in the community. Through collaboration with local community organizations, nonprofits, and service organizations, students will become proximate with community needs and develop novel solutions. BASSE aims to develop the capacity for leadership in the youth of Sussex County through the passion of learning, the joy of providing service, and the power of proximity.

2. What is your understanding of the school's proposed educational program?

The proposed education program is designed to help students discover who they are and who they want to be as citizens of their local communities, their country, and the world. The BASSE model is one that roots challenging academic experiences in real-world experiences with a unique combination of service-learning, the International Baccalaureate curriculum, and interdisciplinary, cross-curricular thematic units. The educational model at BASSE is student centered; each student will complete (in collaboration with their families and school staff) a personalized learning plan, the lesson planning materials require teachers to give thought to student interest and their identities, and social-emotional learning is a school-wide focus. BASSE students will have the opportunity to develop their ability to think independently and apply their knowledge to the real world in partnership with local community organizations and businesses to complete service projects that will make a positive impact and empower their ability to be community leaders.

3. What do you believe to be the characteristics of a successful charter school?

I believe a successful charter school must provide an innovative solution to education in the community where it will open. Additionally, a successful charter school must practice sound financial decision-making, have an effective governance structure and provide oversight to the school leadership. The school's primary goal must be student-centered and focused. The goal of a charter school is to educate students and provide the best educational options for students and families in the community where it is founded.

4. How will you know that the school is succeeding (or not) in its mission?

BASSE's primary role is educating and activating youth as advocates for change. Using our innovative approach we will (1) increase the capacity of collective impact through community partnerships, (2) accelerate the education ecosystem through innovation, (3) provide opportunities for students to apply knowledge and skills beyond the classroom and (4) activate young community leaders. By doing this

successfully BASSE will build pathways for leadership within Sussex County. The role of BASSE is to prepare, educate, motivate, and inspire such advocates.

BASSE will create a more equitable and inclusive learning environment for all students by providing a diverse set of experiences for students. This will lead to success as it related to College and Career Readiness, our students will meet or exceed the State's SAT standard, but more importantly, they will be prepared to thrive in their community, after high school.

Governance

1. Describe the role that the board will play in the school's operation.

The board will primarily be responsible for ensuring the school follows the rules and regulations of the state and federal government, and will focus on, but not limited to, oversight of leadership, fiscal viability and monitoring, the hiring and evaluation of school leadership, the relationship between community and school, fundraising, governance, and community engagement.

2. Provide a forecast of where you see the school after its first year of operation and then again in four years.

After the first year of operation, BASSE will be establishing and evaluating our growth areas and strengths. It is the job of the board to monitor and provide oversight, direction, and feedback based on annual metrics, including, but not limited to testing, finances, HR policies, curriculum, discipline, and development. Additionally, BASSE will re-evaluate our 5-year strategic plan and conduct an internal audit.

After the first four years, BASSE will focus on long-term sustainability. BASSE will prioritize the evaluation of results and forward planning. As the school progresses into year five, BASSE will have a strong pipeline for student enrollment, established name and brand within the community, have a long-term strategic plan and several successful audits.

3. What specific steps do you think the board will need to take to ensure that the school is successful?

Funding is a top priority for BASSE and ensuring sustainable funding is essential. BASSE will Review and research examples of success and pitfalls for past and present charters in Delaware to gain opinions and insights from experts in the field (Delaware Charter School Network, existing charters in Sussex and across the state, DDOE). Additionally, community engagement and trust-building is vital to the long-term success of the school.

Lastly and critically, BASSE will develop clear and consistent policies and procedures (student, staff and organization handbook). Additionally, BASSE will establish ways to monitor (checkpoint meetings -- staff, students, and stakeholders)

4. What is your responsibility and what course of action would you take if you believed that one or more members of the school's board were acting unethically or not in the best interests of the school?

BASSE will provide and ensure an environment where both board members, employees, and stakeholders feel comfortable speaking candidly. BASSE has included an ethical clause in our bylaws to ensure BASSE can appropriately address any ethical issues as they arise. Additionally, BASSE will establish an ethics committee (representation board, student, community, staff, and school leadership team) to deal with case-by-case situations to assess what is in the best interest of the school, students, parent and community at all times.

The majority of our board attended the required State of Delaware Ethics training to establish the following steps for any ethical concerns: (1) take concern to the executive committee of board or other leadership if the exec committee is committing the infraction, (2) per our bylaws, code of conduct, establish ethics committee to hear and assess the complaint, (3) ethics committee would make a decision on how to handle the situation, which could include, removal from the board.

2.7 Charter Board Member Disclosures Form

Attachment 14

14 *Del. C. § 511(q)*

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. *If so, please describe the precise nature of your relationship.*

I / we do not know prospective board members.

Yes; I/we do know prospective board members.

2. Indicate whether you or your spouse knows any person who is, or has been in the last two years, a school employee. *If so, describe the precise nature of your relationship.*

I / we do not know any such school employees.

Yes; I/we do know such school employees. The description of the relationship follows.

3. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee, or agent of an entity). *If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.*

I / we do not know any such persons.

Yes; I/we do know such persons.

4. Indicate if you, your spouse, or other immediate family members have any ownership or financial interest in the charter school, including but not limited to the building and real property to be used in the operation of the charter school, or anticipate conducting, or are conducting, any business with the school. *If so, describe the precise nature of your ownership or financial interest in the school and/or the business that is being or will be conducted.*

I / we do not expect to conduct any such business.

Yes; I/we do such business. The precise nature of the ownership or financial interest in the school and/or the business that is being or will be conducted follows.

5. If the school intends to contract with a Charter Management Company, indicate whether you or your spouse knows any employees, officers, owners, directors, or agents of that provider. *If so, please describe the precise nature of the relationship.*

Not applicable because the school does not intend to contract with a charter management company.

I / we do not know any such persons.

Yes, I/we do know such persons.

6. If the school contracts with a Charter Management Company, please indicate whether you, your spouse, or other immediate family members have a direct or indirect ownership, employment, contractual, or management interest in the provider. *If so, please describe the precise nature of the interest.*

Not applicable.

I / we have no such interest.

Yes, I/we have a direct or indirect ownership, employment, contractual or management interest in the provider.

7. If the school plans to contract with a Charter Management Company, indicate if you, your spouse, or other immediate family member anticipate conducting, or are conducting, any business with the provider. *If so, describe the precise nature of the business that is being or will be conducted.*

Not applicable.

I / we or my family do not expect to conduct any such business.

Yes. We or my family do expect to conduct such business.

8. Indicate whether you, your spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school. *If so, please describe the precise nature of the relationship.*

Does not apply to me, my spouse, or family.

Yes. I, my spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school.

9. Indicate whether there are any potential ethical or legal conflicts of interests that would, or are likely to exist, should you serve on the school's board. *If so, describe the potential ethical or legal conflicts of interest.*

None

Yes. A description of the potential ethical or legal conflicts(s) of interest follows.

Certification

I hereby certify that the information above is true and accurate. I further certify that I will notify the Delaware Department of Education in writing if my answers to the questions on this form should change.

Derick Dailey

Name (Printed)

DocuSigned by:

Derick Dailey

A2FB624156FF47C...

Signature

12/29/2021

Date

2.6 Charter School Board Member Information Form

Attachment 13

14 *Del. C. § 512(1), (3), (6) and (9)*

To be completed individually by each proposed charter school board member

Serving on a public charter school board of directors is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the Delaware Department of Education (DDOE) requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold:

- (1) To give application reviewers a clearer introduction to the Founding Group behind each school proposal in advance of the applicant interview, and to be better prepared for the interview/Initial Meeting; and
- (2) To encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. The name of the charter school on whose board you intend to serve:

The Bryan Allen Stevenson School of Excellence

2. Full name: Jonathan Edwards

Home Address: 33526 Tidal way Unit 305 Lewes, DE 19958

Business Name and Address: 33526 Tidal way Unit 305 Lewes, DE 19958

Telephone Number: 302-535-1025

E-mail address: Jonathan.edwards21@yahoo.com

3. Brief educational and employment history (no narrative response is required if résumé and professional biography are attached).

Résumé and professional biography are attached

4. Indicate whether you currently or have previously served on a board of a school district, another charter school, a non-public school, or any not-for-profit corporation (to the extent not otherwise indicated in your response to Item 3, above).

Yes

Does not apply to me

5. Why would you like to serve on the board of the proposed charter school?

I believe it is our duty to serve and give back to our communities when presented the opportunity. Being on the board of the BASSE School is not only an opportunity to serve our community by furthering education for the next generation but it is also a unique opportunity to be apart of something special that I believe is going to turn into a staple for the state of Delaware for years to come.

6. What is your understanding of the appropriate role of a public charter school board member?

The appropriate role is to oversee the completion and successful follow through of proposed actions on behalf of the school. Additionally, a charter school board member's primary role is to provide oversight of the proposed charter school.

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective charter school board member.

I am currently in the finance world and have held several positions that I believe have prepared me to serve on this school board. I have been blessed to of been promoted to a plethora of positions within my time in finance and worked on project management teams to help further the future of our organization. These experiences have prepared me for my role of board member for the BASSE School.

8. Describe the specific knowledge and experience that you would bring to the board.

I have held many positions in the finance world including that of a change agent. The role tasked me with coming up with ideas and actions to help further our institutions progress in this every changing world. During the COVID pandemic that we are still facing, I was tasked with making sure customers and colleagues felt comfortable with not only changes but carrying on with business in a manner that deemed effective and safe.

I am also a real estate agent and have been practicing for a little under a year but have worked in the sphere for a couple years through Loft Realty and an assistant role at Keller Williams. I believe that my knowledge of real estate and real estate transactions will deem beneficial for the furthering of the BASSE School.

9. Indicate whether you have submitted the results of a criminal background check and check of the Child Abuse Registry according to the instructions provided in the charter application.

Yes

No
**Per discussion with the DDOE, all Board members will submit this information after submission of the charter application, due to challenges with scheduling during COVID-19.*

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

BASSE will be a free public service-learning high school in Sussex County, opening with grades nine and ten, with a strong focus on academic rigor and social justice. Our deep belief is in our children and that they are our future; therefore, they require deep investments in their learning both in the classroom and outside the classroom. BASSE will provide a rigorous, interdisciplinary curriculum to support students in using their gained skills and knowledge to complete service projects in the community. Through collaboration with local community organizations, nonprofits, and service organizations, students will become proximate with community needs and develop novel solutions.

The Bryan Allen Stevenson School of Excellence (BASSE) INC. is founded on the life philosophy of Bryan Allen Stevenson, a native Delawarean, renowned lawyer, and social justice advocate, Mr. Stevenson frequently talks about the power of proximity as being essential in his journey. BASSE aims to develop the capacity for leadership in Sussex County's youth through the passion of learning, the joy of providing service, and the power of proximity.

2. What is your understanding of the school's proposed educational program?

The proposed education program at BASSE is an innovative and rigorous model designed to help students discover who they are and who they want to be as citizens of their local communities, country, and the world. The BASSE will use the International Baccalaureate curriculum and interdisciplinary, cross-curricular thematic units. BASSE students will have the opportunity to develop their ability to think independently and apply their knowledge to the real world in partnership with local community organizations and businesses to complete service projects that will positively impact and empower their ability to be community leaders.

3. What do you believe to be the characteristics of a successful charter school?

To provide an innovative option to education in Sussex County. Additionally, a successful charter school must practice sound financial decision-making, have an effective governance structure, and provide oversight to the school leadership. The school's primary goal must be student-centered and focused. A charter school's goal is to educate students and provide the best educational options for students and families in the community where it is founded.

4. How will you know that the school is succeeding (or not) in its mission?

BASSE's primary role is educating and activating youth as advocates for change through service-learning. Using our innovative approach will lead to success related to College and Career Readiness; our students will meet or exceed the State's SAT standard, but more importantly, they will be prepared to thrive in their community after high school.

Governance

1. Describe the role that the board will play in the school's operation.

The board will primarily be responsible for ensuring the school follows the rules and regulations of the state and federal government, and will focus on, but not limited to, oversight of leadership, fiscal viability and monitoring, the hiring and evaluation of school leadership, the relationship between community and school, fundraising, governance, and community engagement.

2. Provide a forecast of where you see the school after its first year of operation and then again in four years.

After the first year of operation, BASSE will be establishing and evaluating our growth areas and strengths. The board's job is to monitor and provide oversight, direction, and feedback based on annual metrics, including, but not limited to testing, finances, HR policies, curriculum, discipline, and development. Additionally, BASSE will re-evaluate our 5-year strategic plan and conduct an internal audit.

After the first four years, BASSE will focus on long-term sustainability. BASSE will prioritize the evaluation of results and planning. As the school progresses into year five, BASSE will have a strong pipeline for student enrollment, an established name, and brand within the community, have a long-term strategic plan, and several successful audits.

3. What specific steps do you think the board will need to take to ensure that the school is successful?

As treasurer, I recognize that funding is a top priority for BASSE, a common pitfall for most charter schools locally and nationally. Therefore, BASSE will gain knowledge from past and present charters in Delaware to gain opinions and insights from experts in the field (Delaware Charter School Network, existing charters in Sussex and across the state, DDOE). Additionally, community engagement and trust-building are vital to the long-term success of the school.

4. What is your responsibility and what course of action would you take if you believed that one or more members of the school's board were acting unethically or not in the best interests of the school?

BASSE will provide an environment where both board members, employees, and stakeholders understand the ethical complexities related to running a charter school and always act in the students' best interest, families, and legal framework. BASSE has included an ethical clause in our bylaws to ensure BASSE can appropriately address any ethical issues as they arise. As treasurer, I will serve on the ethical committee, as needed, when matters pertain to finances.

2.7 Charter Board Member Disclosures Form

Attachment 14

14 *Del. C. § 511(q)*

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. *If so, please describe the precise nature of your relationship.*

I / we do not know prospective board members.

Yes; I/we do know prospective board members.

2. Indicate whether you or your spouse knows any person who is, or has been in the last two years, a school employee. *If so, describe the precise nature of your relationship.*

I / we do not know any such school employees.

Yes; I/we do know such school employees. The description of the relationship follows.

3. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee, or agent of an entity). *If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.*

I / we do not know any such persons.

Yes; I/we do know such persons.

4. Indicate if you, your spouse, or other immediate family members have any ownership or financial interest in the charter school, including but not limited to the building and real property to be used in the operation of the charter school, or anticipate conducting, or are conducting, any business with the school. *If so, describe the precise nature of your ownership or financial interest in the school and/or the business that is being or will be conducted.*

I / we do not expect to conduct any such business.

Yes; I/we do such business. The precise nature of the ownership or financial interest in the school and/or the business that is being or will be conducted follows.

5. If the school intends to contract with a Charter Management Company, indicate whether you or your spouse knows any employees, officers, owners, directors, or agents of that provider. *If so, please describe the precise nature of the relationship.*

Not applicable because the school does not intend to contract with a charter management company.

I / we do not know any such persons.

Yes, I/we do know such persons.

6. If the school contracts with a Charter Management Company, please indicate whether you, your spouse, or other immediate family members have a direct or indirect ownership, employment, contractual, or management interest in the provider. *If so, please describe the precise nature of the interest.*

Not applicable.

I / we have no such interest.

Yes, I/we have a direct or indirect ownership, employment, contractual or management interest in the provider.

7. If the school plans to contract with a Charter Management Company, indicate if you, your spouse, or other immediate family member anticipate conducting, or are conducting, any business with the provider. *If so, describe the precise nature of the business that is being or will be conducted.*

Not applicable.

I / we or my family do not expect to conduct any such business.

Yes. We or my family do expect to conduct such business.

8. Indicate whether you, your spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school. *If so, please describe the precise nature of the relationship.*

Does not apply to me, my spouse, or family.

Yes. I, my spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school.

9. Indicate whether there are any potential ethical or legal conflicts of interests that would, or are likely to exist, should you serve on the school's board. *If so, describe the potential ethical or legal conflicts of interest.*

None

Yes. A description of the potential ethical or legal conflicts(s) of interest follows.

Certification

I hereby certify that the information above is true and accurate. I further certify that I will notify the Delaware Department of Education in writing if my answers to the questions on this form should change.

Jonathan Edwards

Name (Printed)

DocuSigned by:
Jonathan Edwards

Signature

12/27/2021

Date

2.6 Charter School Board Member Information Form

Attachment 13

14 *Del. C. § 512(1), (3), (6) and (9)*

To be completed individually by each proposed charter school board member

Serving on a public charter school board of directors is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the Delaware Department of Education (DDOE) requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold:

- (1) To give application reviewers a clearer introduction to the Founding Group behind each school proposal in advance of the applicant interview, and to be better prepared for the interview/Initial Meeting; and
- (2) To encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. The name of the charter school on whose board you intend to serve:

The Bryan Allen Stevenson School of Excellence

2. Full name: Amy Shepherd

Home Address: 102 Leanne Drive, Middletown, DE 19709

Business Name and Address: St. Anne's Episcopal School, 211 Silver Lake Rd, Middletown, DE 19709

Telephone Number: (302) 379-9474

E-mail address: amygoldshp@aol.com

3. Brief educational and employment history (no narrative response is required if résumé and professional biography are attached).

Résumé and professional biography are attached

4. Indicate whether you currently or have previously served on a board of a school district, another charter school, a non-public school, or any not-for-profit corporation (to the extent not otherwise indicated in your response to Item 3, above).

Yes

Does not apply to me

5. Why would you like to serve on the board of the proposed charter school?

I would like to serve on the board of this proposed charter school because I believe in its mission to serve students, their families, and the greater community. I believe that this school could have a profound impact on Sussex County and set the bar for exemplary secondary education.

6. What is your understanding of the appropriate role of a public charter school board member?

My understanding of the appropriate role of a public charter school board member is to create a strong foundation for the way the school is to be operated and managed. A board member collaborates with other board members in decision making and serves to make the necessary connections to ensure the viability of the institution.

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective charter school board member.

While I have never served on the board of a school, I have served on the leadership team of an independent schooling have been an educator for 25 years. I am currently the Director of Diversity, Equity, and Inclusion and librarian at an independent school.

8. Describe the specific knowledge and experience that you would bring to the board.

I have 25 years of experience teaching students, managing and implementing curriculum, facilitating professional development, mentoring other educators, and interacting with families.

9. Indicate whether you have submitted the results of a criminal background check and check of the Child Abuse Registry according to the instructions provided in the charter application.

Yes

No

**Per discussion with the DDOE, all Board members will submit this information after submission of the charter application, due to challenges with scheduling during COVID-19.*

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

The Bryan Allen Stevenson School of Excellence (BASSE) INC. is founded on the life philosophy of Bryan Allen Stevenson, a native Delawarean, renowned lawyer, and social justice advocate, Mr. Stevenson frequently talks about the power of proximity as being essential in his journey.

BASSE will be a free public service-learning high school in Sussex County, opening with grades nine and ten, with a strong focus on academic rigor and social justice. Our deep belief is in our children and that they are our future; therefore, they require deep investments in their learning both in the classroom and outside of the classroom. BASSE will provide a rigorous, interdisciplinary curriculum to support students in using their gained skills and knowledge to complete service projects in the community. Through collaboration with local community organizations, nonprofits, and service organizations, students will become proximate with community needs and develop novel solutions.

The school's mission and guiding beliefs are to equip students with the skills necessary to communicate and collaborate with others in an effort to problem solve and create positive impact. Students will have the tools necessary to understand their talents, abilities, and interests and pursue endeavors to make their goals realities.

BASSE aims to develop the capacity for leadership in the youth of Sussex County through the passion of learning, the joy of providing service, and the power of proximity.

2. What is your understanding of the school's proposed educational program?

The school will employ a rigorous academic and hands-on educational program that fully engages students in the learning process. It will be an innovative and rigorous model, designed to help students discover who they are and who they want to be as citizens of their local communities, their country, and the world. The BASSE model is one that roots challenging academic experiences in real-world experiences with a unique combination of service-learning, the International Baccalaureate curriculum, and interdisciplinary, cross-curricular thematic units. The educational model at BASSE is student-centered; each student will complete (in collaboration with their families and school staff) a personalized learning plan. The lesson planning materials require teachers to give thought to student interest and their identities and social-emotional learning is a school-wide focus. BASSE students will have the opportunity to develop their ability to think independently and apply their knowledge to the real world in partnership with local community organizations and businesses to complete service projects that will make a positive impact and empower their ability to be community leaders.

3. What do you believe to be the characteristics of a successful charter school?

A successful charter school will meet the needs of its students, families, and the surrounding community. It will serve as a beacon of educational excellence and a model to which other schools can look for best practices. The environment will be one in which students can thrive because of its high level of physical and emotional safety and security. Students will be college and career ready upon graduation.

In addition, a successful charter school must provide an innovative solution to education in the community where it will open. It must also practice sound financial decision-making, have an effective governance structure and provide oversight to the school leadership. The school's primary goal must be student-centered. The goal of a charter school is to educate students and provide the best educational options for students and families in the community where it is founded.

4. How will you know that the school is succeeding (or not) in its mission?

BASSE's primary role is educating and activating youth as advocates for change. Using our innovative approach we will (1) increase the capacity of collective impact through community partnerships, (2) accelerate the education ecosystem through innovation, (3) provide opportunities for students to apply knowledge and skills beyond the classroom, and (4) activate young community leaders. By doing this successfully, BASSE will build pathways for leadership within Sussex County. The role of BASSE is to prepare, educate, motivate, and inspire such advocates.

BASSE will create a more equitable and inclusive learning environment for all students by providing a diverse set of experiences for students. This will lead to success as it relates to College and Career Readiness, our students will meet or exceed the State's SAT standard, but more importantly, they will be prepared to thrive in their community after high school.

I will know that the school is succeeding if morale is high and students are actively engaged in their learning. Measurable improvement should be made consistently, and enrollment should increase. Students should have many options upon graduation.

Governance

1. Describe the role that the board will play in the school's operation.

The board will primarily be responsible for ensuring the school follows the rules and regulations of the state and federal government, and will focus on oversight of leadership, fiscal viability and monitoring, the hiring and evaluation of school leadership, the relationship between community and school, fundraising, governance, and community engagement.

2. Provide a forecast of where you see the school after its first year of operation and then again in four years.

After its first year of operation, the school will near its goal of full capacity by re-enrolling current students and reaching out to recruit other students. Teachers will report a high level of job satisfaction and the hiring of other faculty members of excellence will occur. There will be a tremendous amount of school spirit and momentum moving forward. The strategic plan will be revisited and modified, as necessary. It is the job of the board to monitor and provide oversight, direction, and feedback based on annual metrics, including, but not limited to testing, finances, HR policies, curriculum, discipline, and development. After four years, the school will be close to maximum capacity and will focus on long-term sustainability. It will have formed successful partnerships with businesses and colleges in the area. Students will graduate and be accepted into the continuing education programs of their choice or find jobs in their vocational field.

3. What specific steps do you think the board will need to take to ensure that the school is successful?

The board will need to make sure that the school's enrollment is steady and that fundraising efforts are sustainable and strong enough to support the endeavors of the school. Board members will need to be accessible to leadership team members, faculty, staff, and families to build community. Board members will need to be thorough and consistent in decision making and planning. Community engagement and trust-building are vital to the long-term success of the school.

4. What is your responsibility and what course of action would you take if you believed that one or more members of the school's board were acting unethically or not in the best interests of the school?

It would be my responsibility to immediately address any impropriety witnessed to protect the school and its students. I and many other board members attended the required State of Delaware Ethics training.

2.7 Charter Board Member Disclosures Form

Attachment 14

14 Del. C. § 511(q)

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. *If so, please describe the precise nature of your relationship.*

I / we do not know prospective board members.

Yes; I/we do know prospective board members.

I have met other board members while in the planning and development phase of the school.

2. Indicate whether you or your spouse knows any person who is, or has been in the last two years, a school employee. *If so, describe the precise nature of your relationship.*

I / we do not know any such school employees.

Yes; I/we do know such school employees. The description of the relationship follows.

3. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee, or agent of an entity). *If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.*

I / we do not know any such persons.

Yes; I/we do know such persons.

4. Indicate if you, your spouse, or other immediate family members have any ownership or financial interest in the charter school, including but not limited to the building and real property to be used in the operation of the charter school, or anticipate conducting, or are conducting, any business with the school. *If so, describe the precise nature of your ownership or financial interest in the school and/or the business that is being or will be conducted.*

I / we do not expect to conduct any such business.

Yes; I/we do such business. The precise nature of the ownership or financial interest in the school and/or the business that is being or will be conducted follows.

5. If the school intends to contract with a Charter Management Company, indicate whether you or your spouse knows any employees, officers, owners, directors, or agents of that provider. *If so, please describe the precise nature of the relationship.*

Not applicable because the school does not intend to contract with a charter management company.

I / we do not know any such persons.

Yes, I/we do know such persons.

6. If the school contracts with a Charter Management Company, please indicate whether you, your spouse, or other immediate family members have a direct or indirect ownership, employment, contractual, or management interest in the provider. *If so, please describe the precise nature of the interest.*

Not applicable.

I / we have no such interest.

Yes, I/we have a direct or indirect ownership, employment, contractual or management interest in the provider.

7. If the school plans to contract with a Charter Management Company, indicate if you, your spouse, or other immediate family member anticipate conducting, or are conducting, any business with the provider. *If so, describe the precise nature of the business that is being or will be conducted.*

Not applicable.

I / we or my family do not expect to conduct any such business.

Yes. We or my family do expect to conduct such business.

8. Indicate whether you, your spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school. *If so, please describe the precise nature of the relationship.*

Does not apply to me, my spouse, or family.

Yes. I, my spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school.

9. Indicate whether there are any potential ethical or legal conflicts of interests that would, or are likely to exist, should you serve on the school's board. *If so, describe the potential ethical or legal conflicts of interest.*

None

Yes. A description of the potential ethical or legal conflicts(s) of interest follows.

Certification

I hereby certify that the information above is true and accurate. I further certify that I will notify the Delaware Department of Education in writing if my answers to the questions on this form should change.

Amy Shepherd

Name (Printed)

DocuSigned by:

Amy Shepherd

890B7E2F01EE4E7...

Signature

12/27/2021

Date

2.6 Charter School Board Member Information Form

Attachment 13

14 *Del. C. § 512(1), (3), (6) and (9)*

To be completed individually by each proposed charter school board member

Serving on a public charter school board of directors is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the Delaware Department of Education (DDOE) requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold:

- (1) To give application reviewers a clearer introduction to the Founding Group behind each school proposal in advance of the applicant interview, and to be better prepared for the interview/Initial Meeting; and
- (2) To encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. The name of the charter school on whose board you intend to serve:

The Bryan Allen Stevenson School of Excellence

2. Full name: Betsy Renzo

Home Address: 6 York Road, Wilmington, DE 19801

Business Name and Address: Wave Learning System, 1200 N. French Street, Wilmington, DE 19803

Telephone Number: (215) 933-9297

E-mail address: betsy.cepparulo@gmail.com

3. Brief educational and employment history (no narrative response is required if résumé and professional biography are attached).

Résumé and professional biography are attached

4. Indicate whether you currently or have previously served on a board of a school district, another charter school, a non-public school, or any not-for-profit corporation (to the extent not otherwise indicated in your response to Item 3, above).

Yes

Does not apply to me

5. Why would you like to serve on the board of the proposed charter school?

To serve on the board of BASSE is an honor. The school is a tangible step in the direction of change that I would like to see for the underserved students in the state of Delaware. The mission of the school to honor our past and prepare for the future, is close to my own personal mission. I run an educational equity nonprofit and teach about social justice issues in the United States, and this school helps to provide opportunity where an opportunity gap exists. It is vital to me to see true equality in terms of educational opportunity for all students, regardless of race, socioeconomic status, or station in life.

6. What is your understanding of the appropriate role of a public charter school board member?

I see my role as one of gatekeeper and gate opener. An appropriate role for a charter school board member is to help engage the community, ensure policies and procedures are appropriate, that the school is financially stable, and to leverage my networking connections to help the school. I want to protect the students' access to education by helping to keep the school running efficiently, raising funds, and approving measures for success. But I also see my role as one that opens doors for students who typically only encounter closed ones. I want to fight for them so that they do not have to fight for themselves.

A charter school board member's primary role is to provide oversight of the proposed charter school.

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective charter school board member.

As an attorney, I drafted and executed contracts regularly. As a Board member on the Governance committee, I will use this experience to review partnership agreements, policies and procedures for BASSE. I was also the Executive Specialist to the CEO of a major charter school management organization in Oakland, California, called Aspire Public Schools. At the time, they operated 34 charter schools in California and Tennessee. One of my many roles there was to write the agenda for board meetings and facilitate them. As such, I saw the inner workings of charter school boards quite closely.

8. Describe the specific knowledge and experience that you would bring to the board.

As an attorney, I bring legal knowledge to the governance committee, helping to write contracts, research procedures, and draft critical documents. As a current 9th grade teacher, I bring knowledge of curricula, innovation, and pedagogy. Lastly, I hold a master's degree in education policy, and thus have a broader knowledge of school systems.

9. Indicate whether you have submitted the results of a criminal background check and check of the Child Abuse Registry according to the instructions provided in the charter application.

Yes

No
**Per discussion with the DDOE, all Board members will submit this information after submission of the charter application, due to challenges with scheduling during COVID-19.*

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

BASSE is fundamentally a school for underserved students in Sussex County who have not previously been provided access to a quality education. It will not only provide opportunity for African American and Hispanic students, but also for those who cannot afford a private school tuition and for whom traditional public school has fallen short. In addition, by honoring their legacies in Sussex County, the students will be deeply connected to the community. This has two goals: first, to provide weekly service to the community; and second, to give the students real world experience in developing 21st century skills. The school will serve as an important centerpiece of the community, raising everyone up with it.

The Bryan Allen Stevenson School of Excellence (BASSE) INC. is founded on the life philosophy of Bryan Allen Stevenson, a native Delawarean, renowned lawyer, and social justice advocate, Mr. Stevenson frequently talks about the power of proximity as being essential in his journey.

BASSE will be a free public service-learning high school in Sussex County, opening with grades nine and ten, with a strong focus on academic rigor and social justice. Our deep belief is in our children and that they are our future; therefore, they require deep investments in their learning both in the classroom and outside of the classroom. BASSE will provide a rigorous, interdisciplinary curriculum to support students in using their gained skills and knowledge to complete service projects in the community. Through collaboration with local community organizations, nonprofits, and service organizations, students will become proximate with community needs and develop novel solutions.

BASSE aims to develop the capacity for leadership in the youth of Sussex County through the passion of learning, the joy of providing service, and the power of proximity.

2. What is your understanding of the school's proposed educational program?

It will be rigorous and modern, focusing on real world skills, but it will also have a unique focus on service to the community. Two days a week, the students will break from their block schedules to do meaningful, ongoing service in Sussex County.

The proposed education program at BASSE is an innovative and rigorous model, designed to help students discover who they are and who they want to be as citizens of their local communities, their country, and the world. The BASSE model is one that roots challenging academic experiences in real-world experiences with a unique combination of service-learning, the International Baccalaureate curriculum, and interdisciplinary, cross-curricular thematic units. The educational model at BASSE is student-centered; each student will complete (in collaboration with their families and school staff) a personalized learning plan, the lesson planning materials require teachers to give thought to student interest and their identities, and social-emotional learning is a school-wide focus. BASSE students will have the opportunity to develop their ability to think independently and apply their knowledge to the real world in partnership with local community organizations and businesses to complete service projects that will make a positive impact and empower their ability to be community leaders.

3. What do you believe to be the characteristics of a successful charter school?

A successful charter school has discipline, provides training to its teachers and staff, and has effective procedures that are both measurable and easy to replicate. With the right procedures and programs, the school can train teachers to be resilient and resourceful, and no matter who joins the school, they are bought in to the mission and vision of it.

A successful charter school must provide an innovative solution to education in the community where it will open. Additionally, a successful charter school must practice sound financial decision-making, have an effective governance structure and provide oversight to the school leadership. The school's primary goal must be student-centered and focused. The goal of a charter school is to educate students and provide the best educational options for students and families in the community where it is founded.

4. How will you know that the school is succeeding (or not) in its mission?

Periodic testing for academic rigor, parent, student, teacher and administrator surveys on performance and improvement, consistent research on best practices, mentors and monitors of teacher training and innovation, and a 5-year review process for all curricula.

BASSE's primary role is educating and activating youth as advocates for change. Using our innovative approach we will (1) increase the capacity of collective impact through community partnerships, (2) accelerate the education ecosystem through innovation, (3) provide opportunities for students to apply knowledge and skills beyond the classroom, and (4) activate young community leaders. By doing this successfully, BASSE will build pathways for leadership within Sussex County. The role of BASSE is to prepare, educate, motivate, and inspire such advocates.

BASSE will create a more equitable and inclusive learning environment for all students by providing a diverse set of experiences for students. This will lead to success as it related to College and Career Readiness, our students will meet or exceed the State's SAT standard, but more importantly, they will be prepared to thrive in their community after high school.

Governance

1. Describe the role that the board will play in the school's operation.

The board will operate to regularly guide, research, mentor, and support the teacher and administrators of the school, and therefore the students. We will review key policies and procedures, maintain standards for excellence, and be regularly apprised of school activities.

The board will primarily be responsible for ensuring the school follows the rules and regulations of the state and federal government, and will focus on, but not limited to, oversight of leadership, fiscal viability and monitoring, the hiring and evaluation of school leadership, the relationship between community and school, fundraising, governance, and community engagement.

2. Provide a forecast of where you see the school after its first year of operation and then again in four years.

In the first year, one or two classes will matriculate to the next level, having successfully completed the course work and service requirements. I am sure there will be a schedule and curriculum review, and some revisions to be made for year 2. After four years, the school will have grown at least 4 grades, and expanded hopefully into a full upper school. We will have our first graduating class and see the results of our efforts in far less remediation for college than we see now in the traditional public schools of Sussex County. We will also hopefully have a near 100% college acceptance rate for our 12th grade students. This would be a far departure, especially for underserved students than what we see today.

After the first year of operation, BASSE will be establishing and evaluating our growth areas and strengths. It is the job of the board to monitor and provide oversight, direction, and feedback based on annual metrics, including, but not limited to testing, finances, HR policies, curriculum, discipline, and development. Additionally, BASSE will re-evaluate our 5-year strategic plan and conduct an internal audit.

After the first four years, BASSE will focus on long-term sustainability. BASSE will prioritize the evaluation of results and forward planning. As the school progresses into year five, BASSE will have a strong pipeline for student enrollment, established name and brand within the community, have a long-term strategic plan, and several successful audits.

3. What specific steps do you think the board will need to take to ensure that the school is successful?

Reviewing, monitoring, coaching, and providing resources for the school's teacher, administrators and students. I want to be an active board, and one that sees challenges as they arise, not months later.

Funding is a top priority for BASSE, and ensuring sustainable funding is essential. BASSE will Review and research examples of success and pitfalls for past and present charters in Delaware to gain opinions and insights from experts in the field (Delaware Charter School Network, existing charters in Sussex and across the state, DDOE). Additionally, community engagement and trust-building is vital to the long-term success of the school.

Lastly and critically, BASSE will develop clear and consistent policies and procedures (student, staff and organization handbook). Additionally, BASSE will establish ways to monitor (checkpoint meetings -- staff, students, and stakeholders)

4. What is your responsibility and what course of action would you take if you believed that one or more members of the school's board were acting unethically or not in the best interests of the school?

First, I would bring my concern to that board member and ask that the unethical behavior cease. Then, I would bring my concern to the executive team, where an investigation would follow. Upon clear and convincing evidence, I can see the executive team presenting its findings to the full board for a vote of no confidence to remove that board member.

The majority of our board attended the required State of Delaware Ethics training to establish the following steps for any ethical concerns: (1) take concerns to the executive committee of the board or other leadership if the exec committee is committing the infraction, (2) per our bylaws, code of conduct, establish ethics committee to hear and assess the complaint, (3) ethics committee would make a decision on how to handle the situation, which could include, removal from the board.

2.7 Charter Board Member Disclosures Form

Attachment 14

14 Del. C. § 511(q)

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. *If so, please describe the precise nature of your relationship.*

I / we do not know prospective board members.

Yes; I/we do know prospective board members.

Yes. I have a professional relationship with the President of the Board, with whom I arrange panel discussions for mentees and students. We have known one another for over two years, collaborating on bringing diversity issues to students and teachers in Delaware.

2. Indicate whether you or your spouse knows any person who is, or has been in the last two years, a school employee. *If so, describe the precise nature of your relationship.*

I / we do not know any such school employees.

Yes; I/we do know such school employees. The description of the relationship follows.

Until July of 2020, I was a teacher at Wilmington Friends School. As such, I know many school employees, from staff to faculty to administration. I also run an educational equity nonprofit program and have regular contact with many school personnel at a variety of schools in the state of Delaware.

3. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee, or agent of an entity). *If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.*

I / we do not know any such persons.

Yes; I/we do know such persons.

4. Indicate if you, your spouse, or other immediate family members have any ownership or financial interest in the charter school, including but not limited to the building and real property to be used in the operation of the charter school, or anticipate conducting, or are conducting, any business with the school. *If so, describe the precise nature of your ownership or financial interest in the school and/or the business that is being or will be conducted.*

I / we do not expect to conduct any such business.

Yes; I/we do such business. The precise nature of the ownership or financial interest in the school and/or the business that is being or will be conducted follows.

5. If the school intends to contract with a Charter Management Company, indicate whether you or your spouse knows any employees, officers, owners, directors, or agents of that provider. *If so, please describe the precise nature of the relationship.*

Not applicable because the school does not intend to contract with a charter management company.

I / we do not know any such persons.

Yes, I/we do know such persons.

6. If the school contracts with a Charter Management Company, please indicate whether you, your spouse, or other immediate family members have a direct or indirect ownership, employment, contractual, or management interest in the provider. *If so, please describe the precise nature of the interest.*

Not applicable.

I / we have no such interest.

Yes, I/we have a direct or indirect ownership, employment, contractual or management interest in the provider.

7. If the school plans to contract with a Charter Management Company, indicate if you, your spouse, or other immediate family member anticipate conducting, or are conducting, any business with the provider. *If so, describe the precise nature of the business that is being or will be conducted.*

Not applicable.

I / we or my family do not expect to conduct any such business.

Yes. We or my family do expect to conduct such business.

8. Indicate whether you, your spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school. *If so, please describe the precise nature of the relationship.*

Does not apply to me, my spouse, or family.

Yes. I, my spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school.

9. Indicate whether there are any potential ethical or legal conflicts of interests that would, or are likely to exist, should you serve on the school's board. *If so, describe the potential ethical or legal conflicts of interest.*

None

Yes. A description of the potential ethical or legal conflicts(s) of interest follows.

Certification

I hereby certify that the information above is true and accurate. I further certify that I will notify the Delaware Department of Education in writing if my answers to the questions on this form should change.

Betsy Renzo

Name (Printed)

DocuSigned by:
Betsy Renzo

1FD3BEFD5B28434...
Signature

12/27/2021

Date

2.6 Charter School Board Member Information Form

Attachment 13

14 *Del. C. § 512*(1), (3), (6) and (9)

To be completed individually by each proposed charter school board member

Serving on a public charter school board of directors is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the Delaware Department of Education (DDOE) requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold:

- (1) To give application reviewers a clearer introduction to the Founding Group behind each school proposal in advance of the applicant interview, and to be better prepared for the interview/Initial Meeting; and
- (2) To encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. The name of the charter school on whose board you intend to serve:

The Bryan Allen Stevenson School of Excellence

2. Full name: Chantalle J. Ashford

Home Address: 23069 Meadow Wood Ct Unit 307, Seaford, DE 19973

Business Name and Address: Indian River High School, 29772 Armory Rd, Dagsboro, DE 19939

Telephone Number: (757) 561-7417

E-mail address: chantalle@basseinc.org

3. Brief educational and employment history (no narrative response is required if résumé and professional biography are attached).

Résumé and professional biography are attached

4. Indicate whether you currently or have previously served on a board of a school district, another charter school, a non-public school, or any not-for-profit corporation (to the extent not otherwise indicated in your response to Item 3, above).

Yes

Does not apply to me

5. Why would you like to serve on the board of the proposed charter school?

I would like to serve on the Bryan Allen Stevenson School of Excellence (BASSE) board because I believe deeply in the vision and mission that we crafted for the school. As a former Delaware student, I was thankful for the education I received, but it was the opportunities I had outside of the classroom that developed me into the adult I am today. By participating in the Delaware Community Foundation's Youth Philanthropy Board as a high school student, I learned that, even as a teenager, I could significantly impact my community. I learned that I was always a leader and that if I continued to make choices and seek opportunities that supported my development, I could always make a positive impact. However, I also learned that these opportunities to be a leader are often reserved for certain students; I learned that it's a privilege to be seen as a leader in your community. And though in some ways I believe it should be a privilege to take advantage of advanced opportunities, it should be a baseline that our students see themselves as positive forces for change in their communities and believe in their own potential and intellect. BASSE's school model intends to provide every student with experiences outside of school where they can demonstrate their leadership and intellect and begin their journeys to a successful post-secondary life.

6. What is your understanding of the appropriate role of a public charter school board member?

A charter school board member's primary role is to provide oversight of the proposed charter school. A public school board member should help hold the school accountable for

upholding the vision and mission set out in the charter as well as be a supportive leadership body that provides the school with the resources and regulations that help it be successful.

7. Describe any previous experience you have that is relevant to serving on the charter school’s board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective charter school board member.

I have served on boards since I was a high school student. And though my first board experience began when I was 16, it stuck with me and has influenced how I serve on boards as an adult. In addition to my service as a founding board member of the Bryan Allen Stevenson School of Excellence, I am also an advisory board member for DelawareCAN and a regional co-board chair for the Teach For America’s (TFA) Collective, TFA’s organization for alumni of color. On all three of these boards, I dealt with fiduciary responsibility in some capacity, be it determining how to divide funds equitably between deserving organizations, or asking the right critical questions about the organization’s budget, to managing the budget as the leader of the organization. I also know how to lead and participate in board meetings properly.

8. Describe the specific knowledge and experience that you would bring to the board.

I am a current Delaware educator with seven years of experience in the classroom. During my time as a classroom teacher, I have also sought leadership opportunities through Teach For America, the Rural School Leadership Academy, and the Delaware Department of Education. I hold a master’s degree in the art of teaching from Relay Graduate School of Education, and I am currently pursuing my doctoral degree in Educational Leadership and Policy from American University. I bring practical experience from the field of education here in Delaware, and I have a national lens from my work with the Rural School Leadership Academy.

9. Indicate whether you have submitted the results of a criminal background check and check of the Child Abuse Registry according to the instructions provided in the charter application.

Yes

No
**Per discussion with the DDOE, all Board members will submit this information after submission of the charter application, due to challenges with scheduling during COVID-19.*

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

The school's mission is to create pathways, through proximity, for our students, their families, and our community. In my view, this means that the school will foster a culture of collaboration between itself, parents and families, and the community to create multiple pathways for our students to find success and give back to those that support them. This culture of collaboration will be built upon the core values of the school: equity, excellence, community, hope, and voice. By providing students with equitable access to an excellent education, we will provide them with hope for their futures, their communities' futures, and the opportunity to use their voices to create positive change.

2. What is your understanding of the school's proposed educational program?

BASSE's proposed educational program is novel and innovative. The school is baking four key ideas into the educational model that often seem to be tagged on to schools that exist currently: personalized learning, service-learning, the International Baccalaureate curriculum, and an intentionally interdisciplinary model. Each student will complete a personalized learning plan (PLP) with the assistance of their families and their teachers. This plan will help guide their course of study and help with the student's identity development. The PLP will also help teachers to incorporate targeted social-emotional learning in their lesson planning. The service-learning component offers a natural way for students to practice the skills and apply the knowledge they've learned in the classroom in real-world contexts. Service-learning will also give students opportunities to give back to their communities and see themselves as leaders. Providing all students with access to the International Baccalaureate (IB) curriculum, with the appropriate scaffolds, will guarantee that every student has the opportunity to engage with rigorous and challenging concepts. Though there will still be opportunities for students who need modifications, either to slow down or to accelerate the speed of their learning, the baseline education that each student is receiving puts all students in a position to access any post-secondary opportunity they may want to pursue. Finally, the interdisciplinary study, which will be created through thematic book studies, the collaborative planning of teachers, and the upper-level IB coursework, will ensure that students make connections across content areas. These connections will help students develop creative and critical thinking skills that result in post-secondary success.

3. What do you believe to be the characteristics of a successful charter school?

A successful charter school should provide a safe environment for students, high-quality educational outcomes for students in an innovative way, and proper maintenance of all financial accounts. A successful charter school must also have a strong relationship with the community it is founded in and the parents and families that allow their students to attend it.

4. How will you know that the school is succeeding (or not) in its mission?

I will know that the school is succeeding in several ways. The first of these is that students are making clear and measurable growth, articulating their learning targets, connecting those learning targets to the school's mission, and seeing their connection to the community through their service-learning projects. Students will feel like they are valued members of the BASSE community and integral actors in their learning. Parents will feel safe and comfortable sending their students to BASSE, report feeling included in their children's education, and attend and support school events. Finally, the community will support BASSE by partnering with us for students' service-learning projects and other projects that will benefit the Sussex County community as a whole.

Governance

1. Describe the role that the board will play in the school's operation.

The Board is the governing body of the school. It will ensure that BASSE follows all rules and regulations as set out by local, state, and federal statutes and that the policies it sets forth are for the best interest of the school's longevity and success. The Board will have oversight of the school, including, but not limited to, evaluating its leadership and managing its finances. The Board will additionally support BASSE by hosting committees to help support the school's management of goals, including development, education, community engagement, and governance.

2. Provide a forecast of where you see the school after its first year of operation and then again in four years.

I see the school having a successful first year of operation. Success will be measured by formal surveys and evaluations of all stakeholders (parents, students, staff), students' end of year scores, and the number of students planning to return to BASSE in the fall of 2024. At the end of the first year (and every year thereafter), the Board will hold a retreat where we evaluate the school's progress and strategically plan for the next four years based on the data the Board and school leadership has collected.

After the first four years, BASSE will continue to be successful and will be a model for different ways public secondary schools can innovate for their students. By that time, BASSE will have transitioned into a middle and high school. BASSE hopes that all of its students will be on track to graduate at the end of that fourth year. As is done every year, BASSE will audit the school's progress and strategically plan for future years.

3. What specific steps do you think the board will need to take to ensure that the school is successful?

The Board will need to conduct consistent progress monitoring of the school as the school staff will do for its students. Three of the major areas that the Board will need to focus on are school safety, school financial viability, and the successful implementation of the school's educational program. The Board will continue to study other successful charter schools, seek professional development, and consult with both professionals and invested families and community members. Finally, the Board will develop clear policies and procedures and consistently monitor and evaluate the effectiveness of those policies in serving the school's charge and mission.

4. What is your responsibility and what course of action would you take if you believed that one or more members of the school's board were acting unethically or not in the best interests of the school?

As a board member, my responsibility is to ensure that the school has every chance to succeed. If I believe that one or more members of the Board were acting unethically or not in the best interests of the school, I will follow the Board's policy and procedure to report said unethical behavior as outlined by the bylaws of the Board and any additional procedures outline by the school's ethics committee. I attended the Board's first ethics training, and I feel confident that I can identify unethical behavior by board members or other stakeholders under the board's oversight. I will encourage the Board to refresh this knowledge annually to ensure that all Board members are on the same page and are acting with the school's best interests in mind.

2.7 Charter Board Member Disclosures Form

Attachment 14

14 Del. C. § 511(q)

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. *If so, please describe the precise nature of your relationship.*

I / we do not know prospective board members.

Yes; I/we do know prospective board members.

I know all of the proposed school's prospective board members as I am the co-chair and helped to vet each board member. Additionally, I have specific personal relationships with the following board members:

Karen V. Higgins – is my maternal aunt. She has known me my entire life.

2. Indicate whether you or your spouse knows any person who is, or has been in the last two years, a school employee. *If so, describe the precise nature of your relationship.*

I / we do not know any such school employees.

Yes; I/we do know such school employees. The description of the relationship follows.

I know all of the proposed school's employees (through other organizations, i.e., Jounce and Public Allies) as I am the co-board chair and served on the hiring committee. Additionally, I have a specific personal relationship with the following employee:

Kirsten Croner – I knew Mrs. Croner during her time as a Teach For America Manager of Teacher Leadership and Development as I am an alumna of Teach For America and worked with her to provide professional development to corps members.

3. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee, or agent of an entity). *If*

so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.

I / we do not know any such persons.

Yes; I/we do know such persons.

4. Indicate if you, your spouse, or other immediate family members have any ownership or financial interest in the charter school, including but not limited to the building and real property to be used in the operation of the charter school, or anticipate conducting, or are conducting, any business with the school. *If so, describe the precise nature of your ownership or financial interest in the school and/or the business that is being or will be conducted.*

I / we do not expect to conduct any such business.

Yes; I/we do such business. The precise nature of the ownership or financial interest in the school and/or the business that is being or will be conducted follows.

5. If the school intends to contract with a Charter Management Company, indicate whether you or your spouse knows any employees, officers, owners, directors, or agents of that provider. *If so, please describe the precise nature of the relationship.*

Not applicable because the school does not intend to contract with a charter management company.

I / we do not know any such persons.

Yes, I/we do know such persons.

6. If the school contracts with a Charter Management Company, please indicate whether you, your spouse, or other immediate family members have a direct or indirect ownership, employment, contractual, or management interest in the provider. *If so, please describe the precise nature of the interest.*

Not applicable.

I / we have no such interest.

Yes, I/we have a direct or indirect ownership, employment, contractual or management interest in the provider.

7. If the school plans to contract with a Charter Management Company, indicate if you, your spouse, or other immediate family member anticipate conducting, or are conducting, any business with the provider. *If so, describe the precise nature of the business that is being or will be conducted.*

Not applicable.

I / we or my family do not expect to conduct any such business.

Yes. We or my family do expect to conduct such business.

8. Indicate whether you, your spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school. *If so, please describe the precise nature of the relationship.*

Does not apply to me, my spouse, or family.

Yes. I, my spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school.

As far as I know, the school intends to partner with Teach For America and the Relay Graduate School of Education. I am an alumna of both of these programs. Based on what we have included in the application, I do not, to my recollection, have a direct association with any of our other proposed partners, though I am a lifelong Delawarean.

9. Indicate whether there are any potential ethical or legal conflicts of interests that would, or are likely to exist, should you serve on the school's board. *If so, describe the potential ethical or legal conflicts of interest.*

None

Yes. A description of the potential ethical or legal conflicts(s) of interest follows.

Certification

I hereby certify that the information above is true and accurate. I further certify that I will notify the Delaware Department of Education in writing if my answers to the questions on this form should change.

Chantalle Ashford

Name (Printed)

DocuSigned by:

FE9977A995644CF...

Signature

12/28/2021

Date

2.6 Charter School Board Member Information Form

Attachment 13

14 *Del. C. § 512(1), (3), (6) and (9)*

To be completed individually by each proposed charter school board member

Serving on a public charter school board of directors is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the Delaware Department of Education (DDOE) requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold:

- (1) To give application reviewers a clearer introduction to the Founding Group behind each school proposal in advance of the applicant interview, and to be better prepared for the interview/Initial Meeting; and
- (2) To encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. The name of the charter school on whose board you intend to serve:

The Bryan Allen Stevenson School of Excellence

2. Full name: Denise Snyder

Home Address: 25382 S Oak Drive, Millsboro, DE 19966

Business Name and Address: Retired Educator 25382 S. Oak Drive, Millsboro, DE 19966

Telephone Number: (302) 542-8305

E-mail address: dsnyder2558@gmail.com

3. Brief educational and employment history (no narrative response is required if résumé and professional biography are attached).

Résumé and professional biography are attached

4. Indicate whether you currently or have previously served on a board of a school district, another charter school, a non-public school, or any not-for-profit corporation (to the extent not otherwise indicated in your response to Item 3, above).

Yes

Does not apply to me

5. Why would you like to serve on the board of the proposed charter school?

Throughout my career as a Special Education teacher I have always been interested in equity and accessibility for all students. When I heard about the BASSE charter school I was immediately drawn to become a part of the initiative. I contacted Alonna Berry to discern in what capacity I would be able to serve. A position on the board was available and I immediately applied to be an integral part of this charter school. I am involved in other organizations that also involve educational equity and accessibility and feel that as a board member at BASSE my knowledge will be an important asset.

What is your understanding of the appropriate role of a public charter school board member?

Board members must understand the mission of the school and the bylaws. It is also necessary to attend all meetings and other events sponsored by the school. The board members must also understand their fiduciary role. Commitment to the school and its planning processes is crucial. Additionally, board members must bring energy and enthusiasm to the work of the board and any other committees as needed.

6. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective charter school board member.

As a member of the Northeastern Jurisdiction United Methodist Women's Program Advisory Board for the past 6 years I have gained experience in developing and initiating programs that are appropriate to social justice issues. This experience along with my background in education for 35 years has provided me with the ability to assess a situation, research possible solutions and provide advice and suggestions that will then be implemented. Service learning is a major component of the BASSE Charter School. My participation with United Methodist Women around the world provided experiences that would be

useful in the development of the BASSE Charter School. Seeking to provide students with an environment that enhances their skills and talents through community involvement is my passion.

7. Describe the specific knowledge and experience that you would bring to the board.

I bring a diverse background in Special Education as a teacher and a program coordinator. I also have worked with students age three to 19 during my 35-year career in education. In addition, I have served with United Methodist Women around the world to provide opportunities for youth and children through a supportive creative fellowship.

8. Indicate whether you have submitted the results of a criminal background check and check of the Child Abuse Registry according to the instructions provided in the charter application.

Yes

No

**Per discussion with the DDOE, all Board members will submit this information after submission of the charter application, due to challenges with scheduling during COVID-19.*

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

BASSE is dedicated to developing 21st century skills as well as real-world working experiences for students through a service-based learning partnership between the students and the community in which they live. This supportive learning environment allows students to develop their own identities, identify their successes and bring these into the future.

The Bryan Allen Stevenson School of Excellence (BASSE) INC. is founded on the life philosophy of Bryan Allen Stevenson, a native Delawarean, renowned lawyer, and social justice advocate, Mr. Stevenson frequently talks about the power of proximity as being essential in his journey.

BASSE will be a free public service-learning high school in Sussex County, opening with grades nine and ten, with a strong focus on academic rigor and social justice. Our deep belief is in our children and that they are our future; therefore, they require deep investments in their learning both in the classroom and outside of the classroom. BASSE will provide a rigorous, interdisciplinary curriculum to support students in using their gained skills and knowledge to complete service projects in the community. Through collaboration with local community organizations, nonprofits, and service organizations, students will become proximate with community needs and develop novel solutions.

BASSE aims to develop the capacity for leadership in the youth of Sussex County through the passion of learning, the joy of providing service, and the power of proximity.

2. What is your understanding of the school's proposed educational program?

BASSE will use a rigorous curriculum to challenge students to push themselves as they develop skills and knowledge through an integrated service model for their chosen career path. Students will contextualize their learning through a multi-layered approach of integrating skills and experiences both in the classroom as well as in their community.

The proposed education program at BASSE is an innovative and rigorous model, designed to help students discover who they are and who they want to be as citizens of their local communities, their country, and the world. The BASSE model is one that roots challenging academic experiences in real-world experiences with a unique combination of service-learning, the International Baccalaureate curriculum, and interdisciplinary, cross-curricular thematic units. The educational model at BASSE is student-centered; each student will complete (in collaboration with their families and school staff) a personalized learning plan, the lesson planning materials require teachers to give thought to student interest and their identities, and social-emotional learning is a school-wide focus. BASSE students will have the opportunity to develop their ability to think independently and apply their knowledge to the real world in partnership with local community organizations and businesses to complete service projects that will make a positive impact and empower their ability to be community leaders.

3. What do you believe to be the characteristics of a successful charter school?

A successful charter school integrates classroom learning, community service, innovative practices, rigorous curriculum and community partnerships to provide students with a well-rounded education that is both challenging and engaging that will lead them to success in achieving their goals for the future.

A successful charter school must provide an innovative solution to education in the community where it will open. Additionally, a successful charter school must practice sound financial decision-making, have an effective governance structure and provide oversight to the school leadership. The school's primary goal must be student-centered and focused. The goal of a charter school is to educate students and provide the best educational options for students and families in the community where it is founded.

4. How will you know that the school is succeeding (or not) in its mission?

Student and school success will be measured by the level of involvement of each student within their community programs designed to assist and enhance the lives of the students and others.

BASSE's primary role is educating and activating youth as advocates for change. Using our innovative approach we will (1) increase the capacity of collective impact through community partnerships, (2) accelerate the education ecosystem through innovation, (3) provide opportunities for students to apply knowledge and skills beyond the classroom, and (4) activate young community leaders. By doing this successfully, BASSE will build pathways for leadership within Sussex County. The role of BASSE is to prepare, educate, motivate, and inspire such advocates.

BASSE will create a more equitable and inclusive learning environment for all students by providing a diverse set of experiences for students. This will lead to success as it related to College and Career Readiness, our students will meet or exceed the State's SAT standard, but more importantly, they will be prepared to thrive in their community after high school.

Governance

1. Describe the role that the board will play in the school's operation.

The board will provide guidance and assistance where needed to ensure that the mission and vision of the school remains focused on excellence, equity, community, hope and voice for each student.

The board will primarily be responsible for ensuring the school follows the rules and regulations of the state and federal government, and will focus on, but not limited to, oversight of leadership, fiscal viability and monitoring, the hiring and evaluation of school leadership, the relationship between community and school, fundraising, governance, and community engagement.

2. Provide a forecast of where you see the school after its first year of operation and then again in four years.

I forecast that BASSE will be successful in engaging students who may or may not be able to be fully engaged in a traditional school setting after its first year. In four years, I forecast that BASSE will be fully successful in its ability to reach out into the community and provide students and community members with programs and other needed opportunities that did not seem possible to attain.

After the first year of operation, BASSE will be establishing and evaluating our growth areas and strengths. It is the job of the board to monitor and provide oversight, direction, and feedback based on annual metrics, including, but not limited to testing, finances, HR policies, curriculum, discipline, and development. Additionally, BASSE will re-evaluate our 5-year strategic plan and conduct an internal audit.

After the first four years, BASSE will focus on long-term sustainability. BASSE will prioritize the evaluation of results and forward planning. As the school progresses into year five, BASSE will have a strong pipeline for student enrollment, established name and brand within the community, have a long-term strategic plan, and several successful audits.

3. What specific steps do you think the board will need to take to ensure that the school is successful?

The board will need to provide direct oversight in the four years to maintain the vision and mission of the school. It will be necessary for the board members to be a visible presence both in the school and the community so that their commitment is tangible to the staff, students, parents and community members.

Funding is a top priority for BASSE, and ensuring sustainable funding is essential. BASSE will Review and research examples of success and pitfalls for past and present charters in Delaware to gain opinions and insights from experts in the field (Delaware Charter School Network, existing charters in Sussex and across the state, DDOE). Additionally, community engagement and trust-building is vital to the long-term success of the school.

Lastly and critically, BASSE will develop clear and consistent policies and procedures (student, staff and organization handbook). Additionally, BASSE will establish ways to monitor (checkpoint meetings -- staff, students, and stakeholders)

4. What is your responsibility and what course of action would you take if you believed that one or more members of the school's board were acting unethically or not in the best interests of the school?

My responsibility and course of action would be to report that member of the board to other members in order to facilitate appropriate measures so as not to harm the school in any way.

The majority of our board attended the required State of Delaware Ethics training to establish the following steps for any ethical concerns: (1) take concerns to the executive committee of the board or

other leadership if the exec committee is committing the infraction, (2) per our bylaws, code of conduct, establish ethics committee to hear and assess the complaint, (3) ethics committee would make a decision on how to handle the situation, which could include, removal from the board.

2.7 Charter Board Member Disclosures Form

Attachment 14

14 Del. C. § 511(q)

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. *If so, please describe the precise nature of your relationship.*

I / we do not know prospective board members.

Yes; I/we do know prospective board members.

I previously worked in the Indian River School District with a member of the prospective board for five years, Diaz Bonville. During our employment together we worked on a daily basis providing quality care and education for young students in our care. We remain as friends today after our retirement.

2. Indicate whether you or your spouse knows any person who is, or has been in the last two years, a school employee. *If so, describe the precise nature of your relationship.*

I / we do not know any such school employees.

Yes; I/we do know such school employees. The description of the relationship follows.

I am a retired educator from the Indian River School District.

3. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee, or agent of an entity). *If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.*

I / we do not know any such persons.

Yes; I/we do know such persons.

4. Indicate if you, your spouse, or other immediate family members have any ownership or financial interest in the charter school, including but not limited to the building and real property to be used in the operation of the charter school, or anticipate conducting, or are conducting, any business with the school. *If so, describe the precise nature of your ownership or financial interest in the school and/or the business that is being or will be conducted.*

I / we do not expect to conduct any such business.

Yes; I/we do such business. The precise nature of the ownership or financial interest in the school and/or the business that is being or will be conducted follows.

5. If the school intends to contract with a Charter Management Company, indicate whether you or your spouse knows any employees, officers, owners, directors, or agents of that provider. *If so, please describe the precise nature of the relationship.*

Not applicable because the school does not intend to contract with a charter management company.

I / we do not know any such persons.

Yes, I/we do know such persons.

6. If the school contracts with a Charter Management Company, please indicate whether you, your spouse, or other immediate family members have a direct or indirect ownership, employment, contractual, or management interest in the provider. *If so, please describe the precise nature of the interest.*

Not applicable.

I / we have no such interest.

Yes, I/we have a direct or indirect ownership, employment, contractual or management interest in the provider.

7. If the school plans to contract with a Charter Management Company, indicate if you, your spouse, or other immediate family member anticipate conducting, or are conducting, any business with the provider. *If so, describe the precise nature of the business that is being or will be conducted.*

Not applicable.

I / we or my family do not expect to conduct any such business.

Yes. We or my family do expect to conduct such business.

8. Indicate whether you, your spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school. *If so, please describe the precise nature of the relationship.*

Does not apply to me, my spouse, or family.

Yes. I, my spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school.

9. Indicate whether there are any potential ethical or legal conflicts of interests that would, or are likely to exist, should you serve on the school's board. *If so, describe the potential ethical or legal conflicts of interest.*

None

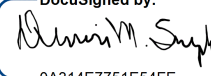
Yes. A description of the potential ethical or legal conflicts(s) of interest follows.

Certification

I hereby certify that the information above is true and accurate. I further certify that I will notify the Delaware Department of Education in writing if my answers to the questions on this form should change.

Denise Snyder

Name (Printed)

DocuSigned by:

0A314E7751E54FE...

Signature

12/28/2021

Date

2.6 Charter School Board Member Information Form

Attachment 13

14 *Del. C. § 512(1), (3), (6) and (9)*

To be completed individually by each proposed charter school board member

Serving on a public charter school board of directors is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the Delaware Department of Education (DDOE) requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold:

- (1) To give application reviewers a clearer introduction to the Founding Group behind each school proposal in advance of the applicant interview, and to be better prepared for the interview/Initial Meeting; and
- (2) To encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. The name of the charter school on whose board you intend to serve:

The Bryan Allen Stevenson School of Excellence

2. Full name: Diaz James Bonville

Home Address: 35681 Wolfe Neck Rd. Rehoboth Beach, DE 19971

Business Name and Address: U.S. Representative, Lisa Blunt Rochester, 28 The Circle, Suite 2, Georgetown, DE 19947

Telephone Number: (302) 528-2265

E-mail address: Diaz122455@aol.com

3. Brief educational and employment history (no narrative response is required if résumé and professional biography are attached).

Résumé and professional biography are attached

4. Indicate whether you currently or have previously served on a board of a school district, another charter school, a non-public school, or any not-for-profit corporation (to the extent not otherwise indicated in your response to Item 3, above).

Yes

Does not apply to me

5. Why would you like to serve on the board of the proposed charter school?

I have several community contacts that I fill will be extremely beneficial.

6. What is your understanding of the appropriate role of a public charter school board member?

To make sure that the school performs through clear evaluative measures. It ensures that the mission of the school is achieved. The board should routinely ask how well questions, provide the strategic vision for the school, hire leaders to run the school, hold those leaders accountable for academic success, and provide financial oversight.

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective charter school board member.

Most of the time I serve/served as the community liaison/contact person.

8. Describe the specific knowledge and experience that you would bring to the board.

I am very well known in Sussex County, DE. I have contacts with various community leaders, organizations, elected officials, churches (all denominations, races, cultures), media, etc.

9. Indicate whether you have submitted the results of a criminal background check and check of the Child Abuse Registry according to the instructions provided in the charter application.

Yes

No

**Per discussion with the DDOE, all Board members will submit this information after submission of the charter application, due to challenges with scheduling during COVID-19.*

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

To develop 21st-century skills, provide real-world working experiences, and facilitate service-based learning for all students in partnership with the community at large by creating a supportive learning environment where students are provided the tools to own their identities, successes, and futures.

The Bryan Allen Stevenson School of Excellence (BASSE) INC. is founded on the life philosophy of Bryan Allen Stevenson, a native Delawarean, renowned lawyer, and social justice advocate, Mr. Stevenson frequently talks about the power of proximity as being essential in his journey.

BASSE will be a free public service-learning high school in Sussex County, opening with grades nine and ten, with a strong focus on academic rigor and social justice. Our deep belief is in our children and that they are our future; therefore, they require deep investments in their learning both in the classroom and outside of the classroom. BASSE will provide a rigorous, interdisciplinary curriculum to support students in using their gained skills and knowledge to complete service projects in the community. Through collaboration with local community organizations, nonprofits, and service organizations, students will become proximate with community needs and develop novel solutions.

BASSE aims to develop the capacity for leadership in the youth of Sussex County through the passion of learning, the joy of providing service, and the power of proximity.

2. What is your understanding of the school's proposed educational program?

To ensure excellence by requiring rigorous and high-quality instruction from teachers and a supportive and challenging learning environment for students; to foster equity by creating access to local resources and global opportunities; to embrace our community by building bridges between our students, their families and the community at large; to inspire hope by facilitating spaces where students see that the potential of our community is exponential; and to elevate the voice of our students by providing them with a platform to address the current state of our community and plant the seeds for its future.

The proposed education program at BASSE is an innovative and rigorous model, designed to help students discover who they are and who they want to be as citizens of their local communities, their country, and the world. The BASSE model is one that roots challenging academic experiences in real-world experiences with a unique combination of service-learning, the International Baccalaureate curriculum, and interdisciplinary, cross-curricular thematic units. The educational model at BASSE is student-centered; each student will complete (in collaboration with their families and school staff) a personalized learning plan, the lesson planning materials require teachers to give thought to student interest and their identities, and social-emotional learning is a school-wide focus. BASSE students will have the opportunity to develop their ability to think independently and apply their knowledge to the real world in partnership with local community organizations and businesses to complete service projects that will make a positive impact and empower their ability to be community leaders.

3. What do you believe to be the characteristics of a successful charter school?

Quality, equity, accountability, and transparency.

A successful charter school must provide an innovative solution to education in the community where it will open. Additionally, a successful charter school must practice sound financial decision-making, have an effective governance structure and provide oversight to the school leadership. The school's primary goal must be student-centered and focused. The goal of a charter school is to educate students and provide the best educational options for students and families in the community where it is founded.

4. How will you know that the school is succeeding (or not) in its mission?

Test scores, graduation rate.

BASSE's primary role is educating and activating youth as advocates for change. Using our innovative approach we will (1) increase the capacity of collective impact through community partnerships, (2) accelerate the education ecosystem through innovation, (3) provide opportunities for students to apply knowledge and skills beyond the classroom, and (4) activate young community leaders. By doing this successfully, BASSE will build pathways for leadership within Sussex County. The role of BASSE is to prepare, educate, motivate, and inspire such advocates.

BASSE will create a more equitable and inclusive learning environment for all students by providing a diverse set of experiences for students. This will lead to success as it related to College and Career Readiness, our students will meet or exceed the State's SAT standard, but more importantly, they will be prepared to thrive in their community after high school.

Governance

1. Describe the role that the board will play in the school's operation.

Set the vision and goals for the school; adopt policies that give the school direction to set priorities and achieve its goals; hire and evaluate the superintendent; adopt and oversee the annual budget; manage the collective bargaining process for employees.

The board will primarily be responsible for ensuring the school follows the rules and regulations of the state and federal government, and will focus on, but not limited to, oversight of leadership, fiscal viability and monitoring, the hiring and evaluation of school leadership, the relationship between community and school, fundraising, governance, and community engagement.

2. Provide a forecast of where you see the school after its first year of operation and then again in four years.

How many students attend the school; how many students graduate.

After the first year of operation, BASSE will be establishing and evaluating our growth areas and strengths. It is the job of the board to monitor and provide oversight, direction, and feedback based on annual metrics, including, but not limited to testing, finances, HR policies, curriculum, discipline, and development. Additionally, BASSE will re-evaluate our 5-year strategic plan and conduct an internal audit.

After the first four years, BASSE will focus on long-term sustainability. BASSE will prioritize the evaluation of results and forward planning. As the school progresses into year five, BASSE will have a strong pipeline for student enrollment, established name and brand within the community, have a long-term strategic plan, and several successful audits.

3. What specific steps do you think the board will need to take to ensure that the school is successful?

To develop a 10-year plan; Teach everyone: expel less than 3% of students; Challenge the staff; Engage students; Challenge test scores; Engage parents/guardians/caretaker; Engage staff - 70% with no absence.

Funding is a top priority for BASSE, and ensuring sustainable funding is essential. BASSE will Review and research examples of success and pitfalls for past and present charters in Delaware to gain opinions and insights from experts in the field (Delaware Charter School Network, existing charters in Sussex and across the state, DDOE). Additionally, community engagement and trust-building is vital to the long-term success of the school.

4. What is your responsibility and what course of action would you take if you believed that one or more members of the school's board were acting unethically or not in the best interests of the school?

Report it to the chair and Executive Director.

The majority of our board attended the required State of Delaware.

2.7 Charter Board Member Disclosures Form

Attachment 14

14 *Del. C. § 511(q)*

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. *If so, please describe the precise nature of your relationship.*

I / we do not know prospective board members.

Yes; I/we do know prospective board members.

2. Indicate whether you or your spouse knows any person who is, or has been in the last two years, a school employee. *If so, describe the precise nature of your relationship.*

I / we do not know any such school employees.

Yes; I/we do know such school employees. The description of the relationship follows.

3. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee, or agent of an entity). *If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.*

I / we do not know any such persons.

Yes; I/we do know such persons.

4. Indicate if you, your spouse, or other immediate family members have any ownership or financial interest in the charter school, including but not limited to the building and real property to be used in the operation of the charter school, or anticipate conducting, or are conducting, any business with the school. *If so, describe the precise nature of your ownership or financial interest in the school and/or the business that is being or will be conducted.*

I / we do not expect to conduct any such business.

Yes; I/we do such business. The precise nature of the ownership or financial interest in the school and/or the business that is being or will be conducted follows.

5. If the school intends to contract with a Charter Management Company, indicate whether you or your spouse knows any employees, officers, owners, directors, or agents of that provider. *If so, please describe the precise nature of the relationship.*

Not applicable because the school does not intend to contract with a charter management company.

I / we do not know any such persons.

Yes, I/we do know such persons.

6. If the school contracts with a Charter Management Company, please indicate whether you, your spouse, or other immediate family members have a direct or indirect ownership, employment, contractual, or management interest in the provider. *If so, please describe the precise nature of the interest.*

Not applicable.

I / we have no such interest.

Yes, I/we have a direct or indirect ownership, employment, contractual or management interest in the provider.

7. If the school plans to contract with a Charter Management Company, indicate if you, your spouse, or other immediate family member anticipate conducting, or are conducting, any business with the provider. *If so, describe the precise nature of the business that is being or will be conducted.*

Not applicable.

I / we or my family do not expect to conduct any such business.

Yes. We or my family do expect to conduct such business.

8. Indicate whether you, your spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school. *If so, please describe the precise nature of the relationship.*

Does not apply to me, my spouse, or family.

Yes. I, my spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school.

9. Indicate whether there are any potential ethical or legal conflicts of interests that would, or are likely to exist, should you serve on the school's board. *If so, describe the potential ethical or legal conflicts of interest.*

None

Yes. A description of the potential ethical or legal conflicts(s) of interest follows.

Certification

I hereby certify that the information above is true and accurate. I further certify that I will notify the Delaware Department of Education in writing if my answers to the questions on this form should change.

Diaz James Bonville

Name (Printed)

Diaz Bonville

Signature

12/27/2021

Date

2.6 Charter School Board Member Information Form

Attachment 13

14 *Del. C. § 512*(1), (3), (6) and (9)

To be completed individually by each proposed charter school board member

Serving on a public charter school board of directors is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the Delaware Department of Education (DDOE) requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold:

- (1) To give application reviewers a clearer introduction to the Founding Group behind each school proposal in advance of the applicant interview, and to be better prepared for the interview/Initial Meeting; and
- (2) To encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. The name of the charter school on whose board you intend to serve:

The Bryan Allen Stevenson School of Excellence

2. Full name: Joseph H. Kim, DO FAAFP

Home Address: 123 Village Drive Seaford, DE 19973

Business Name and Address: TidalHealth Primary Care, 30549 Sussex Highway, Laurel, DE 19956

Telephone Number: (443) 614-7454

E-mail address: daekim@aol.com

3. Brief educational and employment history (no narrative response is required if résumé and professional biography are attached).

Résumé and professional biography are attached

4. Indicate whether you currently or have previously served on a board of a school district, another charter school, a non-public school, or any not-for-profit corporation (to the extent not otherwise indicated in your response to Item 3, above).

Yes

Does not apply to me

Yes, Jefferson School and TidalHealth Nanticoke

5. Why would you like to serve on the board of the proposed charter school?

To help establish a school that fosters community service and educational excellence for our rural community.

6. What is your understanding of the appropriate role of a public charter school board member?

I have a good understanding due to my experience. It is our responsibility to provide a high quality education to our students while also continually striving for excellence.

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective charter school board member.

Jefferson School Board Member

8. Describe the specific knowledge and experience that you would bring to the board.

I have experience with school accreditation and community outreach/fundraising. In addition, as a local physician, I can provide opportunity to students interested in medicine.

9. Indicate whether you have submitted the results of a criminal background check and check of the Child Abuse Registry according to the instructions provided in the charter application.

Yes

**As an active physician, I have performed the above*

No

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

To develop 21st-century skills, provide real-world working experiences, and facilitate service-based learning for all students in partnership with the community at large by creating a supportive learning environment where students are provided the tools to own their identities, successes, and futures.

2. What is your understanding of the school's proposed educational program?

BASSE will provide: service learning, internships in the community, ensure students are proximate to the community, high academic expectations for all students, access to curriculum that will prepare them for both college and career, inquiry-driven to develop critical thinking skills, extended school day, student-focused and driven learning, a culture of daily mastery to create lifelong learners and build students leadership capacity.

3. What do you believe to be the characteristics of a successful charter school?

A school that follows the state and federal government's rules and regulations serve as a strong moral and ethical example for students, families, and stakeholders. BASSE will meet or exceed peer public schools' performance, be a safe and equitable work environment, and provide an alternative and innovative approach to learning while meeting Delaware College and Career Readiness metrics.

4. How will you know that the school is succeeding (or not) in its mission?

BASSE's primary role is educating and activating youth as advocates for change. Using our innovative approach, we will (1) increase the capacity of collective impact through community partnerships, (2) accelerate the education ecosystem through innovation, (3) provide opportunities for students to apply knowledge and skills beyond the classroom, and (4) activate young community leaders. By doing this successfully, BASSE will build pathways for leadership within Sussex County. The role of BASSE is to:

- Support the hiring of and continuous development of the administrators and teachers
- Professional Development
- Ensuring the financial competitiveness of the school through support of professional development, competitive salaries
- Involvement in the school beyond board meetings
- Visiting classrooms
- Attendance at large celebrations (beginning of year events, graduations, other culture building events)
- Smart policy decisions
- Revisions as needed based on recommendations from school leaders, teachers, parents and families

Governance

1. Describe the role that the board will play in the school's operation.

The board will primarily be responsible for ensuring the school follows the rules and regulations of the state and federal government and will focus on:

- Leadership & oversight
- Ensure fiscal viability and monitoring
- Hire and evaluate school leadership (Executive Director, Principal, advisory committees)
- Regularly make contact with
- Manages the mutual relationship between community and school (hand in the community and hand in the school)
- Development and fundraising
- Governance, fiscal responsibility, community outreach

2. Provide a forecast of where you see the school after its first year of operation and then again in four years.

After the first year of operation, I anticipate BASSE to have had a successful year educating the inaugural class. The board's job is to monitor and provide oversight, direction, and feedback based on annual metrics, including, but not limited to testing, finances, HR policies, curriculum, discipline, and development. Additionally, BASSE will re-evaluate our 5-year strategic plan and conduct an internal audit.

After the first four years, BASSE will focus on long-term sustainability. BASSE will prioritize the evaluation of results and planning. As the school progresses into year five, BASSE will have a strong pipeline for student enrollment, an established name, and brand within the community, have a long-term strategic plan, and several successful audits.

3. What specific steps do you think the board will need to take to ensure that the school is successful?

BASSE will Review and research examples of success and pitfalls for past and present charters in Delaware to gain opinions and insights from experts in the field (Delaware Charter School Network, existing charters in Sussex and across the state, DDOE). Additionally, BASSE will:

- Ensuring sustainable funding sources
- Review and research examples of success and pitfalls for past and present charters in Delaware
- Gaining opinions and insights from experts in the field (Delaware Charter School Network, existing charters in Sussex and across the state, DDOE)
- Self-reflection
- Community engagement -- parent support & student enrollment (build trust)
- Develop clear and consistent policies and procedures (student, staff and organization handbook) & establish ways to monitor (checkpoint meetings -- staff, students, and stakeholders)

- Clear and consistent procedures and documentation (institutional knowledge, transition planning, succession planning procedures, exit interviews, HR policies)
4. What is your responsibility and what course of action would you take if you believed that one or more members of the school's board were acting unethically or not in the best interests of the school?

BASSE will provide and ensure an environment where both board members, employees, and stakeholders feel comfortable speaking openly and honestly. Collegial interventions may initially be necessary to evaluate the action in question. BASSE has included an ethical clause in our bylaws to ensure BASSE can appropriately address any ethical issues as they arise. Additionally, BASSE will establish an ethics committee (representation board, student, community, staff, and school leadership team) to deal with case-by-case situations to assess what is in the best interest of the school, students, parent, and community at all times.

The majority of our board attended the required State of Delaware Ethics training to establish the following steps for any ethical concerns: (1) take concerns to the executive committee of the board or other leadership if the exec committee is committing the infraction, (2) per our bylaws, code of conduct, establish ethics committee to hear and assess the complaint, (3) ethics committee would make a decision on how to handle the situation, which could include, removal from the board.

2.7 Charter Board Member Disclosures Form

Attachment 14

14 *Del. C. § 511(q)*

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. *If so, please describe the precise nature of your relationship.*

I / we do not know prospective board members.

Yes; I/we do know prospective board members.

2. Indicate whether you or your spouse knows any person who is, or has been in the last two years, a school employee. *If so, describe the precise nature of your relationship.*

I / we do not know any such school employees.

Yes; I/we do know such school employees. The description of the relationship follows.

3. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee, or agent of an entity). *If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.*

I / we do not know any such persons.

Yes; I/we do know such persons.

4. Indicate if you, your spouse, or other immediate family members have any ownership or financial interest in the charter school, including but not limited to the building and real property to be used in the operation of the charter school, or anticipate conducting, or are conducting, any business with the school. *If so, describe the precise nature of your ownership or financial interest in the school and/or the business that is being or will be conducted.*

I / we do not expect to conduct any such business.

Yes; I/we do such business. The precise nature of the ownership or financial interest in the school and/or the business that is being or will be conducted follows.

5. If the school intends to contract with a Charter Management Company, indicate whether you or your spouse knows any employees, officers, owners, directors, or agents of that provider. *If so, please describe the precise nature of the relationship.*

Not applicable because the school does not intend to contract with a charter management company.

I / we do not know any such persons.

Yes, I/we do know such persons.

6. If the school contracts with a Charter Management Company, please indicate whether you, your spouse, or other immediate family members have a direct or indirect ownership, employment, contractual, or management interest in the provider. *If so, please describe the precise nature of the interest.*

Not applicable.

I / we have no such interest.

Yes, I/we have a direct or indirect ownership, employment, contractual or management interest in the provider.

7. If the school plans to contract with a Charter Management Company, indicate if you, your spouse, or other immediate family member anticipate conducting, or are conducting, any business with the provider. *If so, describe the precise nature of the business that is being or will be conducted.*

Not applicable.

I / we or my family do not expect to conduct any such business.

Yes. We or my family do expect to conduct such business.

8. Indicate whether you, your spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school. *If so, please describe the precise nature of the relationship.*

Does not apply to me, my spouse, or family.

Yes. I, my spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school.

9. Indicate whether there are any potential ethical or legal conflicts of interests that would, or are likely to exist, should you serve on the school's board. *If so, describe the potential ethical or legal conflicts of interest.*

None

Yes. A description of the potential ethical or legal conflicts(s) of interest follows.

Certification

I hereby certify that the information above is true and accurate. I further certify that I will notify the Delaware Department of Education in writing if my answers to the questions on this form should change.

Joseph Kim

Name (Printed)

DocuSigned by:



37E6A690301441E...

Signature

12/27/2021

Date

2.6 Charter School Board Member Information Form

Attachment 13

14 *Del. C. § 512(1), (3), (6) and (9)*

To be completed individually by each proposed charter school board member

Serving on a public charter school board of directors is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the Delaware Department of Education (DDOE) requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold:

- (1) To give application reviewers a clearer introduction to the Founding Group behind each school proposal in advance of the applicant interview, and to be better prepared for the interview/Initial Meeting; and
- (2) To encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. The name of the charter school on whose board you intend to serve:

The Bryan Allen Stevenson School of Excellence

2. Full name: Karen V. Higgins

Home Address: 322 Friedman Dr. New Castle, DE 19720

Business Name and Address: Retired

Telephone Number: (302) 595-4122

E-mail address: kvalhig@gmail.com

3. Brief educational and employment history (no narrative response is required if résumé and professional biography are attached).

Résumé and professional biography are attached

4. Indicate whether you currently or have previously served on a board of a school district, another charter school, a non-public school, or any not-for-profit corporation (to the extent not otherwise indicated in your response to Item 3, above).

Organizations listed on resume

5. Why would you like to serve on the board of the proposed charter school?

Being a Delaware native, born and raised in Sussex County, I have an inherent interest in giving back to the community. I have always had an interest in education and development. I believe using my training and knowledge to support an organization centered on the development of children would add to the community and be self-fulfilling.

6. What is your understanding of the appropriate role of a public charter school board member?

I believe the role of the board would be to establish the direction for the school, ensure appropriate funding is available from multiple sources and to facilitate the acquisition of appropriate staffing and resources.

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective charter school board member.

Though I have not served on a school board, I have had experience with training and development in my former profession. I was the lead executive for the training academy for the U.S. Postal Inspection Service for approximately two years. In this capacity, I provided oversight for the day to day operations of the academy, which included recruitment, training of Federal Law Enforcement Officers, Uniform Postal Police Officers and continuing education training for law enforcement and non-law enforcement employees of the Inspection Service.

8. Describe the specific knowledge and experience that you would bring to the board.

Through education and on the job development, I have experience in managing people and resources; written and oral communications; program and project management; interpersonal relationships; customer focus; financial management; and strategic leadership. I would bring over 32 years of knowledge, skills, and abilities that have assisted in the development of competency sets, which I have used to work with a diverse group of people for many years.

9. Indicate whether you have submitted the results of a criminal background check and check of the Child Abuse Registry according to the instructions provided in the charter application.

Yes – March 02, 2021

No

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

BASSE's mission is to create pathways, through proximity, for our students, their families, and our community. In order to fulfill our mission, we will need to understand our students and the surrounding community; adapt school programs and procedures to meet the student's needs. The school's mission aligns with the objective of providing our students with growth opportunities, which will enable them to aspire to their fullest potential with an eventual benefit to their communities, the state, and the world.

2. What is your understanding of the school's proposed educational program?

I believe the intent of the school is to provide service-learning based programs, combined with high academic expectations that will develop students for leadership in their communities. The program will provide students with the necessary tools to be successful citizens and contributors to their communities. Our program will provide students with the flexibility and freedom to follow their personal chosen path of success.

3. What do you believe to be the characteristics of a successful charter school?

A successful charter school should be able to meet the needs of its students while engaging parents and the community.

4. How will you know that the school is succeeding (or not) in its mission?

The success of the school will be determined by the ability to maintain a steady stream of students successfully completing the programs. Success will be evident when the school demonstrates continued growth, financial stability, and viability to provide students with the resources necessary to ensure success. It will include the development of community confidence, belief, and support in the operations of the school.

Governance

1. Describe the role that the board will play in the school's operation.

I believe the role of the board should be to provide leadership and oversight to contribute to the overall success of the school. I see the main functions of the board to be governance, fiscal responsibility, and community outreach.

2. Provide a forecast of where you see the school after its first year of operation and then again in four years.

I see the first year as an adjustment year, with a limited number of multi-functional staff, but having the ability to meet the state requirements and the needs of the students. I envision the first few years as developmental, allowing for adjustments and changes on the path to becoming fully operational and high achieving.

3. What specific steps do you think the board will need to take to ensure that the school is successful?

To ensure success, I think the board will have to ensure compliance with all required regulations and academic standards through policies and procedures to maintain a safe and secure work environment for students and staff. The board will need to ensure the school has sufficient funds to address students' needs and staff and meet the school's operational needs.

4. What is your responsibility, and what course of action would you take if you believed that one or more members of the school's board were acting unethically or not in the best interests of the school?

As a board member, I believe you are responsible for ensuring the highest ethical and moral standards are being maintained by all personnel associated with the school. I have a responsibility to become knowledgeable about possible areas where conflicts or improprieties could occur. As a board member, I should also ensure policies and procedures are in place to address any situations which may arise. I would bring any improprieties before the executive committee or other leadership as appropriate. If applicable, an appropriate law enforcement official would be contacted.

2.7 Charter Board Member Disclosures Form

Attachment 14

14 Del. C. § 511(q)

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. *If so, please describe the precise nature of your relationship.*

I / we do not know prospective board members.

Yes; I/we do know prospective board members.

Since working to establish the school, I have come to know several of the other board members. I am a blood relative of one of the co-founders, Chantalle Ashford, and I am also connected with several of the other members through mutual membership in the same sorority.

2. Indicate whether you or your spouse knows any person who is, or has been in the last two years, a school employee. *If so, describe the precise nature of your relationship.*

I / we do not know any such school employees.

Yes; I/we do know such school employees. The description of the relationship follows.

3. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee, or agent of an entity). *If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.*

I / we do not know any such persons.

Yes; I/we do know such persons.

4. Indicate if you, your spouse, or other immediate family members have any ownership or financial interest in the charter school, including but not limited to the building and real property to be used in the operation of the charter school, or anticipate conducting, or are conducting, any business with the school. *If so, describe the precise nature of your ownership or financial interest in the school and/or the business that is being or will be conducted.*

I / we do not expect to conduct any such business.

Yes; I/we do such business. The precise nature of the ownership or financial interest in the school and/or the business that is being or will be conducted follows.

5. If the school intends to contract with a Charter Management Company, indicate whether you or your spouse knows any employees, officers, owners, directors, or agents of that provider. *If so, please describe the precise nature of the relationship.*

Not applicable because the school does not intend to contract with a charter management company.

I / we do not know any such persons.

Yes, I/we do know such persons.

6. If the school contracts with a Charter Management Company, please indicate whether you, your spouse, or other immediate family members have a direct or indirect ownership, employment, contractual, or management interest in the provider. *If so, please describe the precise nature of the interest.*

Not applicable.

I / we have no such interest.

Yes, I/we have a direct or indirect ownership, employment, contractual or management interest in the provider.

7. If the school plans to contract with a Charter Management Company, indicate if you, your spouse, or other immediate family member anticipate conducting, or are conducting, any business with the provider. *If so, describe the precise nature of the business that is being or will be conducted.*

Not applicable.

I / we or my family do not expect to conduct any such business.

Yes. We or my family do expect to conduct such business.

8. Indicate whether you, your spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school. *If so, please describe the precise nature of the relationship.*

Does not apply to me, my spouse, or family.

Yes. I, my spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school.

9. Indicate whether there are any potential ethical or legal conflicts of interests that would, or are likely to exist, should you serve on the school's board. *If so, describe the potential ethical or legal conflicts of interest.*

None

Yes. A description of the potential ethical or legal conflicts(s) of interest follows.

Certification

I hereby certify that the information above is true and accurate. I further certify that I will notify the Delaware Department of Education in writing if my answers to the questions on this form should change.

Karen V. Higgins

Name (Printed)

DocuSigned by:
Karen V. Higgins

D0D1E028757E440...
Signature

12/27/2021

Date

2.6 Charter School Board Member Information Form

Attachment 13

14 *Del. C. § 512*(1), (3), (6) and (9)

To be completed individually by each proposed charter school board member

Serving on a public charter school board of directors is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the Delaware Department of Education (DDOE) requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold:

- (1) To give application reviewers a clearer introduction to the Founding Group behind each school proposal in advance of the applicant interview, and to be better prepared for the interview/Initial Meeting; and
- (2) To encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. The name of the charter school on whose board you intend to serve:

The Bryan Allen Stevenson School of Excellence

2. Full name: Karl Armand

Home Address: 2871 Aramingo Avenue, Philadelphia, PA 19134

Business Name and Address: 2871 Aramingo Avenue, Philadelphia, PA 19134

Telephone Number: (609) 284-7956

E-mail address: karl.armand@yahoo.com

3. Brief educational and employment history (no narrative response is required if résumé and professional biography are attached).

Résumé and professional biography are attached

4. Indicate whether you currently or have previously served on a board of a school district, another charter school, a non-public school, or any not-for-profit corporation (to the extent not otherwise indicated in your response to Item 3, above).

Yes

Does not apply to me

5. Why would you like to serve on the board of the proposed charter school?

I was raised by a middle school teacher, so I have always had an appreciation for education, however I, myself, do not have a formal background in education. I feel this is an opportunity to bring my formal business and legal background and apply them to the educational field that I have always revered.

6. What is your understanding of the appropriate role of a public charter school board member?

My understanding of the appropriate role of a charter school board member is two-fold, one is to act as the conduit between stakeholders in the greater regional community and the specific charter school community. Additionally, a charter school board member should act as a shepherd for the charter school to foster development and growth in a safe and secure manner.

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective charter school board member.

As a member of the Delaware Journal of Corporate Law, I had the opportunity to examine and analyze the goals and actions of corporate directors and boards. Understanding the corporate duty of care and fiduciary duties from my legal background will guide my action in helping shape this charter school.

8. Describe the specific knowledge and experience that you would bring to the board.

I bring a deep background of legal and corporate business knowledge as reflective of a BA from Temple University in Law and Business and a Juris Doctorate from Widener University: Delaware School of Law. As a summer associate prosecutor with the Chester County, PA District Attorney's Office, I have

understanding community support and what it means to be accountable to local stakeholders. Additionally, analysis of statutes, applications of rules, investigations, corrective action plans, and optimizing outcomes based on circumstances were key functions of my prosecutorial responsibilities. As an JP Morgan analyst, fiscal responsibility was key parts of my employment. Upholding institutional integrity by way of enforcing banking regulations, governance and oversight. In my current employment, I craft and negotiate contracts, specializing in school district/public library contracts and RFPs for educational internet solutions in the Comcast Beltway footprint consisting of the D.C. Metro, Maryland, and Southern Delaware region. My work has provided me ability to participate in planning and coordination of K-12 education and infrastructure.

9. Indicate whether you have submitted the results of a criminal background check and check of the Child Abuse Registry according to the instructions provided in the charter application.

Yes

No
**Per discussion with the DDOE, all Board members will submit this information after submission of the charter application, due to challenges with scheduling during COVID-19.*

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

My understanding of the school's mission is to develop global citizens beginning with their local roots and through the lens of history and legacy. The Bryan Allen Stevenson School of Excellence ("BASSE") aims to provide a rigorous academic regimen to spur innovative thinking and problem solving with the opportunity to implement that innovation in a local, practical environment. Students of BASSE will blossom into the leaders of tomorrow, with roots firmly planted in the southern Delaware community, and grown and nurtured in the soil of history and social justice.

2. What is your understanding of the school's proposed educational program?

The school's proposed educational program is meant provide a rigorous academic curriculum as well as community service/service learning and local internship opportunities. Students will be challenged to compete both with their BASSE peers and with their global cohorts. The educational program, with the implementation of the International Baccalaureate curriculum, is meant to challenge students individually but also provide opportunity to collaborate with their peers. Faculty of BASSE will encourage students to take initiative to exercise autonomy over their own future while investing in their peers and their community.

3. What do you believe to be the characteristics of a successful charter school?

A successful charter school is meant to be a pillar of the community while enriching students beyond an education capacity, to become well rounded contributors. BASSE is organized to be a safe haven for the youth of Sussex County, where a tradition and legacy will be passed on generation after generation. The staff, faculty and administration shall operate with longevity in mind, always putting the best interest of students and community above all else.

4. How will you know that the school is succeeding (or not) in its mission?

Short term success can be observed by how eager the surrounding community is to support and involve itself within the school. Long term success can be observed by seeing alumni engagement and support of current and potential students. The accumulation of community partners will build a diverse network of practical opportunities for students with the benefit of community enrichment by the next generation of Delawarean leaders. Academic success and creative thought shall give students the tools and resources to build a self-determined bridge to the future. Every BASSE student shall be a beacon of the tradition and pedigree which has been home-grown in Sussex County and refined in its community institutions. Student success is BASSE success, which we expect to breed institutional trust in BASSE leading to further community buy in, alumni repatriation, with the goal of becoming a Delaware touchstone.

Governance

1. Describe the role that the board will play in the school's operation.

The board will be an active observer of the school's low level activity and high level trajectory. The board is meant to listen to the voices of stakeholders and effectively take that feedback into account while creating the best opportunity to succeed for the school as a whole. Further, the board shall provide fiscal oversight and guidance in addition to ensuring school adherence to state/federal rules, regulation and governance best practices. Finally, development by way of cultivation of community relationships, administration assessment, and fundraising.

2. Provide a forecast of where you see the school after its first year of operation and then again in four years.

After year one, the school shall comprehensively review the successes and challenges of the first year and create strategic partnerships to optimize operations. The board shall perform a comprehensive assessment and provide forward looking strategy on high level aspects of school development including academic success, internal policies, and financials. After the first four years, expectations are for the school to be an established actor in the community and an organization that people seek out. Annual assessments will have borne refinements year over year leading to organization legacy, reputation building and community buy-in.

3. What specific steps do you think the board will need to take to ensure that the school is successful?

Longevity and sustainability are key to establishment as a community cornerstone. The board's establishment of financial security and consistent fundraising will provide a reliable foundation for the school to grow upon. Regular review and reassessment of actions the board has taken as well as accounting for the actions taken by similarly situated organizations. To build a school that is a benefit to the community and in turn engage with the community to ensure the school received the support it needs to thrive. Lastly, institution and maintenance of rational policy making will ensure consistency among students, staff and administration.

4. What is your responsibility and what course of action would you take if you believed that one or more members of the school's board were acting unethically or not in the best interests of the school?

My duty is to make sure that the students and the school are put in the best position to succeed. This includes writing and adhering to board created bylaws and ensure that appropriate members of the executive board are made aware so that corrective action can be made to ensure make sure the school's stakeholders are made whole. Reinforcement of code of conduct and with the guidance of the ethics committee, solutions shall be found and corrective action will be taken to preserve the integrity of the school.

2.7 Charter Board Member Disclosures Form

Attachment 14

14 *Del. C. § 511(q)*

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. *If so, please describe the precise nature of your relationship.*

I / we do not know prospective board members.

Yes; I/we do know prospective board members.

Yes. I have a professional know prospective board members through my wife, who has worked with them in a professional setting. My wife was a founding board member, but has recused herself from the board. relationship with the President of the Board, with whom I arrange panel discussions for mentees and students. We have known one another for over two years, collaborating on bringing diversity issues to students and teachers in Delaware.

2. Indicate whether you or your spouse knows any person who is, or has been in the last two years, a school employee. *If so, describe the precise nature of your relationship.*

I / we do not know any such school employees.

Yes; I/we do know such school employees. The description of the relationship follows.

3. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee, or agent of an entity). *If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.*

I / we do not know any such persons.

Yes; I/we do know such persons.

My spouse is previous co-worker of an individual (Alonna Berry) who will be a director/officer/employee/agent of the school entity.

4. Indicate if you, your spouse, or other immediate family members have any ownership or financial interest in the charter school, including but not limited to the building and real property to be used in the operation of the charter school, or anticipate conducting, or are conducting, any business with the school. *If so, describe the precise nature of your ownership or financial interest in the school and/or the business that is being or will be conducted.*

I / we do not expect to conduct any such business.

Yes; I/we do such business. The precise nature of the ownership or financial interest in the school and/or the business that is being or will be conducted follows.

5. If the school intends to contract with a Charter Management Company, indicate whether you or your spouse knows any employees, officers, owners, directors, or agents of that provider. *If so, please describe the precise nature of the relationship.*

Not applicable because the school does not intend to contract with a charter management company.

I / we do not know any such persons.

Yes, I/we do know such persons.

6. If the school contracts with a Charter Management Company, please indicate whether you, your spouse, or other immediate family members have a direct or indirect ownership, employment, contractual, or management interest in the provider. *If so, please describe the precise nature of the interest.*

Not applicable.

I / we have no such interest.

Yes, I/we have a direct or indirect ownership, employment, contractual or management interest in the provider.

7. If the school plans to contract with a Charter Management Company, indicate if you, your spouse, or other immediate family member anticipate conducting, or are conducting, any business with the provider. *If so, describe the precise nature of the business that is being or will be conducted.*

Not applicable.

I / we or my family do not expect to conduct any such business.

Yes. We or my family do expect to conduct such business.

8. Indicate whether you, your spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school. *If so, please describe the precise nature of the relationship.*

Does not apply to me, my spouse, or family.

Yes. I, my spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school.

9. Indicate whether there are any potential ethical or legal conflicts of interests that would, or are likely to exist, should you serve on the school's board. *If so, describe the potential ethical or legal conflicts of interest.*

None

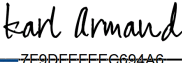
Yes. A description of the potential ethical or legal conflicts(s) of interest follows.

Certification

I hereby certify that the information above is true and accurate. I further certify that I will notify the Delaware Department of Education in writing if my answers to the questions on this form should change.

Karl Armand

Name (Printed)

DocuSigned by:


Signature

12/29/2021

Date

2.6 Charter School Board Member Information Form

Attachment 13

14 *Del. C. § 512*(1), (3), (6) and (9)

To be completed individually by each proposed charter school board member

Serving on a public charter school board of directors is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the Delaware Department of Education (DDOE) requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold:

- (1) To give application reviewers a clearer introduction to the Founding Group behind each school proposal in advance of the applicant interview, and to be better prepared for the interview/Initial Meeting; and
- (2) To encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. The name of the charter school on whose board you intend to serve:

The Bryan Allen Stevenson School of Excellence

2. Full name: Katherine Luisa Cauley

Home Address: 11 Sabrina Drive Rehoboth Beach, Delaware 19971

Business Name and Address:

Telephone Number: 937 469 1695

E-mail address: Katherine.cauley@wright.edy

3. Brief educational and employment history (no narrative response is required if résumé and professional biography are attached).

Résumé and professional biography are attached

4. Indicate whether you currently or have previously served on a board of a school district, another charter school, a non-public school, or any not-for-profit corporation (to the extent not otherwise indicated in your response to Item 3, above).

no

Does not apply to me

5. Why would you like to serve on the board of the proposed charter school?
I am committed to the mission, vision and goals of the Bryan Allen Stevenson School of Excellence, and believe I have some expertise to lend to the work of the school.

6. What is your understanding of the appropriate role of a public charter school board member?
A charter school board member's primary role is to provide oversight of the proposed charter school as well as to advise and support the Executive Leadership of the school.

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective charter school board member.
I am a retired Professor and Vice Chair of the Department of Community Health, Wright State University Boonshoft School of Medicine. In that capacity, I served, as both member and chair on numerous boards of directors for both educational and social services non-profit organizations. Additionally, in my capacity as Department Vice Chair, I had both fiscal oversight for the department as well as human resources oversight for the faculty and staff of the department. Additionally, I directed a community academic partnership with the university that worked closely with seventeen public school districts to facilitate community-based education/training for health professions students from the schools of medicine, nursing, professional psychology, and social work. Finally, in my early career, I taught for eight years in the public schools of Prince George's County, Maryland.

8. Describe the specific knowledge and experience that you would bring to the board.
In addition to administrative experience, I spent over twenty years developing service-learning curricula for high school, college and graduate school interdisciplinary courses, and I can bring that expertise to the Bryan Allen Stevenson School of Excellence. Additionally, for over twenty years, I

supported a non-profit organization through federal, state and private foundation grants and contracts totaling, on average, \$5mil annually, and can bring expertise is grant-writing to the Bryan Allen Stevenson School of Excellence. For additional information, please see my bio in Section 1.2 of the Charter Application.

9. Indicate whether you have submitted the results of a criminal background check and check of the Child Abuse Registry according to the instructions provided in the charter application.

No

**Per discussion with the DDOE, all Board members will submit this information after submission of the charter application, due to challenges with scheduling during COVID-19.*

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

The Bryan Allen Stevenson School of Excellence (BASSE), founded on the life philosophy of Bryan Allen Stevenson, a native Delawarean, renowned lawyer, and social justice advocate, will be an innovative, inclusive school providing *all* students in Sussex County an opportunity for success.

BASSE will be a free public service-learning secondary school in Sussex County, opening with grades six and seven, with equal focus on academic rigor and social justice. Building on Bryan Stevenson's concept of proximity, that is getting close to and involved with the people we serve, our students will learn how to bring their unique talents to the work of improving the world around them. As today's students are tomorrow's leaders, BASSE is committed to investing in our young people, and through learning, both within and outside of the classroom, insure they can be productive members of the 21st century. BASSE will expand the traditional teaching team to include the local community and instill in our students the value of service in any endeavor they pursue.

2. What is your understanding of the school's proposed educational program?

The educational program for the Bryan Allen Stevenson School of Excellence will support student driven, individualized education through the Personal Learning Plan (PLP) that each student will complete in concert with their family, teachers and multiple academic and social emotional learning assessments in the first several weeks of school. The PLP, a living, changing document will guide student success throughout their career at BASSE. Additionally, the content curriculum, delivered through interdisciplinary cross curricular units for small cohorts of students, will be fully inclusive with a foundation of both service learning and the International Baccalaureate curricula, each of which have demonstrated success in fostering the student outcomes and values represented in the mission, vision and goals of the school. Key to the student experience is the commitment to community based education and service which will begin day one, and culminate in the Individual Service Project throughout 11th and 12th grades. Not only will the BASSE educational program insure success for all students, it will also insure that students are prepared for post secondary success in a career or college.

3. What do you believe to be the characteristics of a successful charter school?

A successful charter school should provide an innovative educational solution for all students who walk through the doors. A successful charter school should provide an alternative to existing schools, and in the case of the Bryan Allen Stevenson School of Excellence this innovation and alternative approach is focused on insuring that all students, particularly traditionally underserved students, can meet and exceed current outcomes measuring academic achievement and graduation. Additionally, a successful charter school needs to be financially solvent. Finally, a successful charter school should work in partnership with other schools and districts in the county to insure success for all students who attend public schools. The goal of a charter school is to educate students and provide the best educational options for students and families in the community where it is founded.

4. How will you know that the school is succeeding (or not) in its mission?

BASSE will create a more equitable and inclusive learning environment for all students by providing a diverse set of experiences, a faculty and staff trained to insure both a school culture and delivery of curricula that is equitable and inclusive, and a curriculum, both inside and outside of the classroom to support success for all students. This will lead to success as it related to College and Career Readiness, where our students will meet or exceed the State’s SAT standard, but more importantly, they will be prepared to thrive in their community, after high school. Critical to student success is the involvement of the community in educating and activating youth as advocates for change. A good measure of overall school success will be the numbers of community organizations and businesses working directly with students through service projects and internships throughout their career at BASSE

Governance

1. Describe the role that the board will play in the school’s operation.

The Board of Directors is primarily responsible for insuring that the school is fiscally sound, and in compliance with all federal, state, and local law. Additionally, the Board will provide oversight of the Leadership Team, and engage in maintaining and strengthening the partnerships established by the school of local, state and national partners key to the day to day activities of the school.

2. Provide a forecast of where you see the school after its first year of operation and then again in four years.

After the first year of successful operation, the work will focus on a review of fiscal assumptions, the leadership team, student metrics, and relationships with community partners. I see the school as working hard to ensure enrollment, and expanding staff as grade levels expand. After the first four years of successful operation, the work will focus on longer term sustainability, and a reassessment of existing strategic planning. Community partnerships will be well established and expanding, and the role of BASSE in the educational ecosystem of the county will be solidly in place.

3. What specific steps do you think the board will need to take to ensure that the school is successful?

Insuring fiscal strength is the first priority. BASSE will continue to focus on insuring there is a strong fiscal foundation for the school through appropriate management of state and federal funds and through ongoing fundraising through grants and individual giving. Additionally, BASSE will continue to focus on student and faculty/staff recruitment and establishing new and maintaining existing community partners engaged in student education, as these are all a key to the success of the school.

4. What is your responsibility and what course of action would you take if you believed that one or more members of the school’s board were acting unethically or not in the best interests of the school?

The bylaws for BASSE include an ethical clause to address procedures for any unethical behavior, which I would follow. Additionally, an ethics committee will be established that is fully representative of all members of the BASSE community to address issues, should they arise. Best practice, additionally, requires that as a professional, should I become aware of any unethical behavior of a Board member, I would address the Board member directly with my concern, followed by reporting the concern to the executive committee of the Board or school leadership, and ultimately to the Ethics Committee for appropriate action.

Finally, Board members attended the required State of Delaware Ethics training to establish the following steps for any ethical concerns: (1) take concern to the executive committee of board or other leadership if the exec committee is committing the infraction, (2) per our bylaws, code of conduct, establish ethics committee to hear and assess the complaint, (3) ethics committee would make a decision on how to handle the situation, which could include, removal from the board.

2.7 Charter Board Member Disclosures Form

Attachment 14

14 Del. C. § 511(q)

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. *If so, please describe the precise nature of your relationship.*

I / we do not know prospective board members.

Yes; I do know prospective board members, as a result of having worked on the Board of Directors for the past several years in preparation for opening the school. No prior relationship before this focused work.

2. Indicate whether you or your spouse knows any person who is, or has been in the last two years, a school employee. *If so, describe the precise nature of your relationship.*

I / we do not know any such school employees.

Yes; I/we do know such school employees. The description of the relationship follows.

3. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee, or agent of an entity). *If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.*

I / we do not know any such persons.

Yes; I/we do know such persons.

4. Indicate if you, your spouse, or other immediate family members have any ownership or financial interest in the charter school, including but not limited to the building and real property to be used in the operation of the charter school, or anticipate conducting, or are conducting, any business with the school. *If so, describe the precise nature of your ownership or financial interest in the school and/or the business that is being or will be conducted.*

I / we do not expect to conduct any such business.

Yes; I/we do such business. The precise nature of the ownership or financial interest in the school and/or the business that is being or will be conducted follows.

5. If the school intends to contract with a Charter Management Company, indicate whether you or your spouse knows any employees, officers, owners, directors, or agents of that provider. *If so, please describe the precise nature of the relationship.*

Not applicable because the school does not intend to contract with a charter management company.

I / we do not know any such persons.

Yes, I/we do know such persons.

6. If the school contracts with a Charter Management Company, please indicate whether you, your spouse, or other immediate family members have a direct or indirect ownership, employment, contractual, or management interest in the provider. *If so, please describe the precise nature of the interest.*

Not applicable.

I / we have no such interest.

Yes, I/we have a direct or indirect ownership, employment, contractual or management interest in the provider.

7. If the school plans to contract with a Charter Management Company, indicate if you, your spouse, or other immediate family member anticipate conducting, or are conducting, any business with the provider. *If so, describe the precise nature of the business that is being or will be conducted.*

Not applicable.

<input type="checkbox"/>
<input type="checkbox"/>

I / we or my family do not expect to conduct any such business.
Yes. We or my family do expect to conduct such business.

8. Indicate whether you, your spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school. *If so, please describe the precise nature of the relationship.*

Does not apply to me, my spouse, or family.

Yes. I, my spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school.

9. Indicate whether there are any potential ethical or legal conflicts of interests that would, or are likely to exist, should you serve on the school's board. *If so, describe the potential ethical or legal conflicts of interest.*

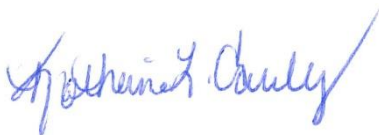
None

Yes. A description of the potential ethical or legal conflicts(s) of interest follows.

Certification

I hereby certify that the information above is true and accurate. I further certify that I will notify the Delaware Department of Education in writing if my answers to the questions on this form should change.

Katherine L. Cauley
Name (Printed)



Signature

December 23, 2021
Date

2.6 Charter School Board Member Information Form

Attachment 13

14 *Del. C. § 512(1), (3), (6) and (9)*

To be completed individually by each proposed charter school board member

Serving on a public charter school board of directors is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the Delaware Department of Education (DDOE) requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold:

- (1) To give application reviewers a clearer introduction to the Founding Group behind each school proposal in advance of the applicant interview, and to be better prepared for the interview/Initial Meeting; and
- (2) To encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. The name of the charter school on whose board you intend to serve:

The Bryan Allen Stevenson School of Excellence

2. Full name: Stacie Burton

Home Address: 24925 Johnson Rd. Georgetown DE 19947

Business Name and Address: State of Delaware, 820 N. French St. Wilmington, DE 19801

Telephone Number: 302-344-5724

E-mail address: Stacie.burton@yahoo.com

3. Brief educational and employment history (no narrative response is required if résumé and professional biography are attached).

Résumé and professional biography are attached

4. Indicate whether you currently or have previously served on a board of a school district, another charter school, a non-public school, or any not-for-profit corporation (to the extent not otherwise indicated in your response to Item 3, above).

Yes

Does not apply to me

5. Why would you like to serve on the board of the proposed charter school?

As a life-long resident of Sussex County, Delaware, I strongly believe that the vision and mission of BASSE provides exactly the type of opportunity that is so greatly needed in our community. I knew from its very early stages of creation that I wanted to be involved in helping make the school a reality. The anticipated positive outcomes for students is one reason why I genuinely and passionately want to serve as a board member.

6. What is your understanding of the appropriate role of a public charter school board member?

A charter school board member's primary role is to provide oversight of the proposed charter school.

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective charter school board member.

Serving on boards, both nationally and locally, has afforded me the opportunity to learn the importance of structure, proper decision making, and organization. These are all extremely important attributes needed to guide an organization to success.

8. Describe the specific knowledge and experience that you would bring to the board.

As the Community Liaison for Governor Carney, I am aware of the many obstacles and difficulties our communities face. In this role, I have established both personal and professional relationships with community leaders and individuals throughout the State of Delaware. I strongly believe those

connections and interactions are helpful in assisting BASSE with reaching their goals and building strong partnerships.

Additionally, my experience serving on various boards both nationally and locally has given me great insight into the importance of a highly functioning and organized board.

9. Indicate whether you have submitted the results of a criminal background check and check of the Child Abuse Registry according to the instructions provided in the charter application.

Yes

No

**Per discussion with the DDOE, all Board members will submit this information after submission of the charter application, due to challenges with scheduling during COVID-19.*

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

My understanding of The Bryan Allen Stevenson School of Excellence (BASSE) INC.'s mission is to become a free service learning public high school in Sussex County. The school will focus strongly on both academics and social justice. Our deep commitment to investing in our children and their future is our ultimate goal. We believe that learning inside and out of classroom settings will provide children with essential learning tools that will ensure them a successful future. The attendees of the school will ultimately become proximate with community needs, and develop leadership, a passion for learning the power of proximity.

Because BASSE is founded on the life philosophy of Bryan Allen Stevenson, lawyer, social justice advocate, and native of Delaware, his life journey will always be on display and the power of proximity, which he so eloquently and often speaks of.

BASSE will be opening with grades nine and ten. These grade levels will have a curriculum that teaches them the necessary skills and knowledge to complete service projects in the community. BASSE students, through collaboration with local community organizations, nonprofits, and service organizations, will be aware and knowledgeable of the needs of the community and equipped to provide solutions.

2. What is your understanding of the school's proposed educational program?

The proposed education program at BASSE is a model that is innovative and helpful in identifying who students are and are instrumental in also helping to identify the role they may ultimately play as a citizen in their community. The educational model at BASSE is a unique service-learning and real-world academic experience and includes a personalized learning plan with lessons in both social and emotional learning. Students will learn to think independently while applying what they have learned to the real world and how they can positively impact their community. Partnerships with businesses and the completion of service projects will empower students while also making a positive impact on the community.

3. What do you believe to be the characteristics of a successful charter school?

A successful charter school should provide an educational environment that is focused on providing students and families with the best innovative and personalized learning models that also encourages self-identification, leadership, and real-world learning. The schools' success also relies heavily on the structure of the school's administration and those who make decisions about the overall operation of the school.

4. How will you know that the school is succeeding (or not) in its mission?

BASSE's success will be measured by the positive impacts in both students and the community. The emergence of student community leaders and the increased readiness for college will serve as proof that the school is on a path to success and is building new pathways for students in Sussex County that reach far beyond the classroom setting. Another great indicator of success will also include the increased opportunities of students to be prepared for careers and their ability to thrive in the community upon completion of high school.

Governance

1. Describe the role that the board will play in the school's operation.

The board will play an important role in the overall governance of the school. This governance includes implementation of the state and federal rules and regulations, hiring staff, financial stability, establishing a relationship with community partners, and ensuring community engagement.

2. Provide a forecast of where you see the school after its first year of operation and then again in four years.

After the first year of operation, BASSE will be establishing and evaluating our growth areas and strengths. The board will monitor and feedback after the first year of operation to help establish areas for growth and strengths. Some of the areas of focus will be HR policies, development, curriculum, and finances. We will also conduct an internal audit and reevaluation of our 5-year strategic plan. BASSE will prioritize the evaluation of results and utilize them for future planning.

As we are entering into our 5th year, BASSE will have established a brand within the community and strong resources for student enrollment, in addition to the creation of a long-term strategic plan.

3. What specific steps do you think the board will need to take to ensure that the school is successful?

Financial stability is essential for every school; therefore, BASSE has made funding one of our highest priorities. As a board, we also realize that having consistent and clear procedures and policies for students and staff is vital to the overall success of the school. The student, staff, and organizational handbook will guide those crucial policies and procedures.

4. What is your responsibility and what course of action would you take if you believed that one or more members of the school's board were acting unethically or not in the best interests of the school?

BASSE will ensure that unethical behaviors will be addressed appropriately should they arise. We have included an ethical clause in our bylaws to be certain we have a structure to address ethical issues appropriately. BASSE is dedicated to maintaining an environment that administrators, students, parents, board members, and stakeholders feel comfortable speaking openly and honestly.

Our ethics committee will deal with situations that arise and will keep the best interest of the community, school, and students at all times.

Lastly, our board attended the State of Delaware Ethics training, which is required training. The training was designed to establish steps in addressing ethical concerns. Those steps included: (1) take the concern to the executive committee of the board or other leadership if the exec committee is committing the infraction, (2) per our bylaws, code of conduct, establish an ethics committee to hear and assess the complaint, (3) ethics committee would make a decision on how to handle the situation, which could include, removal from the board.

2.7 Charter Board Member Disclosures Form

Attachment 14

14 *Del. C.* § 511(q)

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. *If so, please describe the precise nature of your relationship.*

I / we do not know prospective board members.

Yes; I/we do know prospective board members.

2. Indicate whether you or your spouse knows any person who is, or has been in the last two years, a school employee. *If so, describe the precise nature of your relationship.*

I / we do not know any such school employees.

Yes; I/we do know such school employees. The description of the relationship follows.

3. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee, or agent of an entity). *If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.*

I / we do not know any such persons.

Yes; I/we do know such persons.

4. Indicate if you, your spouse, or other immediate family members have any ownership or financial interest in the charter school, including but not limited to the building and real property to be used in the operation of the charter school, or anticipate conducting, or are conducting, any business with the school. *If so, describe the precise nature of your ownership or financial interest in the school and/or the business that is being or will be conducted.*

I / we do not expect to conduct any such business.

Yes; I/we do such business. The precise nature of the ownership or financial interest in the school and/or the business that is being or will be conducted follows.

5. If the school intends to contract with a Charter Management Company, indicate whether you or your spouse knows any employees, officers, owners, directors, or agents of that provider. *If so, please describe the precise nature of the relationship.*

Not applicable because the school does not intend to contract with a charter management company.

I / we do not know any such persons.

Yes, I/we do know such persons.

6. If the school contracts with a Charter Management Company, please indicate whether you, your spouse, or other immediate family members have a direct or indirect ownership, employment, contractual, or management interest in the provider. *If so, please describe the precise nature of the interest.*

Not applicable.

I / we have no such interest.

Yes, I/we have a direct or indirect ownership, employment, contractual or management interest in the provider.

7. If the school plans to contract with a Charter Management Company, indicate if you, your spouse, or other immediate family member anticipate conducting, or are conducting, any business with the provider. *If so, describe the precise nature of the business that is being or will be conducted.*

Not applicable.

I / we or my family do not expect to conduct any such business.

Yes. We or my family do expect to conduct such business.

8. Indicate whether you, your spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school. *If so, please describe the precise nature of the relationship.*

Does not apply to me, my spouse, or family.

Yes. I, my spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school.

9. Indicate whether there are any potential ethical or legal conflicts of interests that would, or are likely to exist, should you serve on the school's board. *If so, describe the potential ethical or legal conflicts of interest.*

None

Yes. A description of the potential ethical or legal conflicts(s) of interest follows.

Certification

I hereby certify that the information above is true and accurate. I further certify that I will notify the Delaware Department of Education in writing if my answers to the questions on this form should change.

Stacie Burton

Name (Printed)

DocuSigned by:
STACIE BURTON
F9B914CB85224E7...

Signature

12/27/2021

Date

2.6 Charter School Board Member Information Form

Attachment 13

14 *Del. C. § 512*(1), (3), (6) and (9)

To be completed individually by each proposed charter school board member

Serving on a public charter school board of directors is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its general obligations and all terms of its charter.

As part of the application for a new charter school, the Delaware Department of Education (DDOE) requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief answers are sufficient.

The purpose of this questionnaire is twofold:

- (1) To give application reviewers a more apparent introduction to the Founding Group behind each school proposal in advance of the applicant interview, and to be better prepared for the interview/Initial Meeting; and
- (2) To encourage board members to reflect individually and collectively on their shared mission, purposes, and obligations at the earliest stage of school development.

Background

1. The name of the charter school on whose board you intend to serve:

The Bryan Allen Stevenson School of Excellence

2. Full name: Dr. Teresa Berry

Home Address: 1000 Woodlytown Road

Business Name and Address: Magnolia, Delaware 19962

Telephone Number: 302-373-6267

E-mail address: temilyberry@icloud.com

3. Brief educational and employment history (no narrative response is required if résumé and professional biography are attached).

Résumé and professional biography are attached

4. Indicate whether you currently or have previously served on a board of a school district, another charter school, a non-public school, or any not-for-profit corporation (to the extent not otherwise indicated in your response to Item 3, above).

Yes

Does not apply to me

5. Why would you like to serve on the board of the proposed charter school?

As one of the co-founding members, the experiences I bring to the charter school would help me serve as a great board member. I am a long-time educator who has been in the education field for 30 years and is still learning. I just completed my doctoral in January 2020 and started a new job as the principal of a new school. I am accountability-driven and have a collaborative relationship with staff members and the community. I constantly examine data and align and sustain my district's resources and goals.

6. What is your understanding of the appropriate role of a public charter school board member?

A charter school board member's primary role is to provide oversight of the proposed charter school. It is to be flexible and responsive to the needs of the school's operation and work with the community to improve student achievement in the local area. The board is also a steward of the district resources and the district leader to fulfill trust to lead.

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board services). If you have not had prior knowledge of this nature, explain why you can be an influential charter school board member.

I have not served on a school district board, charter school, or non-public corporation. However, I am interested in helping students and determining educational programs for students in the local area where I grew up. As a seasoned professional experienced in school leadership, finance, and operation, recruiting, and fundraising. By being highly committed to being an ambassador for students. I believe I can help.

8. Describe the specific knowledge and experience that you would bring to the board.

The specific knowledge and experience that I bring to the board are follows. I have been in the education system for 30 years. I worked my way up from teacher to principal, and I just finished my doctoral degree in Education and Innovation. I am a lifelong learner. I have represented my school district as the year's teacher nominated twice; I received the star and service-learning award. I have served as the union representative and voting delegate at the state convention. During 2020-2021 school year marks my 31st year in education, with 25 of those years being here in Dorchester County. During this year was promoted to principal of the Alternative School in my county. In the passes year, I served as a Pupil Personnel Worker for the Board of Education.

In the past, I have served in many different roles; many of the positions include Social Studies teacher, In-School Suspension Coordinator, Dean of Students, and Assistant Principal at Mace's Lane Middle School, Cambridge South Dorchester High School, Sandy Hill Elementary School, and North Dorchester Middle School. I taught Social Studies in Guam, Arizona, and Delaware in my early teaching days. My educational background includes a Bachelor of Arts Degree in History and Political Science, a Masters in Curriculum and Instruction both from Delaware State University, and in January of this year, I received my Doctorate Degree in Education and Innovation from Wilmington University.

9. Indicate whether you have submitted the results of a criminal background check and check of the Child Abuse Registry according to the instructions provided in the charter application.

Yes

No
**Per discussion with the DDOE, all Board members will submit this information after submission of the charter application due to challenges with scheduling during COVID-19.*

School Mission and Program

1. What are your understanding of the school's mission and guiding beliefs?

A school mission is a declaration or statement used to describe the educational organization operated based on its future goals. The Bryan Allen Stevenson School of Excellence (BASSE) INC. is founded on Bryan Allen Stevenson's life philosophy; a native Delawarean, renowned lawyer, and social justice advocate, Mr. Stevenson frequently talks about the power of proximity as being essential in his journey.

The proposed educational program is a service-learning program with an International Baccalaureate six subject core requirements. BASSE will be a free public service-learning high school in Sussex County, opening with grades sixth, seven, and nine, with a strong focus on academic rigor and social justice. Our deep belief is in our children and that they are our future; therefore, they require deep investments in their learning both in the classroom and outside the classroom. BASSE will provide a rigorous, interdisciplinary curriculum to support students in using their gained skills and knowledge to complete service projects in the community. Through collaboration with local community organizations, nonprofits, and service organizations, students will become proximate with community needs and develop novel solutions.

BASSE aims to develop the capacity for leadership in Sussex County's youth through the passion of learning, the joy of providing service, and the power of proximity.

2. What is your understanding of the school's proposed educational program?

The proposed education program at BASSE is an innovative and rigorous model designed to help students discover who they are and who they want to be as citizens of their local communities, country, and the world. These students will be nurtured to help them to grow confident and enthusiastic learners with solid leadership through high expectations. The BASSE model roots challenging academic experiences in real-world experiences with a unique combination of service-learning using the International Baccalaureate curriculum and interdisciplinary, cross-curricular thematic units. Many of the practices will go through ongoing evaluations, goals focus, and staff development. The educational model at BASSE is student-centered; each student will complete (in collaboration with their families and school staff). The lesson planning materials require teachers to consider student interests, and their identities social-emotional learning is a school-wide focus. That will be used to monitor and provide interventions and expansions on the program. BASSE students will have the opportunity to develop their ability to think independently and apply their knowledge to the real world in partnership with local community organizations and businesses to complete service projects that will positively impact and empower their ability to be community leaders.

3. What do you believe to be the characteristics of a successful charter school?

A successful charter school must provide an innovative solution to education in the community where it will open. My forecast is to see families and students actively seeking the school. Additionally, a successful charter school must practice sound financial decision-making, have an effective governance structure, and provide oversight to the school leadership. The school's primary goal must be student-

centered and focused. To see the school meeting stakeholders' needs and the school being a potential source for innovation and service. A charter school's goal is to educate students and provide the best educational options for students and families in the community and see relationships with students, parents. The school is coming together for academic achievement.

4. How will you know that the school is succeeding (or not) in its mission?

BASSE's primary role is educating and activating youth as advocates for change. Using our innovative approach, we will (1) increase the capacity of collective impact through community partnerships, (2) accelerate the education ecosystem through innovation, (3) provide opportunities for students to apply knowledge and skills beyond the classroom, and (4) activate young community leaders. To spend less time on operational issues and more time on policies to improve student achievement. By doing this successfully, BASSE will build pathways for leadership within Sussex County. The role of BASSE is to prepare, educate, motivate, and inspire such advocates and to engage both internal and external stakeholders in setting district goals.

BASSE will create a more equitable and inclusive learning environment for all students by providing diverse experiences to build shared knowledge, values, and commitments for improved efforts. This will lead to success related to College and Career Readiness, our students will meet or exceed the State's SAT standard, but more importantly, they will be prepared to thrive in their community after high school.

Governance

1. Describe the role that the board will play in the school's operation.

The board will primarily be responsible for ensuring the school follows the rules and regulations of the state and federal government and will focus on, but not limited to, oversight of leadership, fiscal viability and monitoring, the hiring and evaluation of school leadership, the relationship between community and school, fundraising, governance, and community engagement. To practice norms to monitor and provide a way for renewal and expansion.

2. Provide a forecast of where you see the school after its first year of operation and then again in four years.

The forecast for year one allows families to have additional options to relieve pressure from the district's significant growth. BASSE will establish and evaluate our growth areas and strengths in the first year of operation. The board's job is to monitor and provide oversight, direction, and feedback based on annual metrics, including but not limited to testing, finances, HR policies, curriculum, discipline, and development. Additionally, BASSE will re-evaluate our 5-year strategic plan and conduct an internal audit. To see higher enrollment trends, embrace and monitor data to drive continuous improvement. To sustain resources and to build shared knowledge values and commitments.

After the first four years, BASSE will focus on long-term sustainability. Therefore, BASSE will prioritize the evaluation of results and planning. As the school progresses into year five, BASSE will have a strong

pipeline for student enrollment, an established name and brand within the community, have a long-term strategic plan, and several successful audits.

3. What specific steps do you think the board will need to take to ensure that the school is successful?

As a school board member, I will be responsible for working with the community to improve student achievement and the budget. Funding is a top priority for BASSE, and ensuring sustainable funding is essential. Many of the funds will employ needed staff members and adopt policies and curriculum. BASSE will Review and research examples of success and pitfalls for past and present charters in Delaware to gain opinions and insights from experts in the field (Delaware Charter School Network, existing alliances in Sussex and across the state, DDOE). Additionally, community engagement, overseeing facilities issues, collective bargaining agreements, and trust-building are vital to the school's long-term success.

Lastly and critically, BASSE will develop clear and consistent policies and procedures (student, staff, and organization handbook). Additionally, BASSE will establish ways to monitor (checkpoint meetings -- staff, students, and stakeholders)

4. What is your responsibility, and what course of action would you take if you believed that one or more members of the school's board were acting unethically or not in the best interests of the school?

BASSE will provide and ensure an environment where both board members, employees, and stakeholders feel comfortable speaking candidly. All board member is called to duty based on loyalty and obedience. BASSE has included an ethical clause in our bylaws to ensure BASSE can appropriately address any ethical issues as they arise; the board's responsibilities are to govern, adopt, monitor, and establish criteria. Additionally, BASSE will develop an ethics committee (representation board, student, community, staff, and school leadership team) to deal with case-by-case situations to assess the school's best interest, students, parents, and the community at all times. Ultimately, the board's responsibility is to bring all information to the board for next steps.

The majority of our board attended the required State of Delaware Ethics training to establish the following steps for any ethical concerns: (1) take the concern to the executive committee of the board or other leadership if the exec committee is committing the infraction, (2) per our bylaws, code of conduct, establish ethics committee to hear and assess the complaint, (3) ethics committee would make a decision on how to handle the situation, which could include, removal from the board. In addition, I attended the Delaware Ethics training in October and shared the information with the Bryan Allen Stevenson Board of Education based on the training's information.

2.7 Charter Board Member Disclosures Form

Attachment 14

14 *Del. C. § 511(q)*

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. *If so, please describe the precise nature of your relationship.*

I / we do not know prospective board members.

Yes, I/we do know prospective board members.

I know five of the board members. Alonna Berry and Ryan Berry, my daughter, and son, are advisory board members. The school is named after my cousin Bryan Stevenson. Dr. Howard Stevenson and Mrs. Christy Taylor are also my cousins, and they are on the advisory board.

2. Indicate whether you or your spouse knows any person who is, or has been in the last two years, a school employee. *If so, describe the precise nature of your relationship.*

I / we do not know any such school employees.

Yes, I/we do know such school employees. The description of the relationship follows.

3. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee, or agent of an entity). *If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.*

I / we do not know any such persons.

Yes, I/we do know such persons.

4. Indicate if you, your spouse, or other immediate family members have any ownership or financial interest in the charter school, including but not limited to the building and real property to be used in the operation of the charter school, or anticipate conducting, or are conducting, any business with the school. *If so, describe the precise nature of your ownership or financial interest in the school and the company that is being or will be conducted.*

I / we do not expect to conduct any such business.

Yes, I/we do such business. The precise nature of the ownership or financial interest in the school or the company that is being or will be conducted follows.

5. If the school intends to contract with a Charter Management Company, indicate whether you or your spouse knows any employees, officers, owners, directors, or agents of that provider. *If so, please describe the precise nature of the relationship.*

Not applicable because the school does not intend to contract with a charter management company.

I / we do not know any such persons.

Yes, I/we do know such persons.

6. If the school contracts with a Charter Management Company, please indicate whether you, your spouse, or other immediate family members have direct or indirect ownership, employment, contractual, or management interest in the provider. *If so, please describe the precise nature of the draw.*

Not applicable.

I / we have no such interest.

Yes, I/we have a direct or indirect ownership, employment, contractual or management interest in the provider.

7. If the school plans to contract with a Charter Management Company, indicate if you, your spouse, or other immediate family member anticipate conducting, or are conducting, any business with the provider. *If so, describe the precise nature of the company that is being or will be shown.*

Not applicable.

I / we or my family do not expect to conduct any such business.

Yes. We or my family do expect to conduct such business.

8. Indicate whether you, your spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school. *If so, please describe the precise nature of the relationship.*

Does not apply to me, my spouse, or family.

Yes. I, my spouse, or other immediate family members are a director, officer, employee, partner, or member of, or are otherwise associated with, any organization that is partnering with the charter school.

I know four of the board members. I know Alonna Berry; she is my daughter, and she is one of the founding members and the director. The school is named after my cousin Bryan Stevenson. Dr. Howard Stevenson and Mrs. Christy Taylor are also my cousins, and they are on the advisory board.

9. Indicate whether there are any potential ethical or legal conflicts of interests that would, or are likely to exist, should you serve on the school's board. *If so, describe the potential ethical or legal conflicts of interest.*

None

Yes. A description of the potential ethical or legal conflicts(s) of interest follows.

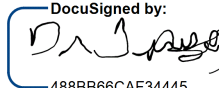
Certification

I hereby certify that the information above is true and accurate. I further certify that I will notify the Delaware Department of Education in writing if my answers to the questions on this form should change.

Dr. Teresa E. S. Berry

Name (Printed)

DocuSigned by:



488BB66CAE34445

Signature

12/27/2021

Date

Section 1.7 - Parent and Community Engagement

The Bryan Allen Stevenson School of Excellence
Section 7 - Parent and Community Involvement

1.7 Parent and Community Involvement

14 *Del. C.* §§ 512(1) and (6),

Parent Involvement

1. Describe the role of any parents/guardians and community members involved in developing the proposed school.

Parents and community members play a vital role in developing the Bryan Allen Stevenson School of Excellence. From the beginning, BASSE has made it a point to include community and parent input through surveys, webinars, and engagement at events. Our advisory board comprises interested community members who provide feedback on the school's design and ask critical questions that are invaluable in the school development process. For example, several parents and students came out to support BASSE in a promotional video we produced to advertise the school to the community. Their comments during this process have been incorporated into our dynamic community engagement plan.

2. Describe the outreach that you have conducted to engage prospective parents/guardians in the area you are proposing to serve.

In the fall of 2019, BASSE hosted three community focus groups across Sussex County, in Georgetown, Milford, and Seaford. These sessions provided information to prospective parents/guardians as well as to the community. We also elicited feedback from our participants about aspects of the school. Participation was enthusiastic, and group members were eager to be involved, in some instances offering specific resources to the school for students.

In March and April of 2020, amid the coronavirus pandemic, we hosted five webinars to outline the school's vision, mission, and development. These events aimed to engage community members and families in giving feedback and providing comments on the school's proposed design. On average, we had 25 participants each session, and we received necessary input from them on the direction of the school that we have since incorporated. These webinars are currently available on the BASSE website, and the slides are available [here](#).

In the summer of 2020, our Community Engagement Committee has designed and facilitated events such as our "Back to School Supply Drive," where not only were we able to give back to the community before our school opens, but we were also able to facilitate conversations with families and community members about the school and its vision.

In December of 2020 and through the winter and spring of 2021, BASSE held several parent-focused webinars (on average, bi-monthly) to receive feedback and input from parents and field any questions they may have. The parent webinar presentation can be found [here](#). We also offered office hours with our staff members.

The Bryan Allen Stevenson School of Excellence

Section 7 - Parent and Community Involvement

Due to the coronavirus pandemic and its accompanying restrictions, community engagement looked very different for BASSE beginning in 2020. To further support our virtual engagement we also participated in various organizations' virtual community events, such as Peace Week Delaware and a Book Talk co-sponsored with the Lewes Public Library.

In the fall of 2020, BASSE also hired a Community Outreach Coordinator through a partnership with Public Allies. This partnership was renewed in August of 2021. Our current Community Outreach Coordinator is committed to improving the lives and outcomes of Delaware students through her work at BASSE and beyond when she earns her bachelor's degree in social work. The Community Outreach Coordinator's primary role is to engage parents and community members in BASSE's development process through events and social media.

In the summer and fall of 2021, BASSE began to engage in person outreach events, such as supporting a backpack giveaway in Seaford in August, hosting a fall themed event in Laurel in October, and tabling at a local movie theater in November and December.

BASSE also provides information and updates about the school on our website, basseinc.org. The site houses information about past public events, presentations, and public media engagement. We are currently working with Blue Blaze, a Delaware based communications firm, to support our website and communications with parents and the community at-large. In August 2021, we began to flesh out a strategic marketing plan that was kicked-off in late October of 2021 and is planned to continue during the recruitment and enrollment phase of the school's development

Finally, Board, Staff, and Advisory Board members and supporters are spreading the word about the school and eliciting ideas and feedback from prospective parents/guardians during their personal and professional interactions. The staff, recently hired in November 2021, has already planned strategic engagement events beginning January of 2022 to continue to build momentum as we move towards opening.

3. Describe how you will engage parents/guardians in the life of the school, in addition to any proposed governance roles described above. Describe how the school will build family-school partnerships to strengthen support for learning and encourage parental involvement. Describe any commitments or volunteer activities that the school will offer to parents.

BASSE knows that our students' caregivers and families are the foundation for our students' eventual success in school and life. That being said, it is essential that they are engaged throughout the life of our school.

BASSE plans to kick off the school year with home visits and a Back-to-School social event to foster a positive relationship between the school staff and the families we serve. We plan to have once-a-quarter student-led conferences where students and teachers can update the families about students' progress and challenges so that families can be included in the solution creation process. Our goal is to be flexible in how and when we conduct these conferences so

The Bryan Allen Stevenson School of Excellence

Section 7 - Parent and Community Involvement

that all caregivers can be engaged regardless of their work schedules. We also want to host bi-yearly weekend events to give caregivers another touchpoint to be involved and to continue to foster a strong relationship amongst the school community.

BASSE also plans to provide opportunities for caregivers to volunteer through a parent organization, in classrooms, and as mentors. Additionally, through our community school model, we also plan to support families in their child's development by providing workshops to help them access aspects of their student's progress, support the continued growth of the school by hosting feedback workshops throughout the year, and support their own development by providing potential services to them through our community and strategic partnerships, such as workshops on how they can access resources or English Language Learning classes.

Caregivers are considered full partners in the life of the school. Though listed above are several ways we plan to engage parents, we also understand that we must be flexible in our approach. We will continuously seek input from our families to better support and include them in their students' academic lives.

Community Involvement

1. Describe how community members are represented on your Board and in your Founding Group?

The founding and current board members are made up largely of community members representing all three counties of the state. Over half of our board comprises Sussex County residents, with nearly 70% of the board having roots in Sussex County. Additionally, our sizeable advisory board is composed of a majority of Sussex County residents.

2. Identify what community resources will be available to students and parents. Describe any partnerships that the school will have with community organizations, businesses, or other educational institutions. Specify the nature, purposes, terms, and scope of services of any such partnerships.

Partnerships are one of the key components of the Bryan Allen Stevenson School of Excellence educational model.

Name of Partner	Type of Partner	Description of Partnership	Who Benefits from this Partnership?
Delaware Historical Society	Community	Will work with students to develop exhibits that showcase Sussex county history Will provide students will additional outside of school education opportunities	Students Families Community Members Teachers

The Bryan Allen Stevenson School of Excellence

Section 7 - Parent and Community Involvement

Jounce Partners	Strategic	Provides a fellowship to hire and develop our Dean of Academic Excellence before the school's opening Will potentially provide professional development to our Dean of Academic Excellence and instructional staff	Students Teachers
Relay Graduate School of Education	Strategic	Will potentially provide professional development to our instructional staff Will provide a pipeline for future educators and school staff	Teachers Students Community Members
Delaware Guidance Services	Strategic	Will provide mental health services for all levels of school life Will provide service-learning opportunities for students interested in the mental health profession	Students Families Teachers
Public Allies	Strategic	Provides additional capacity to the organization Will potentially provide service-learning opportunities for students interested in advocacy or nonprofits.	Board School Staff Students
Delaware Public Libraries	Strategic	Will provide outside of school educational opportunities for students Will provide professional development for instructional staff Will provide resources for families Will potentially provide service-learning opportunities for students	Students Families Teachers
Delaware State University Teacher Prep Program	Strategic	Will provide a pipeline for future educators and school staff	Teachers Students
Delaware Technical Community College	Strategic	Will provide instructional opportunities for students Providing building for the schools opening	Students Board Families Community Members
Delta Sigma Theta Sorority, Inc.	Community	Supports community and fundraising events Will provide programming for interested students	Students Families Community Members Board

The Bryan Allen Stevenson School of Excellence
Section 7 - Parent and Community Involvement

3. Describe any fee-based or in-kind commitments from community organizations or individuals that would enrich student-learning opportunities.

Not Applicable

4. Provide, as **Attachment 17**, evidence of support from community partners, which may include letters of intent/commitment, memoranda of understanding, and/or contracts, and should specify the resources to be committed or contributed from the partner, as applicable.

**Section 1.7 - Parent and Community Engagement :: Attachment 17.1 -
Evidence of Support from Community Partners**

Delaware Department of Education Townsend Building
401 Federal Street
Dover, DE 19901-3639

October 3, 2020

RE: The Bryan Allen Stevenson School of Excellence, Inc.

Anne and Paul Bolno are pleased and excited to lend our support to The Bryan Allen Stevenson School of Excellence. It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership are at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. We are aware of what it will take to make BASSE, Inc. a success and are interested in supporting the school in a way that best utilizes our collective resources including time, energy and financial support. We believe in a world that is inclusive, equitable and just and our schools are essential institutions for cultivating and supporting these values in the future leaders of our country and the world.

We sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,
Anne and Paul Bolno
10 Milton Avenue
Lewes, DE 19958

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

October 12, 2020

RE: The Bryan Allen Stevenson School of Excellence, Inc.

Cynthia Myers is pleased and excited to lend her support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. She is aware of what it will take to make BASSE, Inc. a success and are interested in supporting the school in a way that best utilizes her resources. ***WE are long overdue to have such a program in Sussex County.*** There is no better time than now to get it started.

We sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,

Cynthia Myers

Delaware Department of Education
Towsend Building
401 Federal Street
Dover, DE 19901-3639

October 1, 2019

RE: The Bryan Stevenson School of Excellence, Inc.

Greetings,

It is with great pleasure and certainty that I extend my support for The Bryan Allen Stevenson School of Excellence, Inc. I believe BASSE will provide the structure, leadership, and academic rigor necessary to create a school community conducive for learning and student growth.

The founders of BASSE are student focused and will implement highly effective policies and procedures that are best for student achievement. Parents and families ought to feel confident sending their children to a school that is so thoughtfully organized to enhance the lives of each student.

I truly look forward to the start of BASSE as I am positive children who attend this school will reach their maximum potential for success.

Sincere regards,

Cotina L. Murray

Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639

October 30, 2019

RE: The Bryan Allen Stevenson School of Excellence

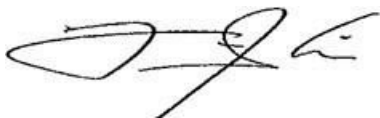
I am pleased to lend my support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have an opportunity to provide their students with a real-world educational experience where service, rigor and student leadership is at the center. Alonna Berry assures me that BASSE will impress upon their students Mr. Stevenson's legacy of service and positive social change by making community service an integral part of their daily learning experiences.

As a long-time educator who understands that all of us learn best by doing, and especially by doing for others, I applaud the founding of this charter school devoted to that model of learning. Furthermore, I am interested in supporting this school in any way that best uses my talents, time and energy.

I sincerely hope The Bryan Allen Stevenson School of Excellence charter will be approved and look forward to its successful launch.

Respectfully,

A handwritten signature in black ink, appearing to read 'Frank Livoy', written over a faint, illegible background.

Frank Livoy
Educator
Brandywine School District
Rutgers University
University of Delaware

211 West Shore Drive
Milton, DE 19968

Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639

October 10, 2018

RE: The Bryan Allen Stevenson School of Excellence, Inc.

I, Lee Revis-Plank, am pleased and excited to lend my personal support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. I am aware of what it will take to make BASSE, Inc. a success and am interested in supporting the school in a way that best utilizes my skills and experience, and energy. I feel that the curriculum and the experiences for each and every student will be instrumental in their development into responsible citizens who contribute to their society and communities in ways that are as unique as they are individually.

I sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,

Lee Revis-Plank, M. Ed

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

December 20, 2019

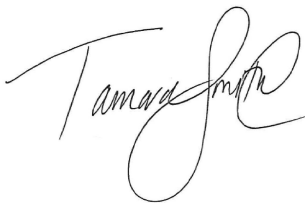
RE: The Bryan Allen Stevenson School of Excellence

I am pleased and excited to lend my support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE will impress upon their students. I am aware of what it will take to make BASSE a success and am interested in supporting the school in a way that best utilizes Teach For America's resources, including providing talent and leadership development support.

I sincerely hope The Bryan Allen Stevenson School of Excellence application will be accepted.

Respectfully,

A handwritten signature in black ink that reads "Tamara Smith". The signature is written in a cursive style with a large, looping "S" at the end.

Tamara Smith
Executive Director
Teach For America-Delaware

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

September 30, 2020

RE: The Bryan Allen Stevenson School of Excellence

I am pleased and excited to lend my support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE will impress upon their students. I am aware of what it will take to make BASSE a success and are interested in supporting the school in a way that best utilizes my resources and the resources of the state and county; financial, time, community and educational. Mr. Stevenson has worked diligently for years to level the playing ground and to provide equity for all, regardless of socio-economic status or race. A school built on these values, as well as, with his core academic ideas is an asset to this State, County, and citizens. This school is vital for our citizens and most especially our children.

We sincerely hope The Bryan Allen Stevenson School of Excellence application will be accepted.

Respectfully,

Heather Hopkins-Roberts, MA

Victoria Golden
78 Seldon Drive
Smyrna, DE 19977
vjg824@aol.com

September 28, 2020

Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639

RE: The Bryan Allen Stevenson School of Excellence, Inc.

I am pleased and excited to lend my support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. I am aware of what it will take to make BASSE, Inc. a success and I am interested in supporting the school in a way that best utilizes a wide range of resources, including the collective wisdom and hard work of its collaborative partners. Most impressive are the background, skills and fervent commitment of the BASSE, Inc. administration and leadership team that I believe will create a unique 21st century learning experience for their students.

I sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,

Victoria Golden

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

October 17, 2019

RE: The Bryan Allen Stevenson School of Excellence, Inc

It is encouraging to recognize that families in Sussex County will have the opportunity to provide students with a real-world educational experience where service, rigor, and student leadership is at the center.

The International Baccalaureate Organization (IB) is writing to support the Bryan Allen Stevenson School of Excellence, Inc. The IBO supports the intent of BASSE Inc. to pursue recognition as an IB World School authorized to offer the IB Middle Years Programme, Diploma Programme, and Career-related Programme.

The IB's mission has been built on a cornerstone of creating a better world through education – one which aligns closely with the mission of the BASSE, Inc. and its foundation and partner networks.

Mr. Stevenson built a legacy of service and change that BASSE, Inc. will impress upon their students and families. The IBO supports the efforts BASSE, Inc. will take to make these factors a success and upon pursuit of IB Programmes our organization looks forward to aligning with the BASSE, Inc. community.

As an organization, the IBO provides professional development and academic support services and have a rigorous authorization process prior to the school becoming authorized. Additionally, to remain an IB World School, schools must become sustainable and undergo a regular self-assessment and re-evaluation process every five years.

We look forward to working with the BASSE, Inc.

Sincerely,

Antrina Leeth
Outreach and Development, Manager
International Baccalaureate Organization

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

October 28, 2019

RE: The Bryan Allen Stevenson School of Excellence

Eli Ramos is pleased and excited to lend unconditional support support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE will impress upon their students. I'm sure you are aware of what it will take to make BASSE a success and are interested in supporting the school in a way that best utilizes all available resources [i.e. time, financially, partnership, etc .Please let me know how you can support this exciting endeavor. Education is the pathway to success and this is just one way you can help. We sincerely hope The Bryan Allen Stevenson School of Excellence application will be accepted.

Thank you
Respectfully,
Eli Ramos, MS Ed. Retired



St. Andrew's School

350 Noxontown Road
Middletown, DE 19709-1605

Daniel T. Roach, Jr.
Merrill M. Stenbeck Head of School

January 30, 2019

Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639

RE: The Bryan Allen Stevenson School of Excellence, Inc.

To Whom It May Concern,

Daniel T. Roach, Jr. is pleased and excited to lend his support to the Bryan Allen Stevenson School of Excellence, Inc.

It is encouraging and inspiring to know that families in Sussex County will have the opportunity to provide students with a real world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students.

We sincerely hope the Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted. Sussex County and Delaware need such a school.

Best,

Daniel T. Roach, Jr.
Merrill M. Stenbeck Head of School

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

September 26, 2019

RE: The Bryan Allen Stevenson School of Excellence, Inc.

I am pleased and excited to lend my support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. I am aware of what it will take to make BASSE, Inc. a success and am interested in supporting the school in a way that best utilizes my resources.

I sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,



Ken Aldridge, Head of School
Wilmington Friends School

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

September 26, 2019


RE: The Bryan Allen Stevenson School of Excellence, Inc.

I am pleased and excited to lend my support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. I am aware of what it will take to make BASSE, Inc. a success and am interested in supporting the school in a way that best utilizes my resources.

I sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,

A handwritten signature in cursive script that reads "Sarah Stock Patterson". The signature is written in black ink and is positioned above the printed name.

Sarah Stock Patterson

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

September 26, 2019

RE: The Bryan Allen Stevenson School of Excellence, Inc.

I am pleased and excited to lend my support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. I am aware of what it will take to make BASSE, Inc. a success and am interested in supporting the school in a way that best utilizes my resources.

I sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,



Sue Kampert

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

September 26, 2019

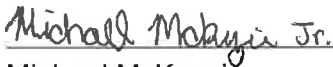
RE: The Bryan Allen Stevenson School of Excellence, Inc.

I am pleased and excited to lend my support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. I am aware of what it will take to make BASSE, Inc. a success and am interested in supporting the school in a way that best utilizes my resources.

I sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,


Michael McKenzie



**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

2/24/2019

RE: The Bryan Allen Stevenson School of Excellence, Inc.

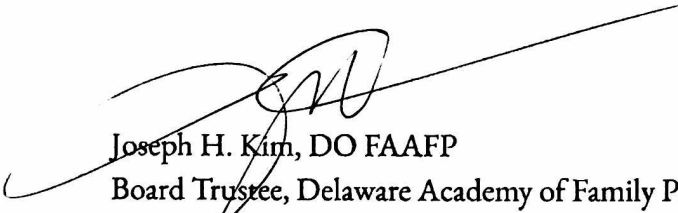
I am extremely excited to lend strong support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. I am aware of what it will take to make BASSE, Inc. a success and am interested in supporting the school in a way that best utilizes my resources in health care. I have offered the school the opportunity to add to their curriculum the ability to shadow my practice and colleagues and learn real-life health care. Hopefully, this will attract highly qualified students to enter the field of medicine and eventually return to Sussex County to practice.

I am enthusiastic to be a part of their journey in bringing exceptional education to our community.

I sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted by the Department of Education.

Respectfully,



Joseph H. Kim, DO FAAFP
Board Trustee, Delaware Academy of Family Physicians
President-Elect, Nanticoke Health Services Medical Staff

JAMES B. GOLDEN, JR
78 SELDON DRIVE
SMYRNA, DE 19977
JBGJR325@AOL.COM

Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639

September 28, 2020

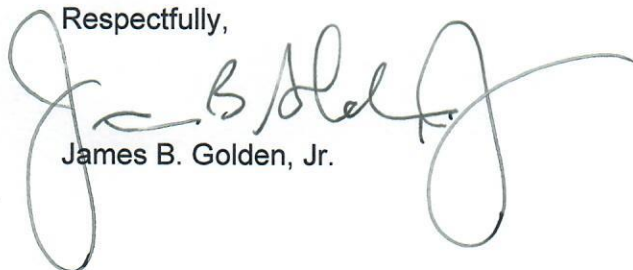
RE: The Bryan Allen Stevenson School of Excellence, Inc.

James B. Golden, Jr. is pleased and excited to lend his support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. I am aware of what it will take to make BASSE, Inc. a success and am interested in supporting the school in a way that best utilizes a wide range of resources, including the collective wisdom and hard work of its collaborative partners. Most impressive are the background, skills and fervent commitment of the BASSE, Inc. administration and leadership team that I believe will create a unique 21st century learning experience for their students.

I sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,

A handwritten signature in black ink, appearing to read "J. B. Golden, Jr.", with a large, stylized flourish extending to the right.

James B. Golden, Jr.



Office of the President

December 9, 2019

To whom it may concern,

It is with enthusiasm that I share of Eastern University's full support of the establishment of the Bryan Allen Stevenson School of Excellence in Sussex County, Delaware.

Eastern University stands firmly on the pillars of Faith, Reason, and Justice – three virtues that guide our community's journey. Mr. Stevenson's mission of justice through proximity for the oppressed, the underserved, and the forgotten echoes the heartbeat of our university, and establishes the foundation for the Bryan Allen Stevenson School of Excellence.

BASSE's vision is to develop hands-on, real-world experiences for children in a service environment – to cherish proximity, take ownership of their community, and advocate for those in need. Nurturing an environment committed to serving others, supporting the community, and growing academically are also at the core of Eastern University's desires.

I believe that our world will be brighter, kinder, and healthier because of the impact BASSE will have on its students.

I am honored to offer my unreserved support as President of Eastern University and our community as a whole for the establishment of the Bryan Allen Stevenson School of Excellence.

Grace and peace,

Ronald A. Matthews, D.M.A.
President



SENATE
STATE OF DELAWARE
411 LEGISLATIVE AVENUE
DOVER, DELAWARE 19901

COMMITTEES
Corrections & Public Safety
Executive
Health & Social Services
Housing
Judiciary
Legislative Council
Legislative Oversight & Sunset
Rules & Ethics

BRIAN G. PETTYJOHN
Minority Whip
STATE SENATOR
19th District

December 18, 2020

Re: The Bryan Allen Stevenson School of Excellence

I am pleased to write this letter of recommendation and support for the plans to open the Bryan Allen Stevenson School of Excellence (BASSE). This service-learning high school will provide critical real-world experiences and facilitate service-based learning for all students in partnership with the community.

As a parent and State Senator who represents the area that the school will be located, I am particularly interested in seeing that our community supports local charter schools. More importantly, I am committed to ensuring that our students have the educational tools and resources they need to succeed along with instructional support from the best institutions in the state.

As Sussex County continues to expand, more and more our students will need the experience, knowledge, skill and training that BASSE will provide the students to use beyond the classroom.

Please let me know if there is anything further I can share as I am happy to lend even more support for the approval of the charter school application for The Bryan Stevenson School of Excellence.

Best Regards,

A handwritten signature in black ink that reads "Brian G. Pettyjohn".

Brian G. Pettyjohn
Minority Whip
Delaware State Senate
19th District



P.O. BOX 658, CLAYTON, DE 19938 • PHONE: 1.800.932.4593 • FAX: 1.888.718.9333
WEB SITE: www.prestwickhouse.com • E-MAIL: info@prestwickhouse.com

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

11/23/2020

RE: The Bryan Allen Stevenson School of Excellence, Inc.

Personally and professionally as the President of Prestwick House, I am pleased and excited to lend my support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. The members of the team working to make this school a reality are intelligent, dedicated, and aware of what it will take to make BASSE, Inc. a success and I enthusiastically endorse the idea of a new Delaware charter school dedicated to furthering access to quality education for those in Sussex country.

We sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,

Keith E. Bergstrom

--

President
Prestwick House, Inc.
keith@prestwickhouse.com
302-242-7448

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

[09-24-2020]

RE: The Bryan Allen Stevenson School of Excellence, Inc.

Hello. My name is Savannah Shepherd and I am the founder of the Delaware Social Justice Remembrance Coalition. The work of this coalition is completely inspired by the work of Bryan A. Stevenson and I am pleased and excited to support The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students.

I sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,
Savannah Shepherd

5729 Finchville Reliance Road
Rhodesdale, MD 21659

October 2, 2020

Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639

Re: The Bryan Allen Stevenson School of Excellence

Dear Sir or Madam:

My name is Vaughn D. Evans, Sr., Principal at Mace's Lane Middle School located in Cambridge, MD. It is an honor to lend my support to The Bryan Allen Stevenson School of Excellence. Although a Maryland native a quality education is universal.

It is encouraging to know that families in the First State specifically in Sussex County will have the opportunity to provide their children with a real-world educational experience where service, rigor, and student leadership is paramount. Mr. Stevenson has build a legacy of service and change that BASSE will impress upon their students.

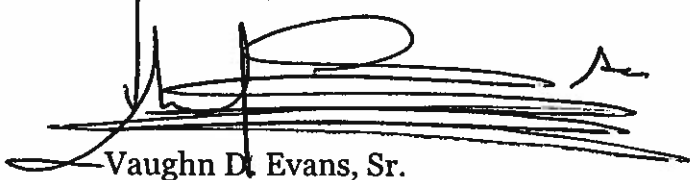
As an educator, I am keenly aware of the importance of a quality education and what it will take to make BASSE a success. I am committed to supporting the school in a way that best utilizes their resources financially.

Bryan Stevenson is truly doing great things for society and what better way to continue his legacy, by having a school in his name reinforcing his mission for equality.

It is my sincere hope that The Bryan Allen Stevenson School of Excellence application will be accepted.

Thank you for your consideration and I look forward to a positive response. If further information is needed from me, please contact me via phone at (443) 205-3452 or 5729 Finchville Reliance Road, Rhodesdale, MD 21659.

Respectfully,



Vaughn D. Evans, Sr.

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

October 7, 2019

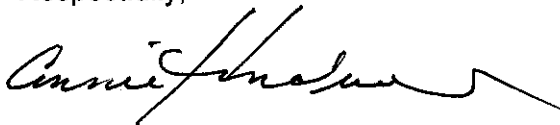
RE: The Bryan Allen Stevenson School of Excellence, Inc.

Connie Hendricks is pleased and excited to lend her support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. I am aware of what it will take to make BASSE, Inc. a success and am interested in supporting the school in a way that best utilizes my resources [i.e. time, financially, partnership, etc.]. Having more educational variety in Sussex County is important and very much needed.

I sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,

A handwritten signature in black ink, appearing to read "Connie Hendricks", with a long horizontal flourish extending to the right.

Connie Hendricks
*Constance R. Hendricks, Head of School
The Jefferson School*



PO Box 1686 | 24960 Dairy Lane | Seaford, DE 19973 | 302-404-5367

Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639

December 23, 2019

RE: The Bryan Allen Stevenson School of Excellence

The Board of Sussex Montessori School is pleased and excited to lend our support to The Bryan Allen Stevenson School of Excellence (BASSE).

As a new charter set to open in 2020, we have seen firsthand the desire of families in Sussex County to have more choices for their children. It is encouraging to know that the families we work with will have the opportunity to build on the foundation of Sussex Montessori School in schools such as the Bryan Allen Stevenson School of Excellence. The school will build on the Montessori experience with real-world educational opportunities where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE will impress upon their students.

The Board of Sussex Montessori school is aware of what it will take to make BASSE a success. Opening a charter school requires dedication and perseverance. We are eager to continue to learn more about BASSE as it develops and to explore potential partnerships with the school.

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda S. Zankowsky".

Linda S. Zankowsky, Ed.D.
Board Chair, Montessori Works
Board Chair, Sussex Montessori School

Lindaz@montessorivorksde.org
302-388-8124

Twitter: @MWorksDelaware
Web: Montessorivorksde.org

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

October 21, 2019

RE: The Bryan Allen Stevenson School of Excellence, Inc.

The Bernstein Companies (TBC) is pleased and excited to lend financial support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. TBC is aware of what it will take to make BASSE, Inc. a success and are interested in supporting the school in a way that best utilizes its existing social and physical resources in conjunction with TBC's financial support. TBC is a commercial real estate company based in Washington, DC. Their structured finance division has assisted its partners in being awarded over \$1.7 billion in Federal New Markets Tax Credit allocation that have translated to over \$3 billion of real estate development in low-income communities nationwide. TBC has previously financed half a dozen charter schools totaling almost \$240 million in total project costs and looks forward to furthering BASSE, Inc.'s mission and improving educational outcomes for youth within Sussex County.

We sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,

A handwritten signature in black ink, appearing to read 'Joseph Galli', is written over the typed name. The signature is stylized with a large loop on the left side and a vertical line on the right.

Joseph Galli



HOUSE OF REPRESENTATIVES
STATE OF DELAWARE
411 LEGISLATIVE AVENUE
DOVER, DELAWARE 19901

RUTH BRIGGS KING
STATE REPRESENTATIVE
37th District

COMMITTEES
Appropriations
Education
Health & Human
Development
Joint Finance
Manufactured Housing
Public Safety & Homeland
Security
Transportation, Land Use &
Infrastructure
Veterans Affairs

January 24, 2020

*The Honorable Dr. Susan Bunting
Delaware Department of Education
Townsend Building
401 Federal Street
Dover, Delaware 19901-3639*

Dear Secretary Bunting:

I am thrilled to write to you in support of the Bryan Allen Stevenson School of Excellence's (BASSE's) application to become a Charter School in Delaware.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. I admire Mr. Stevenson and believe he has built a legacy of service and change that BASSE will impress upon their students.

I'm also aware of what it will take to make BASSE a success and am committed to helping the school in any way that I can to achieve their core values of excellence, equity, community, hope and voice.

It is my sincere appeal that the Charter application for the Bryan Allen Stevenson School of Excellence is accepted. If I can be of any additional assistance, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Ruth Briggs King".

*Ruth Briggs King
State Representative
37th District*

RBK/dh



Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639

December 6, 2019

RE: The Bryan Allen Stevenson School of Excellence, Inc.

Relay Graduate School of Education - Delaware is excited to support to The Bryan Allen Stevenson School of Excellence. We understand the significant impact teacher preparation and support plays in the success of children and schools and anticipate partnering with the school, should they be approved. It is particularly exciting that the opening of this school would provide families in Sussex County an educational experience focused on service, rigor, and student leadership that the life's work of Bryan Stevenson so exemplifies.

We sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,

A handwritten signature in black ink, appearing to read "C. Eisenhauer".

Christine Eisenhauer
Dean
Relay Graduate School of Education
1313 N. Market Street
Wilmington, DE, 19801



SUSSEX MONTESSORI PUBLIC CHARTER SCHOOL

Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639

December 23, 2019

RE: The Bryan Allen Stevenson School of Excellence

I am pleased to express my support for the Bryan Allen Stevenson School of Excellence.

I have worked with BASSE Board Chair Alonna Berry and Board Member Chantalle Ashford. Both of these educators are knowledgeable, persistent, and committed to equity and academic excellence. They are also well-networked and can expect considerable support for an educational choice in Sussex County that will focus on developing community and leadership skills.

I wholeheartedly encourage the Delaware Department of Education to approve the charter application for the Bryan Allen Stevenson School of Excellence.

Sincerely,

A handwritten signature in black ink that reads "Christine Carrino Gorowara". The signature is written in a cursive style with a large initial 'C'.

Christine Carrino Gorowara, Ph.D.
Co-Vice Chair, Sussex Montessori School Board

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

October 10, 2020

RE: The Bryan Allen Stevenson School of Excellence, Inc.

Sherrie Donecker is pleased and excited to lend her support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. I am aware of what it will take to make BASSE, Inc. a success and am interested in supporting the school in a way that best utilizes my resources [i.e. time, financially, partnership, etc.]. This will be an incredible addition to the Sussex County community and will nurture the next generation of Delaware leaders.

I sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,

Sherrie Donecker

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

October 2, 2020

RE: The Bryan Allen Stevenson School of Excellence, Inc.

Comfort Halsey Cope is pleased and excited to lend her support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. I am aware of what it will take to make BASSE, Inc. a success and am interested in supporting the school in a way that best utilizes my resources. Although I live in Massachusetts, I have deep Lewes, Delaware roots and am a retired educator. I stand in strong support of this inspiring enterprise. I sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,

Comfort Halsey Cope

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

11/23/20

RE: The Bryan Allen Stevenson School of Excellence, Inc.

Dutton Busing Inc. Is pleased and excited to lend our support to The Brian Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and changes that BASSE Inc. will impress upon their students. We are aware of what it will take to make BASSE, Inc. a success and are interested in supporting the school in a way that best utilizes our resources my time. This schools sounds very intriguing to me. We are in dire need of more schools to accommodate the population of students in Sussex County.

We sincerely hope The Bryan Allen Stevenson School of Excellence, Inc. application will be accepted.

Respectfully,
Gerald Dutton
President/ Dutton Busing
President/DSBCA

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

10/01/2020

RE: The Bryan Allen Stevenson School of Excellence, Inc.

Jessica and Kenneth Lund are pleased and excited to lend our support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students.

We are aware of what it will take to make BASSE, Inc. a success and are interested in supporting the school in a way that best utilizes our resources.

We sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,

Jessica and Kenneth Lund



SIERRA CLUB

DELAWARE CHAPTER

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

Friday, October 23, 2020

RE: The Bryan Allen Stevenson School of Excellence

Sierra Club Delaware Chapter is pleased and excited to lend our support to The Bryan Allen Stevenson School of Excellence (BASSE).

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE will impress upon their students. We are aware of what it will take to make BASSE a success and are interested in supporting the school in a way that best utilizes our resources and experience in the realm of social and environmental organizing.

Given all of the social unrest and increased civic engagement, it is more important than ever to have this option available to students in this area. We need our young people to be educated at an early age around the importance of being engaged with and how to give back to their community. To couple this ideal with a top tier curriculum will bring a unique and necessary opportunity to the state of Delaware that hopefully will serve as an example that can be utilized in other parts of our state. We look forward to partnering with this school to help their students to advocate around environmental and social justice issues.

We sincerely hope The Bryan Allen Stevenson School of Excellence application will be accepted.

Respectfully,

A handwritten signature in black ink that reads "Sherri Evans-Stanton".

Sherri Evans-Stanton
Chapter Director
Sierra Club Delaware Chapter

P.O. Box 2005, Wilmington, DE 19899

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

December 11, 2019

RE: The Bryan Allen Stevenson School of Excellence

I am excited to lend my enthusiastic support to the Bryan Allen Stevenson School of Excellence (BASSE).

It is so encouraging to know Sussex County families will have the opportunity to provide their children with an educational experience where service, rigor, and leadership is at the center of their academic journey. Of course we all know that Mr. Stevenson, a favorite son of our state, has earned a legacy of compassion, service, and dedication to social and civic change that I'm confident BASSE will impress upon its students.

As a former education policy advisor to Delaware Governor Jack Markell and his administration, I am well aware of what it will take to make BASSE a successful school, and I am committed to supporting the school in whatever way that I am able - be it time, talent or treasure. Further, since leaving my former role in the education space here in Delaware, I have had the privilege to work on a number of social change efforts and I know how critical the development of future thought leaders and civil servants truly is for our state and our country. I am eager to meet the future leaders that will emerge from the doors of the Bryan Allen Stevenson School of Excellence.

And as a parent, I know how important a diverse range of educational settings is for our state. I sincerely hope the Bryan Allen Stevenson School of Excellence application will be accepted and approved by the CSAC, the Secretary of the Delaware Department of Education, and the State Board of Education.

Sincerely,

Meghan Wallace
1411 Oak Street
Wilmington, DE 19805



**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

October 7, 2019

RE: The Bryan Allen Stevenson School of Excellence, Inc.

The NCALL Loan Fund is pleased and excited to provide financial structuring and lending support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. As a Community Development Financial Institution, NCALL Loan Fund is aware of what it will take to make BASSE, Inc. a success and are interested in supporting the school in a way that best utilizes our technical and financial resources.

The Loan Fund also has capacity and commitment for charter schools, especially those that are just getting started. We have enjoyed being a development entity for other charters and will be available to do the same for the Bryan Stevenson School of Excellence. A few examples of how we can assist BASSE include: participating on the start-up committee, assist with the financial structuring of the project and helping to seek creative funds for its construction and operations, and capital campaign activities.

We sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,

Karen Kollias
Loan Fund Director

Cc: Alonna Berry, BASSE Board Chair

363 Saulsbury Road, Dover, DE 19904 • (302) 678-9400 • Fax (302) 678-9058 • www.ncall.org

Corinne Billger and Ray Daffner
123 E. Qual Trail
Lewes, DE

Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639

October 21, 2019

RE: The Bryan Stevenson School of Excellence, Inc.

Corinne Billger and Ray Daffner are pleased and excited to lend enthusiastic support to The Bryan Stevenson School of Excellence.

As a native of Delaware, Sussex County and retired educator who lived, worked and raised children in Sussex County, Corinne has tremendous appreciation for the vision of the Brian Stevenson School. Education is vital and educators must not only be able to teach, but to reach their students and provide a forum for their unique talents to be fostered and promoted. Corinne believes the BSSE will offer this and carefully cultivate in their students a vision of their own best selves.

As a development professional based in Washington, DC who has spent over 20 years financing important community projects in rural underserved areas across the nation, Ray sees an opportunity to bring capital from non-profit Community Development Financial Institutions (CDFIs) and for-profit New Markets Tax Credit Funds (CDEs) to provide below market debt and tax incented equity to help make the vision of BSSE a reality.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BSSE, Inc. will impress upon their students. We are aware of what it will take to make BSSE, Inc. a success and are interested in supporting the school in a way that best utilizes financial resources and personal time.

We sincerely hope The Bryan Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,

Corinne Billger and Ray Daffner

Corinne Billger and Ray Daffner

**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

09/24/2020

RE: The Bryan Allen Stevenson School of Excellence, Inc.

Victoria Shepherd is pleased and excited to lend her support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE, Inc. will impress upon their students. We are aware of what it will take to make BASSE, Inc. a success and are interested in supporting the school in a way that best utilizes our resources.

We sincerely hope The Bryan Allen Stevenson School of Excellence, Inc.'s application will be accepted.

Respectfully,
Victoria Shepherd

**Section 1.7 - Parent and Community Engagement :: Attachment 17.2 -
MOUs and Contracts**

Vendor: Delaware Guidance Services for Children and Youth, Inc.
Address: 1213 Delaware Avenue Wilmington, Delaware 19806
Service: Behavioral Health Support Services
Duration:

Introduction

This AGREEMENT entered into between **SCHOOL** hereinafter referred to as "SCHOOL" and **Delaware Guidance Services for Children and Youth, Inc.**, a not-for-profit corporation of the State of Delaware, hereinafter referred to as "The Contractor".

The Agreement shall commence on XXXX, 2019 and will terminate on June 30, 2020 unless specifically extended by an amendment, signed by all parties to the Agreement. Time is of the essence.

NOW THEREFORE, in consideration of the foregoing recitals and intending to be legally bound hereby, the "The Contractor" and the "SCHOOL" agree to the following:

A. Administrative Requirements

1. Contractor recognizes that it is operating as an independent Contractor and that it is liable for any and all losses, penalties, damages, expenses, attorney's fees, judgments, and/or settlements incurred by reason of injury to or death of any and all persons, or injury to any and all property, of any nature, caused by any negligence on the part of the Contractor's in its performance under this Agreement.
2. The Contractor shall maintain such insurance as will protect against claims under the Worker's Compensation Act and from any other claims for damages for personal injury, including death under the Workers Compensation Law of the State of Delaware which may arise from its operations under this Agreement. The Contractor is an independent contractor and is not an employee of the "SCHOOL"
3. The Contractor shall, at its expense, carry insurance of minimum limits as follows:
 - a) Comprehensive General Liability \$1,000,000; and
 - b) Medical/Professional Liability \$1,000,000/ \$3,000,000; and
 - c) Misc. Errors and Omissions \$1,000,000/\$3,000,000
4. Notwithstanding the information contained above, the Contractor shall indemnify and hold the SCHOOL harmless from contingent liability to others for damages because of bodily injury, including death, which may result from the Contractor's negligent performance under this Agreement, and any other liability for damages for which the Contractor is required to indemnify the SCHOOL and its board, officers, and employees under any provision of this Agreement.

5. The Contractor shall require that all of its subcontractors under this contract obtain policies with the same coverage requirements contained in subsections 2 and 3 of Section A of this Agreement. The policies for both the Contractor and its subcontractors under this contract must be so written to include Bodily Injury and Property damage insurance to protect against claims arising from the negligent performance of the Contractor and the Contractor's subcontractors under this Agreement. The Contractor shall ensure that its personnel or subcontractors hired to work with "SCHOOL" students have, within the current calendar year, taken a Mantoux tuberculin test with a negative or inactive positive result prior to initiation of work under this contract, and
 - a) Ensure that its personnel or subcontractors who shall be working with "SCHOOL" students have recently procured a criminal background check within the last 12 months, and every 24 months thereafter, that showed the employee or subcontractor to be without convictions, and
 - b) Ensure that it conducts child abuse and adult abuse registry checks and obtain service letters for staff or subcontractors working with "SCHOOL" children in accordance with 19 Del. Code § 708; and 11 Del. Code, §§ 8563 and 8564. Contractor shall not employ individuals with adverse registry findings in the performance of this Agreement.
6. The Contractor shall provide a Certificate of Insurance as proof that the Contractor has the required insurance, or a letter indicating a program of self-insurance and its limits and availability of funds sufficient to meet the claims. The certificate shall identify the Contractor as the "Certificate Holder" and shall be valid for this Agreement's period of performance as detailed in the Introduction.
7. The Contractor acknowledges and accepts full responsibility for securing and maintaining all licenses and permits, as applicable and required by law to engage in business and provide the goods and/or services to be acquired under the terms of this Agreement. The Contractor acknowledges and is aware that Delaware Law provides for significant penalties associated with the conduct of business without the appropriate, required license.
8. The Contractor agrees to comply with all State and Federal licensing standards and all other applicable standards as are required to provide services under this Agreement, to assure the quality of services provided under this Agreement. The Contractor shall immediately notify the SCHOOL in writing of any change in the status of any accreditations, licenses or certifications in any jurisdiction in which they provide services or conduct business. If this change in status regards the fact that its accreditation, licensure, or certification is suspended, revoked, or otherwise impaired in any jurisdiction, the Contractor understands that such action may be grounds for termination of the Agreement.
9. Contractor agrees to comply with all the terms, requirements and provisions of the Civil Rights Act of 1964, the Rehabilitation Act of 1973 and any other federal, state, local or any other anti-discriminatory act, law, statute, regulation or policy along with all amendments and revision of these laws, in the performance of this Agreement and will not discriminate against any applicant or employee or service recipient because of race, creed, religion, age, sex, color, national or ethnic origin, handicap or any other unlawful discriminatory basis or criteria.

10. Both Parties to this Agreement agree to abide by the provisions of the Health Insurance Portability & Accountability Act of 1996.
11. The Contractor agrees to provide to the SCHOOL, on an annual basis, if requested, information regarding the client population served under this contract by race, color, national origin or handicap.
12. This Agreement may be terminated in whole or part:
 - a) by the SCHOOL upon five (15) calendar days written notice of documented unsatisfactory performance,
 - b) by either party without cause upon thirty (30) calendar days written notice to the other Party, unless a longer period is specified.

In the event of termination, all finished or unfinished documents, data, studies, surveys, drawings, models, maps, photographs, and reports or other material, excluding medical records in the custody of the Contractor, prepared by Contractor under this Agreement shall, at the option of the SCHOOL, become the property of the SCHOOL. In the event of termination, the Contractor, upon receiving the termination notice, shall immediately cease work and refrain from purchasing contract related items unless otherwise instructed by the SCHOOL. The Contractor shall be entitled to receive reasonable compensation as determined by the SCHOOL in its sole discretion for any satisfactory work completed on such documents and other materials that is usable to the SCHOOL. Whether such work is satisfactory and usable is determined by the SCHOOL in its sole discretion. Should the Contractor cease conducting business, become insolvent, make a general assignment for the benefit of creditors, suffer or permit the appointment of a receiver for its business or assets, or shall avail itself of, or become subject to any proceeding under the Federal Bankruptcy Act or any other statute of any state relating to insolvency or protection of the rights of creditors, then at the option of the SCHOOL, this Agreement shall terminate and be of no further force and effect. Contractor shall notify the SCHOOL immediately of such events.

13. Any notice required or permitted under this Agreement shall be effective upon receipt and may be hand delivered with receipt requested and granted or by registered or certified mail with return receipt requested. Either Party may change its address for notices and official formal correspondence upon five (5) days' written notice to the other.
14. In the event of amendments to current Federal or State laws which nullify any term(s) or provision(s) of this Agreement, the remainder of the Agreement will remain unaffected and the Parties will use their best efforts to renegotiate such nullified terms.
15. This Agreement shall not be altered, changed, modified or amended except by written consent of all parties to the Agreement.
16. The Contractor shall not enter into any subcontract for any portion of the services covered by this Agreement without obtaining prior written approval of the SCHOOL. Any such subcontract shall be subject to all the conditions and provisions of this Agreement. The approval requirements of this paragraph do not extend to the purchase of articles, supplies, equipment,

rentals, leases and other day-to-day operational expenses in support of staff or facilities providing the services covered by this Agreement.

17. This entire Agreement between the Contractor and the SCHOOL is composed of these several pages and the attached Appendices.
18. This Agreement shall be interpreted and any disputes resolved according to the laws of the State of Delaware. Except as may be otherwise provided in this contract, all claims, counterclaims, disputes and other matters in question between the SCHOOL and Contractor arising out of or relating to this Agreement or the breach thereof will be decided by arbitration if the parties hereto mutually agree, or in a court of competent jurisdiction within the State of Delaware.
19. In the event Contractor is successful in an action under the antitrust laws of the United States and/or the State of Delaware against a vendor, supplier, subcontractor, or other party who provides particular goods or services to the Contractor that impact the budget for this Agreement, Contractor agrees to reimburse the SCHOOL for the prorated portion of the damages awarded that are attributable to the goods or services used by the Contractor to fulfill the requirements of this Agreement. In the event Contractor refuses or neglects after reasonable notice by the SCHOOL to bring such antitrust action, Contractor shall be deemed to have assigned such action to the SCHOOL.
20. Contractor covenants that it presently has no interest and shall not acquire any interests, direct or indirect, that would conflict in any manner or degree with the performance of this Agreement. Contractor further covenants that in the performance of this Agreement, it shall not employ any person having such interest.
21. Contractor covenants that it has not employed or retained any company or person who is working primarily for the Contractor, to solicit or secure this Agreement, by improperly influencing the SCHOOL or any of its employees in any professional procurement process; and, the Contractor has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working primarily for the Contractor, any fee, commission, percentage, gift or any other consideration contingent upon or resulting from the award or making of this agreement. For the violation of this provision, the SCHOOL shall have the right to terminate the agreement without liability and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission, percentage, gift or consideration.
22. The SCHOOL shall have the unrestricted authority to publish, disclose, distribute and otherwise use, in whole or in part, any reports, data, or other materials, except medical records or any materials that identify patients, prepared under this Agreement. Contractor shall have no right to copyright any material produced in whole or in part under this Agreement. Upon the request of the SCHOOL, the Contractor shall execute additional documents as are required to assure the transfer of such copyrights to the SCHOOL. If the use of any services or deliverables is prohibited by court action based on a U.S. patent or copyright infringement claim, Contractor shall, at its own expense, buy for the SCHOOL the right to continue using the services or deliverables or modify or replace the product with no material loss in use, at the option of the SCHOOL. If the Contractor cannot buy the rights to continue using the service or replace the

product, the Contractor may terminate the contract under the provisions of paragraph A 12 (c) of this Agreement.

23. Contractor agrees that no information obtained pursuant to this Agreement may be released in any form except in compliance with applicable laws and policies on the confidentiality of information and except as necessary for the proper discharge of the Contractor's obligations under this Agreement.
24. Waiver of any default shall not be deemed to be a waiver of any subsequent default. Waiver or breach of any provision of this Agreement shall not be deemed to be a waiver of any other or subsequent breach and shall not be construed to be a modification of the terms of the Agreement unless stated to be such in writing, signed by authorized representatives of all parties and attached to the original Agreement.

B. Financial Requirements

1. Payment will be made upon receipt of an itemized invoice from the Contractor in accordance with the payment schedule, if any. The contractor or vendor must accept full payment by procurement (credit) card and or conventional check and/or other electronic means at the State's option, without imposing any additional fees, costs or conditions. The Contractor is responsible for costs incurred in excess of the total cost of this Contract and the SCHOOL is not responsible for such costs, unless mutually agreed upon and approved in writing by the SCHOOL.
2. SCHOOL will pay Contractor for the performance of services described in Appendix A, Scope of Work. The fee will be paid in accordance with fee schedule attached herto as part of Appendix B, Budget.
3. When the SCHOOL desires any addition or deletion to the deliverables or a change in the services to be provided under this Contract, it shall so notify the Contractor. The SCHOOL will develop a Contract Amendment authorizing said change. The Amendment shall state whether the change shall cause an alteration in the price or time required by the Contractor for any aspect of its performance under the Contract. Pricing of changes shall be consistent with those prices or costs established within this Contract.
4. Contractor shall maintain books, records, documents and other evidence directly pertinent to performance under this Agreement in accordance with generally accepted accounting principles and practices. Contractor shall also maintain the financial information and data used by Contractor in the preparation of support of its bid or proposal. Contractor shall retain this information for a period of seven (7) years from the date services were rendered by the Contractor. Records involving matters in litigation shall be retained for three (3) years following the termination of such litigation. The Adorn shall have access to such books, records, documents, and other evidence for the purpose of inspection, auditing, and copying.
5. The Contractor is solely responsible for the payment of all amounts due to all subcontractors and suppliers of goods, materials or services which may have been acquired by or provided to the Contractor in the performance of this contract. The SCHOOL is not responsible for the payment of such subcontractors or suppliers.

6. The cost of any audit disallowances resulting from the examination of the Contractor's financial records will be borne by the Contractor. Reimbursement to the SCHOOL for disallowances shall be drawn from the Contractor's own resources and not charged to Agreement costs or cost pools indirectly charging Agreement costs.

C. Scope of Work

1. Contractor and SCHOOL agree that the work to be performed and the performance obligations of each of the Parties under this Agreement shall be as set forth in Appendix A, attached hereto, and incorporated herein by reference.

Authorized Signatures:

Contractor

Jill Rogers, Executive Director
Delaware Guidance Services for Children and Youth,
Inc.
1213 Delaware Avenue
Wilmington, DE 19806

Date

School

School Official, Title
School Address

Date



Memorandum of Understanding

The Bryan Allen Stevenson School of Excellence (“BASSE”) will be an independent charter school operator opening in Sussex County, Delaware. Jounce Partners (“Jounce”) is an educational non-profit focused on working with future and existing school leaders to rapidly accelerating teaching quality. BASSE and Jounce wish to enter an agreement to identify, recruit, and train the future Founding Instructional Leader (“FIL”) at BASSE.

From Jounce to BASSE

Prior to BASSE’s launch, the FIL will be a full-time employee of Jounce, and remain a full-time employee of Jounce until a time to be determined collectively by BASSE, Jounce, and the FIL.

- Advice and support in selecting the incoming Founding Instructional Leader

Jounce will provide support in talent identification and recruitment, initial candidate screening, and program based interviews emphasizing coaching. In short, Jounce would share their internal process for recruiting School Launch Partners with BASSE and partner with your Board in selecting a future school leader.

- Instructional Leader Training

The traditional approach to instructional leadership is “Observation and Feedback.” Our model replaces this with “Modeling and Practice.” When teachers are in class and teaching, leaders actively model instead of passively observing. This shift – from “observation and feedback” to “modeling and practice” – requires a new set of skills for school leaders. Jounce defines school leadership as a job that is all about developing better teachers, faster, and we will help the proposed BASSE leader build the skill set for this role.

- Instructional Leader Experience

After receiving initial front-end training, Jounce will place the proposed BASSE leader in our partner schools (and new partner schools in Delaware), coaching teachers and leaders in the Jounce model. These at-bats will hone the proposed BASSE leaders' skill-set and give them ongoing experience in school leadership scenarios.

- Pre-Launch Leader Training

All Jounce Launch Partners receive training - both internal, from former school leaders on our team; and external, from specialized consultants - on the non-instructional aspects of school leadership. Examples of this could include school finance and



budgeting, hiring and performance management, staff culture building skills, basic skills for board interaction and reporting, and necessary school operations training. Jounce can provide or facilitate this training as needed.

- FIL employment

Prior to the FIL transitioning to their position as the instructional leader of BASSE, Jounce will handle all aspects of the FIL's employment administration.

From BASSE to Jounce

- An initial leader training fee of \$30,000

Prior to taking primary ownership of a Jounce partnership, the FIL will complete an onboarding and training period where they will receive intensive training from Jounce's Executive Director, they will shadow and then coach alongside the more experienced Partners on the Jounce team, and they will participate in curated training experiences including visits to some of the top performing schools in the country. By the time their training is complete, these Partners need to be able to step into a school, rapidly gain the trust of School staff, set a new vision for a school, and aggressively build the skill sets of the leaders and teachers. This fee covers the FIL's salary and benefits for this time, as well as Executive Director and staff support time spent recruiting, training, and onboarding the FIL, travel to high performing schools; and various books and A/V equipment needed to use video in training and share documents.

- An annual support fee for every year prior to Launch Year 0

Once the FIL is onboarded and leading partnerships, the bulk of the costs associated with their training is covered by their partnerships. This fee would cover any delta incurred if the FIL was unable to lead Jounce partnerships or if BASSE and the FIL wished for the FIL to fulfill mission-oriented lower-cost partnerships.

- A Launch Year 0 fee

In the final year before launch, Jounce Launch Partners scale down their partnership work to focus on the launch of their school. If BASSE wishes the FIL to do the same, the costs associated with the FIL's time directly focused on BASSE would be covered by BASSE.

- A joint cooperation agreement

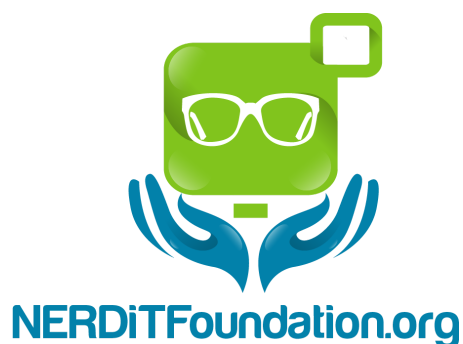
Jounce and BASSE would sign a joint cooperation agreement to identify potential partner schools, program fundraisers, etc. This agreement would also cover



contingencies if the FIL could not properly support Jounce Partner schools or if the BASSE board lost faith in the FIL's ability to properly lead BASSE at launch.

- A follow-on support agreement MOU between Jounce and BASSE for the incubated leader

With all of our Launch Partners, we continue to work with the launch school to ensure fidelity to the model and ongoing support. The scope of this agreement would be subject to negotiation prior to launch, but a joint agreement to pursue that partnership would be needed.



**Delaware Department of Education
Townsend Building
401 Federal Street
Dover, DE 19901-3639**

12/30/2020

RE: The Bryan Allen Stevenson School of Excellence

The NERDiT FOUNDATION is pleased and excited to lend our support to The Bryan Allen Stevenson School of Excellence.

It is encouraging to know that families in Sussex County will have the opportunity to provide their students with a real-world educational experience where service, rigor, and student leadership is at the center. Mr. Stevenson has built a legacy of service and change that BASSE will impress upon their students. We are aware of what it will take to make BASSE a success and are interested in supporting the school in a way that best utilizes our resources [i.e. time, financially, partnership, etc.].

The NERDiT Foundation, believes that everyone should have the right to technology and to be afforded the opportunity to learn how technology can truly make an impact for us all. The Bryan Allen Stevenson School of Excellence is in need of technology, and our mission is to provide IT support and technology for the students.

We sincerely hope The Bryan Allen Stevenson School of Excellence application will be accepted.

Respectfully,

Markemis Gideon

CEO

Section 1.8 - Start up and Operations

The Bryan Allen Stevenson School of Excellence

Section 8 - Start-Up Plan and Operations

1.8 Start-up and Operations

14 *Del. C.* §§ 512(1), (8)-(10), and (12)-(13)

1. **Start-Up Plan.** Provide, as **Attachment 18**, a detailed start-up plan for the school, specifying tasks, timelines, and responsible individuals, which is aligned with a sound Start-Up Budget. The plan must include such milestones as:
 - Identifying and hiring key personnel;
 - Creating and/or finalizing curriculum, including purchasing assessment and materials;
 - Creating discipline, attendance, promotion, and grading policies approved by your school's Board of Directors and the Department;
 - Hiring instructional staff;
 - Having in place the major contracts necessary for the school to open on schedule. Major contracts shall include, without limitation, the school's contracts for equipment, services (including bus and food services, and related services for special education), leases of real and personal property, the purchase of real property, the construction or renovation of improvements to real property, and insurance. (**Note!** Contracts for bus and food services must be in place no later than August 1st of the year in which the school proposes to open and August 1st of each year thereafter.)
 - Engaging the community and recruiting students; and
 - Other planning activities.
2. Describe what you anticipate will be the challenges of starting a new school and how you expect to address these challenges.

The first challenge that we anticipate is facilities. Due to our location in Sussex County, we know that there are more steps in acquiring land and building our school. We have taken several steps in order to alleviate this challenge. First, we have facilitated a relationship with the Lee-Ann Wilkinson Group to find a suitable land site for our school. The Wilkinson Group team has found us three possible sites, each within proximity of water and sewage hook up. Secondly, we are also looking for existing sites that we could refurbish in order to open our school within an existing space. We were successful in entering a partnership with Delaware Technical Community College, Owens Campus, to lease the current Howard T. Ennis property once Indian River School District has moved in the fall of 2022. This space will be able to hold BASSE in our first three years of opening as we continue to work towards building our own campus. Third, we have entered another partnership with the National Development Council (NDC), the Community Education Building Corporation (CEB), Montessori Works (MW), and the Community Services, Education, and Economic Development Center (CSEEDC) to build the Sussex County Solutions Center (SCSC). The SCSC will encompass approximately 110,000 square feet of developed space and house BASSE, MW, and CSEEDC. More details about the proposed campus are included in Section 1.9. Finally, we have received quotes from construction companies to accurately prepare for the costs that we will incur in refitting a space and building a new school. Additionally, we have facilitated a relationship with Moonlight Architecture, who has agreed to support our process by creating blueprints and budget estimates as BASSE reviews properties.

The Bryan Allen Stevenson School of Excellence

Section 8 - Start-Up Plan and Operations

Another challenge that we have recognized is teacher recruitment. This problem is twofold for us. First, we are concerned with hiring high-quality and strong teachers. In order to remedy this challenge, we have already built partnerships with the Relay Graduate School of Education (Relay), the University of Delaware Alternative Routes to Certification program (UDARTC), Teach For America (TFA), and Delaware State University (DSU) to provide several pathways to hiring teachers and other staff. DSU has agreed to enter a draft MOU with us where we could have student teachers working in our building that would transition into full-time teachers as we grow our staff in years three, four, and beyond. Both the UDARTC program and TFA will provide our school with full-time teachers interested in innovation and social justice with experience outside of the realm of traditional education, which will be beneficial to our student body. Finally, our partnership with Relay will provide our teaching staff with access to master's level coursework and provide us with a mechanism to offer a year-long residency program for pre-service teachers in our building. This will add sustainability to our teaching pathway moving forward as these future teachers will have a unique relationship with our building, students, and model. Secondly, we are also deeply invested in having a diverse teaching faculty. We know that teacher diversity is a national and statewide problem, and we want to be a part of the solution. This is why we are intentionally partnering with education preparation programs that are likely to bring us a more diverse applicant pull in addition to the traditional pathways to teaching, such as Teach For America and Delaware State University (a Historically Black University). BASSE recognizes that there is a national teacher shortage, but we are confident that our innovative school model which embodies a commitment to developing teacher-leaders and student-centered learning will attract a number of qualified and motivated teachers to staff our school.

The third challenge that we are most concerned with is fundraising. Education is an expensive endeavor, and we recognize that it will take significant funding to successfully implement our plans and create sustainability for BASSE. We are approaching this challenge from several angles. We have named our school after Bryan Stevenson because of his ties to Delaware and his legacy, but with Mr. Stevenson's name also comes national recognition. We have been able to engage with national funders interested in our vision and mission and our relationship with Mr. Stevenson. Secondly, we have engaged various local funders who have a vested interest in the future of the students in Delaware and Sussex County. Finally, we have created a detailed development plan that includes engaging our funders in several ways, such as campaigns, dinners, and events, applying for grants, and board stewardship. In December 2021, BASSE hired a full-time Director of Development, Crystal Timmons-Bryant, to lead this work. See our dynamic development plan [here](#).

Lastly, the final challenge we are planning for is transportation. Sussex County is rural, and transportation distances and times will require a thoughtful and strategic bus plan to ensure our students' equity and safety. We have already engaged with several bus providers in this area to begin planning the best options for our students.

3. Complete the Start-Up (Year 0) Budget in the Budget Sheets. Complete all pages in the Budget Sheets, and provide as **Attachment 19** (see link in Section 1.10 Budget and Finance).

The Bryan Allen Stevenson School of Excellence

Section 8 - Start-Up Plan and Operations

4. **Transportation.** Describe how students will be transported to the school pursuant to 14 *Del. C.* § 508, including any provisions that the school will provide; how students who reside outside the district in which the school will be located will be transported to the school; and how students with special needs will be transported if specialized transportation is required by the student's IEP.

Describe the plan for oversight of transportation operations (e.g., whether the school will provide its own transportation, contract out for transportation, request that a district provide transportation, or a combination thereof) and who on the school staff will provide this daily oversight.

Students will be transported to BASSE within the regulations of 14 *Del. C.* § 508. We will contract with a bus company that will pick up our students who reside outside of the district first (at "hub spots") and pick up the students who live in the district as the final stops. A more detailed description of this plan, as well as potential routes, are included [here](#). The school's Executive Director will be in charge of the daily oversight of transportation for our students.

BASSE will contract a bus transportation service that is an insured firm that specializes in student transportation. Based on the enrollment reported each April to the DDOE, the Executive Director will discuss and design bus routes monitored by a subcommittee of the operating Board.

The Executive Director and transportation company will establish hub configurations that prioritize equity and efficiency for all BASSE students and families. Parents or guardians of students living outside of the district the school is located on will be responsible for transporting their child to and from the hub stop.

BASSE will make appropriate accommodations based on students' Individual Education Plans (IEP) to ensure equity and safety. As special transportation needs are identified, the school will work with the students' parents and the transportation services company to ensure compliance with specialized transportation needs. Any field trips and other planned events will be made through the school's contracted transportation services provider.

Additionally, the BASSE Executive Director and appropriate staff will oversee student transportation services through regularly scheduled quarterly meetings and ad hoc meetings, as needed. To ensure safety and preparedness, these quarterly meetings will prioritize, but are not limited to, and will annually report plans publicly:

- Creating a BASSE transportation contingency plan to address emergencies or any unforeseen circumstances
- Training for all staff and bus drivers in accordance with all state and federal regulations
- Schedule for training for transportation training for safety and emergency drills
- An accident support and on-site chain of command plan, including a communications plan for parents, DDOE, and the general public
- Plan for coverage at bus arrival and departure times

The Bryan Allen Stevenson School of Excellence

Section 8 - Start-Up Plan and Operations

5. Safety and Security.

- a. Describe your plan for safety and security for students, staff, guests, and property.
- b. Explain the types of safety and security personnel, technology, equipment, and policies that the school will employ to provide a safe and healthy environment in accordance with 14 *Del. C.* § 512(12) and the safety provisions included in the Compliance Certification Statement.
- c. Explain your process to create and maintain the required emergency preparedness plan that is in compliance with the Emergency Preparedness Guidelines established by 29 *Del. C.* § 8237 and 14 DE Admin. Code § 621, and approved by the Department of Safety and Homeland Security (DSHS). Identify which position will have primary responsibility for this plan.

(A) BASSE's plan for the safety and security of all students is a primary focus of the school. Access to the building and other BASSE facilities will be designed. In the interest of safety for students, staff, and visitors, "controlled access" to the school facility will be maintained at all times. A security system will provide visual live feeds of all building entrance locations and other key spaces inside and outside the building. All outside doors will remain locked from the outside, except during student arrival and dismissal times. Visitor access will be restricted to the main entrance – all guests must present proper identification and comply with all 'guest pass' procedures before being allowed to pass beyond the main entrance. All staff will be required to wear photo ID badges while on school premises. Guest sign-in procedures will be established. The Board of Directors will ensure the following at our initial opening site, the current Howard T. Ennis building, and at our future campus:

- Entrances that have double doors, which open out and operate with panic bar latches
- Doors that lock automatically upon closing
- A security camera at the front and back entrances
- A closed-circuit TV access door with a coded alarm system
- A fully inspected, functioning fire alarm system that is linked in with the alarm system
- Fire escapes on every floor of the building, extinguishers in the appropriate places
- Properly functioning sprinkler system

Entry into the school will be secured via state and federal standards for schools and will require electronic badge entry. All visitors will sign in at the front desk with an ID and must carry a visitor pass at all times. All staff and volunteers will need to complete state and federal background checks. All doors and windows will be lockable and monitored.

(B) BASSE staff and Board of Directors will always utilize best practices in managing the health and safety of students, staff, and guests. The Executive Director, Co-Heads of School, and the BASSE Executive and Governance committees will maintain primary responsibility for oversight and management of health, safety, and security policies and practices, in accordance with Federal, CDC, State, and DDOE guidance. BASSE will implement a comprehensive set of health, safety, and risk management policies and practices, which will be communicated to parents, students, and staff as part of enrollment procedures and various orientation programs.

The Bryan Allen Stevenson School of Excellence

Section 8 - Start-Up Plan and Operations

Electronic equipment and cameras will be used to monitor the school at all times. The BASSE School Leadership Team will coordinate safety monitoring and liaise with local police and emergency response when necessary.

BASSE will use an automated school notification system to improve communications between the school and home to provide important safety notifications to parents and guardians. This communication system will notify students and families about school closings, delays, early dismissals, emergency notifications, attendance calls, bus route notifications, lockdown communications, activity reminders, lunch balance reminders, and parent polls and surveys.

To ensure the security and safety of all students, staff, personnel, and their families, BASSE will require background checks for all employees, contracted service providers, and volunteers (as required by law) will be required to complete a criminal background check (CBC). In addition, the Child Abuse Registry (CAR) will be checked through the Department of Services for Children, Youth and Families (DSCYF). Both the CAR and CBC will be required of all new board members and submitted to the DDOE Charter Office within 45 days of an election to the board. With support from the Executive Director, the Co-Heads of School will maintain due diligence in following the regulations for CBC's and CAR's for volunteers. Results will be maintained in a secure file, separate from personnel files; and, available for authorized inspection.

BASSE Executive Board and Executive Director will be directly responsible for ensuring that criminal background and child abuse registry checks are initiated, completed, and appropriately documented prior to an individual staff member's employment or board member's appointment.

(C) BASSE's Executive Director and Board of Directors Executive Team will establish a School Safety Committee to serve as a clearinghouse for the discussion of issues, policies, and practices related to the safety of students, parents, and staff. Committee representation will include, but may not be limited to, the school leadership team, teachers, the school nurse, the custodian, and a parent.

BASSE will create a Health and Safety Manual to address, but not limited to, the following:

- Pandemic response and safety plan, including a plan for PPE
- General safety precautions,
- Guest entrance and exit procedures,
- Procedures for fire drills,
- Lock-downs, and other emergencies,
- Emergency plans,
- Drop-off and dismissal routines,
- Medication administration guidelines,
- First aid, infectious disease (pandemic protocols),
- On and off-site service-learning experience protocols, and
- Will monitor and edit the school's Comprehensive School Safety Plan (CCSP).

The Bryan Allen Stevenson School of Excellence

Section 8 - Start-Up Plan and Operations

BASSE's Executive Team, Executive Director, and Founding School Leader (Dean of Academic Excellence) will reach out to the Department of Safety and Homeland Security (DSHS) to begin developing the CCSP. In accordance with the Omnibus School Safety Act, BASSE will establish a School Safety Committee to work with the DSHS to develop and maintain a comprehensive site-specific safety and emergency preparedness plan in compliance with the National Incident Management System (NIMS). The CCSP will address the situations with the potential to cause injury, loss of life, damage to or destruction of property, or major disruptions of activities, including weather events, crime, or terrorism-related events. BASSE will work with the Department to conduct at least one critical incident or emergency event exercise each year and at least one tabletop exercise every two years. BASSE and DSHS representatives will analyze the performance of these exercises annually and make appropriate adjustments, as needed.

Additionally, BASSE's Executive Director, Co-Heads of School and Board of Directors Executive and Governance committees will create an emergency preparedness plan in compliance with all state and federal guidelines, including a pandemic plan. All appropriate BASSE staff will attend all state and federally mandated emergency preparedness trainings.

6. **Lunch/Breakfast.** Describe the plan for providing meals to students, including homeless students and others students eligible for free or reduced price meals. If the school plans to contract for meals, identify the contractor, if known, and describe the services to be provided.

(Note! Passed In 2013, 14 *Del. C.* §506(f) states that if a child would qualify for a no- or low-cost breakfast or lunch under a federal national school breakfast or lunch program, then the charter school shall provide breakfast and lunch to the child at no or low cost to the child's family, beginning in the 2014-2015 school year. Charter schools shall not consider whether a child would qualify for no- or low-cost breakfast or lunch under a federal national school breakfast or lunch program when making enrollment decisions.)

BASSE will participate in the National School Breakfast/Lunch Program and will contract for meals from a qualified food service vendor. This contract will be established and monitored by the Executive Director. BASSE will make estimations based on the market for enrollment for Sussex County, and we can expect that we will have the required percentage to participate in the universal free and reduced lunch program. Ultimately, the decision will be made when enrollment has been established each year. Meals will be provided to all students, including those eligible for free/reduced easily and students experiencing homelessness. Eligibility for free/reduced meals will be determined annually during the first week of school and in accordance with established state and federal procedures.

Depending on our building locations and square footage requirement, if our final site does not allow for a cafeteria, the teachers and children will have breakfast and lunch delivered to the classrooms.

To ensure equity and food safety for all students, BASSE will:

- Proper sanitation and health standards will be followed in the storage, preparation, and service of food.

The Bryan Allen Stevenson School of Excellence

Section 8 - Start-Up Plan and Operations

- Work with the foodservice vendor to ensure that all meals are consistent with state and federal guidelines and compliant with USDA regulations.
 - Select a foodservice vendor with the experience and knowledge to comply with the Federal requirements outlined in the Federal nutrition guidelines including, but not limited to providing food that is sodium and cholesterol reduced, limiting the percentage of calories from total fat to 30 percent of the actual number of calories offered; limiting the percent of calories from saturated fat to less than 10 percent of the actual number of calories offered, and increasing the levels of dietary fiber.
 - Ensure that any contracts with food service providers contain a statement to the effect that the “School Food Authority and participating schools under its jurisdiction, shall comply with all provisions of 7 CFR parts 210 and 245.”
 - Ensure that lunches will be priced as a unit, and all children who are determined to be eligible for such meals will be served lunches free or at a reduced price.
 - Ensure that any contracted meal provider shall be responsible for reviewing and analyzing meal counts to ensure accuracy as specified in §210.8 governing claims for reimbursement.
 - Claim reimbursement at the assigned rates are only for reimbursable free, reduced price, and paid lunches served to eligible children.
 - The number of free, reduced price, and paid reimbursable meals served to eligible children will be counted at the point of service.
 - Not discriminate against any child because of their eligibility for free or reduced-price meals in accordance with the approved Free and Reduced Price Policy Statement.
7. **Student Health Services.** Describe the plan to ensure the health of students. Describe how the school will provide health services to all students, including the plan to hire a School Nurse and a description of his/her role in the school. The response must include how the school will promote student health and well-being. The response must also include who at the school will supervise the School Nurse and his/her role in ensuring compliance with health regulations.

BASSE will create a Health and Safety Manual to ensure all students' health and safety at BASSE.

Given the impact of COVID-19, BASSE will prioritize following all guidelines and recommendations from the Center for Disease Control, Federal, State, and DDOE. BASSE will give particular specifications to hand washing as the best-known tactic for preventing illness and stopping the spread of germs. Additionally, BASSE will include a plan and budget for PPE and school cleaning to ensure preparation for any unforeseen virus challenges the school may face in the future. BASSE recognizes that medical issues, best practices, and recommendations change as technology and diseases progress. When new health issues arise, BASSE's policy will be to seek the current recommendations from the CDC and the DDOE and implement procedures accordingly.

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Staff and children who are sick will be required to stay home from school. Children must be fever-free (without the use of a fever-reducer) for twenty-four hours before returning to school. Any child who becomes ill at school (with a fever) will be sent home.

All staff will be required to have first aid and CPR training. A mandatory review course will be offered during the in-service week prior to school opening each year. Staff will be trained in procedures to ensure children's safety should the school nurse not be available when there is a health-related issue.

BASSE will hire a registered nurse prior to the school opening who will be responsible for operating under the requirements issued by the Delaware Department of Education (DDOE). The nurse will maintain diligence in communications to parents, staff, and students about urgent health issues and be responsible for complying with the Nursing Technical Assistance manual's policies and procedures. Specific responsibilities for the nurse will include enforcing policies established BASSE's Health and Safety Manual. These policies will at a minimum address:

- a. Ensuring that students and staff have physical examinations, immunizations, and TB screenings prior to enrollment or starting work;
- b. Proof of a student's recent physical examination and immunizations will be collected at the time of enrollment. In accordance with state regulations, parents will be notified when immunization and other screening requirements are not met, and the student will be excluded from school until the regulation has been met. Properly documented immunization exemptions will be considered by the school leader in consultation with the school nurse.
- c. Monitoring student health and maintaining health records; The school nurse will monitor and maintain student health records in a secure location and forward the required documentation of services to DDOE.
 - i. The school nurse will conduct an active screening program for vision, hearing, orthopedic issues, etc., as prescribed in DDOE's Nursing Technical Assistance Manual and Regulations.
- d. Establishing procedures for administering medications and medical treatments, including first aid at school;
 - i. The school nurse will administer medications and medical treatments in accordance with DDOE's Nursing Technical Assistance Manual and Regulations and any other appropriate governmental regulations or professional guidelines when students are onsite at school.
- e. Ensuring the school nurse will serve on IEP teams, as required when medical treatment is necessary;
 - i. The nurse will serve as a member of IEP teams when medical issues are discussed. The nurse will also provide medical information during the evaluation processes.
- f. Screening for health problems (vision, hearing, orthopedic, etc.);
- g. Establishing procedures for containing and controlling the spread of infectious diseases and procedures will be developed to communicate appropriate

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- precautionary steps for containing and preventing the spread of infectious diseases and other medical conditions.
- h. Ensuring emergency response procedures and training are provided to the staff. Please see the section above about the Comprehensive School Safety plan. These Board-approved policies will be incorporated, as appropriate, into the schools' parent, student, and staff handbooks as they are developed and will be reviewed on an ongoing basis. Appropriate staff training will be held as part of orientation programs.

All students must receive all vaccinations required by law before starting school. BASSE will have a part-time nurse until we are fully grown, at which point we will staff a full-time nurse. Health Sciences will be taught based on an age-appropriate curriculum. Physical Fitness will also be taught with an age-appropriate curriculum.

8. **Insurance Coverage.** Provide, as **Attachment 20**, a list of the types of insurance coverage that the school will secure, including a description of the levels of coverage in accordance with 14 *Del. C.* § 512(10). Types of insurance should include, without limitation, workers' compensation, liability, property, indemnity, directors and officers, automobile, and other. The Applicant should contact the Insurance Coverage Office at (302) 739-3651 or 877-277-4185 for further information on liability protection for public schools in Delaware.
9. **Student Records.** Describe the plan for the timely transfer of student and school data and records to the Department of Education, pursuant to 14 *Del. C.* § 512(13). (**Note!** eSchool is the electronic system the State uses to enter and count students.)

All student records will be kept confidentially in eSchool. All staff records will be secured in lockable cabinets. Only school administration and the appropriate personnel will have access to staff records. All records that are held digitally will be maintained securely, with password protection.

BASSE will be part of the state's eSchoolPlus pupil accounting system. This system will ensure the timely transfer of student data and records to other schools and the DDOE. All staff members required to use eSchoolPlus will be fully trained on the system.

All BASSE staff will participate in training prior to the school's opening and remain current with staff training and data requirements defined by the DDOE.

Section 1.8 - Start up and Operations :: Attachment 18 - Start-Up Plan

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Section 8 - Attachment 18 - Start-Up Plan

To be prepared to open the doors of The Bryan Allen Stevenson School of Excellence (BASSE) in the fall of 2023, the board, and members of the Executive Leadership Team, along with our partners and supporters, have been working to lay the foundation to aid us in the work that must happen once our charter is approved.

In anticipation of the opening of the school, we have:

- Constituted a Board of Directors, working committees, and Advisory Board, and established a 501.c.3 non-profit organization, Proximate, Inc.
- Completed a Strategic Planning Process
- Created Business, Community Engagement, and Development Plans
- Established a social media presence providing educational, inspirational, and promotional content
- Built a partnership with Jounce Partners, Inc. to hire and incubate the Academic Head of School
- Developed Student Enrollment and Student Recruitment Plans
- Developed Faculty and Staff Hiring Plans
- Built a partnership with Delaware Guidance Services to provide wraparound services for students and families
- Built a relationship with the International Baccalaureate Program to begin the process of adopting their curriculum and pursue becoming an International Baccalaureate school
- Built relationships with Relay Graduate School of Education, Teach For America, the University of Delaware Alternative Routes to Certification Program, and Delaware State University to support our recruitment of teaching faculty and other staff
- Built relationships with Delaware State University, and Public Allies to support student interns
- Established professional partnerships with local banks, architectural and real estate companies including M&T Bank, WSFS, Moonlight Architecture, and the LeeAnn Wilkinson Group
- Launched Community Engagement Plan, to date providing close to 50 educational and service events, for over 1,000 parents and kids
- Launched Phase One Development Plan with First Annual BASSE Art Fundraising Event, and to date raised \$1.5mil through grants, business sponsorships, events, and individual donations
- Launched Student Recruitment Plan, to date providing 20 local events and collecting 35 parent signatures, 43% of which are eligible to enroll their child in 2023.
- Developed School Operations Plan and School Calendar
- Engaged Accounting (OmniVest and Michelle J. Lambert, CPA LLC) and Public Relations (Blue Blaze) firms
- Hired the inaugural Executive Director and Director of Development
- Entered into a partnership with Delaware Technical and Community College to lease the

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Howard T. Ennis School for the first three to five years of operation.

- Entered into a partnership with the Longwood Foundation and the Community Education Building Corporation to build the Sussex County Solutions Center (SCSC) which will serve as a campus for Montessori Works, and the Community Services, Education and Economic Development Center
- Built a relationship with Sussex Academy to share drivers’ education program services, and access to sports fields/teams
- Obtained quotes and finalized agreements for various services we will need once the school is open, such as:
 - Bus Services from RJK Transportation
 - Identified two food service options; contracts will be finalized upon approval of the charter application. [One option](#) is used by other Sussex County charter schools.
 - Modular pricing from Wilmot Modular.

BASSE Start-Up Plan			
By When	Task	Approval By	Approval From
Pre-Application			
February 15, 2019	Establish Board of Directors and Advisory Board	COMPLETE	BASSE Founding Group
May 15, 2019	Complete Strategic Plan	COMPLETE	Board of Directors
May 29, 2019	Held BASSE Art Fundraiser	COMPLETE	Board of Directors, Community Engagement Committee
June 15, 2019	Establish Social Media Presence	COMPLETE	Board of Directors, Community Engagement Committee

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July 15, 2019	Partner with Lee Ann Wilkinson Group	ONGOING	BASSE Board of Directors
August 15, 2019	Establish Relationship with the International Baccalaureate Programme	ONGOING	BASSE Education Committee, BASSE Board of Directors
October 28, 2019	Offered Community Engagement and Education Events	ONGOING	BASSE Board of Directors, Community Engagement and Education Committees
January 15, 2020	Post Job Description for Dean of Academic Excellence, School Launch Partner (Jounce Partnership)	COMPLETE	Jounce Partners BASSE Board of Directors
January 31, 2020	Establish 501.c.3 non-profit organization, Proximate Inc.	COMPLETE	Board of Directors, Governance Committee
January 31, 2020	Establish Hiring Committee for Dean of Academic Excellence	COMPLETE	BASSE Board of Directors
September 15, 2020	Established Partnership with Blue Blaze	ONGOING	BASSE Board of Directors
May 15, 2020	Launch Business Sponsorship Campaign	ONGOING	BASSE Board of Directors, Development Committee
October 15, 2020	Established Partnership with OmniVest	ONGOING	BASSE Board of Directors, Governance Committee
October 31, 2020	Finalize Community Engagement Plan & BASSE Annual Fundraiser	COMPLETE	BASSE Board of Directors
October 31, 2020	Finalize Development Plan for FY 2021	COMPLETE	Development Committee BASSE Board of Directors

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October 31, 2020	Develop Student Enrollment and Student Recruitment Plans	COMPLETE	BASSE Board of Directors, Community Engagement and Education Committees, Academic Head of School
December 15, 2020	Hire Academic Head of School, w/School Launch Partner (Jounce Partners, Inc.)	COMPLETE	BASSE Board of Directors, Hiring Committee, Jounce Partners, Inc
February 1, 2021	Launch Phase One Development Plan	ONGOING	BASSE Board of Directors, Development Committee
February 28, 2021	Engage in Spring Funder Meetings	COMPLETE	Development Committee BASSE Board of Directors
February 28, 2021	Virtual Community Engagement Events	ONGOING	Community Engagement Committee BASSE Board of Directors
April 24, 2021	BASSE Education Conference	COMPLETE	Community Outreach Coordinator through Public Allies Community Outreach Committee
June 27, 2021	Heritage Music Fundraiser	COMPLETE	Community Engagement Committee BASSE Board of Directors
July 15, 2021	Post Job Description for Executive Director & Director of Development	COMPLETE	BASSE Hiring Committee BASSE Board of Directors
September 30, 2021	Entered Partnership with Longwood Foundation and Community Education	ONGOING	BASSE Land and Construction Committee BASSE Board of

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	Building		Directors
November 7, 2021	Established Partnership with Michelle J. Lambert, CPA LLC	ONGOING	BASSE Board of Directors
November 30, 2021	Hire Executive Director	COMPLETE	BASSE Board of Directors Hiring Committee
November 30, 2021	Hire Director of Development	COMPLETE	BASSE Board of Directors Hiring Committee
December 13, 2021	Onboard Executive Director and Director of Development	IN PROCESS	BASSE Board of Directors, Governance Committee
December 15, 2021	Established Partnership with Delaware Technical and Community College to lease school building	COMPLETE	BASSE Board of Directors, Governance and Facilities and Grounds Committees
January 3, 2022	Submit Charter School Application to Delaware Department of Education	COMPLETE	BASSE Board of Directors, All Committees

Post-Application			
January 2022			
January 10, 2022	Engagement with Community Centers and Organizations	ONGOING	Executive Director Director of Development Community Outreach Coordinator
February 2022			
February 28, 2022	Begin Planning and Logistics for Annual BASSE Music Fundraiser (June)	February 15, 2022	Community Engagement Committee Development Committee
February 28, 2022	Launch 2022	February 1, 2022	Director of Development

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	Development Plan		Development Committee BASSE Board of Directors
February 28, 2022	Milford Community Engagement Event	February 1, 2022	Community Outreach Coordinator Community Engagement Committee BASSE Board of Directors
March 2022			
March 31, 2022	Rehoboth Community Engagement Event	March 15, 2022	Community Outreach Coordinator Community Engagement Committee BASSE Board of Directors
March 31, 2022	Apply for Grants in Spring Grant Cycle	March 15, 2022	Director of Development Development Committee BASSE Board of Directors
March 31, 2022	Revise Student Enrollment Plan	March 15, 2022	Curriculum Committee BASSE Board of Directors
March 31, 2022	Finalize Staff, Faculty Hiring Plan	March 15, 2022	Executive Director Governance Committee BASSE Board of Directors
April 2022			
April 31, 2022	Establish MOU with Bus Company	March 15, 2022	Governance Committee BASSE Board of Directors
April 31, 2022	Create School Operations Plan	March 15, 2022	Curriculum Committee BASSE Board of Directors
April 31, 2022	Begin Planning and Logistics for Annual BASSE Art Fundraiser (November)	March 15, 2022	Community Engagement Committee Development Committee

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April 31, 2022	Laurel Community Engagement Event	March 15, 2022	Community Outreach Coordinator Community Engagement Committee BASSE Board of Directors
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May 2022			
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May 31, 2022	Establish MOU with International Baccalaureate Curriculum, Purchase Materials and Establish Training Schedule	May 15, 2022	Governance Committee Executive Director Dean of Academic Excellence Education Committee BASSE Board of Directors
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May 31, 2022	Create a training plan for appropriate staff in state systems	May 15, 2022	Governance Committee BASSE Board of Directors
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June 2022			
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June 30, 2022	Host 2nd Annual BASSE Music Fundraiser	May 15, 2022	Community Engagement Development Committees Director of Development BASSE Board of Directors
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June 30, 2022	Conduct Summer Funder Conversations	June 15, 2022	Development Committee BASSE Board of Directors
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July 2022			
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July 31, 2022	Gaining access in State systems (FSF, PHRST)	July 15, 2022	Governance Committee BASSE Board of Directors
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July 31, 2022	Begin training for BASSE Executive Team with Michelle J. Lambert, CPA LLC and OmniVest (BASSE	June 30, 2022	BASSE Board of Directors, Governance Committee Executive Leadership Team
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	contracted accounting firm) in state financial systems		
August 2022			
August 31, 2022	Bridgeville Community Event 2021	August 15, 2022	Community Outreach Coordinator Community Engagement Committee BASSE Board of Directors
August 31, 2022	Prepare for Fall Grants	August 15, 2022	Development Committee BASSE Board of Directors
August 31, 2022	Finalize location and construction plan	August 15, 2022	Land and Construction Committee Longwood Foundation Community Education Building Corporation BASSE Board of Directors
August 31, 2022	Finalizing Logistics for Annual BASSE Art Fundraiser (November)	August 15, 2022	Community Engagement Committee Development Committee

September 2022			
September 30, 2022	Bethany Recruitment Event	July 15, 2022	Community Outreach Coordinator Community Engagement Committee BASSE Board of Directors
September 30, 2022	Ellendale Recruitment Event	July 15, 2022	Community Outreach Coordinator Community Engagement Committee BASSE Board of Directors

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September 30, 2022	Submit Fall grant applications	Varies	Development Committee BASSE Board of Directors
October 2022			
October 31, 2022	Selbyville Recruitment Event	July 15, 2022	Community Outreach Coordinator Community Engagement Committee BASSE Board of Directors
October 31, 2022	Bridgeville Recruitment Event	July 15, 2022	Community Outreach Coordinator Community Engagement Committee BASSE Board of Directors
October 31, 2022	Lewes Recruitment Event	October 15, 2022	Community Outreach Coordinator Community Engagement Committee BASSE Board of Directors
October 31, 2022	2nd Annual BASSE Art Fundraiser	August 15, 2022	Community Engagement Committee Development Committee BASSE Board of Directors
October 31, 2022	Submit Fall/ Winter grant application	Ongoing	Development Committee BASSE Board of Directors
November 2022			
<i>School Choice Window Opens</i>			
November 30, 2022	Georgetown Recruitment Event	July 15, 2022	Community Outreach Coordinator Community

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			Engagement Committee BASSE Board of Directors
November 30, 2022	Laurel Recruitment Event	July 15, 2022	Community Outreach Coordinator Community Engagement Committee BASSE Board of Directors
November 30, 2022	Milton Recruitment Event	July 15, 2022	Community Outreach Coordinator Community Engagement Committee BASSE Board of Directors
December 2022			
December 31, 2022	Milford Recruitment Event	July 15, 2022	Community Outreach Coordinator Community Engagement Committee BASSE Board of Directors
December 31, 2022	Seaford Community Recruitment Event	July 15, 2022	Community Outreach Coordinator Community Engagement Committee BASSE Board of Directors
December 31, 2022	Millsboro Recruitment Event	July 15, 2022	Community Outreach Coordinator Community Engagement Committee BASSE Board of Directors
December 31, 2022	Plan for 2023	November 15, 2022	Community Outreach Coordinator Community

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			Engagement Committee BASSE Board of Directors
January 2023			
<i>School Choice Window Closes Assess Student Enrollment</i>			
January 31, 2023	Rehoboth Community Recruitment Event	July 15, 2022	Community Outreach Coordinator Community Engagement Committee BASSE Board of Directors
January 31, 2023	Staff Hiring	December 15, 2022	BASSE Board of Directors
January 31, 2023	Transportation Routes	December 15, 2022	BASSE Board of Directors
January 31, 2023	Staff Onboarding Plan	December 15, 2022	BASSE Board of Directors
February 2023			
February 28, 2023	Procurement of furniture and supplies	January 15, 2023	BASSE Board of Directors
February 28, 2023	Food Plan Finalized with updated enrollment numbers	January 15, 2023	BASSE Board of Directors
February 28, 2023	Engage in Spring Funder Meetings	January 15, 2023	Development Committee BASSE Board of Directors
March 2022			
March 31, 2023	Apply for Grants in Spring Grant Cycle	March 15, 2023	Development Committee BASSE Board of Directors
March 31, 2023	Finalizing Logistics for Annual BASSE Art Fundraiser (May)	March 15, 2023	Community Engagement Committee Development Committee

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March 31, 2023	Revise Student Enrollment Plan	March 15, 2023	Curriculum Committee BASSE Board of Directors
March 31, 2023	Staff hiring plan with updated staff count based on student enrollment	March 15, 2023	Governance Committee BASSE Board of Directors
March 31, 2023	Apply for Grants in Spring Grant Cycle	March 15, 2023	Development Committee BASSE Board of Directors
April 2023			
April 31, 2023	Build Student Rosters	April 15, 2023	Curriculum Committee BASSE Board of Directors
April 31, 2023	Finalize School Calendar	April 15, 2023	Curriculum Committee BASSE Board of Directors
April 31, 2023	Post Job Descriptions for open staffing roles	April 15, 2023	BASSE Hiring Committee BASSE Board of Directors
April 31, 2023	Re-engage transportation company and plan updated busing routes	April 15, 2023	Governance Committee BASSE Board of Directors
April 31, 2023	Finalize school operations plans	April 15, 2023	Curriculum Committee BASSE Board of Directors
April 31, 2023	Continue Planning and Finalizing Logistics for Annual BASSE Music Fundraiser (June)	April 15, 2023	Community Engagement Committee Development Committee
May 2023			
May 31, 2023	Begin International Baccalaureate Curriculum	May 15, 2023	Governance Committee Education Committee

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	training for BASSE leadership team		BASSE Board of Directors
May 31, 2023	Finalize new staff training and onboarding plan	May 15, 2023	Curriculum Committee BASSE Board of Directors
May 31, 2023	Procurement of furniture and supplies	May 15, 2023	BASSE Board of Directors, Governance Committee, Executive Leadership Team
May 31, 2023	Finalize Food Vendor Contract	May 15, 2023	BASSE Board of Directors, Governance Committee, Executive Leadership Team
June 2023			
June 15, 2023	Obtainment of a Certificate of Occupancy by the June 15 deadline.	June 15, 2023	BASSE Board of Directors
June 30, 2023	Train BASSE Staff in eSchool	June 15, 2023	Governance Committee BASSE Board of Directors
June 30, 2023	Executive Team health, safety, and evacuation trainings	June 15, 2023	BASSE Board of Directors
June 30, 2023	Conduct Interviews for new staff	June 15, 2023	BASSE Hiring Committee BASSE Board of Directors
June 30, 2023	Conduct Summer Funder Conversations	June 15, 2023	Development Committee BASSE Board of Directors
June 30, 2023	3rd Annual BASSE Music Fundraiser	June 15, 2023	Community Engagement Committee Development Committee BASSE Board of Directors
July 2023			

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July 31, 2023	Parent Welcome Event	July 15, 2023	BASSE Board of Directors
July 31, 2023	Create plan for Pre-School Home Visits	July 15, 2023	BASSE Board of Directors
July 31, 2023	Plan for physical student record keeping to include records kept after graduation	July 15, 2023	BASSE Board of Directors

**Given the ongoing impact of COVID-19, BASSE will adjust and community engagement events to ensure all engagements comply with state and federal safety guidelines.*

**Section 1.8 - Start up and Operations :: Attachment 19 - Budget Sheets
(also required in Section 1.10)**

State & Local Revenue		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	State Appropriations	\$0	\$1,896,707	\$2,578,165	\$3,267,320	\$4,059,532
2	School District Local Fund Transfers	\$0	\$600,404	\$841,528	\$1,081,529	\$1,315,372
3	Prior Year Carryover Funds	\$0	\$0	\$91,214	\$107,882	\$229,049
TOTAL STATE & LOCAL REVENUE		\$0	\$2,497,111	\$3,510,907	\$4,456,731	\$5,603,953

State & Local Expenses		YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
Personnel Salaries / Other Employer Costs		FTE		FTE		FTE		FTE		FTE	
4	Classroom Teachers	\$0	0.00	\$601,140	11.00	\$907,384	17.00	\$1,163,214	21.00	\$1,460,742	26.00
5	Special Education Teachers	\$0	0.00	\$67,000	1.00	\$68,340	1.00	\$69,707	1.00	\$71,101	1.00
6	Special Teachers (Phys Ed, Art, Music)	\$0	0.00	\$57,114	1.00	\$58,256	1.00	\$118,842	2.00	\$181,827	3.00
7	Counselors	\$0	0.00	\$50,000	1.00	\$51,000	1.00	\$52,020	1.00	\$106,120	2.00
8	Principal/Administrative	\$0	0.00	\$166,260	2.00	\$169,585	2.00	\$172,977	2.00	\$235,863	3.00
9	Nurse	\$0	0.00	\$44,600	1.00	\$45,492	1.00	\$46,402	1.00	\$47,330	1.00
10	Clerical	\$0	0.00	\$28,500	1.00	\$29,070	1.00	\$59,302	2.00	\$60,488	2.00
11	Custodial	\$0	0.00	\$28,000	1.00	\$57,120	2.00	\$58,262	2.00	\$59,428	2.00
12	Substitutes	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
13	Other	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
14	Other Employer Costs (33.11% of Salaries)	\$0		\$345,209		\$458,986		\$576,354		\$736,002	
15	Health Insurance	\$0		\$268,299		\$385,502		\$498,176		\$653,880	
16	Other Benefits	\$0		\$0		\$0		\$0		\$0	
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$0	0.00	\$1,656,122	19.00	\$2,230,735	26.00	\$2,815,256	32.00	\$3,612,781	40.00

Student Support		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
17	Transportation	\$0	\$190,225	\$271,705	\$356,265	\$444,290
18	Extra Curricular Transportation	\$0	\$0	\$0	\$0	\$0
19	Cafeteria	\$0	\$0	\$0	\$0	\$0
20	Extra Curricular	\$0	\$0	\$0	\$0	\$0
21	Supplies and Materials	\$0	\$50,000	\$65,000	\$80,000	\$90,000
22	Textbooks	\$0	\$0	\$60,000	\$70,000	\$80,000
23	Curriculum	\$0	\$0	\$22,600	\$23,600	\$35,730
24	Professional Development	\$0	\$5,000	\$5,000	\$6,000	\$7,500
25	Assessments	\$0	\$0	\$0	\$0	\$0
26	Other Educational Program	\$0	\$5,000	\$10,000	\$12,000	\$15,000
27	Therapists (Occupational, Speech)	\$0	\$37,000	\$45,000	\$55,000	\$65,000
28	Classroom Technology	\$0	\$16,000	\$20,000	\$25,000	\$35,000
29	School Climate	\$0	\$0	\$0	\$0	\$0
30	Computers	\$0	\$0	\$65,000	\$80,000	\$100,000
31	Contracted Services	\$0	\$35,000	\$55,000	\$75,000	\$100,000
32	Other	\$0	\$10,000	\$10,000	\$10,000	\$10,000
SUBTOTAL STUDENT SUPPORT		\$0	\$348,225	\$629,305	\$792,865	\$982,520

Operations and Maintenance of Facilities		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
33	Insurance (Property/Liability)	\$0	\$42,000	\$48,260	\$54,708	\$61,349
34	Rent	\$0	\$181,050	\$184,600	\$188,150	\$192,055
35	Mortgage	\$0	\$0	\$0	\$0	\$0
36	Utilities	\$0	\$0	\$100,000	\$135,000	\$140,000
37	Maintenance	\$0	\$15,000	\$20,000	\$30,000	\$45,000
38	Telephone/Communications	\$0	\$5,000	\$7,500	\$10,000	\$15,000
39	Construction	\$0	\$0	\$0	\$0	\$0
40	Renovation	\$0	\$0	\$0	\$0	\$0
41	Other	\$0	\$10,000	\$10,000	\$10,000	\$10,000
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$0	\$253,050	\$370,360	\$427,858	\$463,404

Administrative/Operations Support		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
42	Equipment Lease/Maintenance	\$0	\$3,500	\$5,000	\$5,125	\$8,253
43	Equipment Purchase	\$0	\$35,000	\$45,000	\$50,000	\$60,000
44	Supplies and Materials	\$0	\$5,000	\$8,000	\$12,000	\$15,000
45	Printing and Copying	\$0	\$6,000	\$7,000	\$10,000	\$12,000
46	Postage and Shipping	\$0	\$1,500	\$3,000	\$3,575	\$5,075
47	Enrollment / Recruitment	\$0	\$5,000	\$5,125	\$5,253	\$6,753
48	Staffing (recruitment and assessment)	\$0	\$5,000	\$6,000	\$7,000	\$10,000
49	Technology Plan	\$0	\$2,500	\$3,500	\$3,750	\$4,750
50	Other	\$0	\$10,000	\$10,000	\$10,000	\$12,000
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$0	\$73,500	\$92,625	\$106,703	\$133,831

Management Company		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
51	Fees	\$0	\$0	\$0	\$0	\$0
52	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
53	Curriculum	\$0	\$0	\$0	\$0	\$0
54	Accounting and Payroll	\$0	\$75,000	\$80,000	\$85,000	\$95,000
55	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL MANAGEMENT COMPANY		\$0	\$75,000	\$80,000	\$85,000	\$95,000

STATE & LOCAL EXPENDITURES		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
STATE & LOCAL EXPENDITURES		\$0	\$2,405,897	\$3,403,025	\$4,227,682	\$5,287,536
56	# Students	0	250	350	450	550
REVENUE LESS EXPENDITURES		\$0	\$91,214	\$107,882	\$229,049	\$316,417
2 % CONTINGENCY CHECK		\$0.00	\$49,942.22	\$70,218.14	\$89,134.62	\$112,079.06

Federal Funds		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	Entitlement Funding	\$0	\$175,280	\$245,229	\$315,437	\$385,835
2	Other Federal Grants	\$0	\$0	\$0	\$0	\$0
TOTAL FEDERAL REVENUE		\$0	\$175,280	\$245,229	\$315,437	\$385,835
Federal Expenses		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Personnel Salaries / Other Employer Costs						
		FTE	FTE	FTE	FTE	FTE
3	Classroom Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
4	Special Education Teachers	\$0 0.00	\$59,614 1.00	\$121,612 2.00	\$124,044 2.00	\$189,786 3.00
5	Special Teachers (Phys Ed, Art, Music)	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
6	Counselors	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
7	Principal/Administrative	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
8	Nurse	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
9	Clerical	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
10	Custodial	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
11	Substitutes	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
12	Other	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
13	Other Employer Costs (33.11% of Salaries)	\$0	\$19,738	\$40,266	\$41,071	\$62,838
14	Health Insurance	\$0	\$14,121	\$29,654	\$31,136	\$49,041
15	Other Benefits	\$0	\$0	\$0	\$0	\$0
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$0 0.00	\$93,473 1.00	\$191,532 2.00	\$196,251 2.00	\$301,665 3.00
Student Support						
16	Transportation	\$0	\$0	\$0	\$0	\$0
17	Extra Curricular Transportation	\$0	\$0	\$0	\$0	\$0
18	Cafeteria	\$0	\$0	\$0	\$0	\$0
19	Extra Curricular	\$0	\$0	\$0	\$0	\$0
20	Supplies and Materials	\$0	\$10,000	\$10,000	\$10,000	\$5,000
21	Textbooks	\$0	\$6,807	\$5,852	\$5,742	\$1,281
22	Curriculum	\$0	\$0	\$0	\$0	\$0
23	Professional Development	\$0	\$5,000	\$5,000	\$5,000	\$5,000
24	Assessments	\$0	\$0	\$0	\$0	\$0
25	Other Educational Program	\$0	\$0	\$0	\$0	\$0
26	Therapists (Occupational, Speech)	\$0	\$0	\$0	\$0	\$0
27	Classroom Technology	\$0	\$0	\$0	\$10,000	\$0
28	School Climate	\$0	\$0	\$0	\$0	\$0
29	Computers	\$0	\$15,000	\$5,000	\$0	\$0
30	Contracted Services	\$0	\$25,000	\$27,845	\$73,680	\$72,332
31	Other	\$0	\$20,000	\$0	\$14,764	\$557
SUBTOTAL STUDENT SUPPORT		\$0	\$81,807	\$53,697	\$119,186	\$84,170
Operations and Maintenance of Facilities						
32	Insurance (Property/Liability)	\$0	\$0	\$0	\$0	\$0
33	Rent	\$0	\$0	\$0	\$0	\$0
34	Mortgage	\$0	\$0	\$0	\$0	\$0
35	Utilities	\$0	\$0	\$0	\$0	\$0
36	Maintenance	\$0	\$0	\$0	\$0	\$0
37	Telephone/Communications	\$0	\$0	\$0	\$0	\$0
38	Construction	\$0	\$0	\$0	\$0	\$0
39	Renovation	\$0	\$0	\$0	\$0	\$0
40	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$0	\$0	\$0	\$0	\$0
Administrative/Operations Support						
42	Equipment Lease/Maintenance	\$0	\$0	\$0	\$0	\$0
41	Equipment Purchase	\$0	\$0	\$0	\$0	\$0
42	Supplies and Materials	\$0	\$0	\$0	\$0	\$0
43	Printing and Copying	\$0	\$0	\$0	\$0	\$0
44	Postage and Shipping	\$0	\$0	\$0	\$0	\$0
45	Enrollment / Recruitment	\$0	\$0	\$0	\$0	\$0
46	Staffing (recruitment and assessment)	\$0	\$0	\$0	\$0	\$0
47	Technology Plan	\$0	\$0	\$0	\$0	\$0
48	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$0	\$0	\$0	\$0	\$0
Management Company						
49	Fees	\$0	\$0	\$0	\$0	\$0
50	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
51	Curriculum	\$0	\$0	\$0	\$0	\$0
52	Accounting and Payroll	\$0	\$0	\$0	\$0	\$0
53	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL MANAGEMENT COMPANY		\$0	\$0	\$0	\$0	\$0
FEDERAL EXPENDITURES		\$0	\$175,280	\$245,229	\$315,437	\$385,835
54	# Students	0	250	350	450	550
REVENUE LESS EXPENDITURES		\$0	\$0	\$0	\$0	\$0

Other Funds		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	Non Profit Grants	\$0	\$0	\$0	\$0	\$0
2	Foundations Funds	\$1,250,000	\$150,000	\$150,000	\$150,000	\$150,000
3	Donations	\$150,000	\$50,000	\$50,000	\$50,000	\$50,000
4	Construction / Bank Loans	\$0	\$0	\$0	\$0	\$0
5	Cafeteria Funds	\$0	\$168,750	\$236,250	\$303,750	\$371,250
6	Miscellaneous Revenue	\$0	\$0	\$0	\$0	\$0
7	Prior Year Carryover Funds	\$0	\$296,581	\$223,129	\$230,754	\$217,668
TOTAL OTHER REVENUE		\$1,400,000	\$665,331	\$659,379	\$734,504	\$788,918

Other Expenses		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Personnel Salaries / Other Employer Costs						
		FTE	FTE	FTE	FTE	FTE
8	Classroom Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
9	Special Education Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
10	Special Teachers (Phys Ed, Art, Music)	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
11	Counselors	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
12	Principal/Administrative	\$193,000 3.00	\$69,360 1.00	\$70,747 1.00	\$72,162 1.00	\$73,605 1.00
13	Nurse	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
14	Clerical	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
15	Custodial	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
16	Substitutes	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
17	Other	\$0 0.00	\$42,243 3.00	\$43,089 3.00	\$43,950 3.00	\$59,772 4.00
18	Other Employer Costs (33.11% of Salaries)	\$63,902	\$22,965	\$23,424	\$23,893	\$24,371
19	Health Insurance	\$45,000	\$14,121	\$14,827	\$15,568	\$16,347
20	Other Benefits	\$0	\$0	\$0	\$0	\$0
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$301,902 3.00	\$148,689 4.00	\$152,087 4.00	\$155,573 4.00	\$174,095 5.00
Student Support						
21	Transportation	\$0	\$0	\$0	\$0	\$0
22	Extra Curricular Transportation	\$0	\$0	\$0	\$0	\$0
23	Cafeteria	\$0	\$146,813	\$205,538	\$264,263	\$322,988
24	Extra Curricular	\$0	\$20,000	\$50,000	\$75,000	\$100,000
25	Supplies and Materials	\$5,000	\$4,000	\$4,000	\$4,000	\$4,000
26	Textbooks	\$200,000	\$0	\$0	\$0	\$0
27	Curriculum	\$4,600	\$16,700	\$0	\$0	\$0
28	Professional Development	\$5,000	\$0	\$0	\$0	\$0
29	Assessments	\$0	\$0	\$0	\$0	\$0
30	Other Educational Program	\$0	\$0	\$0	\$0	\$0
31	Therapists (Occupational, Speech)	\$0	\$0	\$0	\$0	\$0
32	Classroom Technology	\$35,000	\$0	\$0	\$0	\$0
33	School Climate	\$0	\$0	\$0	\$0	\$0
34	Computers	\$100,000	\$0	\$0	\$0	\$0
35	Contracted Services	\$0	\$0	\$0	\$0	\$0
36	Other	\$0	\$0	\$0	\$0	\$5,000
SUBTOTAL STUDENT SUPPORT		\$349,600	\$187,513	\$259,538	\$343,263	\$431,988
Operations and Maintenance of Facilities						
37	Insurance (Property/Liability)	\$25,000	\$0	\$0	\$0	\$0
38	Rent	\$147,917	\$0	\$0	\$0	\$0
39	Mortgage	\$0	\$0	\$0	\$0	\$0
40	Utilities	\$50,000	\$90,000	\$0	\$0	\$0
41	Maintenance	\$0	\$0	\$0	\$0	\$0
42	Telephone/Communications	\$0	\$0	\$0	\$0	\$0
43	Construction	\$80,500	\$0	\$0	\$0	\$0
44	Renovation	\$0	\$0	\$0	\$0	\$0
45	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$303,417	\$90,000	\$0	\$0	\$0
Administrative/Operations Support						
46	Equipment Lease/Maintenance	\$0	\$0	\$0	\$0	\$0
47	Equipment Purchase	\$45,000	\$0	\$0	\$0	\$0
48	Supplies and Materials	\$2,500	\$0	\$0	\$0	\$0
49	Printing and Copying	\$2,500	\$0	\$0	\$0	\$0
50	Postage and Shipping	\$1,500	\$0	\$0	\$0	\$0
51	Enrollment / Recruitment	\$10,000	\$0	\$0	\$0	\$0
52	Staffing (recruitment and assessment)	\$0	\$0	\$0	\$0	\$0
53	Technology Plan	\$0	\$0	\$0	\$0	\$0
54	Other	\$10,000	\$0	\$0	\$0	\$0
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$71,500	\$0	\$0	\$0	\$0
Management Company						
55	Fees	\$0	\$0	\$0	\$0	\$0
56	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
57	Curriculum	\$0	\$0	\$0	\$0	\$0
58	Accounting and Payroll	\$65,000	\$0	\$0	\$0	\$0
59	Other	\$12,000	\$16,000	\$17,000	\$18,000	\$19,000
SUBTOTAL MANAGEMENT COMPANY		\$77,000	\$16,000	\$17,000	\$18,000	\$19,000
OTHER EXPENDITURES		\$1,103,419	\$442,202	\$428,625	\$516,836	\$625,083
60	# Students	0	250	350	450	550
REVENUE LESS EXPENDITURES		\$296,581	\$223,129	\$230,754	\$217,668	\$163,835

Charter School Application Budget Worksheet-Consolidated Funds Statement

The Bryan Allen Stevenson School of Excellence

	2022/2023		2023/2024		2024/2025		2025/2026		2026/2027	
	YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
1 State Appropriations	\$0		\$1,896,707		\$2,578,165		\$3,267,320		\$4,059,532	
2 School District Local Fund Transfers	\$0		\$600,404		\$841,528		\$1,081,529		\$1,315,372	
3 Federal Entitlements	\$0		\$175,280		\$245,229		\$315,437		\$385,835	
4 Cafeteria Funds	\$0		\$168,750		\$236,250		\$303,750		\$371,250	
4 Non Profit Grants	\$0		\$0		\$0		\$0		\$0	
4 Foundation Grants	\$1,250,000		\$150,000		\$150,000		\$150,000		\$150,000	
4 Donations/Other Grants	\$150,000		\$50,000		\$50,000		\$50,000		\$50,000	
5 Prior Year Carryover Funds	\$0		\$296,581		\$314,342		\$338,635		\$446,716	
6										
7 TOTAL STATE & LOCAL REVENUE	\$1,400,000		\$3,337,722		\$4,415,514		\$5,506,671		\$6,778,705	
8										
9 State & Local Expenses										
	YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
Personnel Salaries / Other Employer Costs		FTE		FTE		FTE		FTE		FTE
10 Classroom Teachers	\$0	0.00	\$601,140	11.00	\$907,384	17.00	\$1,163,214	21.00	\$1,460,742	26.00
11 Special Education Teachers	\$0	0.00	\$126,614	2.00	\$189,952	3.00	\$193,751	3.00	\$260,887	4.00
12 Special Teachers (Phys Ed, Art, Music)	\$0	0.00	\$57,114	1.00	\$58,256	1.00	\$118,842	2.00	\$181,827	3.00
13 Counselors	\$0	0.00	\$50,000	1.00	\$51,000	1.00	\$52,020	1.00	\$106,120	2.00
14 Principal/Administrative	\$193,000	3.00	\$235,620	3.00	\$240,332	3.00	\$245,139	3.00	\$309,468	4.00
15 Nurse	\$0	0.00	\$44,600	1.00	\$45,492	1.00	\$46,402	1.00	\$47,330	1.00
16 Clerical	\$0	0.00	\$28,500	1.00	\$29,070	1.00	\$59,302	2.00	\$60,488	2.00
17 Custodial	\$0	0.00	\$28,000	1.00	\$57,120	2.00	\$58,262	2.00	\$59,428	2.00
18 Substitutes	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
19 Other	\$0	0.00	\$42,243	3.00	\$43,089	3.00	\$43,950	3.00	\$59,772	4.00
20 Other Employer Costs (33.11% of Salaries)	\$63,902		\$387,913		\$522,676		\$641,318		\$823,211	
21 Health Insurance	\$45,000		\$296,541		\$429,983		\$544,880		\$719,268	
22 Other Benefits	\$0		\$0		\$0		\$0		\$0	
23										
24 SUBTOTAL SALARIES / OTHER EMPLOYER COSTS	\$301,902	3.0	\$1,898,285	24.0	\$2,574,354	32.0	\$3,167,080	38.0	\$4,088,541	48.0
25										
26 Student Support										
27 Transportation	\$0		\$190,225		\$271,705		\$356,265		\$444,290	
28 Extra Curricular Transportation	\$0		\$0		\$0		\$0		\$0	
29 Cafeteria	\$0		\$146,813		\$205,538		\$264,263		\$322,988	
30 Extra Curricular	\$0		\$20,000		\$50,000		\$75,000		\$100,000	
31 Supplies and Materials	\$5,000		\$64,000		\$79,000		\$94,000		\$99,000	
32 Textbooks	\$200,000		\$6,807		\$65,852		\$75,742		\$81,281	
33 Curriculum	\$4,600		\$16,700		\$22,600		\$23,600		\$35,730	
34 Professional Development	\$5,000		\$10,000		\$10,000		\$11,000		\$12,500	
35 Assessments	\$0		\$0		\$0		\$0		\$0	
36 Other Educational Program	\$0		\$5,000		\$10,000		\$12,000		\$15,000	
37 Therapists (Occupational, Speech)	\$0		\$37,000		\$45,000		\$55,000		\$65,000	
38 Classroom Technology	\$35,000		\$16,000		\$20,000		\$35,000		\$35,000	
39 School Climate	\$0		\$0		\$0		\$0		\$0	
40 Computers	\$100,000		\$15,000		\$70,000		\$80,000		\$100,000	
41 Contracted Services	\$0		\$60,000		\$82,845		\$148,680		\$172,332	
42 Other	\$0		\$30,000		\$10,000		\$24,764		\$15,557	
43										
44 SUBTOTAL STUDENT SUPPORT	\$349,600		\$617,545		\$942,540		\$1,255,314		\$1,498,678	
45										
46 Operations and Maintenance of Facilities										
47 Insurance (Property/Liability)	\$25,000		\$42,000		\$48,260		\$54,708		\$61,349	

\$0	cumulative 4-year non profit grants
\$350,000	cumulative 4-year Donations/Other Grants
\$1,850,000	cumulative 4-year fundraising/donations-Operations
\$2,200,000	Total Fundraising Requirement

Consolidated State, Local, Federal Foundation Revenue Funds

State & Local Revenue		2022/2023	2023/2024	2024/2025	2025/2026	2026/2027
		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
48	Rent	\$147,917	\$181,050	\$184,600	\$188,150	\$192,055
49	Mortgage	\$0	\$0	\$0	\$0	\$0
50	Utilities	\$50,000	\$90,000	\$100,000	\$135,000	\$140,000
51	Maintenance	\$0	\$15,000	\$20,000	\$30,000	\$45,000
52	Telephone/Communications	\$0	\$5,000	\$7,500	\$10,000	\$15,000
53	Construction	\$80,500	\$0	\$0	\$0	\$0
54	Renovation	\$0	\$0	\$0	\$0	\$0
55	Other	\$0	\$10,000	\$10,000	\$10,000	\$10,000
56						
57	SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES	\$303,417	\$343,050	\$370,360	\$427,858	\$463,404
58						
59	Administrative/Operations Support					
60	Equipment Lease/Maintenance	\$0	\$3,500	\$5,000	\$5,125	\$8,253
61	Equipment Purchase	\$45,000	\$35,000	\$45,000	\$50,000	\$60,000
62	Supplies and Materials	\$2,500	\$5,000	\$8,000	\$12,000	\$15,000
63	Printing and Copying	\$2,500	\$6,000	\$7,000	\$10,000	\$12,000
64	Postage and Shipping	\$1,500	\$1,500	\$3,000	\$3,575	\$5,075
65	Enrollment / Recruitment	\$10,000	\$5,000	\$5,125	\$5,253	\$6,753
66	Staffing (recruitment and assessment)	\$0	\$5,000	\$6,000	\$7,000	\$10,000
67	Technology Plan	\$0	\$2,500	\$3,500	\$3,750	\$4,750
68	Other	\$10,000	\$10,000	\$10,000	\$10,000	\$12,000
69						
70	SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT	\$71,500	\$73,500	\$92,625	\$106,703	\$133,831
71						
72	Management Company					
73	Fees	\$0	\$0	\$0	\$0	\$0
74	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
75	Curriculum	\$0	\$0	\$0	\$0	\$0
76	Accounting and Payroll	\$65,000	\$75,000	\$80,000	\$85,000	\$95,000
77	Other	\$12,000	\$16,000	\$17,000	\$18,000	\$19,000
78						
79	SUBTOTAL MANAGEMENT COMPANY	\$77,000	\$91,000	\$97,000	\$103,000	\$114,000
80	STATE & LOCAL EXPENDITURES	\$1,103,419	\$3,023,380	\$4,076,879	\$5,059,955	\$6,298,454
81						
82	# Students	0	250	350	450	550
83	REVENUE LESS EXPENDITURES	\$296,581	\$314,342	\$338,635	\$446,716	\$480,251
84	2% CONTINGENCY CHECK	\$28,000.00	\$66,754.44	\$88,310.28	\$110,133.42	\$135,574.10
85	Cummulative Fund Balance	\$296,581.00	\$610,923	\$949,558	\$1,396,274	\$1,876,525
86	Days Cash On Hand		73.75	85.01	100.72	108.75

Fiscal Year	23/24	24/25	25/26	26/27	27/28	28/29	
Year	1	2	3	4	5	6	
<u>Student Enrollment</u>							
Projected General Education	202	283	364	445	526	607	
Projected Special Education	48	67	86	105	124	143	
Percent Special Education	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%
Total Student Population (Paid)	250	350	450	550	650	750	
Projected ESL Students	55	77	99	121	143	165	22.00%
<u>Classroom Distribution</u>							100.00%
6th	125	100	100	100	100	100	
7th	125	125	100	100	100	100	
8th		125	125	100	100	100	
9th			125	125	100	100	
10th				125	125	100	
11th					125	125	
12th						125	
Total	250	350	450	550	650	750	
Average Number of Students/Grade	25	25	25	25	25	25	
Approximate # of Classes per Grade	5	2	2	2	2	2	
Total Required # of Classrooms	10	14	18	22	26	30	

Distribution of Enrollment from Surrounding School Districts														
	% Distribution								Federal Funds					
		23/24	24/25	25/26	26/27	27/28	28/29	23/24	24/25	25/26	26/27	27/28	28/29	
Indian River	40.00%													
GENED		82	114	146	179	212	243	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645	
SPED		19	28	35	42	50	57	65,145	91,590	116,745	142,545	168,990	193,500	
Delmar	5.00%													
GENED		10	14	18	22	26	30	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463	
SPED		2	3	4	5	6	7	5,556	7,871	10,186	12,501	14,816	17,131	
Laurel	5.00%													
GENED		10	14	18	22	26	30	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	
SPED		2	3	4	5	6	7	8,784	12,444	16,104	19,764	23,424	27,084	
Seaford	15.00%													
GENED		30	42	55	67	79	91	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996	
SPED		7	10	13	16	19	21	36,852	51,792	67,728	82,668	97,608	111,552	
Woodbridge	7.50%													
GENED		15	21	27	33	39	46	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869	
SPED		4	5	6	8	9	11	16,511	22,594	28,677	35,629	41,712	49,533	
Milford	7.50%													
GENED		15	21	27	33	39	46	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778	
SPED		4	5	6	8	9	11	14,782	20,228	25,674	31,898	37,344	44,346	
Cape Henlopen	20.00%													
GENED		40	57	73	89	105	121	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553	
SPED		10	13	18	21	25	29	27,650	38,710	50,323	60,830	71,890	82,950	
GENED		202	283	364	445	526	607							
SPED		48	67	86	105	124	143							
Total	100.00%	250	350	450	550	650	750	175,280	245,229	315,437	385,835	455,784	526,096	

Estimated Revenue	23/24	24/25	25/26	26/27	27/28	28/29
State Funding (from Revenue Sheets)	\$1,896,707	\$2,578,165	\$3,267,320	\$4,059,532	\$4,791,978	\$5,420,216
Local Funding (from Revenue Sheets)	\$600,404	\$841,528	\$1,081,529	\$1,315,372	\$1,556,709	\$1,791,256
Federal Funding	\$175,280	\$245,229	\$315,437	\$385,835	\$455,784	\$526,096
Cafeteria Service Revenue	\$168,750	\$236,250	\$303,750	\$371,250	\$438,750	\$506,250
Total Estimated Revenues (State/Local/Federal)	\$2,841,141	\$3,901,172	\$4,968,036	\$6,131,989	\$7,243,221	\$8,243,818

100% Enrollment

Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6						
Executive Director	1	1	1	1	1	1	1						
School Founding Leader	1	0	0	0	0	0	0						
Director of Development	1	1	1	1	1	0	0						
Dean of Academic Excellence	0	1	1	1	1	1	1						
Dean of Community Partnerships	0	0	0	0	1	1	1						
6th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1						
7th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1						
8th Grade Academic Coach (Lead Teacher)	0	0	1	1	1	1	1						
9th Grade Academic Coach (Lead Teacher)	0	0	0	1	1	1	1						
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	1	1	1						
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	1	1						
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	1						
6th Grade Content Teachers	0	4	3	3	3	3	3						
7th Grade Content Teachers	0	4	4	3	3	3	3						
8th Grade Content Teachers	0	0	4	4	3	3	3						
9th Grade Content Teachers	0	0	0	4	4	3	3						
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	4	4	3						
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	4	4						
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	4						
Special Education Coordinator	0	1	1	1	1	1	1						
Special Education Teacher	0	1	2	2	3	5	5						
Language Teacher	0	0	0	1	2	2	2						
Arts Teacher	0	1	1	1	1	2	2						
Paraprofessional	0	1	3	3	4	4	4						
Office Staff	0	1	1	2	2	2	2						
Custodian	0	1	2	2	2	3	3						
Cafeteria Aide (Part-Time)	0	3	3	3	4	4	4.5						
Nurse	0	1	1	1	1	1	1						
Counselor	0	1	1	1	1	1	1						
College Career Counselor	0	0	0	0	1	1	1						
Total Staff	3.00	24.00	32.00	38.00	48.00	55.00	59.50	Average Health Insurance cost by year					
Health Insurance		338,904	474,464	591,584	784,656	944,020	1,072,488	1	2	3	4	5	6
Total Enrollment		250	350	450	550	650	750	14,121	14,827	15,568	16,347	17,164	18,025

100% Enrollment

Salary Grid for Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Step	Indian River Salary Schedule
Inflation Factor		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	1-2	46,324 BA
Executive Director	95,000	96,900	98,838	100,815	102,831	104,888	106,986	3-5	54,955 Masters
School Founding Leader	30,000	30,600	31,212	31,836	32,473	33,122	33,784	6-8	58,992 Masters
Director of Development	68,000	69,360	70,747	72,162	73,605	75,077	76,579	9-12	68,183 Masters +15
Dean of Academic Excellence	-	69,360	70,747	72,162	73,605	75,077	76,579		
Dean of Community Partnerships		56,000	57,120	58,262	59,427	60,616	61,828	Average	57,114
6th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
7th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
8th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
9th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
10th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
11th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
12th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
6th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
7th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
8th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
9th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
10th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
11th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
12th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
Special Education Coordinator		67,000	68,340	69,707	71,101	72,523	73,973		
Special Education Teacher		59,614	60,806	62,022	63,262	64,527	65,818		
Language Teacher		57,114	58,256	59,421	60,609	61,821	63,057		
Arts Teacher		57,114	58,256	59,421	60,609	61,821	63,057		
Paraprofessional		30,000	30,600	31,212	31,836	32,473	33,122		
Office Staff		28,500	29,070	29,651	30,244	30,849	31,466		
Custodian		28,000	28,560	29,131	29,714	30,308	30,914		
Cafeteria Aide (Part-Time)(included 9.31% OEC Rate)		14,081	14,363	14,650	14,943	15,242	15,547		
Nurse		44,600	45,492	46,402	47,330	48,277	49,243		
Counselor		50,000	51,000	52,020	53,060	54,121	55,203		
College Career Counselor		50,000	51,000	52,020	53,060	54,121	55,203		

Total Annual Salary for Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Executive Director	95,000	96,900	98,838	100,815	102,831	104,888	106,986
School Founding Leader	30,000	-	-	-	-	-	-
Director of Development	68,000	69,360	70,747	72,162	73,605	-	-
Dean of Academic Excellence	-	69,360	70,747	72,162	73,605	75,077	76,579
Dean of Community Partnerships	-	-	-	-	59,427	60,616	61,828
6th Grade Academic Coach (Lead Teacher)	-	57,114	58,256	59,421	60,609	61,821	63,057
7th Grade Academic Coach (Lead Teacher)	-	57,114	58,256	59,421	60,609	61,821	63,057
8th Grade Academic Coach (Lead Teacher)	-	-	58,256	59,421	60,609	61,821	63,057
9th Grade Academic Coach (Lead Teacher)	-	-	-	59,421	60,609	61,821	63,057
10th Grade Academic Coach (Lead Teacher)	-	-	-	-	60,609	61,821	63,057
11th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	61,821	63,057
12th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	-	63,057
6th Grade Content Teachers	-	228,456	174,768	178,263	181,827	185,463	189,171
7th Grade Content Teachers	-	228,456	233,024	178,263	181,827	185,463	189,171
8th Grade Content Teachers	-	-	233,024	237,684	181,827	185,463	189,171
9th Grade Content Teachers	-	-	-	237,684	242,436	185,463	189,171
10th Grade Academic Coach (Lead Teacher)	-	-	-	-	242,436	247,284	189,171
11th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	247,284	252,228
12th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	-	252,228
Special Education Coordinator	-	67,000	68,340	69,707	71,101	72,523	73,973
Special Education Teacher	-	59,614	121,612	124,044	189,786	322,635	329,090
Language Teacher	-	-	-	59,421	121,218	123,642	126,114
Arts Teacher	-	57,114	58,256	59,421	60,609	123,642	126,114
Paraprofessional	-	30,000	91,800	93,636	127,344	129,892	132,488
Office Staff	-	28,500	29,070	59,302	60,488	61,698	62,932
Custodian	-	28,000	57,120	58,262	59,428	90,924	92,742
Cafeteria Aide (Part-Time)	-	42,243	43,089	43,950	59,772	60,968	69,962
Nurse	-	44,600	45,492	46,402	47,330	48,277	49,243
Counselor	-	50,000	51,000	52,020	53,060	54,121	55,203
College Career Counselor	-	-	-	-	53,060	54,121	55,203
Total Salaries	193,000	1,213,831	1,621,695	1,980,882	2,546,062	2,990,370	3,310,167

	Year 0	Year 1	Year 1	Year 2	Year 2	Year 3	Year 3	Year 4	Year 4	Year 5	Year 5	Year 6	Year 6
Classroom Teachers	-	601,140	11	907,384	17	1,163,214	21	1,460,742	26	1,737,238	30	2,024,198	34
Special Education Coordinator		67,000	1	68,340	1	69,707	1	71,101	1	72,523	1	73,973	1
Special Education Teachers (Federal Funds Tab)	-	59,614	1	121,612	2	124,044	2	189,786	3	322,635	5	329,090	5
Special Teachers (Phys Ed, Art, Music)		57,114	1	58,256	1	118,842	2	181,827	3	247,284	4	252,228	4
Counselors		50,000	1	51,000	1	52,020	1	106,120	2	108,242	2	110,406	2
Principal/Administrative	193,000	166,260	2	169,585	2	172,977	2	235,863	3	240,581	3	245,393	3
Nurse		44,600	1	45,492	1	46,402	1	47,330	1	48,277	1	49,243	1
Clerical		28,500	1	29,070	1	59,302	2	60,488	2	61,698	2	62,932	2
Custodial		28,000	1	57,120	2	58,262	2	59,428	2	90,924	3	92,742	3
Substitutes													
Other		-	-	-	-	-	-	-	-	-	-	-	-
Other Employer Costs (33.11% of Salaries)													
Health Insurance													
Other Benefits													
Total	193,000	1,102,228	20.00	1,507,859	28.00	1,864,770	34.00	2,412,685	43.00	2,929,402	51.00	3,240,205	55.00
Allocated to Principal/Administration-Other													
Funds Sheet-Paid by Foundation Funds	3	69,360	1	70,747	1	72,162	1	73,605	1	-	0	-	0
Allocated to Cafeteria - Other Funds Sheet	0	42,243	3	43,089	3	43,950	3	59,772	4	60,968	4	69,962	4.5

	30-Jun-23	30-Jun-24	1-Jul-25	2-Jul-26	3-Jul-27	3-Jul-28	Eligibility
Transportation Expense							
Percent Eligible	175	245	315	385	455	525	70.0%
Estimated Annual Cost for Transportation	190,225	271,705	356,265	444,290	535,535	630,525	
Cost per Student	1,087	1,109	1,131	1,154	1,177	1,201	

IB Curriculum Programming Cost	30-Jun-23	29-Jun-24	29-Jun-25	29-Jun-26	30-Jun-27	30-Jun-28
Enrollment	0	250	350	450	550	650
Teacher Count	0	11	17	21	26	30
CP Program Training	-	-	-	-	1,480	1,480
CP Program Authorization Fee	-	-	-	-	8,500	-
Middle Years Program Training	600	7,200	3,600	3,600	3,600	3,000
Application Fee	4,000	-	-	10,500	10,500	10,500
Candidate Fee	-	9,500	9,500	-	-	-
Diploma Program Training	-	-	-	-	-	7,200
Diploma Program Application Fee	-	-	-	-	-	4,000
Candidate Fee	-	-	9,500	9,500	11,650	11,650
Total Cost of IB Programs	4,600	16,700	22,600	23,600	35,730	37,830

Health Insurance Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
State and Local Tab	268,299	385,502	498,176	653,880	789,544	901,250
Federal Funds Tab	14,121	29,654	31,136	49,041	85,820	90,125
Other Funds Tab	14,121	14,827	15,568	16,347	-	-
Total	296,541	429,983	544,880	719,268	875,364	991,375
Total Employees	24	32	38	48	55	60

Health Insurance Calculation	Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Highmark Delaware Comprehensive PPO Plan							
Employee	55%	13.20	17.60	20.90	26.40	30.25	32.73
Employee & Spouse	25%	6.00	8.00	9.50	12.00	13.75	14.88
Employee & Child(ren)	10%	2.40	3.20	3.80	4.80	5.50	5.95
Family	10%	2.40	3.20	3.80	4.80	5.50	5.95
Inflation factor	5.0%						
Monthly Cost per Class							
Employee		793.86	833.55	875.23	918.99	964.94	1,013.19
Employee & Spouse		1,647.34	1,729.71	1,816.20	1,907.01	2,002.36	2,102.48
Employee & Child(ren)		1,223.46	1,284.63	1,348.86	1,416.30	1,487.12	1,561.48
Family		2,059.40	2,162.37	2,270.49	2,384.01	2,503.21	2,628.37
Annual Cost per Class-All Employees							
Employee		125,747	176,046	219,508	291,136	350,273	397,941
Employee & Spouse		118,608	166,052	207,047	274,609	330,389	375,419
Employee & Child(ren)		35,236	49,330	61,508	81,579	98,150	111,490
Family		59,311	83,035	103,534	137,319	165,212	187,666
Average Cost/Year/Employee		14,121	14,827	15,568	16,347	17,164	18,025

100% Enrollment

The Bryan Allen Stevenson School of Excellence

Capital Expenditures of 20346 Ennis Street Property

	<u>Amount</u>
Architectural	-
Mechanical	35,000
Interior Renovations	30,000
Electrical	3,000
Floor-Paint	10,000
Other	2,500

Total Estimated Project Cost	80,500
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Finance

Funding from BASSE	80,500	100
Bank Loan	-	0

The Bryan Allen Stevenson School of Excellence
 Square Footage Requirement Calculation

Facility Needs Worksheet	30-Jun-23	30-Jun-24	30-Jun-25	30-Jun-26	30-Jun-27
Enrollment	250	350	450	550	650
Number of Primary Classrooms	10	14	18	22	26
Number of Specialty Classrooms	3	5	6	7	9
Offices	5	7	8	8	8
Square Footage (Net) per Primary Classroom	10,000	14,000	18,000	22,000	26,000
Square Footage (Net) per Specialty Classroom	2,025	3,375	4,050	4,725	6,075
Offices	500	700	800	800	800
Lunch Room	7,000	7,000	7,000	7,000	7,000
Gymnasium	10,000	10,000	10,000	10,000	10,000
Subtotal Net Square Footage Requirement-Program	29,525	35,075	39,850	44,525	49,875
Efficiency Factor-allowance for hallways, closets, storage, bathrooms	84.50%	84.50%	84.50%	84.50%	84.50%
Gross Square Footage Needed	34,941	41,509	47,160	52,692	59,024
Program of Existing School	35,500	sf			
Natorium	10,500	sf			
Classroom Spaces	26	800-900 sf each			
Life Skills	1	2000 sf	can be split into two classrooms		
Escalator	2.00%				
Rent	Annual Rental	Rent/S.F.	Lease Year		
Year 1 (start-up yr.) (rent payment commences on 11/1/22)	147,917	\$ 5.00	22-23		
Year 2	181,050	5.10	23-24		
Year 3	184,600	5.20	24-25		
Year 4	188,150	5.30	25-26		
Year 5	192,055	5.41	26-27		
Option					
Year 6	192,055	5.52	27-28		
Year 7	199,865	5.63	28-29		
Year 8	203,770	5.74	29-30		

The Bryan Allen Stevenson School of Excellence
 Budget and Sources of Funds for Nylon Capital Site

Gross Square Footage Requirement 50,000

	<u>Cost</u>	
Acquisition of Land	3,000,000	
Building Cost	12,150,000	243.00 per square foot
Site Costs	1,972,000	Includes \$1.0 million for s
Soft Costs	2,268,000	45.00 per square foot
Contingency	810,000	16.20 per square foot
Total Estimated Project Cost	<u><u>20,200,000</u></u>	

Proposed Occupancy Date no Later than 12/31/2024

Proposed Sources of Funds

ARPA	11,000,000
New Market Tax Credit	1,142,857
Other (USDA) Grant	5,000,000
Foundation	3,057,143
Total Proposed Sources of Funds	<u><u>20,200,000</u></u>

Estimated Annual Rental



**Section 1.8 - Start up and Operations :: Attachment 19 - Budget Sheets
(also required in Section 1.10) :: Budget Sheets 100% Enrollment**

State & Local Revenue		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	State Appropriations	\$0	\$1,896,707	\$2,578,165	\$3,267,320	\$4,059,532
2	School District Local Fund Transfers	\$0	\$600,404	\$841,528	\$1,081,529	\$1,315,372
3	Prior Year Carryover Funds	\$0	\$0	\$91,214	\$107,882	\$229,049
TOTAL STATE & LOCAL REVENUE		\$0	\$2,497,111	\$3,510,907	\$4,456,731	\$5,603,953

State & Local Expenses		YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
Personnel Salaries / Other Employer Costs		FTE		FTE		FTE		FTE		FTE	
4	Classroom Teachers	\$0	0.00	\$601,140	11.00	\$907,384	17.00	\$1,163,214	21.00	\$1,460,742	26.00
5	Special Education Teachers	\$0	0.00	\$67,000	1.00	\$68,340	1.00	\$69,707	1.00	\$71,101	1.00
6	Special Teachers (Phys Ed, Art, Music)	\$0	0.00	\$57,114	1.00	\$58,256	1.00	\$118,842	2.00	\$181,827	3.00
7	Counselors	\$0	0.00	\$50,000	1.00	\$51,000	1.00	\$52,020	1.00	\$106,120	2.00
8	Principal/Administrative	\$0	0.00	\$166,260	2.00	\$169,585	2.00	\$172,977	2.00	\$235,863	3.00
9	Nurse	\$0	0.00	\$44,600	1.00	\$45,492	1.00	\$46,402	1.00	\$47,330	1.00
10	Clerical	\$0	0.00	\$28,500	1.00	\$29,070	1.00	\$59,302	2.00	\$60,488	2.00
11	Custodial	\$0	0.00	\$28,000	1.00	\$57,120	2.00	\$58,262	2.00	\$59,428	2.00
12	Substitutes	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
13	Other	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
14	Other Employer Costs (33.11% of Salaries)	\$0		\$345,209		\$458,986		\$576,354		\$736,002	
15	Health Insurance	\$0		\$268,299		\$385,502		\$498,176		\$653,880	
16	Other Benefits	\$0		\$0		\$0		\$0		\$0	
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$0	0.00	\$1,656,122	19.00	\$2,230,735	26.00	\$2,815,256	32.00	\$3,612,781	40.00

Student Support		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
17	Transportation	\$0	\$190,225	\$271,705	\$356,265	\$444,290
18	Extra Curricular Transportation	\$0	\$0	\$0	\$0	\$0
19	Cafeteria	\$0	\$0	\$0	\$0	\$0
20	Extra Curricular	\$0	\$0	\$0	\$0	\$0
21	Supplies and Materials	\$0	\$50,000	\$65,000	\$80,000	\$90,000
22	Textbooks	\$0	\$0	\$60,000	\$70,000	\$80,000
23	Curriculum	\$0	\$0	\$22,600	\$23,600	\$35,730
24	Professional Development	\$0	\$5,000	\$5,000	\$6,000	\$7,500
25	Assessments	\$0	\$0	\$0	\$0	\$0
26	Other Educational Program	\$0	\$5,000	\$10,000	\$12,000	\$15,000
27	Therapists (Occupational, Speech)	\$0	\$37,000	\$45,000	\$55,000	\$65,000
28	Classroom Technology	\$0	\$16,000	\$20,000	\$25,000	\$35,000
29	School Climate	\$0	\$0	\$0	\$0	\$0
30	Computers	\$0	\$0	\$65,000	\$80,000	\$100,000
31	Contracted Services	\$0	\$35,000	\$55,000	\$75,000	\$100,000
32	Other	\$0	\$10,000	\$10,000	\$10,000	\$10,000
SUBTOTAL STUDENT SUPPORT		\$0	\$348,225	\$629,305	\$792,865	\$982,520

Operations and Maintenance of Facilities		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
33	Insurance (Property/Liability)	\$0	\$42,000	\$48,260	\$54,708	\$61,349
34	Rent	\$0	\$181,050	\$184,600	\$188,150	\$192,055
35	Mortgage	\$0	\$0	\$0	\$0	\$0
36	Utilities	\$0	\$0	\$100,000	\$135,000	\$140,000
37	Maintenance	\$0	\$15,000	\$20,000	\$30,000	\$45,000
38	Telephone/Communications	\$0	\$5,000	\$7,500	\$10,000	\$15,000
39	Construction	\$0	\$0	\$0	\$0	\$0
40	Renovation	\$0	\$0	\$0	\$0	\$0
41	Other	\$0	\$10,000	\$10,000	\$10,000	\$10,000
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$0	\$253,050	\$370,360	\$427,858	\$463,404

Administrative/Operations Support		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
42	Equipment Lease/Maintenance	\$0	\$3,500	\$5,000	\$5,125	\$8,253
43	Equipment Purchase	\$0	\$35,000	\$45,000	\$50,000	\$60,000
44	Supplies and Materials	\$0	\$5,000	\$8,000	\$12,000	\$15,000
45	Printing and Copying	\$0	\$6,000	\$7,000	\$10,000	\$12,000
46	Postage and Shipping	\$0	\$1,500	\$3,000	\$3,575	\$5,075
47	Enrollment / Recruitment	\$0	\$5,000	\$5,125	\$5,253	\$6,753
48	Staffing (recruitment and assessment)	\$0	\$5,000	\$6,000	\$7,000	\$10,000
49	Technology Plan	\$0	\$2,500	\$3,500	\$3,750	\$4,750
50	Other	\$0	\$10,000	\$10,000	\$10,000	\$12,000
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$0	\$73,500	\$92,625	\$106,703	\$133,831

Management Company		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
51	Fees	\$0	\$0	\$0	\$0	\$0
52	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
53	Curriculum	\$0	\$0	\$0	\$0	\$0
54	Accounting and Payroll	\$0	\$75,000	\$80,000	\$85,000	\$95,000
55	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL MANAGEMENT COMPANY		\$0	\$75,000	\$80,000	\$85,000	\$95,000

STATE & LOCAL EXPENDITURES		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
STATE & LOCAL EXPENDITURES		\$0	\$2,405,897	\$3,403,025	\$4,227,682	\$5,287,536
56	# Students	0	250	350	450	550
REVENUE LESS EXPENDITURES		\$0	\$91,214	\$107,882	\$229,049	\$316,417
2% CONTINGENCY CHECK		\$0.00	\$49,942.22	\$70,218.14	\$89,134.62	\$112,079.06

Federal Funds		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	Entitlement Funding	\$0	\$175,280	\$245,229	\$315,437	\$385,835
2	Other Federal Grants	\$0	\$0	\$0	\$0	\$0
TOTAL FEDERAL REVENUE		\$0	\$175,280	\$245,229	\$315,437	\$385,835
Federal Expenses		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Personnel Salaries / Other Employer Costs						
		FTE	FTE	FTE	FTE	FTE
3	Classroom Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
4	Special Education Teachers	\$0 0.00	\$59,614 1.00	\$121,612 2.00	\$124,044 2.00	\$189,786 3.00
5	Special Teachers (Phys Ed, Art, Music)	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
6	Counselors	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
7	Principal/Administrative	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
8	Nurse	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
9	Clerical	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
10	Custodial	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
11	Substitutes	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
12	Other	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
13	Other Employer Costs (33.11% of Salaries)	\$0	\$19,738	\$40,266	\$41,071	\$62,838
14	Health Insurance	\$0	\$14,121	\$29,654	\$31,136	\$49,041
15	Other Benefits	\$0	\$0	\$0	\$0	\$0
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$0 0.00	\$93,473 1.00	\$191,532 2.00	\$196,251 2.00	\$301,665 3.00
Student Support						
16	Transportation	\$0	\$0	\$0	\$0	\$0
17	Extra Curricular Transportation	\$0	\$0	\$0	\$0	\$0
18	Cafeteria	\$0	\$0	\$0	\$0	\$0
19	Extra Curricular	\$0	\$0	\$0	\$0	\$0
20	Supplies and Materials	\$0	\$10,000	\$10,000	\$10,000	\$5,000
21	Textbooks	\$0	\$6,807	\$5,852	\$5,742	\$1,281
22	Curriculum	\$0	\$0	\$0	\$0	\$0
23	Professional Development	\$0	\$5,000	\$5,000	\$5,000	\$5,000
24	Assessments	\$0	\$0	\$0	\$0	\$0
25	Other Educational Program	\$0	\$0	\$0	\$0	\$0
26	Therapists (Occupational, Speech)	\$0	\$0	\$0	\$0	\$0
27	Classroom Technology	\$0	\$0	\$0	\$10,000	\$0
28	School Climate	\$0	\$0	\$0	\$0	\$0
29	Computers	\$0	\$15,000	\$5,000	\$0	\$0
30	Contracted Services	\$0	\$25,000	\$27,845	\$73,680	\$72,332
31	Other	\$0	\$20,000	\$0	\$14,764	\$557
SUBTOTAL STUDENT SUPPORT		\$0	\$81,807	\$53,697	\$119,186	\$84,170
Operations and Maintenance of Facilities						
32	Insurance (Property/Liability)	\$0	\$0	\$0	\$0	\$0
33	Rent	\$0	\$0	\$0	\$0	\$0
34	Mortgage	\$0	\$0	\$0	\$0	\$0
35	Utilities	\$0	\$0	\$0	\$0	\$0
36	Maintenance	\$0	\$0	\$0	\$0	\$0
37	Telephone/Communications	\$0	\$0	\$0	\$0	\$0
38	Construction	\$0	\$0	\$0	\$0	\$0
39	Renovation	\$0	\$0	\$0	\$0	\$0
40	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$0	\$0	\$0	\$0	\$0
Administrative/Operations Support						
42	Equipment Lease/Maintenance	\$0	\$0	\$0	\$0	\$0
41	Equipment Purchase	\$0	\$0	\$0	\$0	\$0
42	Supplies and Materials	\$0	\$0	\$0	\$0	\$0
43	Printing and Copying	\$0	\$0	\$0	\$0	\$0
44	Postage and Shipping	\$0	\$0	\$0	\$0	\$0
45	Enrollment / Recruitment	\$0	\$0	\$0	\$0	\$0
46	Staffing (recruitment and assessment)	\$0	\$0	\$0	\$0	\$0
47	Technology Plan	\$0	\$0	\$0	\$0	\$0
48	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$0	\$0	\$0	\$0	\$0
Management Company						
49	Fees	\$0	\$0	\$0	\$0	\$0
50	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
51	Curriculum	\$0	\$0	\$0	\$0	\$0
52	Accounting and Payroll	\$0	\$0	\$0	\$0	\$0
53	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL MANAGEMENT COMPANY		\$0	\$0	\$0	\$0	\$0
FEDERAL EXPENDITURES		\$0	\$175,280	\$245,229	\$315,437	\$385,835
54	# Students	0	250	350	450	550
REVENUE LESS EXPENDITURES		\$0	\$0	\$0	\$0	\$0

Other Funds		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	Non Profit Grants	\$0	\$0	\$0	\$0	\$0
2	Foundations Funds	\$1,250,000	\$150,000	\$150,000	\$150,000	\$150,000
3	Donations	\$150,000	\$50,000	\$50,000	\$50,000	\$50,000
4	Construction / Bank Loans	\$0	\$0	\$0	\$0	\$0
5	Cafeteria Funds	\$0	\$168,750	\$236,250	\$303,750	\$371,250
6	Miscellaneous Revenue	\$0	\$0	\$0	\$0	\$0
7	Prior Year Carryover Funds	\$0	\$296,581	\$223,129	\$230,754	\$217,668
TOTAL OTHER REVENUE		\$1,400,000	\$665,331	\$659,379	\$734,504	\$788,918

Other Expenses		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Personnel Salaries / Other Employer Costs						
		FTE	FTE	FTE	FTE	FTE
8	Classroom Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
9	Special Education Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
10	Special Teachers (Phys Ed, Art, Music)	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
11	Counselors	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
12	Principal/Administrative	\$193,000 3.00	\$69,360 1.00	\$70,747 1.00	\$72,162 1.00	\$73,605 1.00
13	Nurse	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
14	Clerical	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
15	Custodial	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
16	Substitutes	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
17	Other	\$0 0.00	\$42,243 3.00	\$43,089 3.00	\$43,950 3.00	\$59,772 4.00
18	Other Employer Costs (33.11% of Salaries)	\$63,902	\$22,965	\$23,424	\$23,893	\$24,371
19	Health Insurance	\$45,000	\$14,121	\$14,827	\$15,568	\$16,347
20	Other Benefits	\$0	\$0	\$0	\$0	\$0
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$301,902 3.00	\$148,689 4.00	\$152,087 4.00	\$155,573 4.00	\$174,095 5.00
Student Support						
21	Transportation	\$0	\$0	\$0	\$0	\$0
22	Extra Curricular Transportation	\$0	\$0	\$0	\$0	\$0
23	Cafeteria	\$0	\$146,813	\$205,538	\$264,263	\$322,988
24	Extra Curricular	\$0	\$20,000	\$50,000	\$75,000	\$100,000
25	Supplies and Materials	\$5,000	\$4,000	\$4,000	\$4,000	\$4,000
26	Textbooks	\$200,000	\$0	\$0	\$0	\$0
27	Curriculum	\$4,600	\$16,700	\$0	\$0	\$0
28	Professional Development	\$5,000	\$0	\$0	\$0	\$0
29	Assessments	\$0	\$0	\$0	\$0	\$0
30	Other Educational Program	\$0	\$0	\$0	\$0	\$0
31	Therapists (Occupational, Speech)	\$0	\$0	\$0	\$0	\$0
32	Classroom Technology	\$35,000	\$0	\$0	\$0	\$0
33	School Climate	\$0	\$0	\$0	\$0	\$0
34	Computers	\$100,000	\$0	\$0	\$0	\$0
35	Contracted Services	\$0	\$0	\$0	\$0	\$0
36	Other	\$0	\$0	\$0	\$0	\$5,000
SUBTOTAL STUDENT SUPPORT		\$349,600	\$187,513	\$259,538	\$343,263	\$431,988
Operations and Maintenance of Facilities						
37	Insurance (Property/Liability)	\$25,000	\$0	\$0	\$0	\$0
38	Rent	\$147,917	\$0	\$0	\$0	\$0
39	Mortgage	\$0	\$0	\$0	\$0	\$0
40	Utilities	\$50,000	\$90,000	\$0	\$0	\$0
41	Maintenance	\$0	\$0	\$0	\$0	\$0
42	Telephone/Communications	\$0	\$0	\$0	\$0	\$0
43	Construction	\$80,500	\$0	\$0	\$0	\$0
44	Renovation	\$0	\$0	\$0	\$0	\$0
45	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$303,417	\$90,000	\$0	\$0	\$0
Administrative/Operations Support						
46	Equipment Lease/Maintenance	\$0	\$0	\$0	\$0	\$0
47	Equipment Purchase	\$45,000	\$0	\$0	\$0	\$0
48	Supplies and Materials	\$2,500	\$0	\$0	\$0	\$0
49	Printing and Copying	\$2,500	\$0	\$0	\$0	\$0
50	Postage and Shipping	\$1,500	\$0	\$0	\$0	\$0
51	Enrollment / Recruitment	\$10,000	\$0	\$0	\$0	\$0
52	Staffing (recruitment and assessment)	\$0	\$0	\$0	\$0	\$0
53	Technology Plan	\$0	\$0	\$0	\$0	\$0
54	Other	\$10,000	\$0	\$0	\$0	\$0
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$71,500	\$0	\$0	\$0	\$0
Management Company						
55	Fees	\$0	\$0	\$0	\$0	\$0
56	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
57	Curriculum	\$0	\$0	\$0	\$0	\$0
58	Accounting and Payroll	\$65,000	\$0	\$0	\$0	\$0
59	Other	\$12,000	\$16,000	\$17,000	\$18,000	\$19,000
SUBTOTAL MANAGEMENT COMPANY		\$77,000	\$16,000	\$17,000	\$18,000	\$19,000
OTHER EXPENDITURES		\$1,103,419	\$442,202	\$428,625	\$516,836	\$625,083
60	# Students	0	250	350	450	550
REVENUE LESS EXPENDITURES		\$296,581	\$223,129	\$230,754	\$217,668	\$163,835

Charter School Application Budget Worksheet-Consolidated Funds Statement

The Bryan Allen Stevenson School of Excellence

	2022/2023		2023/2024		2024/2025		2025/2026		2026/2027	
	YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
1 State Appropriations	\$0		\$1,896,707		\$2,578,165		\$3,267,320		\$4,059,532	
2 School District Local Fund Transfers	\$0		\$600,404		\$841,528		\$1,081,529		\$1,315,372	
3 Federal Entitlements	\$0		\$175,280		\$245,229		\$315,437		\$385,835	
4 Cafeteria Funds	\$0		\$168,750		\$236,250		\$303,750		\$371,250	
4 Non Profit Grants	\$0		\$0		\$0		\$0		\$0	
4 Foundation Grants	\$1,250,000		\$150,000		\$150,000		\$150,000		\$150,000	
4 Donations/Other Grants	\$150,000		\$50,000		\$50,000		\$50,000		\$50,000	
5 Prior Year Carryover Funds	\$0		\$296,581		\$314,342		\$338,635		\$446,716	
6										
7 TOTAL STATE & LOCAL REVENUE	\$1,400,000		\$3,337,722		\$4,415,514		\$5,506,671		\$6,778,705	
8										
9 State & Local Expenses										
	YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
Personnel Salaries / Other Employer Costs		FTE		FTE		FTE		FTE		FTE
10 Classroom Teachers	\$0	0.00	\$601,140	11.00	\$907,384	17.00	\$1,163,214	21.00	\$1,460,742	26.00
11 Special Education Teachers	\$0	0.00	\$126,614	2.00	\$189,952	3.00	\$193,751	3.00	\$260,887	4.00
12 Special Teachers (Phys Ed, Art, Music)	\$0	0.00	\$57,114	1.00	\$58,256	1.00	\$118,842	2.00	\$181,827	3.00
13 Counselors	\$0	0.00	\$50,000	1.00	\$51,000	1.00	\$52,020	1.00	\$106,120	2.00
14 Principal/Administrative	\$193,000	3.00	\$235,620	3.00	\$240,332	3.00	\$245,139	3.00	\$309,468	4.00
15 Nurse	\$0	0.00	\$44,600	1.00	\$45,492	1.00	\$46,402	1.00	\$47,330	1.00
16 Clerical	\$0	0.00	\$28,500	1.00	\$29,070	1.00	\$59,302	2.00	\$60,488	2.00
17 Custodial	\$0	0.00	\$28,000	1.00	\$57,120	2.00	\$58,262	2.00	\$59,428	2.00
18 Substitutes	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
19 Other	\$0	0.00	\$42,243	3.00	\$43,089	3.00	\$43,950	3.00	\$59,772	4.00
20 Other Employer Costs (33.11% of Salaries)	\$63,902		\$387,913		\$522,676		\$641,318		\$823,211	
21 Health Insurance	\$45,000		\$296,541		\$429,983		\$544,880		\$719,268	
22 Other Benefits	\$0		\$0		\$0		\$0		\$0	
23										
24 SUBTOTAL SALARIES / OTHER EMPLOYER COSTS	\$301,902	3.0	\$1,898,285	24.0	\$2,574,354	32.0	\$3,167,080	38.0	\$4,088,541	48.0
25										
26 Student Support										
27 Transportation	\$0		\$190,225		\$271,705		\$356,265		\$444,290	
28 Extra Curricular Transportation	\$0		\$0		\$0		\$0		\$0	
29 Cafeteria	\$0		\$146,813		\$205,538		\$264,263		\$322,988	
30 Extra Curricular	\$0		\$20,000		\$50,000		\$75,000		\$100,000	
31 Supplies and Materials	\$5,000		\$64,000		\$79,000		\$94,000		\$99,000	
32 Textbooks	\$200,000		\$6,807		\$65,852		\$75,742		\$81,281	
33 Curriculum	\$4,600		\$16,700		\$22,600		\$23,600		\$35,730	
34 Professional Development	\$5,000		\$10,000		\$10,000		\$11,000		\$12,500	
35 Assessments	\$0		\$0		\$0		\$0		\$0	
36 Other Educational Program	\$0		\$5,000		\$10,000		\$12,000		\$15,000	
37 Therapists (Occupational, Speech)	\$0		\$37,000		\$45,000		\$55,000		\$65,000	
38 Classroom Technology	\$35,000		\$16,000		\$20,000		\$35,000		\$35,000	
39 School Climate	\$0		\$0		\$0		\$0		\$0	
40 Computers	\$100,000		\$15,000		\$70,000		\$80,000		\$100,000	
41 Contracted Services	\$0		\$60,000		\$82,845		\$148,680		\$172,332	
42 Other	\$0		\$30,000		\$10,000		\$24,764		\$15,557	
43										
44 SUBTOTAL STUDENT SUPPORT	\$349,600		\$617,545		\$942,540		\$1,255,314		\$1,498,678	
45										
46 Operations and Maintenance of Facilities										
47 Insurance (Property/Liability)	\$25,000		\$42,000		\$48,260		\$54,708		\$61,349	

\$0	cumulative 4-year non profit grants
\$350,000	cumulative 4-year Donations/Other Grants
\$1,850,000	cumulative 4-year fundraising/donations-Operations
\$2,200,000	Total Fundraising Requirement

Consolidated State, Local, Federal Foundation Revenue Funds

State & Local Revenue		2022/2023	2023/2024	2024/2025	2025/2026	2026/2027
		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
48	Rent	\$147,917	\$181,050	\$184,600	\$188,150	\$192,055
49	Mortgage	\$0	\$0	\$0	\$0	\$0
50	Utilities	\$50,000	\$90,000	\$100,000	\$135,000	\$140,000
51	Maintenance	\$0	\$15,000	\$20,000	\$30,000	\$45,000
52	Telephone/Communications	\$0	\$5,000	\$7,500	\$10,000	\$15,000
53	Construction	\$80,500	\$0	\$0	\$0	\$0
54	Renovation	\$0	\$0	\$0	\$0	\$0
55	Other	\$0	\$10,000	\$10,000	\$10,000	\$10,000
56						
57	SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES	\$303,417	\$343,050	\$370,360	\$427,858	\$463,404
58						
59	Administrative/Operations Support					
60	Equipment Lease/Maintenance	\$0	\$3,500	\$5,000	\$5,125	\$8,253
61	Equipment Purchase	\$45,000	\$35,000	\$45,000	\$50,000	\$60,000
62	Supplies and Materials	\$2,500	\$5,000	\$8,000	\$12,000	\$15,000
63	Printing and Copying	\$2,500	\$6,000	\$7,000	\$10,000	\$12,000
64	Postage and Shipping	\$1,500	\$1,500	\$3,000	\$3,575	\$5,075
65	Enrollment / Recruitment	\$10,000	\$5,000	\$5,125	\$5,253	\$6,753
66	Staffing (recruitment and assessment)	\$0	\$5,000	\$6,000	\$7,000	\$10,000
67	Technology Plan	\$0	\$2,500	\$3,500	\$3,750	\$4,750
68	Other	\$10,000	\$10,000	\$10,000	\$10,000	\$12,000
69						
70	SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT	\$71,500	\$73,500	\$92,625	\$106,703	\$133,831
71						
72	Management Company					
73	Fees	\$0	\$0	\$0	\$0	\$0
74	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
75	Curriculum	\$0	\$0	\$0	\$0	\$0
76	Accounting and Payroll	\$65,000	\$75,000	\$80,000	\$85,000	\$95,000
77	Other	\$12,000	\$16,000	\$17,000	\$18,000	\$19,000
78						
79	SUBTOTAL MANAGEMENT COMPANY	\$77,000	\$91,000	\$97,000	\$103,000	\$114,000
80	STATE & LOCAL EXPENDITURES	\$1,103,419	\$3,023,380	\$4,076,879	\$5,059,955	\$6,298,454
81						
82	# Students	0	250	350	450	550
83	REVENUE LESS EXPENDITURES	\$296,581	\$314,342	\$338,635	\$446,716	\$480,251
84	2% CONTINGENCY CHECK	\$28,000.00	\$66,754.44	\$88,310.28	\$110,133.42	\$135,574.10
85	Cummulative Fund Balance	\$296,581.00	\$610,923	\$949,558	\$1,396,274	\$1,876,525
86	Days Cash On Hand		73.75	85.01	100.72	108.75

Fiscal Year	23/24	24/25	25/26	26/27	27/28	28/29	
Year	1	2	3	4	5	6	
<u>Student Enrollment</u>							
Projected General Education	202	283	364	445	526	607	
Projected Special Education	48	67	86	105	124	143	
Percent Special Education	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%
Total Student Population (Paid)	250	350	450	550	650	750	
Projected ESL Students	55	77	99	121	143	165	22.00%
<u>Classroom Distribution</u>							100.00%
6th	125	100	100	100	100	100	
7th	125	125	100	100	100	100	
8th		125	125	100	100	100	
9th			125	125	100	100	
10th				125	125	100	
11th					125	125	
12th						125	
Total	250	350	450	550	650	750	
Average Number of Students/Grade	25	25	25	25	25	25	
Approximate # of Classes per Grade	5	2	2	2	2	2	
Total Required # of Classrooms	10	14	18	22	26	30	

Distribution of Enrollment from Surrounding School Districts													
	% Distribution	Federal Funds											
		23/24	24/25	25/26	26/27	27/28	28/29	23/24	24/25	25/26	26/27	27/28	28/29
Indian River	40.00%												
GENED		82	114	146	179	212	243	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645
SPED		19	28	35	42	50	57	65,145	91,590	116,745	142,545	168,990	193,500
Delmar	5.00%												
GENED		10	14	18	22	26	30	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463
SPED		2	3	4	5	6	7	5,556	7,871	10,186	12,501	14,816	17,131
Laurel	5.00%												
GENED		10	14	18	22	26	30	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732
SPED		2	3	4	5	6	7	8,784	12,444	16,104	19,764	23,424	27,084
Seaford	15.00%												
GENED		30	42	55	67	79	91	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996
SPED		7	10	13	16	19	21	36,852	51,792	67,728	82,668	97,608	111,552
Woodbridge	7.50%												
GENED		15	21	27	33	39	46	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869
SPED		4	5	6	8	9	11	16,511	22,594	28,677	35,629	41,712	49,533
Milford	7.50%												
GENED		15	21	27	33	39	46	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778
SPED		4	5	6	8	9	11	14,782	20,228	25,674	31,898	37,344	44,346
Cape Henlopen	20.00%												
GENED		40	57	73	89	105	121	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553
SPED		10	13	18	21	25	29	27,650	38,710	50,323	60,830	71,890	82,950
GENED		202	283	364	445	526	607						
SPED		48	67	86	105	124	143						
Total	100.00%	250	350	450	550	650	750	175,280	245,229	315,437	385,835	455,784	526,096

Estimated Revenue	23/24	24/25	25/26	26/27	27/28	28/29
State Funding (from Revenue Sheets)	\$1,896,707	\$2,578,165	\$3,267,320	\$4,059,532	\$4,791,978	\$5,420,216
Local Funding (from Revenue Sheets)	\$600,404	\$841,528	\$1,081,529	\$1,315,372	\$1,556,709	\$1,791,256
Federal Funding	\$175,280	\$245,229	\$315,437	\$385,835	\$455,784	\$526,096
Cafeteria Service Revenue	\$168,750	\$236,250	\$303,750	\$371,250	\$438,750	\$506,250
Total Estimated Revenues (State/Local/Federal)	\$2,841,141	\$3,901,172	\$4,968,036	\$6,131,989	\$7,243,221	\$8,243,818

100% Enrollment

Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6						
Executive Director	1	1	1	1	1	1	1						
School Founding Leader	1	0	0	0	0	0	0						
Director of Development	1	1	1	1	1	0	0						
Dean of Academic Excellence	0	1	1	1	1	1	1						
Dean of Community Partnerships	0	0	0	0	1	1	1						
6th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1						
7th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1						
8th Grade Academic Coach (Lead Teacher)	0	0	1	1	1	1	1						
9th Grade Academic Coach (Lead Teacher)	0	0	0	1	1	1	1						
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	1	1	1						
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	1	1						
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	1						
6th Grade Content Teachers	0	4	3	3	3	3	3						
7th Grade Content Teachers	0	4	4	3	3	3	3						
8th Grade Content Teachers	0	0	4	4	3	3	3						
9th Grade Content Teachers	0	0	0	4	4	3	3						
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	4	4	3						
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	4	4						
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	4						
Special Education Coordinator	0	1	1	1	1	1	1						
Special Education Teacher	0	1	2	2	3	5	5						
Language Teacher	0	0	0	1	2	2	2						
Arts Teacher	0	1	1	1	1	2	2						
Paraprofessional	0	1	3	3	4	4	4						
Office Staff	0	1	1	2	2	2	2						
Custodian	0	1	2	2	2	3	3						
Cafeteria Aide (Part-Time)	0	3	3	3	4	4	4.5						
Nurse	0	1	1	1	1	1	1						
Counselor	0	1	1	1	1	1	1						
College Career Counselor	0	0	0	0	1	1	1						
Total Staff	3.00	24.00	32.00	38.00	48.00	55.00	59.50	Average Health Insurance cost by year					
Health Insurance		338,904	474,464	591,584	784,656	944,020	1,072,488	1	2	3	4	5	6
Total Enrollment		250	350	450	550	650	750	14,121	14,827	15,568	16,347	17,164	18,025

100% Enrollment

Salary Grid for Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Step	Indian River Salary Schedule
Inflation Factor		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	1-2	46,324 BA
Executive Director	95,000	96,900	98,838	100,815	102,831	104,888	106,986	3-5	54,955 Masters
School Founding Leader	30,000	30,600	31,212	31,836	32,473	33,122	33,784	6-8	58,992 Masters
Director of Development	68,000	69,360	70,747	72,162	73,605	75,077	76,579	9-12	68,183 Masters +15
Dean of Academic Excellence	-	69,360	70,747	72,162	73,605	75,077	76,579		
Dean of Community Partnerships		56,000	57,120	58,262	59,427	60,616	61,828	Average	57,114
6th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
7th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
8th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
9th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
10th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
11th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
12th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
6th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
7th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
8th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
9th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
10th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
11th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
12th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
Special Education Coordinator		67,000	68,340	69,707	71,101	72,523	73,973		
Special Education Teacher		59,614	60,806	62,022	63,262	64,527	65,818		
Language Teacher		57,114	58,256	59,421	60,609	61,821	63,057		
Arts Teacher		57,114	58,256	59,421	60,609	61,821	63,057		
Paraprofessional		30,000	30,600	31,212	31,836	32,473	33,122		
Office Staff		28,500	29,070	29,651	30,244	30,849	31,466		
Custodian		28,000	28,560	29,131	29,714	30,308	30,914		
Cafeteria Aide (Part-Time)(included 9.31% OEC Rate)		14,081	14,363	14,650	14,943	15,242	15,547		
Nurse		44,600	45,492	46,402	47,330	48,277	49,243		
Counselor		50,000	51,000	52,020	53,060	54,121	55,203		
College Career Counselor		50,000	51,000	52,020	53,060	54,121	55,203		

Total Annual Salary for Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Executive Director	95,000	96,900	98,838	100,815	102,831	104,888	106,986
School Founding Leader	30,000	-	-	-	-	-	-
Director of Development	68,000	69,360	70,747	72,162	73,605	-	-
Dean of Academic Excellence	-	69,360	70,747	72,162	73,605	75,077	76,579
Dean of Community Partnerships	-	-	-	-	59,427	60,616	61,828
6th Grade Academic Coach (Lead Teacher)	-	57,114	58,256	59,421	60,609	61,821	63,057
7th Grade Academic Coach (Lead Teacher)	-	57,114	58,256	59,421	60,609	61,821	63,057
8th Grade Academic Coach (Lead Teacher)	-	-	58,256	59,421	60,609	61,821	63,057
9th Grade Academic Coach (Lead Teacher)	-	-	-	59,421	60,609	61,821	63,057
10th Grade Academic Coach (Lead Teacher)	-	-	-	-	60,609	61,821	63,057
11th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	61,821	63,057
12th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	-	63,057
6th Grade Content Teachers	-	228,456	174,768	178,263	181,827	185,463	189,171
7th Grade Content Teachers	-	228,456	233,024	178,263	181,827	185,463	189,171
8th Grade Content Teachers	-	-	233,024	237,684	181,827	185,463	189,171
9th Grade Content Teachers	-	-	-	237,684	242,436	185,463	189,171
10th Grade Academic Coach (Lead Teacher)	-	-	-	-	242,436	247,284	189,171
11th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	247,284	252,228
12th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	-	252,228
Special Education Coordinator	-	67,000	68,340	69,707	71,101	72,523	73,973
Special Education Teacher	-	59,614	121,612	124,044	189,786	322,635	329,090
Language Teacher	-	-	-	59,421	121,218	123,642	126,114
Arts Teacher	-	57,114	58,256	59,421	60,609	123,642	126,114
Paraprofessional	-	30,000	91,800	93,636	127,344	129,892	132,488
Office Staff	-	28,500	29,070	59,302	60,488	61,698	62,932
Custodian	-	28,000	57,120	58,262	59,428	90,924	92,742
Cafeteria Aide (Part-Time)	-	42,243	43,089	43,950	59,772	60,968	69,962
Nurse	-	44,600	45,492	46,402	47,330	48,277	49,243
Counselor	-	50,000	51,000	52,020	53,060	54,121	55,203
College Career Counselor	-	-	-	-	53,060	54,121	55,203
Total Salaries	193,000	1,213,831	1,621,695	1,980,882	2,546,062	2,990,370	3,310,167

	Year 0	Year 1	Year 1	Year 2	Year 2	Year 3	Year 3	Year 4	Year 4	Year 5	Year 5	Year 6	Year 6
Classroom Teachers	-	601,140	11	907,384	17	1,163,214	21	1,460,742	26	1,737,238	30	2,024,198	34
Special Education Coordinator		67,000	1	68,340	1	69,707	1	71,101	1	72,523	1	73,973	1
Special Education Teachers (Federal Funds Tab)	-	59,614	1	121,612	2	124,044	2	189,786	3	322,635	5	329,090	5
Special Teachers (Phys Ed, Art, Music)		57,114	1	58,256	1	118,842	2	181,827	3	247,284	4	252,228	4
Counselors		50,000	1	51,000	1	52,020	1	106,120	2	108,242	2	110,406	2
Principal/Administrative	193,000	166,260	2	169,585	2	172,977	2	235,863	3	240,581	3	245,393	3
Nurse		44,600	1	45,492	1	46,402	1	47,330	1	48,277	1	49,243	1
Clerical		28,500	1	29,070	1	59,302	2	60,488	2	61,698	2	62,932	2
Custodial		28,000	1	57,120	2	58,262	2	59,428	2	90,924	3	92,742	3
Substitutes													
Other		-	-	-	-	-	-	-	-	-	-	-	-
Other Employer Costs (33.11% of Salaries)													
Health Insurance													
Other Benefits													
Total	193,000	1,102,228	20.00	1,507,859	28.00	1,864,770	34.00	2,412,685	43.00	2,929,402	51.00	3,240,205	55.00
Allocated to Principal/Administration-Other													
Funds Sheet-Paid by Foundation Funds	3	69,360	1	70,747	1	72,162	1	73,605	1	-	0	-	0
Allocated to Cafeteria - Other Funds Sheet	0	42,243	3	43,089	3	43,950	3	59,772	4	60,968	4	69,962	4.5

	30-Jun-23	30-Jun-24	1-Jul-25	2-Jul-26	3-Jul-27	3-Jul-28	Eligibility
Transportation Expense							
Percent Eligible	175	245	315	385	455	525	70.0%
Estimated Annual Cost for Transportation	190,225	271,705	356,265	444,290	535,535	630,525	
Cost per Student	1,087	1,109	1,131	1,154	1,177	1,201	

IB Curriculum Programming Cost	30-Jun-23	29-Jun-24	29-Jun-25	29-Jun-26	30-Jun-27	30-Jun-28
Enrollment	0	250	350	450	550	650
Teacher Count	0	11	17	21	26	30
CP Program Training	-	-	-	-	1,480	1,480
CP Program Authorization Fee	-	-	-	-	8,500	-
Middle Years Program Training	600	7,200	3,600	3,600	3,600	3,000
Application Fee	4,000	-	-	10,500	10,500	10,500
Candidate Fee	-	9,500	9,500	-	-	-
Diploma Program Training	-	-	-	-	-	7,200
Diploma Program Application Fee	-	-	-	-	-	4,000
Candidate Fee	-	-	9,500	9,500	11,650	11,650
Total Cost of IB Programs	4,600	16,700	22,600	23,600	35,730	37,830

Health Insurance Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
State and Local Tab	268,299	385,502	498,176	653,880	789,544	901,250
Federal Funds Tab	14,121	29,654	31,136	49,041	85,820	90,125
Other Funds Tab	14,121	14,827	15,568	16,347	-	-
Total	296,541	429,983	544,880	719,268	875,364	991,375
Total Employees	24	32	38	48	55	60

Health Insurance Calculation	Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Highmark Delaware Comprehensive PPO Plan							
Employee	55%	13.20	17.60	20.90	26.40	30.25	32.73
Employee & Spouse	25%	6.00	8.00	9.50	12.00	13.75	14.88
Employee & Child(ren)	10%	2.40	3.20	3.80	4.80	5.50	5.95
Family	10%	2.40	3.20	3.80	4.80	5.50	5.95
Inflation factor	5.0%						
Monthly Cost per Class							
Employee		793.86	833.55	875.23	918.99	964.94	1,013.19
Employee & Spouse		1,647.34	1,729.71	1,816.20	1,907.01	2,002.36	2,102.48
Employee & Child(ren)		1,223.46	1,284.63	1,348.86	1,416.30	1,487.12	1,561.48
Family		2,059.40	2,162.37	2,270.49	2,384.01	2,503.21	2,628.37
Annual Cost per Class-All Employees							
Employee		125,747	176,046	219,508	291,136	350,273	397,941
Employee & Spouse		118,608	166,052	207,047	274,609	330,389	375,419
Employee & Child(ren)		35,236	49,330	61,508	81,579	98,150	111,490
Family		59,311	83,035	103,534	137,319	165,212	187,666
Average Cost/Year/Employee		14,121	14,827	15,568	16,347	17,164	18,025

100% Enrollment

The Bryan Allen Stevenson School of Excellence

Capital Expenditures of 20346 Ennis Street Property

	<u>Amount</u>
Architectural	-
Mechanical	35,000
Interior Renovations	30,000
Electrical	3,000
Floor-Paint	10,000
Other	2,500

Total Estimated Project Cost	80,500
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Finance

Funding from BASSE	80,500	100
Bank Loan	-	0

The Bryan Allen Stevenson School of Excellence
 Square Footage Requirement Calculation

Facility Needs Worksheet	30-Jun-23	30-Jun-24	30-Jun-25	30-Jun-26	30-Jun-27
Enrollment	250	350	450	550	650
Number of Primary Classrooms	10	14	18	22	26
Number of Specialty Classrooms	3	5	6	7	9
Offices	5	7	8	8	8
Square Footage (Net) per Primary Classroom	10,000	14,000	18,000	22,000	26,000
Square Footage (Net) per Specialty Classroom	2,025	3,375	4,050	4,725	6,075
Offices	500	700	800	800	800
Lunch Room	7,000	7,000	7,000	7,000	7,000
Gymnasium	10,000	10,000	10,000	10,000	10,000
Subtotal Net Square Footage Requirement-Program	29,525	35,075	39,850	44,525	49,875
Efficiency Factor-allowance for hallways, closets, storage, bathrooms	84.50%	84.50%	84.50%	84.50%	84.50%
Gross Square Footage Needed	34,941	41,509	47,160	52,692	59,024
Program of Existing School	35,500	sf			
Natorium	10,500	sf			
Classroom Spaces	26	800-900 sf each			
Life Skills	1	2000 sf	can be split into two classrooms		
Escalator	2.00%				
Rent	Annual Rental	Rent/S.F.	Lease Year		
Year 1 (start-up yr.) (rent payment commences on 11/1/22)	147,917	\$ 5.00	22-23		
Year 2	181,050	5.10	23-24		
Year 3	184,600	5.20	24-25		
Year 4	188,150	5.30	25-26		
Year 5	192,055	5.41	26-27		
Option					
Year 6	192,055	5.52	27-28		
Year 7	199,865	5.63	28-29		
Year 8	203,770	5.74	29-30		

The Bryan Allen Stevenson School of Excellence
 Budget and Sources of Funds for Nylon Capital Site

Gross Square Footage Requirement 50,000

	<u>Cost</u>	
Acquisition of Land	3,000,000	
Building Cost	12,150,000	243.00 per square foot
Site Costs	1,972,000	Includes \$1.0 million for s
Soft Costs	2,268,000	45.00 per square foot
Contingency	810,000	16.20 per square foot
Total Estimated Project Cost	<u><u>20,200,000</u></u>	

Proposed Occupancy Date no Later than 12/31/2024

Proposed Sources of Funds

ARPA	11,000,000
New Market Tax Credit	1,142,857
Other (USDA) Grant	5,000,000
Foundation	3,057,143
Total Proposed Sources of Funds	<u><u>20,200,000</u></u>

Estimated Annual Rental



**Section 1.8 - Start up and Operations :: Attachment 19 - Budget Sheets
(also required in Section 1.10) :: Budget Sheets 80% Enrollment**

State & Local Revenue		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	State Appropriations	\$0	\$1,471,224	\$2,081,590	\$2,636,385	\$3,265,621
2	School District Local Fund Transfers	\$0	\$475,294	\$665,369	\$864,683	\$1,052,086
3	Prior Year Carryover Funds	\$0	\$0	\$166,778	\$89,932	\$117,717
TOTAL STATE & LOCAL REVENUE		\$0	\$1,946,518	\$2,913,737	\$3,591,000	\$4,435,424
State & Local Expenses		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Personnel Salaries / Other Employer Costs						
		FTE	FTE	FTE	FTE	FTE
4	Classroom Teachers	\$0 0.00	\$456,912 8.00	\$683,067 12.20	\$886,876 15.40	\$1,130,392 19.60
5	Special Education Teachers	\$0 0.00	\$67,000 1.00	\$68,340 1.00	\$69,707 1.00	\$71,101 1.00
6	Special Teachers (Phys Ed, Art, Music)	\$0 0.00	\$0 0.00	\$58,256 1.00	\$118,842 2.00	\$181,827 3.00
7	Counselors	\$0 0.00	\$0 0.00	\$51,000 1.00	\$52,020 1.00	\$106,120 2.00
8	Principal/Administrative	\$0 0.00	\$96,900 1.00	\$169,585 2.00	\$172,977 2.00	\$235,863 3.00
9	Nurse	\$0 0.00	\$44,600 1.00	\$45,492 1.00	\$46,402 1.00	\$47,330 1.00
10	Clerical	\$0 0.00	\$28,500 1.00	\$29,070 1.00	\$29,651 1.00	\$30,244 1.00
11	Custodial	\$0 0.00	\$28,000 1.00	\$28,560 1.00	\$58,262 2.00	\$59,428 2.00
12	Substitutes	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
13	Other	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
14	Other Employer Costs (33.11% of Salaries)	\$0	\$239,025	\$375,259	\$475,041	\$616,609
15	Health Insurance	\$0	\$183,573	\$299,627	\$395,630	\$533,043
16	Other Benefits	\$0	\$0	\$0	\$0	\$0
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$0 0.00	\$1,144,510 13.00	\$1,808,256 20.20	\$2,305,408 25.40	\$3,011,957 32.60
Student Support						
17	Transportation	\$0	\$152,180	\$217,364	\$285,012	\$355,432
18	Extra Curricular Transportation	\$0	\$0	\$0	\$0	\$0
19	Cafeteria	\$0	\$0	\$0	\$0	\$0
20	Extra Curricular	\$0	\$0	\$0	\$0	\$0
21	Supplies and Materials	\$0	\$35,000	\$44,000	\$76,000	\$96,000
22	Textbooks	\$0	\$0	\$50,000	\$52,000	\$60,000
23	Curriculum	\$0	\$0	\$22,600	\$23,600	\$35,730
24	Professional Development	\$0	\$5,000	\$5,000	\$5,125	\$5,253
25	Assessments	\$0	\$0	\$0	\$0	\$0
26	Other Educational Program	\$0	\$5,000	\$6,000	\$6,000	\$6,000
27	Therapists (Occupational, Speech)	\$0	\$25,000	\$36,000	\$40,000	\$45,000
28	Classroom Technology	\$0	\$5,000	\$12,100	\$12,402	\$16,713
29	School Climate	\$0	\$0	\$0	\$0	\$0
30	Computers	\$0	\$0	\$50,000	\$50,000	\$50,000
31	Contracted Services	\$0	\$20,000	\$40,000	\$41,000	\$41,840
32	Other	\$0	\$5,000	\$8,000	\$8,000	\$8,000
SUBTOTAL STUDENT SUPPORT		\$0	\$252,180	\$491,064	\$599,139	\$719,968
Operations and Maintenance of Facilities						
33	Insurance (Property/Liability)	\$0	\$42,000	\$48,260	\$54,708	\$61,349
34	Rent	\$0	\$181,050	\$184,600	\$188,150	\$192,055
35	Mortgage	\$0	\$0	\$0	\$0	\$0
36	Utilities	\$0	\$0	\$100,000	\$125,000	\$128,125
37	Maintenance	\$0	\$15,000	\$15,375	\$15,759	\$16,153
38	Telephone/Communications	\$0	\$5,000	\$5,125	\$5,253	\$5,384
39	Construction	\$0	\$0	\$0	\$0	\$0
40	Renovation	\$0	\$0	\$0	\$0	\$0
41	Other	\$0	\$15,000	\$25,000	\$28,125	\$28,828
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$0	\$258,050	\$378,360	\$416,995	\$431,894
Administrative/Operations Support						
42	Equipment Lease/Maintenance	\$0	\$2,000	\$5,000	\$5,125	\$8,253
43	Equipment Purchase	\$0	\$28,000	\$28,000	\$28,000	\$32,000
44	Supplies and Materials	\$0	\$3,000	\$6,000	\$7,000	\$8,000
45	Printing and Copying	\$0	\$3,000	\$6,500	\$6,663	\$7,000
46	Postage and Shipping	\$0	\$1,000	\$2,000	\$2,200	\$2,500
47	Enrollment / Recruitment	\$0	\$4,000	\$5,125	\$5,253	\$6,753
48	Staffing (recruitment and assessment)	\$0	\$4,000	\$5,000	\$5,000	\$5,000
49	Technology Plan	\$0	\$0	\$3,500	\$2,500	\$2,500
50	Other	\$0	\$10,000	\$10,000	\$10,000	\$12,000
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$0	\$55,000	\$71,125	\$71,741	\$84,006
Management Company						
51	Fees	\$0	\$0	\$0	\$0	\$0
52	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
53	Curriculum	\$0	\$0	\$0	\$0	\$0
54	Accounting and Payroll	\$0	\$70,000	\$75,000	\$80,000	\$85,000
55	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL MANAGEMENT COMPANY		\$0	\$70,000	\$75,000	\$80,000	\$85,000
STATE & LOCAL EXPENDITURES		\$0	\$1,779,740	\$2,823,805	\$3,473,283	\$4,332,825
56	# Students	0	200	280	360	440
REVENUE LESS EXPENDITURES		\$0	\$166,778	\$89,932	\$117,717	\$102,599
2% CONTINGENCY CHECK		\$0.00	\$38,930.36	\$58,274.74	\$71,820.00	\$88,708.48

Federal Funds		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	Entitlement Funding	\$0	\$140,255	\$196,357	\$251,832	\$308,561
2	Other Federal Grants	\$0	\$0	\$0	\$0	\$0
TOTAL FEDERAL REVENUE		\$0	\$140,255	\$196,357	\$251,832	\$308,561
Federal Expenses		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Personnel Salaries / Other Employer Costs						
		FTE	FTE	FTE	FTE	FTE
3	Classroom Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
4	Special Education Teachers	\$0 0.00	\$59,614 1.00	\$91,209 1.50	\$108,539 1.75	\$158,155 2.50
5	Special Teachers (Phys Ed, Art, Music)	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
6	Counselors	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
7	Principal/Administrative	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
8	Nurse	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
9	Clerical	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
10	Custodial	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
11	Substitutes	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
12	Other	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
13	Other Employer Costs (33.11% of Salaries)	\$0	\$19,738	\$30,199	\$35,937	\$52,365
14	Health Insurance	\$0	\$14,121	\$22,250	\$27,258	\$40,878
15	Other Benefits	\$0	\$0	\$0	\$0	\$0
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$0 0.00	\$93,473 1.00	\$143,658 1.50	\$171,734 1.75	\$251,398 2.50
Student Support						
16	Transportation	\$0	\$0	\$0	\$0	\$0
17	Extra Curricular Transportation	\$0	\$0	\$0	\$0	\$0
18	Cafeteria	\$0	\$0	\$0	\$0	\$0
19	Extra Curricular	\$0	\$0	\$0	\$0	\$0
20	Supplies and Materials	\$0	\$10,000	\$10,000	\$10,000	\$5,000
21	Textbooks	\$0	\$6,807	\$5,852	\$5,742	\$1,281
22	Curriculum	\$0	\$0	\$0	\$0	\$0
23	Professional Development	\$0	\$2,475	\$2,500	\$5,000	\$5,000
24	Assessments	\$0	\$0	\$0	\$0	\$0
25	Other Educational Program	\$0	\$0	\$0	\$0	\$0
26	Therapists (Occupational, Speech)	\$0	\$0	\$0	\$0	\$0
27	Classroom Technology	\$0	\$0	\$0	\$2,500	\$0
28	School Climate	\$0	\$0	\$0	\$0	\$0
29	Computers	\$0	\$2,500	\$2,500	\$3,000	\$0
30	Contracted Services	\$0	\$20,000	\$26,847	\$39,092	\$45,325
31	Other	\$0	\$5,000	\$5,000	\$14,764	\$557
SUBTOTAL STUDENT SUPPORT		\$0	\$46,782	\$52,699	\$80,098	\$57,163
Operations and Maintenance of Facilities						
32	Insurance (Property/Liability)	\$0	\$0	\$0	\$0	\$0
33	Rent	\$0	\$0	\$0	\$0	\$0
34	Mortgage	\$0	\$0	\$0	\$0	\$0
35	Utilities	\$0	\$0	\$0	\$0	\$0
36	Maintenance	\$0	\$0	\$0	\$0	\$0
37	Telephone/Communications	\$0	\$0	\$0	\$0	\$0
38	Construction	\$0	\$0	\$0	\$0	\$0
39	Renovation	\$0	\$0	\$0	\$0	\$0
40	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$0	\$0	\$0	\$0	\$0
Administrative/Operations Support						
42	Equipment Lease/Maintenance	\$0	\$0	\$0	\$0	\$0
41	Equipment Purchase	\$0	\$0	\$0	\$0	\$0
42	Supplies and Materials	\$0	\$0	\$0	\$0	\$0
43	Printing and Copying	\$0	\$0	\$0	\$0	\$0
44	Postage and Shipping	\$0	\$0	\$0	\$0	\$0
45	Enrollment / Recruitment	\$0	\$0	\$0	\$0	\$0
46	Staffing (recruitment and assessment)	\$0	\$0	\$0	\$0	\$0
47	Technology Plan	\$0	\$0	\$0	\$0	\$0
48	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$0	\$0	\$0	\$0	\$0
Management Company						
49	Fees	\$0	\$0	\$0	\$0	\$0
50	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
51	Curriculum	\$0	\$0	\$0	\$0	\$0
52	Accounting and Payroll	\$0	\$0	\$0	\$0	\$0
53	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL MANAGEMENT COMPANY		\$0	\$0	\$0	\$0	\$0
FEDERAL EXPENDITURES		\$0	\$140,255	\$196,357	\$251,832	\$308,561
54	# Students	0	200	280	360	440
REVENUE LESS EXPENDITURES		\$0	\$0	\$0	\$0	\$0

Other Funds		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	Non Profit Grants	\$0	\$0	\$0	\$0	\$0
2	Foundations Funds	\$1,250,000	\$150,000	\$150,000	\$150,000	\$150,000
3	Donations	\$150,000	\$50,000	\$50,000	\$50,000	\$50,000
4	Construction / Bank Loans	\$0	\$0	\$0	\$0	\$0
5	Cafeteria Funds	\$0	\$135,000	\$189,000	\$243,000	\$297,000
6	Miscellaneous Revenue	\$0	\$0	\$0	\$0	\$0
7	Prior Year Carryover Funds	\$0	\$256,748	\$192,990	\$194,467	\$173,476
TOTAL OTHER REVENUE		\$1,400,000	\$591,748	\$581,990	\$637,467	\$670,476

Other Expenses		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Personnel Salaries / Other Employer Costs						
		FTE	FTE	FTE	FTE	FTE
8	Classroom Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
9	Special Education Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
10	Special Teachers (Phys Ed, Art, Music)	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
11	Counselors	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
12	Principal/Administrative	\$268,000 3.00	\$69,360 1.00	\$70,747 1.00	\$72,162 1.00	\$73,605 1.00
13	Nurse	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
14	Clerical	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
15	Custodial	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
16	Substitutes	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
17	Other	\$0 0.00	\$28,162 2.00	\$43,089 3.00	\$43,950 3.00	\$59,772 4.00
18	Other Employer Costs (33.11% of Salaries)	\$88,735	\$22,965	\$23,424	\$23,893	\$24,371
19	Health Insurance	\$45,000	\$14,121	\$14,833	\$15,576	\$16,351
20	Other Benefits	\$0	\$0	\$0	\$0	\$0
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$401,735 3.00	\$134,608 3.00	\$152,093 4.00	\$155,581 4.00	\$174,099 5.00
Student Support						
21	Transportation	\$0	\$0	\$0	\$0	\$0
22	Extra Curricular Transportation	\$0	\$0	\$0	\$0	\$0
23	Cafeteria	\$0	\$117,450	\$164,430	\$211,410	\$258,390
24	Extra Curricular	\$0	\$20,000	\$50,000	\$75,000	\$100,000
25	Supplies and Materials	\$5,000	\$4,000	\$4,000	\$4,000	\$4,000
26	Textbooks	\$160,000	\$0	\$0	\$0	\$0
27	Curriculum	\$4,600	\$16,700	\$0	\$0	\$0
28	Professional Development	\$5,000	\$0	\$0	\$0	\$0
29	Assessments	\$0	\$0	\$0	\$0	\$0
30	Other Educational Program	\$0	\$0	\$0	\$0	\$0
31	Therapists (Occupational, Speech)	\$0	\$0	\$0	\$0	\$0
32	Classroom Technology	\$35,000	\$0	\$0	\$0	\$0
33	School Climate	\$0	\$0	\$0	\$0	\$0
34	Computers	\$80,000	\$0	\$0	\$0	\$0
35	Contracted Services	\$0	\$0	\$0	\$0	\$0
36	Other	\$0	\$0	\$0	\$0	\$5,000
SUBTOTAL STUDENT SUPPORT		\$289,600	\$158,150	\$218,430	\$290,410	\$367,390
Operations and Maintenance of Facilities						
37	Insurance (Property/Liability)	\$25,000	\$0	\$0	\$0	\$0
38	Rent	\$147,917	\$0	\$0	\$0	\$0
39	Mortgage	\$0	\$0	\$0	\$0	\$0
40	Utilities	\$50,000	\$90,000	\$0	\$0	\$0
41	Maintenance	\$0	\$0	\$0	\$0	\$0
42	Telephone/Communications	\$0	\$0	\$0	\$0	\$0
43	Construction	\$80,500	\$0	\$0	\$0	\$0
44	Renovation	\$0	\$0	\$0	\$0	\$0
45	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$303,417	\$90,000	\$0	\$0	\$0
Administrative/Operations Support						
46	Equipment Lease/Maintenance	\$0	\$0	\$0	\$0	\$0
47	Equipment Purchase	\$45,000	\$0	\$0	\$0	\$0
48	Supplies and Materials	\$2,500	\$0	\$0	\$0	\$0
49	Printing and Copying	\$2,500	\$0	\$0	\$0	\$0
50	Postage and Shipping	\$1,500	\$0	\$0	\$0	\$0
51	Enrollment / Recruitment	\$10,000	\$0	\$0	\$0	\$0
52	Staffing (recruitment and assessment)	\$0	\$0	\$0	\$0	\$0
53	Technology Plan	\$0	\$0	\$0	\$0	\$0
54	Other	\$10,000	\$0	\$0	\$0	\$0
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$71,500	\$0	\$0	\$0	\$0
Management Company						
55	Fees	\$0	\$0	\$0	\$0	\$0
56	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
57	Curriculum	\$0	\$0	\$0	\$0	\$0
58	Accounting and Payroll	\$65,000	\$0	\$0	\$0	\$0
59	Other	\$12,000	\$16,000	\$17,000	\$18,000	\$19,000
SUBTOTAL MANAGEMENT COMPANY		\$77,000	\$16,000	\$17,000	\$18,000	\$19,000
OTHER EXPENDITURES		\$1,143,252	\$398,758	\$387,523	\$463,991	\$560,489
60	# Students	0	200	280	360	440
REVENUE LESS EXPENDITURES		\$256,748	\$192,990	\$194,467	\$173,476	\$109,987

Charter School Application Budget Worksheet-Consolidated Funds Statement

The Bryan Allen Stevenson School of Excellence

	2022/2023		2023/2024		2024/2025		2025/2026		2026/2027	
	YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
1 State Appropriations	\$0		\$1,471,224		\$2,081,590		\$2,636,385		\$3,265,621	
2 School District Local Fund Transfers	\$0		\$475,294		\$665,369		\$864,683		\$1,052,086	
3 Federal Entitlements	\$0		\$140,255		\$196,357		\$251,832		\$308,561	
4 Cafeteria Funds	\$0		\$135,000		\$189,000		\$243,000		\$297,000	
4 Non Profit Grants	\$0		\$0		\$0		\$0		\$0	
4 Foundation Grants	\$1,250,000		\$150,000		\$150,000		\$150,000		\$150,000	
4 Donations/Other Grants	\$150,000		\$50,000		\$50,000		\$50,000		\$50,000	
5 Prior Year Carryover Funds	\$0		\$256,748		\$359,768		\$284,399		\$291,192	
6										
7 TOTAL STATE & LOCAL REVENUE	\$1,400,000		\$2,678,521		\$3,692,084		\$4,480,299		\$5,414,460	
8										
9 State & Local Expenses										
	YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
Personnel Salaries / Other Employer Costs		FTE		FTE		FTE		FTE		FTE
10 Classroom Teachers	\$0	0.00	\$456,912	8.00	\$683,067	12.20	\$886,876	15.40	\$1,130,392	19.60
11 Special Education Teachers	\$0	0.00	\$126,614	2.00	\$159,549	2.50	\$178,246	2.75	\$229,256	3.50
12 Special Teachers (Phys Ed, Art, Music)	\$0	0.00	\$0	0.00	\$58,256	1.00	\$118,842	2.00	\$181,827	3.00
13 Counselors	\$0	0.00	\$0	0.00	\$51,000	1.00	\$52,020	1.00	\$106,120	2.00
14 Principal/Administrative	\$268,000	3.00	\$166,260	2.00	\$240,332	3.00	\$245,139	3.00	\$309,468	4.00
15 Nurse	\$0	0.00	\$44,600	1.00	\$45,492	1.00	\$46,402	1.00	\$47,330	1.00
16 Clerical	\$0	0.00	\$28,500	1.00	\$29,070	1.00	\$29,651	1.00	\$30,244	1.00
17 Custodial	\$0	0.00	\$28,000	1.00	\$28,560	1.00	\$58,262	2.00	\$59,428	2.00
18 Substitutes	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
19 Other	\$0	0.00	\$28,162	2.00	\$43,089	3.00	\$43,950	3.00	\$59,772	4.00
20 Other Employer Costs (33.11% of Salaries)	\$88,735		\$281,728		\$428,882		\$534,872		\$693,345	
21 Health Insurance	\$45,000		\$211,815		\$336,710		\$438,464		\$590,272	
22 Other Benefits	\$0		\$0		\$0		\$0		\$0	
23										
24 SUBTOTAL SALARIES / OTHER EMPLOYER COSTS	\$401,735	3.0	\$1,372,591	17.0	\$2,104,007	25.7	\$2,632,724	31.2	\$3,437,454	40.1
25										
26 Student Support										
27 Transportation	\$0		\$152,180		\$217,364		\$285,012		\$355,432	
28 Extra Curricular Transportation	\$0		\$0		\$0		\$0		\$0	
29 Cafeteria	\$0		\$117,450		\$164,430		\$211,410		\$258,390	
30 Extra Curricular	\$0		\$20,000		\$50,000		\$75,000		\$100,000	
31 Supplies and Materials	\$5,000		\$49,000		\$58,000		\$90,000		\$105,000	
32 Textbooks	\$160,000		\$6,807		\$55,852		\$57,742		\$61,281	
33 Curriculum	\$4,600		\$16,700		\$22,600		\$23,600		\$35,730	
34 Professional Development	\$5,000		\$7,475		\$7,500		\$10,125		\$10,253	
35 Assessments	\$0		\$0		\$0		\$0		\$0	
36 Other Educational Program	\$0		\$5,000		\$6,000		\$6,000		\$6,000	
37 Therapists (Occupational, Speech)	\$0		\$25,000		\$36,000		\$40,000		\$45,000	
38 Classroom Technology	\$35,000		\$5,000		\$12,100		\$14,902		\$16,713	
39 School Climate	\$0		\$0		\$0		\$0		\$0	
40 Computers	\$80,000		\$2,500		\$52,500		\$53,000		\$50,000	
41 Contracted Services	\$0		\$40,000		\$66,847		\$80,092		\$87,165	
42 Other	\$0		\$10,000		\$13,000		\$22,764		\$13,557	
43										
44 SUBTOTAL STUDENT SUPPORT	\$289,600		\$457,112		\$762,193		\$969,647		\$1,144,521	
45										
46 Operations and Maintenance of Facilities										
47 Insurance (Property/Liability)	\$25,000		\$42,000		\$48,260		\$54,708		\$61,349	

\$0	cumulative 4-year non profit grants
\$350,000	cumulative 4-year Donations/Other Grants
\$1,850,000	cumulative 4-year fundraising/donations-Operations
\$2,200,000	Total Fundraising Requirement

Consolidated State, Local, Federal Foundation Revenue Funds

State & Local Revenue		2022/2023	2023/2024	2024/2025	2025/2026	2026/2027
		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
48	Rent	\$147,917	\$181,050	\$184,600	\$188,150	\$192,055
49	Mortgage	\$0	\$0	\$0	\$0	\$0
50	Utilities	\$50,000	\$90,000	\$100,000	\$125,000	\$128,125
51	Maintenance	\$0	\$15,000	\$15,375	\$15,759	\$16,153
52	Telephone/Communications	\$0	\$5,000	\$5,125	\$5,253	\$5,384
53	Construction	\$80,500	\$0	\$0	\$0	\$0
54	Renovation	\$0	\$0	\$0	\$0	\$0
55	Other	\$0	\$15,000	\$25,000	\$28,125	\$28,828
56						
57	SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES	\$303,417	\$348,050	\$378,360	\$416,995	\$431,894
58						
59	Administrative/Operations Support					
60	Equipment Lease/Maintenance	\$0	\$2,000	\$5,000	\$5,125	\$8,253
61	Equipment Purchase	\$45,000	\$28,000	\$28,000	\$28,000	\$32,000
62	Supplies and Materials	\$2,500	\$3,000	\$6,000	\$7,000	\$8,000
63	Printing and Copying	\$2,500	\$3,000	\$6,500	\$6,663	\$7,000
64	Postage and Shipping	\$1,500	\$1,000	\$2,000	\$2,200	\$2,500
65	Enrollment / Recruitment	\$10,000	\$4,000	\$5,125	\$5,253	\$6,753
66	Staffing (recruitment and assessment)	\$0	\$4,000	\$5,000	\$5,000	\$5,000
67	Technology Plan	\$0	\$0	\$3,500	\$2,500	\$2,500
68	Other	\$10,000	\$10,000	\$10,000	\$10,000	\$12,000
69						
70	SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT	\$71,500	\$55,000	\$71,125	\$71,741	\$84,006
71						
72	Management Company					
73	Fees	\$0	\$0	\$0	\$0	\$0
74	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
75	Curriculum	\$0	\$0	\$0	\$0	\$0
76	Accounting and Payroll	\$65,000	\$70,000	\$75,000	\$80,000	\$85,000
77	Other	\$12,000	\$16,000	\$17,000	\$18,000	\$19,000
78						
79	SUBTOTAL MANAGEMENT COMPANY	\$77,000	\$86,000	\$92,000	\$98,000	\$104,000
80	STATE & LOCAL EXPENDITURES	\$1,143,252	\$2,318,753	\$3,407,685	\$4,189,107	\$5,201,875
81						
82	# Students	0	200	280	360	440
83	REVENUE LESS EXPENDITURES	\$256,748	\$359,768	\$284,399	\$291,192	\$212,585
84	2% CONTINGENCY CHECK	\$28,000.00	\$53,570.42	\$73,841.68	\$89,605.98	\$108,289.20
85	Cummulative Fund Balance	\$256,748.00	\$616,516	\$900,915	\$1,192,107	\$1,404,692
86	Days Cash On Hand		97.05	96.50	103.87	98.56

Fiscal Year	23/24	24/25	25/26	26/27	27/28	28/29	
Year	1	2	3	4	5	6	
<u>Student Enrollment</u>							
Projected General Education	162	227	292	356	421	486	
Projected Special Education	38	53	68	84	99	114	
Percent Special Education	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%
Total Student Population (Paid)	200	280	360	440	520	600	
Projected ESL Students	44	62	79	97	114	132	22.00%
<u>Classroom Distribution</u>							80.00%
6th	100	80	80	80	80	80	
7th	100	100	80	80	80	80	
8th		100	100	80	80	80	
9th			100	100	80	80	
10th				100	100	80	
11th					100	100	
12th						100	
Total	200	280	360	440	520	600	
Average Number of Students/Grade	25	25	25	25	25	25	
Approximate # of Classes per Grade	4	3.2	3.2	3.2	3.2	3.2	
Total Required # of Classrooms	8	11.2	14.4	17.6	20.8	24	

Distribution of Enrollment from Surrounding School Districts													
	% Distribution	Federal Funds											
		23/24	24/25	25/26	26/27	27/28	28/29	23/24	24/25	25/26	26/27	27/28	28/29
Indian River	40.00%												
GENED		66	92	116	142	168	196	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645
SPED		14	20	26	34	40	45	\$ 51,600	\$ 72,240	\$ 91,590	\$ 113,520	\$ 134,160	\$ 155,445
Delmar	5.00%												
GENED		8	11	15	18	21	24	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463
SPED		2	3	3	4	5	6	\$ 4,630	\$ 6,482	\$ 8,334	\$ 10,186	\$ 12,038	\$ 13,890
Laurel	5.00%												
GENED		8	11	15	18	21	24	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732
SPED		2	3	3	4	5	6	\$ 7,320	\$ 10,248	\$ 13,176	\$ 16,104	\$ 19,032	\$ 21,960
Seaford	15.00%												
GENED		24	34	44	53	63	73	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996
SPED		6	8	9	13	15	17	\$ 29,880	\$ 41,832	\$ 52,788	\$ 65,736	\$ 77,688	\$ 89,640
Woodbridge	7.50%												
GENED		12	17	22	27	32	36	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869
SPED		3	4	5	6	7	9	\$ 13,035	\$ 18,249	\$ 23,463	\$ 28,677	\$ 33,891	\$ 39,105
Milford	7.50%												
GENED		12	17	22	27	32	36	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778
SPED		3	4	5	6	7	9	\$ 11,670	\$ 16,338	\$ 21,006	\$ 25,674	\$ 30,342	\$ 35,010
Cape Henlopen	20.00%												
GENED		32	45	58	71	84	97	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553
SPED		8	11	17	17	20	22	\$ 22,120	\$ 30,968	\$ 41,475	\$ 48,664	\$ 57,512	\$ 65,807
GENED		162	227	292	356	421	486						
SPED		38	53	68	84	99	114						
Total	100.00%	200	280	360	440	520	600	140,255	196,357	251,832	308,561	364,663	420,857

Estimated Revenue	23/24	24/25	25/26	26/27	27/28	28/29
State Funding (from Revenue Sheets)	\$1,471,224	\$2,081,590	\$2,636,385	\$3,265,621	\$4,791,978	\$5,420,216
Local Funding (from Revenue Sheets)	\$475,294	\$665,369	\$864,683	\$1,052,086	\$1,556,709	\$1,791,256
Federal Funding	\$140,255	\$196,357	\$251,832	\$308,561	\$364,663	\$420,857
Cafeteria Service Revenue	\$135,000	\$189,000	\$243,000	\$297,000	\$351,000	\$405,000
Total Estimated Revenues (State/Local/Federal)	\$2,221,773	\$3,132,316	\$3,995,900	\$4,923,268	\$7,064,350	\$8,037,329

80% Enrollment

Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Executive Director	1	1	1	1	1	1	1
School Founding Leader	1	0	0	0	0	0	0
Director of Development	1	1	1	1	1	0	0
Dean of Academic Excellence	0	0	1	1	1	1	1
Dean of Community Partnerships	0	0	0	0	1	1	1
6th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1
7th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1
8th Grade Academic Coach (Lead Teacher)	0	0	1	1	1	1	1
9th Grade Academic Coach (Lead Teacher)	0	0	0	1	1	1	1
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	1	1	1
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	1	1
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	1
6th Grade Content Teachers	0	3	2.7	2.6	2.5	2.4	2.4
7th Grade Content Teachers	0	3	2.7	2.6	2.5	2.4	2.4
8th Grade Content Teachers	0	0	2.8	2.6	2.5	2.5	2.4
9th Grade Content Teachers	0	0	0	2.6	2.5	2.5	2.4
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	2.6	2.5	2.4
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	2.5	2.5
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	2.5
Special Education Coordinator	0	1	1	1	1	1	1
Special Education Teacher	0	1	1.5	1.75	2.5	3.5	4.5
Language Teacher	0	0	0	1	2	2	2
Arts Teacher	0	0	1	1	1	2	2
Paraprofessional	0	0	1	1	2	3	4
Office Staff	0	1	1	1	1	2	2
Custodian	0	1	1	2	2	3	3
Cafeteria Aide (Part-Time)	0	2	3	3	4	4	4
Nurse	0	1	1	1	1	1	1
Counselor	0	0	1	1	1	1	1
College Career Counselor	0	0	0	0	1	1	1
Total Staff	3.00	17.00	25.70	31.15	40.10	47.30	52.50
Health Insurance		240,057	381,208	485,192	655,675	812,046	946,365
Total Enrollment		200	280	360	440	520	600

Average Health Insurance cost by year

	1	2	3	4	5	6
Health Insurance	14,121	14,833	15,576	16,351	17,168	18,026

Salary Grid for Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Step	Indian River Salary Schedule
Inflation Factor		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	1-2	46,324 BA
Executive Director	95,000	96,900	98,838	100,815	102,831	104,888	106,986	3-5	54,955 Masters
School Founding Leader	30,000	30,600	31,212	31,836	32,473	33,122	33,784	6-8	58,992 Masters
Director of Development	68,000	69,360	70,747	72,162	73,605	75,077	76,579	9-12	68,183 Masters +15
Dean of Academic Excellence	-	69,360	70,747	72,162	73,605	75,077	76,579		
Dean of Community Partnerships		56,000	57,120	58,262	59,427	60,616	61,828	Average	57,114
6th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
7th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
8th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
9th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
10th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
11th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
12th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
6th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
7th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
8th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
9th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
10th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
11th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
12th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
Special Education Coordinator		67,000	68,340	69,707	71,101	72,523	73,973		
Special Education Teacher		59,614	60,806	62,022	63,262	64,527	65,818		
Language Teacher		57,114	58,256	59,421	60,609	61,821	63,057		
Arts Teacher		57,114	58,256	59,421	60,609	61,821	63,057		
Paraprofessional		30,000	30,600	31,212	31,836	32,473	33,122		
Office Staff		28,500	29,070	29,651	30,244	30,849	31,466		
Custodian		28,000	28,560	29,131	29,714	30,308	30,914		
Cafeteria Aide (Part-Time)(included 9.31% OEC Rate)		14,081	14,363	14,650	14,943	15,242	15,547		
Nurse		44,600	45,492	46,402	47,330	48,277	49,243		
Counselor		50,000	51,000	52,020	53,060	54,121	55,203		
College Career Counselor		50,000	51,000	52,020	53,060	54,121	55,203		

Total Annual Salary for Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Executive Director	95,000	96,900	98,838	100,815	102,831	104,888	106,986
School Founding Leader	30,000	-	-	-	-	-	-
Director of Development	68,000	69,360	70,747	72,162	73,605	-	-
Dean of Academic Excellence	75,000	-	70,747	72,162	73,605	75,077	76,579
Dean of Community Partnerships	-	-	-	-	59,427	60,616	61,828
6th Grade Academic Coach (Lead Teacher)	-	57,114	58,256	59,421	60,609	61,821	63,057
7th Grade Academic Coach (Lead Teacher)	-	57,114	58,256	59,421	60,609	61,821	63,057
8th Grade Academic Coach (Lead Teacher)	-	-	58,256	59,421	60,609	61,821	63,057
9th Grade Academic Coach (Lead Teacher)	-	-	-	59,421	60,609	61,821	63,057
10th Grade Academic Coach (Lead Teacher)	-	-	-	-	60,609	61,821	63,057
11th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	61,821	63,057
12th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	-	63,057
6th Grade Content Teachers	-	171,342	157,291	154,495	151,523	148,370	151,337
7th Grade Content Teachers	-	171,342	157,291	154,495	151,523	148,370	151,337
8th Grade Content Teachers	-	-	163,117	154,495	151,523	154,553	151,337
9th Grade Content Teachers	-	-	-	154,495	151,523	154,553	151,337
10th Grade Academic Coach (Lead Teacher)	-	-	-	-	157,583	154,553	151,337
11th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	154,553	157,643
12th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	-	157,643
Special Education Coordinator	-	67,000	68,340	69,707	71,101	72,523	73,973
Special Education Teacher	-	59,614	91,209	108,539	158,155	225,845	296,181
Language Teacher	-	-	-	59,421	121,218	123,642	126,114
Arts Teacher	-	-	58,256	59,421	60,609	123,642	126,114
Paraprofessional	-	-	30,600	31,212	63,672	97,419	132,488
Office Staff	-	28,500	29,070	29,651	30,244	61,698	62,932
Custodian	-	28,000	28,560	58,262	59,428	90,924	92,742
Cafeteria Aide (Part-Time)	-	28,162	43,089	43,950	59,772	60,968	62,188
Nurse	-	44,600	45,492	46,402	47,330	48,277	49,243
Counselor	-	-	51,000	52,020	53,060	54,121	55,203
College Career Counselor	-	-	-	-	53,060	54,121	55,203
Total Salaries	268,000	879,048	1,338,415	1,659,388	2,153,837	2,539,639	2,891,144

	Year 0	Year 1	Year 1	Year 2	Year 2	Year 3	Year 3	Year 4	Year 4	Year 5	Year 5	Year 6	Year 6
Classroom Teachers	-	456,912	8	683,067	12.2	886,876	15.4	1,130,392	19.6	1,383,297	23.8	1,645,858	28
Special Education Coordinator		67,000	1	68,340	1	69,707	1	71,101	1	72,523	1	73,973	1
Special Education Teachers (Federal Funds Tab)	-	59,614	1	91,209	1.5	108,539	1.75	158,155	2.5	225,845	3.5	296,181	4.5
Special Teachers (Phys Ed, Art, Music)		-	0	58,256	1	118,842	2	181,827	3	247,284	4	252,228	4
Counselors		-	0	51,000	1	52,020	1	106,120	2	108,242	2	110,406	2
Principal/Administrative	268,000	96,900	1	169,585	2	172,977	2	235,863	3	240,581	3	245,393	3
Nurse		44,600	1	45,492	1	46,402	1	47,330	1	48,277	1	49,243	1
Clerical		28,500	1	29,070	1	29,651	1	30,244	1	61,698	2	62,932	2
Custodial		28,000	1	28,560	1	58,262	2	59,428	2	90,924	3	92,742	3
Substitutes													
Other		-	-	-	-	-	-	-	-	-	-	-	-
Other Employer Costs (33.11% of Salaries)													
Health Insurance													
Other Benefits													
Total	268,000	781,526	14.00	1,224,579	21.70	1,543,276	27.15	2,020,460	35.10	2,478,671	43.30	2,828,956	48.50
Allocated to Principal/Administration-Other													
Funds Sheet-Paid by Foundation Funds	3	69,360	1	70,747	1	72,162	1	73,605	1	-	0	-	0
Allocated to Cafeteria - Other Funds Sheet	0	28,162	2	43,089	3	43,950	3	59,772	4	60,968	4	62,188	4

	30-Jun-23	30-Jun-24	1-Jul-25	2-Jul-26	3-Jul-27	3-Jul-28	Eligibility
Transportation Expense							
Percent Eligible	140	196	252	308	364	420	70.0%
Estimated Annual Cost for Transportation	152,180	217,364	285,012	355,432	428,428	504,420	
Cost per Student	1,087	1,109	1,131	1,154	1,177	1,201	

IB Curriculum Programming Cost	30-Jun-23	29-Jun-24	29-Jun-25	29-Jun-26	30-Jun-27	30-Jun-28
Enrollment	0	200	280	360	440	520
Teacher Count	0	8	12.2	15.4	19.6	23.8
CP Program Training	-	-	-	-	1,480	1,480
CP Program Authorization Fee	-	-	-	-	8,500	-
Middle Years Program Training	600	7,200	3,600	3,600	3,600	3,000
Application Fee	4,000	-	-	10,500	10,500	10,500
Candidate Fee	-	9,500	9,500	-	-	-
Diploma Program Training	-	-	-	-	-	7,200
Diploma Program Application Fee	-	-	-	-	-	4,000
Candidate Fee	-	-	9,500	9,500	11,650	11,650
Total Cost of IB Programs	4,600	16,700	22,600	23,600	35,730	37,830

Health Insurance Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
State and Local Tab	183,573	299,627	395,630	533,043	683,286	793,144
Federal Funds Tab	14,121	22,250	27,258	40,878	60,088	81,117
Other Funds Tab	14,121	14,833	15,576	16,351	-	-
Total	211,815	336,710	438,464	590,272	743,374	874,261
Total Employees	17	26	31	40	47	53

Health Insurance Calculation	Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Highmark Delaware Comprehensive PPO Plan							
Employee	55%	9.35	14.14	17.13	22.06	26.02	28.88
Employee & Spouse	25%	4.25	6.43	7.79	10.03	11.83	13.13
Employee & Child(ren)	10%	1.70	2.57	3.12	4.01	4.73	5.25
Family	10%	1.70	2.57	3.12	4.01	4.73	5.25
Inflation factor	5.0%						
Monthly Cost per Class							
Employee		793.86	833.55	875.23	918.99	964.94	1,013.19
Employee & Spouse		1,647.34	1,729.71	1,816.20	1,907.01	2,002.36	2,102.48
Employee & Child(ren)		1,223.46	1,284.63	1,348.86	1,416.30	1,487.12	1,561.48
Family		2,059.40	2,162.37	2,270.49	2,384.01	2,503.21	2,628.37
Annual Cost per Class-All Employees							
Employee		89,071	141,437	179,912	243,275	301,293	351,131
Employee & Spouse		84,014	133,464	169,778	229,528	284,255	331,267
Employee & Child(ren)		24,959	39,618	50,501	68,152	84,409	98,373
Family		42,012	66,687	85,007	114,719	142,082	165,587
Average Cost/Year/Employee		14,121	14,833	15,576	16,351	17,168	18,026

80% Enrollment

The Bryan Allen Stevenson School of Excellence

Capital Expenditures of 20346 Ennis Street Property

	<u>Amount</u>
Architectural	-
Mechanical	35,000
Interior Renovations	30,000
Electrical	3,000
Floor-Paint	10,000
Other	2,500

Total Estimated Project Cost	80,500
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Finance

Funding from BASSE	80,500	100
Bank Loan	-	0

The Bryan Allen Stevenson School of Excellence
 Square Footage Requirement Calculation

Facility Needs Worksheet	30-Jun-23	30-Jun-24	30-Jun-25	30-Jun-26	30-Jun-27
Enrollment	200	280	360	440	520
Number of Primary Classrooms	8	11	14	18	21
Number of Specialty Classrooms	3	4	5	6	7
Offices	5	7	8	8	8
Square Footage (Net) per Primary Classroom	8,000	11,200	14,400	17,600	20,800
Square Footage (Net) per Specialty Classroom	2,025	2,700	3,375	4,050	4,725
Offices	500	700	800	800	800
Lunch Room	7,000	7,000	7,000	7,000	7,000
Gymnasium	10,000	10,000	10,000	10,000	10,000
Subtotal Net Square Footage Requirement-Program	27,525	31,600	35,575	39,450	43,325
Efficiency Factor-allowance for hallways, closets, storage, bathrooms	84.50%	84.50%	84.50%	84.50%	84.50%
Gross Square Footage Needed	32,574	37,396	42,101	46,686	51,272
Program of Existing School	35,500	sf			
Natorium	10,500	sf			
Classroom Spaces	26	800-900 sf each			
Life Skills	1	2000 sf	can be split into two classrooms		
Escalator	2.00%				
Rent	Annual Rental	Rent/S.F.	Lease Year		
Year 1 (start-up yr.) (rent payment commences on 11/1/22)	147,917	\$ 5.00	22-23		
Year 2	181,050	5.10	23-24		
Year 3	184,600	5.20	24-25		
Year 4	188,150	5.30	25-26		
Year 5	192,055	5.41	26-27		
Option					
Year 6	192,055	5.52	27-28		
Year 7	199,865	5.63	28-29		
Year 8	203,770	5.74	29-30		

The Bryan Allen Stevenson School of Excellence
 Budget and Sources of Funds for Nylon Capital Site

Gross Square Footage Requirement 50,000

	<u>Cost</u>	
Acquisition of Land	3,000,000	
Building Cost	12,150,000	243.00 per square foot
Site Costs	1,972,000	Includes \$1.0 million for s
Soft Costs	2,268,000	45.00 per square foot
Contingency	810,000	16.20 per square foot
Total Estimated Project Cost	<u><u>20,200,000</u></u>	

Proposed Occupancy Date no Later than 12/31/2024

Proposed Sources of Funds

ARPA	11,000,000
New Market Tax Credit	1,142,857
Other (USDA) Grant	5,000,000
Foundation	3,057,143
Total Proposed Sources of Funds	<u><u>20,200,000</u></u>

Estimated Annual Rental



Section 1.8 - Start up and Operations :: Attachment 20 - Insurance Coverage



December 7, 2020

RE: The Bryan Allen Stevenson School of Excellence

To Whom It May Concern,

Per the school's request, this letter is to confirm that The Bryan Allen Stevenson School of Excellence will maintain the following insurance coverages during the entire term of the charter for the school, its employees, and The Board of Trustees.

As a licensed Property & Casualty insurance broker at Sovereign Insurance Group, I intend to partner with The Bryan Allen Stevenson School of Excellence to provide them with the following insurance coverages:

- Commercial Property
- Commercial General Liability
- Sexual Abuse & Molestation
- Commercial Automobile
- Commercial Crime/Theft
- Educators Legal Liability/School Board Legal Liability including Directors & Officers and Employment Practices Liability
- Umbrella /Excess
- Workers Compensation
- Student Accident
- Cyber Liability/Data Security

We will use the appropriate policy limits deemed adequate by the Delaware Department of Education.

Below are premium indications for budgeting purposes only and are not formal quotes.

Thank you,



Stephanie Haas • Account Executive
Sovereign Insurance Group
O: 484.654.3390
C: 215-622-3075
StephanieH@sovinsurance.com



Pricing & High-Level Overview

Line of Business	Proposed Carrier	Policy Limits	Premium Indication
Commercial Package (Property, General Liability, Sexual Abuse & Molestation, Crime)	Wright Specialty	\$1Million/\$3Million	\$22,350
Educators Legal Liability	Wright Specialty	\$1Million/\$2Million	\$4,568
Workers Compensation	The Hartford	\$1M/\$1M/\$1M	\$10,250
Umbrella	Wright Specialty	\$5Million	\$4,000
Student Accident	United Fire	\$25,000	\$1,620
Auto	Wright Specialty	\$1Million	included
Totals			\$42,788

The Cincinnati Insurance Company

PILLAR POLICY RENEWAL APPLICATION FOR NONPROFIT ORGANIZATIONS

(other than Community Associations, Healthcare Institutions & Educational Institutions)

THIS POLICY PROVIDES CLAIMS-MADE COVERAGE, WHICH APPLIES ONLY TO CLAIMS FIRST MADE DURING THE POLICY PERIOD OR ANY APPLICABLE EXTENDED REPORTING PERIOD. TO THE EXTENT IT IS NOT OTHERWISE INDICATED, THE LIMIT OF INSURANCE TO PAY DAMAGES OR SETTLEMENTS WILL BE REDUCED AND MAY BE EXHAUSTED BY DEFENSE COSTS, AND DEFENSE COSTS WILL BE APPLIED AGAINST THE DEDUCTIBLE. IN NO EVENT WILL WE BE LIABLE FOR DEFENSE COSTS OR THE AMOUNT OF ANY JUDGMENT OR SETTLEMENT IN EXCESS OF THE LIMIT OF INSURANCE. READ THE ENTIRE POLICY CAREFULLY.

General Information

This section must be completed.

1. Expiring Policy Number: EMN0596000
2. Name of Applicant: Proximate Network Inc
3. Physical Street Address: 3-18 The Circle
City: Georgetown State: DE Zip: 19947
4. Mailing Address (same as physical): PO Box 531
City: Georgetown State: DE Zip: 19947
5. Website: basse.org/get-involved Phone Number: (302) 265 - 7171
6. Year Established: 1/22/2020
7. Nature of Business: Non-Profit
8. What is the number of locations occupied by the Applicant and subsidiaries? 1
9. Does the Applicant have any subsidiaries of which their ownership or management control is greater than 50%? *If yes, please complete table below:* Yes No

Name of Subsidiary	Description of Operations	Year Established	Non-Profit (NP) or For-Profit (FP)	Percent Owned
				%
				%
				%
				%

10. If annual revenues are less than \$500,000, fully complete the table below or attach most recent annual financials:

	Most Recent Fiscal Year Ending <u>06 /30 /20 21</u>	Previous Fiscal Year Ending <u>07 /31 /20 20</u>
Total Assets	\$ 1,271,600	\$ 30,068
Total Liabilities	\$ 0.00	\$ 0.00
Net Assets or Equity	\$ 1,271,600	\$ 30,068
Total Annual Revenues	\$ 1,351,852	\$ 30,068
Net Income or (Net Loss)	\$ 1,241,532	\$ 30,068

11. Please provide the following information regarding the employee count (*do not include Independent Contractors*) of the Applicant and subsidiaries:

	Currently	One Year Ago
Full-Time Employees	0	0
Part-Time Employees	0	0
Temporary/Seasonal	0	0
Volunteers	20	20

Coverages Requested
This section must be completed.

Coverage Part	Per Expiring	Desired Limits if different from expiring
Directors and Officers Liability	<input checked="" type="checkbox"/>	\$ 1,000,000
Employment Practices Liability	<input checked="" type="checkbox"/>	\$ 1,000,000
Fiduciary Liability	<input type="checkbox"/>	\$
Cyber	<input checked="" type="checkbox"/>	Complete Cyber Section on Page 3.
Crime	<input checked="" type="checkbox"/>	Complete Crime Section on Page 4.

Desired Pay Plan:

Installment Options	Agency Bill	Direct Bill
Annual	<input type="checkbox"/>	<input type="checkbox"/>
Semi-Annual	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Quarterly	<input type="checkbox"/>	<input type="checkbox"/>
Monthly	N/A	<input type="checkbox"/>

Directors & Officers Liability Coverage
This section should only be completed if coverage is desired.

- Since the inception of the expiring policy, has the Applicant or any subsidiary:
If yes, please provide details.
 - Had a significant change in operations? Yes No
 - Been involved in any actual or proposed merger, acquisition, divestment, consolidation, closing or purchase/sale of assets? Yes No
 - Breached any debt covenant, loan agreement or contractual obligations? Yes No
- Is Employed Lawyers Professional Liability Coverage desired? Yes No
If yes, please complete supplemental questionnaire ML 023 or ML 023 A.

Employment Practices Liability Coverage
This section should only be completed if coverage is desired.

- List the Applicant's total number of employees in the following locations:
CA: 0 WV: 0 Foreign Countries: 0

2. Please indicate the number of employee terminations in the table below:

	Last 12 Months	Previous 12 Months
Voluntary	0	0
Involuntary (excluding layoffs)	0	0
Layoffs	0	0

- Do you anticipate any layoffs in the future? *If yes, please provide complete details.* Yes No
- Since the inception of the expiring policy, has the Applicant or any subsidiary revised any existing or implemented any new employment policies or procedures? *If yes, please provide details.* Yes No

5. Is Third Party Liability Coverage desired? *If yes, complete 5.a.-5.d.* Yes No
- a. Are there written policies and procedures regarding the conduct of employees when interacting with third parties (customers, vendors, visitors, independent contractors and other third parties)? Yes No
- b. What percentage of employees deal with the general public? _____ %
- c. Does the Applicant have Independent Contractors that are used on a regular basis? Yes No
If yes, how many? _____
- d. Is the Applicant's website compliant with the Web Content Accessibility Guidelines (WCAG)? Yes No
If no, please advise time frame in which the website will be compliant. _____

Fiduciary Liability Coverage
 This section should only be completed if coverage is desired.

1. Complete the table below for any employee benefit plan(s) sponsored by the Applicant and its subsidiaries:

Plan Name	Year Established	Total Plan Assets	Plan Type* (DC, DB or ESOP)	Number of Participants
		\$		
		\$		
		\$		
		\$		

*Plan Type: DC-Defined Contribution, DB-Defined Benefit, ESOP-Employee Stock Ownership Plan

2. Since the inception of the expiring policy, has the Applicant or any subsidiary:
If yes, please provide details.
- a. Had any plan(s) frozen, transferred or terminated? Yes No
- b. Made other material changes to the plan(s) listed in the table above? Yes No
3. What is the funding percentage for the Applicant's defined benefit retirement plan(s)? N/A _____ %

Cyber Coverage
 This section should only be completed if coverage is desired.

Indicate below if either of the following Cyber options is desired. *Please note that both options cannot be selected.*

Option 1 - **Cincinnati Data Defender™** and/or **Cincinnati Network Defender™** - Please check desired coverages, if any. *If higher limits are desired, please complete supplemental questionnaire ML 002.*

Cincinnati Data Defender™	
Response Expenses Limit	<input checked="" type="checkbox"/> \$50,000
Defense and Liability Limit	\$50,000
Identity Recovery Limit	\$25,000

Cincinnati Network Defender™	
Computer Attack Limit	<input checked="" type="checkbox"/> \$100,000
Network Security Liability Limit	\$100,000

Option 2 - **Cincinnati Cyber Defense™** - Application **ML 004** must be completed if this coverage is desired.

Crime Coverage
This section should only be completed if coverage is desired.

1. Requested Insuring Agreements <input type="checkbox"/> Per Expiring	Limit of Insurance	Deductible Amount
Employee Theft <input checked="" type="checkbox"/> Include ERISA <input type="checkbox"/> ERISA Only	\$ 25,000	\$ 500
Forgery or Alteration <input checked="" type="checkbox"/> Include Credit/Debit Card Forgery	\$ 25,000	\$ 500
Inside the Premises	\$	\$
Outside the Premises	\$	\$
Computer Fraud	\$	\$
Funds Transfer Fraud	\$	\$
Money Orders and Counterfeit Money	\$	\$
Clients' Property	\$	\$
Claim Expense	\$	\$
Social Engineering Fraud Endorsement	\$	\$

2. Name of employee benefit plan(s) to be included for coverage, if any: _____

3. Please complete the table below with regard to classification of employees of the Applicant and subsidiaries:

Employee Classifications	Total Number
Officers and employees who handle, have custody of or maintain records of money, securities or other property (including that of ERISA plans).	3
All other employees not included above.	

4. If Credit/Debit Card Forgery is desired, what is the number of cardholders? 2

5. Since the inception of the expiring policy, has the Applicant or any subsidiary revised any existing or implemented any new policies or procedures that would affect Crime Coverage? Yes No
If yes, please provide details.

Crime Expanded Coverage
This section should only be completed if coverage is desired.

1. Please check one of the following in the table below if either Crime Expanded Coverage (XC[®]) or Crime Expanded Coverage Plus (XC+[®]) is desired. The limits and coverages in Crime XC and Crime XC+ are excess of any other crime forms forming part of the same policy, if any.

Insuring Agreements	<input type="checkbox"/> Crime XC	<input checked="" type="checkbox"/> Crime XC+
Employee Theft	\$10,000	\$25,000
Forgery or Alteration	\$2,500	\$25,000
Inside the Premises	\$10,000	\$25,000
Outside the Premises	\$2,500	\$5,000
Money Orders and Counterfeit Money	\$10,000	\$25,000

Required Attachments

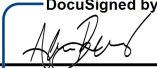
- Most Recent Annual Financials or IRS 990 Tax Form if **General Information**, question **10**, is not completed
- Current List of Directors & Officers (if requesting Directors & Officers Liability)
- Employee Handbook only if updated since last submitted (if requesting Employment Practices Liability)
- Blank Employment Application only if updated since last submitted (if requesting Employment Practices Liability)
- Most Recent tax form 5500 for each employee benefit plan (if requesting Fiduciary Liability)

Signature Section
This section must be completed.

The Cincinnati Insurance Company is hereby authorized to make any investigation and inquiry in connection with this application as it deems necessary.

The undersigned authorizes the release of claim information from any prior insurer to The Cincinnati Insurance Company. Signing this application does not bind the Applicant or The Cincinnati Insurance Company to complete the insurance.

PLEASE REVIEW CAREFULLY. Except to such extent as may be otherwise in the policy, the policy for which this application is being made is limited for ONLY CLAIMS THAT ARE FIRST MADE AGAINST THE INSURED WHILE THE POLICY IS IN FORCE.

DocuSigned by:


10/21/2021

Applicant's Signature (President, Chairperson, or Equivalent Position)

Date

Alonna Berry

Board President

Printed Name

Title

Agent's Signature

Date

Agency Name

Agency Code Number

Agent's Name and License Number (Florida only)

Refer to the following page for the current version of ACORD 63 FRAUD STATEMENTS.



AGENCY CUSTOMER ID: _____

FRAUD STATEMENTS

AGENCY	CARRIER	NAIC CODE
POLICY NUMBER	EFFECTIVE DATE	APPLICANT / NAMED INSURED

Applicable in AL, AR, DC, LA, MD, NM, RI and WV

Any person who knowingly (or willfully)* presents a false or fraudulent claim for payment of a loss or benefit or knowingly (or willfully)* presents false information in an application for insurance is guilty of a crime and may be subject to fines and confinement in prison. *Applies in MD Only.

Applicable in CO

It is unlawful to knowingly provide false, incomplete, or misleading facts or information to an insurance company for the purpose of defrauding or attempting to defraud the company. Penalties may include imprisonment, fines, denial of insurance and civil damages. Any insurance company or agent of an insurance company who knowingly provides false, incomplete, or misleading facts or information to a policyholder or claimant for the purpose of defrauding or attempting to defraud the policyholder or claimant with regard to a settlement or award payable from insurance proceeds shall be reported to the Colorado Division of Insurance within the Department of Regulatory Agencies.

Applicable in FL and OK

Any person who knowingly and with intent to injure, defraud, or deceive any insurer files a statement of claim or an application containing any false, incomplete, or misleading information is guilty of a felony (of the third degree)*. *Applies in FL Only.

Applicable in KS

Any person who, knowingly and with intent to defraud, presents, causes to be presented or prepares with knowledge or belief that it will be presented to or by an insurer, purported insurer, broker or any agent thereof, any written, electronic, electronic impulse, facsimile, magnetic, oral, or telephonic communication or statement as part of, or in support of, an application for the issuance of, or the rating of an insurance policy for personal or commercial insurance, or a claim for payment or other benefit pursuant to an insurance policy for commercial or personal insurance which such person knows to contain materially false information concerning any fact material thereto; or conceals, for the purpose of misleading, information concerning any fact material thereto commits a fraudulent insurance act.

Applicable in KY, NY, OH and PA

Any person who knowingly and with intent to defraud any insurance company or other person files an application for insurance or statement of claim containing any materially false information or conceals for the purpose of misleading, information concerning any fact material thereto commits a fraudulent insurance act, which is a crime and subjects such person to criminal and civil penalties (not to exceed five thousand dollars and the stated value of the claim for each such violation)*. *Applies in NY Only.

Applicable in ME, TN, VA and WA

It is a crime to knowingly provide false, incomplete or misleading information to an insurance company for the purpose of defrauding the company. Penalties (may)* include imprisonment, fines and denial of insurance benefits. *Applies in ME Only.

Applicable in NJ

Any person who includes any false or misleading information on an application for an insurance policy is subject to criminal and civil penalties.

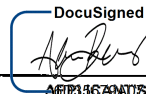
Applicable in OR

Any person who knowingly and with intent to defraud or solicit another to defraud the insurer by submitting an application containing a false statement as to any material fact may be violating state law.

Applicable in PR

Any person who knowingly and with the intention of defrauding presents false information in an insurance application, or presents, helps, or causes the presentation of a fraudulent claim for the payment of a loss or any other benefit, or presents more than one claim for the same damage or loss, shall incur a felony and, upon conviction, shall be sanctioned for each violation by a fine of not less than five thousand dollars (\$5,000) and not more than ten thousand dollars (\$10,000), or a fixed term of imprisonment for three (3) years, or both penalties. Should aggravating circumstances [be] present, the penalty thus established may be increased to a maximum of five (5) years, if extenuating circumstances are present, it may be reduced to a minimum of two (2) years.

DocuSigned by:



APPLICANT'S SIGNATURE

10/21/2021

DATE (MM/DD/YYYY)

Proximate Network INC
Profit and Loss
 July 2020 - June 2021

	<u>Total</u>
Income	
Donation	\$ 1,311,601
Fundraiser Income	11,846
Individual Gift - Donation	28,405
Total Income	\$ 1,351,852
Expenses	
Advertising & Marketing	\$ 113
Bank Charges & Fees	1,126
Development Supplies	1,951
Fundraiser Expense	4,598
Insurance	1,150
IT Contractor	11,420
Legal & Professional Services	27,500
Marketing & Materials	588
Office Supplies & Software	959
Postage & Shipping	620
Professional Development	43,279
Recruitment Services	13,000
Software	2,547
Student Fundraising Supplies	1,492
Total Expenses	110,343
Net Operating Income	\$ 1,241,509
Other Income	
Interest Income	23
Total Other Income	\$ 23
Net Income	\$ 1,241,532

Proximate Network INC
Balance Sheet
As of June 30, 2021

	Total
ASSETS	
Current Assets	
Bank Accounts	
Commercial Savings (5057)	\$ 1,220,285
Non-Profit Checking (9206)	38,861
Total Bank Accounts	1,259,145
Accounts Receivable	
Accounts Receivable	5,914
AR - PayPal	6,157
Total Accounts Receivable	12,071
Expenses	
Prepaid Expense	383
Total Expenses	383
Total Current Assets	1,271,600
TOTAL ASSETS	\$ 1,271,600
LIABILITIES AND EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	
Accounts Payable (A/P)	\$ -
Total Accounts Payable	-
Other Current Liabilities	
Accrued Expense	2,498
Deferred Revenue	2,200
Total Other Current Liabilities	4,698
Total Current Liabilities	4,698
Total Liabilities	\$ 4,698
Equity	
Retained Earnings	\$ 25,370
Net Income	1,241,532
Total Equity	1,266,902
TOTAL LIABILITIES AND EQUITY	\$ 1,271,600

Proximate Network

Financial Activity for July 1, 2020 through June 30, 2021

Net Income \$1,241,532

Revenue of \$1,351,874 includes:

\$100k Anonymous Donation

\$10k donation from Young Conway Donation

\$10k Kim and Evans Family Foundation Donation

\$200 Welfare Foundation

\$1 million Longwood – used to sustain operations in BASSE planning years

\$20,006 in donations from individuals via PayPal, Facebook (Network for Good), Amazon Smile and checks

\$720 for movie fundraiser event less \$600 theater rental (fundraiser expense)

Net Profit for movie fundraiser event \$120

\$11,125 for African Heritage Fundraiser less \$4,089 fundraiser expense & paypal fees

Net Profit for African Heritage Fundraiser \$7,036

\$23 Interest on bank account

Expenses of \$110,343 includes:

Advertising & Marketing – Facebook fee

Bank Charges & Fee – PayPal fees & renewal of State of DE Business License

Development Supplies – donor gifts (books) & Board of Directors books

Director & Officer insurance – 9 months of total policy, received donation from vendor to offset costs

IT Contractor – Blue Blaze website design & development

Legal & Professional Fees – OmniVest accounting fees \$15,750 & application writing support \$11,750

Proximate Network

Financial Activity for July 1, 2020 through June 30, 2021

Expenses continue

Professional Development – Jounce partnership for training and support for founding instructional leader

Recruitment Services – University of Delaware contract on recruiting, selecting, and training members

Software – QuickBooks, website hosting & renewal fee, Google email subscription, DocuSign, Adobe

Student Fundraising Supplies – Backpack packing supplies

Cash Balance as of 6/30/2021 \$1,259,145

Savings account \$1,220,285 – earned \$23 in interest this fiscal year

Operating account \$38,861

Accounts Receivable represents African Heritage ticket sales/donations collected but deposited in July

AR-PayPal represents the donations collected through PayPal and to be drawn down

Prepaid Expense represents Director and Officer insurance policy paid for but to be recognized over the life of the policy through September 2021

Accrued Expenses liability represents fundraiser expenses & accounting fees incurred but not yet billed or paid

Deferred Revenue represents donation from Delaware Bar Foundation for summer 2021 reading program donation

Equity

Retained Earnings represents prior year (July 1, 2019 – June 30, 2020) net income

Net Income current fiscal year net income (loss)

The Bryan Allen Stevenson School of Excellence Board of Directors 2021

**We do not provide personal contact information for all Board Members but are happy to connect you with board leadership upon direct request.*

Alonna Berry

Founder & Board Chair
Director
Social Contract, LLC
Term Limit: 6/30/2022

Chantalle Ashford

Founder & Vice Chair
Educator, Indian River School District
Term Limit: 6/30/2022

Betsy Renzo

Secretary
Founding Board Member
Educator & Attorney Term Limit: 6/30/2022

Brad Owens

Founding Board Member
Community Outreach Coordinator
Delaware Psychological Services
Term Limit: 6/30/2022

Karl Armand

Founding Board Member
Attorney, Comcast Corporation
Term Limit: 6/30/2022

Karen Higgins

Founding Board Member
Retired, Law Enforcement Executive
Term Limit: 6/30/2022

Lori Crawford

Founding Board Member
Professor, Delaware State University
Term Limit: 6/30/2022

Dr. Teresa E. S. Berry

Founding Board Member
Administrator, Dorchester County Public Schools, Maryland
Term Limit: 6/30/2022

Amy Shepherd

Founding Board Member
Director of Diversity, Equity, and Inclusion; Librarian; St. Anne's Episcopal School, Delaware
Term Limit: 6/30/2023

Díaz Bonville

Board Member
Delaware State Human Relations Commissioner,
U.S. Congresswoman Lisa Blunt Rochester's Kent/Sussex County Outreach Coordinator
Term Limit: 6/30/2023

Updated 01/2020

2

Stacie Burton

Board Member

Community Liaison, Office of The Governor, State of Delaware

Term Limit: 6/30/2023

Derick Dailey

Board Member

Assistant United States Attorney, United States Attorney's Office - Philadelphia

Term Limit: 6/30/2023

Denise Snyder

Board Member

Educator, Indian River School District, Delaware

Term Limit: 6/30/2023

Dr. Joseph Kim

Board Member

Family Physician

Nanticoke Health Services

Term Limit: 6/30/2024

Jonathan Edwards

Board Member

Transformation Change Agent

Citizens Bank

Term Limit: 10/31/2024

Principal The Bryan Allen Stevenson School of Excellence Advisory Board

Bryan A. Stevenson, Stevenson Family

Founder & Executive Director, Equal Justice Initiative; Attorney

Dr. Howard Stevenson, Stevenson Family

Professor, University of Pennsylvania

Christy Taylor, Stevenson Family

Educator & Musician

The Bryan Allen Stevenson School of Excellence Advisory Board

Tameca Beckett

Librarian, William C. Jason Library

Sherita Belle

Sussex County Administrator

Dr. Katherine Cauley

Retired Professor, Academic Lead – Wright State University

Keda Dorisca

Pathways to Success

Maria Edgerton

Educator, Nonprofit Executive & Community Volunteer

Leslie Slan

Educator - Early Childhood Education & Community Volunteer

Updated 01/2020

Brenda K. Stewart
Nonprofit/NGO Management & Development Consultant, Syllabi Communications

Briauna Taylor
Marketing & Communications Professional

Daniel Walker
State Outreach Coordinator, DelawareCAN

Ryan Berry
Videographer & Graphic Design

Section 1.9 - Facilities

The Bryan Allen Stevenson School of Excellence

Section 9 - Facilities

1.9 Facilities

14 *Del. C.* § 512(8) and (12)

1. Discuss the school's facility needs based on the educational program and projected enrollment. Discuss both short-term and long-term facility plans. Demonstrate that the estimate included in your budget is reasonable.

To function as a 6-12 institution, BASSE will need classrooms and common educational spaces for approximately 750 students at our maximum.

At the time of this application, The Bryan Allen Stevenson School of Excellence (BASSE) is assessing appropriate sites for the school's location. Health and safety considerations, along with school size facility calculations for 750 students, are being incorporated into the search. The specifications used to evaluate appropriate sites include:

- Sites that support the BASSE philosophy with proximity to the Sussex County community, families, and wraparound services
- Classrooms that follow the Delaware school funding formula specifications for high school students based on subject matter needs
- 20+ acres of land with easy access to water and sewage connection
- Adequate parking and travel space (based on Sussex County Zoning Code) to accommodate student drop-off and pick-up logistics, as well as faculty, staff, student, and parent parking
- Access from major arterial roadways to facilitate student transportation and safety. The school will need to have proper ingress and egress and be able to accommodate bus traffic.
- Understanding the final facility's improvement needs
- Understanding the ability to engineer health, fire, and safety systems per state, county, and city codes, and implement stormwater management upgrades and modernize the environmental building systems to create a low energy-consuming and highly sustainable complex for the future. During the planning phase for any of the three sites being considered, the board will work with a local architect, Moonlight Architecture, to prepare preliminary designs.
- The facility will need high bandwidth Internet access, cabling, access hubs, routers, and switches, which will enable all students, staff, and the school administration to access the Internet uninterrupted at the same time. The school will need a server with the capacity to accommodate the school's digital repository. The school facility will need proper light, temperature control, and acoustics to accommodate a 21st Century learning environment.
- Additionally, if a leasing option is required, BASSE has budgeted using the market value average; please see the budget chart included in Attachment 19.

The Bryan Allen Stevenson School of Excellence

Section 9 - Facilities

Therefore, we have identified near term and long term property options for our school:

Near Term

- Through a partnership with Delaware Technical Community College (DTCC), BASSE has identified a space to open in the Fall of 2023. Howard T. Ennis, currently operational as a school through the Indian River School District and owned by DTCC, will be available and approved for BASSE's use in 2023. Upon approval of the charter application BASSE plans to execute a leasing agreement with DTCC at the following rent rate (see chart below) for the 35,000 square foot property (not including the natatorium). BASSE will not be utilizing the natatorium (pool facilities), therefore, the 10,500 square foot building is not included in our leasing agreement. BASSE continues to partner with Moonlight Architecture who will be supporting BASSE with any renovations and outfitting needs to prepare Howard T. Ennis for BASSE to open in 2023. BASSE currently has \$85,000 reserved to support the renovation and rent requirements of Howard T. Ennis. Additionally, as outlined in BASSE's development plan, BASSE intends to fundraise an additional 3.5 million towards opening our doors in 2023. If needed, BASSE will acquire gap funding through a bank loan to support any additional financial needs to open in 2023. Please see our MOU in Attachment 21.

Long Term

- Through a partnership with the National Development Council (NDC), the Community Education Building Corporation (CEB), Montessori Works (MW), and the Community Services, Education, and Economic Development Center (CSEEDC) to build the Sussex County Solutions Center (SCSC). The SCSC will encompass approximately 110,000 square feet of developed space and house BASSE, MW, and CSEEDC. This partnership will allow for space for BASSE to expand and opportunities for our students to participate in meaningful service-learning opportunities without leaving campus. The Longwood Foundation connected BASSE to this opportunity after becoming our largest donor at one million dollars. At this time, BASSE is not slated to contribute dollars to the construction of the SCSC, but the school will enter a leasing agreement with the CEB, which will own the SCSC campus. The rate of rent has not been negotiated at this time. Please see the proposal for the SCSC in Attachment 21.
2. If the applicants have identified a facility, state where the school will be located (including county location and any other location specifics) and, as **Attachment 21**, provide floor plans of the school that identifies each room and whether the building will be new construction or an existing building. Include a detailed description of the facility that includes the number of acres.
 - a. If the site has been identified, list the detailed terms and/or conditions for the use of the facility. If not, describe the plans to identify a suitable facility.

The Bryan Allen Stevenson School of Excellence

Section 9 - Facilities

- b. If a facility has not been identified, specify potential locations that are under consideration, and discuss the process and timeline for selecting, acquiring, renovating (if appropriate), and taking occupancy of a suitable facility.
- c. Explain how the facility will meet the needs of students. Provide an assurance that it will be accessible to students with physical disabilities.
- d. To the extent that the Applicant has discussed or established specific lease or purchase terms, include the proposed terms and any draft agreements. Ensure that all costs are included in the budget.

Section 1.9 - Facilities :: Attachment 21 - Floor Plans or Facility Description

**The Bryan Allen Stevenson School of Excellence
Section 9 - Attachment 21 - Facility Descriptions**

Short Term: (To Be) Former Howard T. Ennis Building

Through a partnership with Delaware Technical Community College (DTCC), BASSE has identified a space to open in the Fall of 2023. Howard T. Ennis (HTE), currently operational as a school through the Indian River School District and owned by DTCC, will be available and approved for BASSE's use in our first five years with the option to renew for three years. Upon approval of the charter application, BASSE plans to execute a leasing agreement with DTCC.

HTE is approximately 35,500 square feet (see floorplan below), containing all the classrooms to meet the school's programmatic needs for the first four years of the school's life. Additionally, the school building has offices and a full commercial kitchen and cafeteria. The proposed terms are for a five-year lease term effective in the fall of 2022 with one three-year option to renew. BASSE will have an option to terminate the lease for any reason, at any time, with written notice twelve months in advance. With this flexibility, if BASSE successfully secures a permanent location prior to the end of the leasing agreement, we can move buildings. Though BASSE's proposed school enrollment will exceed the max capacity of the school as is after the third year, BASSE has priced modular units that will be able to accommodate the additional students temporarily, if necessary. BASSE will not be utilizing the natatorium (pool facilities); therefore, the 10,500 square foot building is not included in our leasing agreement.

BASSE continues to partner with Moonlight Architecture, which will support BASSE with any renovations and outfitting needs to prepare HTE for BASSE to open in 2023. Please see the relevant budget to support the renovation and rent requirements for using HTE as the opening site for BASSE. As outlined in BASSE's development plan, BASSE intends to fundraise an additional \$3.5 million towards opening our doors in 2023. If needed, BASSE will acquire gap funding through a bank loan to support any additional financial needs to open in 2023. Please see our approved BASSE and DTCC proposal below.

Long Term: Sussex County Solutions Center

Under the guidance of the Longwood Foundation, BASSE's largest funder to date, BASSE has entered a partnership with the National Development Council (NDC) and Community Education Building Corporation (CEB) to build the Sussex County Solutions Center (SCSC). The proposed 110,000 square foot SCSC campus will house BASSE, Montessori Works (MW), and the Community Services, Education, and Economic Development Center (CSEEDC). In addition, the development of the permanent newly constructed school building on the property will support all the school programs. As part of the discussions, a proposed site has been identified in Sussex County. The founding organizations have applied for American Rescue Plan Funds (ARPA) to fund this site. If the ARPA funds are secured, these and other governmental and foundation

The Bryan Allen Stevenson School of Excellence
Section 9 - Attachment 21 - Facility Descriptions

grants will seed the \$20.2 million school building for BASSE (see the primary funding sources below).

The entire SCSC facility will be owned by the CEB, much like the Community Education Building in the city of Wilmington. As a result, BASSE will enter into a leasing agreement with the CEB to use the space. The proposed rental rates are not yet negotiated; however, they are expected to be in sync with the budget below. The current timeline sets the BASSE SCSC campus to be ready for occupancy by December 31, 2024, halfway through the second school year.

Bryan Stevenson School For Excellence			
USES OF FUNDS	\$	\$/sf	%
Acquisition Allowance	\$3,000,000	\$60	15%
Site Work	\$1,972,000	\$39	10%
Hard Costs	\$12,150,000	\$243	60%
Soft Costs	\$2,268,000	\$45	11%
Reserves/Contingencies	\$810,000	\$16	4%
Total	\$20,200,000	\$404	100%
SOURCES OF FUNDS			
ARPA	\$16,160,000	\$323	80%
Foundation	\$4,040,000	\$81	20%
Total	\$20,200,000	\$404	100%

BASSE will also continue our partnership with Moonlight Architecture to design the newly proposed structure. Though specific funding has not been earmarked for this project in BASSE's current development plan, when necessary, BASSE will create funding goals to support this project. BASSE will also acquire gap funding through a bank loan to support any additional financial needs to contribute to the building of the SCSC. Please see a general overview of the proposed project below.

**The Bryan Allen Stevenson School of Excellence
Section 9 - Attachment 21 - Facility Descriptions**

Excerpts from the narrative description of the proposed Sussex County Solutions Center

The Sussex County Solutions Center (SCSC) will encompass approximately 110,000 sf of developed space and comprise three entities: The Community Services, Education and Economic Development Center (CSEEDC) (40,000 sf), The Bryan Allen Stevenson School of Excellence (BASSE) (50,000 sf), and Montessori Works (MW) (20,000 sf). The estimated sources and uses of funds for each project element is presented below following the description of each respective element. Combined, the total capital cost of the SCSC is estimated to be \$44.7 million. The Longwood Foundation has committed to provide a total of \$8.9 million. Total ARPA funding requested for the project is \$35.7 million, as presented below.

CEB will acquire and develop property for the SCSC and will manage the design and construction of the facility. CEB will own the property and facility. CEB will execute long-term leases with BASSE and MW under which BASSE and MW will pay monthly rent to CEB to cover the cost of operating their respective space in the facility and other services provided by CEB to tenants, families, and students utilizing the facility. CEB will establish additional agreements with service providers included in the service offerings of CSEEDC. Lease terms and MOUs governing CEB services will be finally negotiated once the facility, designed in concert with BASSE, MW, and CSEEDC tenants is constructed. Each of the three project elements comprising the Sussex County Solutions Center—CSEEDC, BASSE, and MW—will be integrated by and through the CEB to ensure maximum service impact, monitoring and reporting. Each element also has their own partnership structure.

The partnership behind BASSE includes the Longwood Foundation, the Community Education Building, Delaware Guidance Services, Relay Graduate School of Education, Delaware State University, Delaware Historical Society, Public Allies, University of Delaware, Delaware Technical Community College, Jounce Partners, and Teach for America.

The Longwood Foundation will support the school with additional funding. CEB will engage necessary partners and professionals to procure and develop the site, work with BASSE to design the facility, and then construct and manage the facility.

BASSE will secure its charter from the Delaware Department of Education and will work with other named curriculum and program partners to operate the school to ensure that its educational program meets all federal, state, and local regulatory requirements.

ARCHITECTURE
19 WALTON SQUARE
ANNAPOLIS, MD 21401
TEL: (410) 261-5544
FAX: (410) 261-5544

Walsh-Love
& Associates, Inc.
47 NEWARK ST., HOBOKEN, NJ 07030
TEL: (201) 212-0500
FAX: (201) 212-0500

Bell Atlantic
INFORMATION SYSTEMS
407 WEST 86th AVENUE, 2F 1980A
TEL: (202) 298-1125 FAX: (202) 298-1010
ALL RIGHTS RESERVED

ORTRONICS
WARRANTY CERTIFICATE P-48 04/29
525 S. GARDEN ST., SUITE 100
TEL: (800) 999-0342 FAX: (800) 999-0452



STATE OF DELAWARE
DEPARTMENT OF PUBLIC INSTRUCTION
TOWNSEND BUILDING, DOVER, DE. 19903
ELECTRONIC FILING OF FLOOR & SITE PLANS
FOR SCHOOL BUILDINGS STATEWIDE

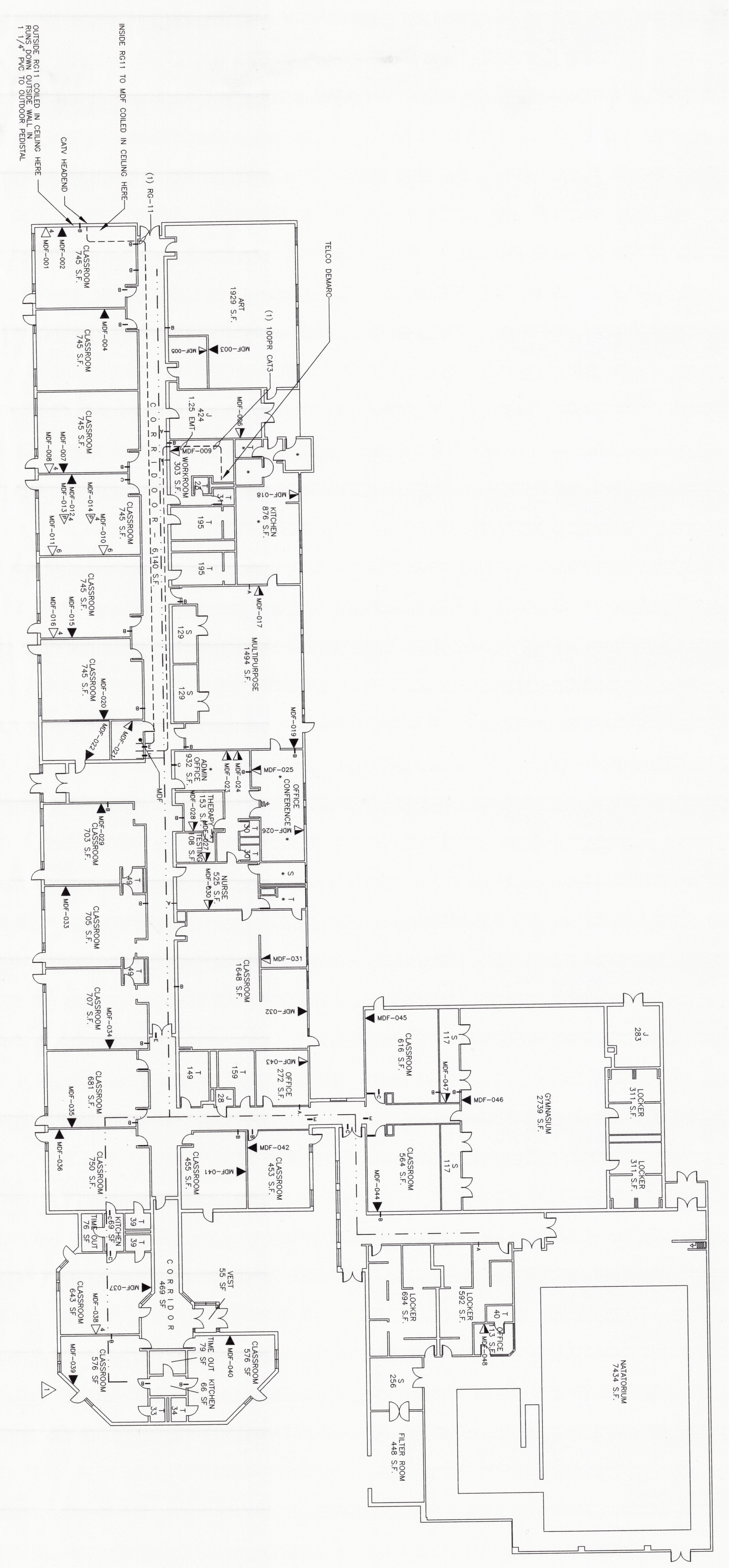
PROJECT
INDIAN RIVER SCHOOL DISTRICT
HOWARD T. ENNIS
SPECIAL SCHOOL

REVISION	DATE

DRAWN	CHECKED
EAC	
DATE	SHEET NO.
5/27/95	TC-BAT.3.1
PROJECT NO.	
SD-94154	

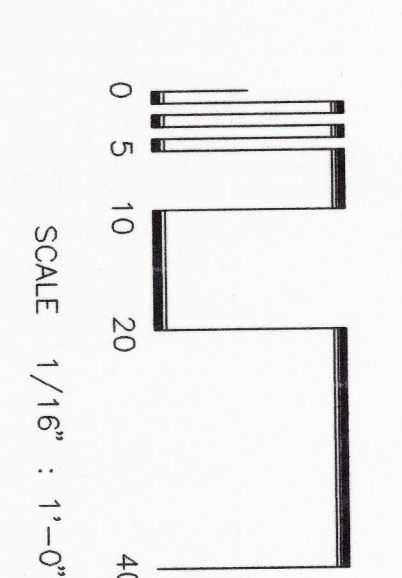
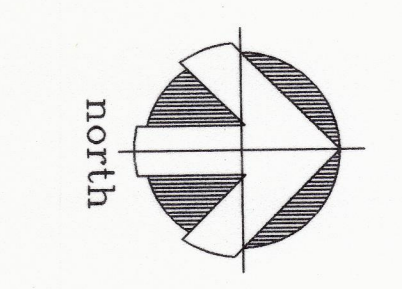
NO.	ISSUE	DATE
1	AS-BUILT	3/4/96
2	FOR CONSTRUCTION	11/19/97
Δ	ADDED WING	9/23/98

SHEET TITLE
FLOOR PLAN



FLOOR PLAN

TOTAL GROSS S.F.: 44,824



- BACKBONE CABLE PATH
MULTIPLE CABLE PATH. SEE CALL-OUT FOR QUANTITIES AND TYPES
- 8 - A 1" CONDUIT STEVE PENETRATION W/ FINE STOPPING
 - 27 - B 1.25" CONDUIT STEVE PENETRATION W/ FINE STOPPING
 - 6 - C 2" CONDUIT STEVE PENETRATION W/ FINE STOPPING
 - 0 - D 3" CONDUIT STEVE PENETRATION W/ FINE STOPPING
 - 5 - E 4" CONDUIT STEVE PENETRATION W/ FINE STOPPING
 - 23 - MULTI-MEDIA OUTLET - (1) COAX, (2) CAT-5 & (1) 2-STRAND FIBER OPTIC CABLES (TYPE A OUTLET)
 - 17 - DUPLEX VOICE/DATA OUTLET (2) CAT-5 CABLES (TYPE B OUTLET)
 - 4 - WALL-MOUNTED DATA OUTLET - (2) CAT-5 CABLES (TYPE C OUTLET)
 - 4 - WALL-MOUNTED DATA OUTLET - (4) CAT-5 CABLES (TYPE C OUTLET)
 - 2 - WALL-MOUNTED DATA OUTLET - (6) CAT-5 CABLES (TYPE C OUTLET)
 - 2 - POWER POLE-MOUNTED DATA OUTLET - (2) CAT-5 CABLES (TYPE C OUTLET)
 - 2 - POWER POLE-MOUNTED DATA OUTLET - (4) CAT-5 CABLES (TYPE C OUTLET)
 - 2 - POWER POLE-MOUNTED DATA OUTLET - (6) CAT-5 CABLES (TYPE C OUTLET)
 - 2 - POWER POLE-MOUNTED DATA OUTLET - (8) CAT-5 CABLES (TYPE C OUTLET)
- TOTALS

Section 1.10 Budget and Finance

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 1 2023-2024-100%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$1,896,724	\$600,356	\$2,497,080

UNITS 15.81

Enter Estimated # of 10th Graders Here:

0

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	40.00	\$2,581.21	\$103,248
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	10.00	\$6,145.73	\$61,457
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	50.00		\$164,706

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	10.00	\$679.45	\$6,795
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	2.00	\$1,617.75	\$3,236
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	12.00		\$10,030

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	82.00	\$2,533.57	\$207,753
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	19.00	\$6,032.30	\$114,614
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	101.00		\$322,366

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	10.00	\$616.57	\$6,166
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	2.00	\$1,468.03	\$2,936
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	12.00		\$9,102

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	15.00	\$905.87	\$13,588
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	4.00	\$2,156.84	\$8,627
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	19.00		\$22,215

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	30.00	\$983.82	\$29,515
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	7.00	\$2,342.43	\$16,397
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	37.00		\$45,912

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	15.00	\$1,061.21	\$15,918
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	4.00	\$2,526.70	\$10,107
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	19.00		\$26,025

The Bryan Allen Stevenson School of Excellence-Year 1 2023-2024-100%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	250
Regular:	202
Special:	48

Location					
Districts:					
Appoquinimink	0	Christina	0	Laurel	12
Brandywine	0	Colonial	0	Milford	19
Caesar Rodney	0	Delmar	12	Red Clay	0
Cape Henlopen	50	Indian River	101	Seaford	37
Capital	0	Lake Forest	0	Smyrna	0
				Woodbridge	19

Transportation Eligible Students:	213			
Regular Students K-3	0	Unit size - Regular students K-3	=	16.20
Regular Students 4-12	202	Unit size - Regular students 4-12	=	20.00
Special Students K-3 Basic	0	Unit size - Basic students K-3	=	12.20
Special Students 4-12 Basic	48	Unit size - Basic students 4-12	=	8.40
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=	6.00
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=	2.60

# of Div I Units Generated =	15.81		\$35,922	\$568,074
Administrative Assistant =	1.00		\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.11		\$58,783	\$6,466
Percentage Transportation Supervisor =	0.03		\$58,783	\$1,763
Principal =	1.00		\$73,528	\$73,528
Assistant Principal =	0.00		\$65,200	\$0
Percentage Visiting Teacher =	0.06		\$46,247	\$2,775
Percentage Driver Education Teacher =	0.00		\$45,467	\$0
Nurse =	0.12		\$46,075	\$5,465
Academic Excellence Units =	1.00		\$44,376	\$44,376
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.28		\$52,202	\$14,483
Related Services Specialist Intensive	0.00		\$52,202	\$0
Related Services Specialist Complex	0.00		\$52,202	\$0
Clerical Units =	1.00		\$33,517	\$33,517
Custodial Units =	1.00		\$28,172	\$28,172
Cafeteria Manager =	0.73		\$29,038	\$21,198
Cafeteria Worker =	1.55		\$14,272	\$22,122
Total Staffing =	23.69			
Total Salary Costs				\$870,235
OEC Rate			33.11%	\$288,135
Health Insurance Per FTE			\$12,481	\$295,673

Subtotal Personnel Revenue	\$1,454,043
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Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	15.81		
Division II - All Other Costs - Current Unit Value =	\$ 2,925		\$ 46,257
Division II - Energy - Current Unit Value =	\$ 2,387		\$ 37,749
Division III - Equalization - Unit Value =	\$ 7,739		\$ 122,386
Academic Excellence Division III =			\$ 7,739
Student Transportation Amount =			\$ 228,550

Subtotal Other Sources	\$ 442,680
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Grand Total State Sources	\$1,896,724
----------------------------------	--------------------

**Section 1.10 Budget and Finance :: Attachment 22 - Revenue
Estimates**

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 1 2023-2024-100%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$1,896,724	\$600,356	\$2,497,080

UNITS 15.81

Enter Estimated # of 10th Graders Here:

0

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	40.00	\$2,581.21	\$103,248
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	10.00	\$6,145.73	\$61,457
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	50.00		\$164,706

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	10.00	\$679.45	\$6,795
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	2.00	\$1,617.75	\$3,236
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	12.00		\$10,030

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	82.00	\$2,533.57	\$207,753
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	19.00	\$6,032.30	\$114,614
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	101.00		\$322,366

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	10.00	\$616.57	\$6,166
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	2.00	\$1,468.03	\$2,936
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	12.00		\$9,102

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	15.00	\$905.87	\$13,588
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	4.00	\$2,156.84	\$8,627
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	19.00		\$22,215

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	30.00	\$983.82	\$29,515
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	7.00	\$2,342.43	\$16,397
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	37.00		\$45,912

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	15.00	\$1,061.21	\$15,918
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	4.00	\$2,526.70	\$10,107
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	19.00		\$26,025

The Bryan Allen Stevenson School of Excellence-Year 1 2023-2024-100%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	250
Regular:	202
Special:	48

Location					
Districts:					
Appoquinimink	0	Christina	0	Laurel	12
Brandywine	0	Colonial	0	Milford	19
Caesar Rodney	0	Delmar	12	Red Clay	0
Cape Henlopen	50	Indian River	101	Seaford	37
Capital	0	Lake Forest	0	Smyrna	0
				Woodbridge	19

Transportation Eligible Students:	213			
Regular Students K-3	0	Unit size - Regular students K-3	=	16.20
Regular Students 4-12	202	Unit size - Regular students 4-12	=	20.00
Special Students K-3 Basic	0	Unit size - Basic students K-3	=	12.20
Special Students 4-12 Basic	48	Unit size - Basic students 4-12	=	8.40
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=	6.00
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=	2.60

# of Div I Units Generated =	15.81		\$35,922	\$568,074
Administrative Assistant =	1.00		\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.11		\$58,783	\$6,466
Percentage Transportation Supervisor =	0.03		\$58,783	\$1,763
Principal =	1.00		\$73,528	\$73,528
Assistant Principal =	0.00		\$65,200	\$0
Percentage Visiting Teacher =	0.06		\$46,247	\$2,775
Percentage Driver Education Teacher =	0.00		\$45,467	\$0
Nurse =	0.12		\$46,075	\$5,465
Academic Excellence Units =	1.00		\$44,376	\$44,376
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.28		\$52,202	\$14,483
Related Services Specialist Intensive	0.00		\$52,202	\$0
Related Services Specialist Complex	0.00		\$52,202	\$0
Clerical Units =	1.00		\$33,517	\$33,517
Custodial Units =	1.00		\$28,172	\$28,172
Cafeteria Manager =	0.73		\$29,038	\$21,198
Cafeteria Worker =	1.55		\$14,272	\$22,122
Total Staffing =	23.69			
Total Salary Costs				\$870,235
OEC Rate			33.11%	\$288,135
Health Insurance Per FTE			\$12,481	\$295,673

Subtotal Personnel Revenue	\$1,454,043
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Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	15.81		
Division II - All Other Costs - Current Unit Value =	\$ 2,925		\$ 46,257
Division II - Energy - Current Unit Value =	\$ 2,387		\$ 37,749
Division III - Equalization - Unit Value =	\$ 7,739		\$ 122,386
Academic Excellence Division III =			\$ 7,739
Student Transportation Amount =			\$ 228,550

Subtotal Other Sources	\$ 442,680
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Grand Total State Sources	\$1,896,724
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**Section 1.10 Budget and Finance :: Attachment 22 - Revenue
Estimates :: 100% Enrollment**

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 1 2023-2024-100%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$1,896,724	\$600,356	\$2,497,080

UNITS 15.81

Enter Estimated # of 10th Graders Here:

0

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	40.00	\$2,581.21	\$103,248
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	10.00	\$6,145.73	\$61,457
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	50.00		\$164,706

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	10.00	\$679.45	\$6,795
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	2.00	\$1,617.75	\$3,236
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	12.00		\$10,030

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	82.00	\$2,533.57	\$207,753
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	19.00	\$6,032.30	\$114,614
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	101.00		\$322,366

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	10.00	\$616.57	\$6,166
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	2.00	\$1,468.03	\$2,936
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	12.00		\$9,102

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	15.00	\$905.87	\$13,588
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	4.00	\$2,156.84	\$8,627
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	19.00		\$22,215

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	30.00	\$983.82	\$29,515
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	7.00	\$2,342.43	\$16,397
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	37.00		\$45,912

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	15.00	\$1,061.21	\$15,918
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	4.00	\$2,526.70	\$10,107
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	19.00		\$26,025

The Bryan Allen Stevenson School of Excellence-Year 1 2023-2024-100%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	250
Regular:	202
Special:	48

Location					
Districts:					
Appoquinimink	0	Christina	0	Laurel	12
Brandywine	0	Colonial	0	Milford	19
Caesar Rodney	0	Delmar	12	Red Clay	0
Cape Henlopen	50	Indian River	101	Seaford	37
Capital	0	Lake Forest	0	Smyrna	0
				Woodbridge	19

Transportation Eligible Students:	213			
Regular Students K-3	0	Unit size - Regular students K-3	=	16.20
Regular Students 4-12	202	Unit size - Regular students 4-12	=	20.00
Special Students K-3 Basic	0	Unit size - Basic students K-3	=	12.20
Special Students 4-12 Basic	48	Unit size - Basic students 4-12	=	8.40
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=	6.00
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=	2.60

# of Div I Units Generated =	15.81		\$35,922	\$568,074
Administrative Assistant =	1.00		\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.11		\$58,783	\$6,466
Percentage Transportation Supervisor =	0.03		\$58,783	\$1,763
Principal =	1.00		\$73,528	\$73,528
Assistant Principal =	0.00		\$65,200	\$0
Percentage Visiting Teacher =	0.06		\$46,247	\$2,775
Percentage Driver Education Teacher =	0.00		\$45,467	\$0
Nurse =	0.12		\$46,075	\$5,465
Academic Excellence Units =	1.00		\$44,376	\$44,376
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.28		\$52,202	\$14,483
Related Services Specialist Intensive	0.00		\$52,202	\$0
Related Services Specialist Complex	0.00		\$52,202	\$0
Clerical Units =	1.00		\$33,517	\$33,517
Custodial Units =	1.00		\$28,172	\$28,172
Cafeteria Manager =	0.73		\$29,038	\$21,198
Cafeteria Worker =	1.55		\$14,272	\$22,122
Total Staffing =	23.69			
Total Salary Costs				\$870,235
OEC Rate			33.11%	\$288,135
Health Insurance Per FTE			\$12,481	\$295,673

Subtotal Personnel Revenue	\$1,454,043
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Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	15.81		
Division II - All Other Costs - Current Unit Value =	\$ 2,925		\$ 46,257
Division II - Energy - Current Unit Value =	\$ 2,387		\$ 37,749
Division III - Equalization - Unit Value =	\$ 7,739		\$ 122,386
Academic Excellence Division III =			\$ 7,739
Student Transportation Amount =			\$ 228,550

Subtotal Other Sources	\$ 442,680
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Grand Total State Sources	\$1,896,724
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**Section 1.10 Budget and Finance :: Attachment 22 - Revenue
Estimates :: 100% Enrollment :: Year 1 (2023-24)**

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 1 2023-2024-100%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$1,896,724	\$600,356	\$2,497,080

UNITS 15.81

Enter Estimated # of 10th Graders Here:

0

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	40.00	\$2,581.21	\$103,248
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	10.00	\$6,145.73	\$61,457
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	50.00		\$164,706

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	10.00	\$679.45	\$6,795
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	2.00	\$1,617.75	\$3,236
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	12.00		\$10,030

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	82.00	\$2,533.57	\$207,753
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	19.00	\$6,032.30	\$114,614
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	101.00		\$322,366

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	10.00	\$616.57	\$6,166
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	2.00	\$1,468.03	\$2,936
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	12.00		\$9,102

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	15.00	\$905.87	\$13,588
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	4.00	\$2,156.84	\$8,627
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	19.00		\$22,215

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	30.00	\$983.82	\$29,515
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	7.00	\$2,342.43	\$16,397
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	37.00		\$45,912

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	15.00	\$1,061.21	\$15,918
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	4.00	\$2,526.70	\$10,107
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	19.00		\$26,025

The Bryan Allen Stevenson School of Excellence-Year 1 2023-2024-100%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	250
Regular:	202
Special:	48

Location					
Districts:					
Appoquinimink	0	Christina	0	Laurel	12
Brandywine	0	Colonial	0	Milford	19
Caesar Rodney	0	Delmar	12	Red Clay	0
Cape Henlopen	50	Indian River	101	Seaford	37
Capital	0	Lake Forest	0	Smyrna	0
				Woodbridge	19

Transportation Eligible Students:	213			
Regular Students K-3	0	Unit size - Regular students K-3	=	16.20
Regular Students 4-12	202	Unit size - Regular students 4-12	=	20.00
Special Students K-3 Basic	0	Unit size - Basic students K-3	=	12.20
Special Students 4-12 Basic	48	Unit size - Basic students 4-12	=	8.40
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=	6.00
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=	2.60

# of Div I Units Generated =	15.81		\$35,922	\$568,074
Administrative Assistant =	1.00		\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.11		\$58,783	\$6,466
Percentage Transportation Supervisor =	0.03		\$58,783	\$1,763
Principal =	1.00		\$73,528	\$73,528
Assistant Principal =	0.00		\$65,200	\$0
Percentage Visiting Teacher =	0.06		\$46,247	\$2,775
Percentage Driver Education Teacher =	0.00		\$45,467	\$0
Nurse =	0.12		\$46,075	\$5,465
Academic Excellence Units =	1.00		\$44,376	\$44,376
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.28		\$52,202	\$14,483
Related Services Specialist Intensive	0.00		\$52,202	\$0
Related Services Specialist Complex	0.00		\$52,202	\$0
Clerical Units =	1.00		\$33,517	\$33,517
Custodial Units =	1.00		\$28,172	\$28,172
Cafeteria Manager =	0.73		\$29,038	\$21,198
Cafeteria Worker =	1.55		\$14,272	\$22,122
Total Staffing =	23.69			
Total Salary Costs				\$870,235
OEC Rate			33.11%	\$288,135
Health Insurance Per FTE			\$12,481	\$295,673

Subtotal Personnel Revenue	\$1,454,043
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Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	15.81		
Division II - All Other Costs - Current Unit Value =	\$ 2,925		\$ 46,257
Division II - Energy - Current Unit Value =	\$ 2,387		\$ 37,749
Division III - Equalization - Unit Value =	\$ 7,739		\$ 122,386
Academic Excellence Division III =			\$ 7,739
Student Transportation Amount =			\$ 228,550

Subtotal Other Sources	\$ 442,680
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Grand Total State Sources	\$1,896,724
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**Section 1.10 Budget and Finance :: Attachment 22 - Revenue
Estimates :: 100% Enrollment :: Year 2 (2024-25)**

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 2 2024-2025-100%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$2,578,165	\$841,628	\$3,419,793

UNITS 22.13

Enter Estimated # of 10th Graders Here:

0

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	57.00	\$2,581.21	\$147,129
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	13.00	\$6,145.73	\$79,894
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	70.00		\$227,023

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	14.00	\$679.45	\$9,512
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	3.00	\$1,617.75	\$4,853
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	17.00		\$14,366

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	114.00	\$2,533.57	\$288,827
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	28.00	\$6,032.30	\$168,904
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	142.00		\$457,731

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	14.00	\$616.57	\$8,632
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	3.00	\$1,468.03	\$4,404
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	17.00		\$13,036

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	21.00	\$905.87	\$19,023
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	5.00	\$2,156.84	\$10,784
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	26.00		\$29,807

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	42.00	\$983.82	\$41,320
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	10.00	\$2,342.43	\$23,424
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	52.00		\$64,745

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	21.00	\$1,061.21	\$22,285
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	5.00	\$2,526.70	\$12,634
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	26.00		\$34,919

The Bryan Allen Stevenson School of Excellence-Year 2 2024-2025-100%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	350
Regular:	283
Special:	67

Location

Districts:					
Appoquinimink	0	Christina	0	Laurel	17
Brandywine	0	Colonial	0	Milford	26
Caesar Rodney	0	Delmar	17	Red Clay	0
Cape Henlopen	70	Indian River	142	Seaford	52
Capital	0	Lake Forest	0	Smyrna	0
				Woodbridge	26

Transportation Eligible Students:	298			
Regular Students K-3	0	Unit size - Regular students K-3	=	16.20
Regular Students 4-12	283	Unit size - Regular students 4-12	=	20.00
Special Students K-3 Basic	0	Unit size - Basic students K-3	=	12.20
Special Students 4-12 Basic	67	Unit size - Basic students 4-12	=	8.40
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=	6.00
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=	2.60

# of Div I Units Generated =	22.13		\$35,922	\$794,807
Administrative Assistant =	1.00		\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.15		\$58,783	\$8,817
Percentage Transportation Supervisor =	0.04		\$58,783	\$2,351
Principal =	1.00		\$73,528	\$73,528
Assistant Principal =	0.00		\$65,200	\$0
Percentage Visiting Teacher =	0.09		\$46,247	\$4,162
Percentage Driver Education Teacher =	0.00		\$45,467	\$0
Nurse =	0.17		\$46,075	\$7,646
Academic Excellence Units =	1.40		\$44,376	\$62,126
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.39		\$52,202	\$20,264
Related Services Specialist Intensive	0.00		\$52,202	\$0
Related Services Specialist Complex	0.00		\$52,202	\$0
Clerical Units =	2.00		\$33,517	\$67,034
Custodial Units =	1.00		\$28,172	\$28,172
Cafeteria Manager =	0.73		\$29,038	\$21,198
Cafeteria Worker =	2.17		\$14,272	\$30,970
Total Staffing =	32.26			
Total Salary Costs				\$1,169,373
OEC Rate			33.11%	\$387,179
Health Insurance Per FTE			\$12,481	\$402,633

Subtotal Personnel Revenue	\$1,959,185
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Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	22.13		
Division II - All Other Costs - Current Unit Value =	\$ 2,925		\$ 64,719
Division II - Energy - Current Unit Value =	\$ 2,387		\$ 52,815
Division III - Equalization - Unit Value =	\$ 7,714		\$ 170,677
Academic Excellence Division III =			\$ 10,799
Student Transportation Amount =			\$ 319,970

Subtotal Other Sources	\$ 618,980
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Grand Total State Sources	\$2,578,165
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**Section 1.10 Budget and Finance :: Attachment 22 - Revenue
Estimates :: 100% Enrollment :: Year 3 (2025-26)**

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 3 2025-2026-100%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$3,267,320	\$1,081,529	\$4,348,849

UNITS 28.44

Enter Estimated # of 10th Graders Here:

0

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	73.00	\$2,581.21	\$188,428
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	18.00	\$6,145.73	\$110,623
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	91.00		\$299,051

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	18.00	\$679.45	\$12,230
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	4.00	\$1,617.75	\$6,471
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	22.00		\$18,701

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	146.00	\$2,533.57	\$369,901
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	35.00	\$6,032.30	\$211,131
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	181.00		\$581,032

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	18.00	\$616.57	\$11,098
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	4.00	\$1,468.03	\$5,872
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	22.00		\$16,970

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	27.00	\$905.87	\$24,458
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	6.00	\$2,156.84	\$12,941
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	33.00		\$37,400

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	55.00	\$983.82	\$54,110
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	13.00	\$2,342.43	\$30,452
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	68.00		\$84,562

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	27.00	\$1,061.21	\$28,653
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	6.00	\$2,526.70	\$15,160
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	33.00		\$43,813

The Bryan Allen Stevenson School of Excellence-Year 3 2025-2026-100%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	450
Regular:	364
Special:	86

Location

Districts:					
Appoquinimink	0	Christina	0	Laurel	22
Brandywine	0	Colonial	0	Milford	33
Caesar Rodney	0	Delmar	22	Red Clay	0
Cape Henlopen	91	Indian River	181	Seaford	68
Capital	0	Lake Forest	0	Smyrna	0
				Woodbridge	33

Transportation Eligible Students:	383			
Regular Students K-3	0	Unit size - Regular students K-3	=	16.20
Regular Students 4-12	364	Unit size - Regular students 4-12	=	20.00
Special Students K-3 Basic	0	Unit size - Basic students K-3	=	12.20
Special Students 4-12 Basic	86	Unit size - Basic students 4-12	=	8.40
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=	6.00
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=	2.60

# of Div I Units Generated =	28.44	\$35,922	\$1,021,540
Administrative Assistant =	1.00	\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.19	\$58,783	\$11,169
Percentage Transportation Supervisor =	0.05	\$58,783	\$2,939
Principal =	1.00	\$73,528	\$73,528
Assistant Principal =	0.65	\$65,200	\$42,380
Percentage Visiting Teacher =	0.11	\$46,247	\$5,087
Percentage Driver Education Teacher =	0.00	\$45,467	\$0
Nurse =	0.21	\$46,075	\$9,827
Academic Excellence Units =	1.80	\$44,376	\$79,877
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.50	\$52,202	\$26,044
Related Services Specialist Intensive	0.00	\$52,202	\$0
Related Services Specialist Complex	0.00	\$52,202	\$0
Clerical Units =	2.00	\$33,517	\$67,034
Custodial Units =	1.00	\$28,172	\$28,172
Cafeteria Manager =	0.73	\$29,038	\$21,198
Cafeteria Worker =	2.79	\$14,272	\$39,819
Total Staffing =	40.47		
Total Salary Costs			\$1,476,911
OEC Rate		33.11%	\$489,005
Health Insurance Per FTE		\$12,481	\$505,100

Subtotal Personnel Revenue	\$2,471,016
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Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	28.44		
Division II - All Other Costs - Current Unit Value =	\$ 2,925	\$	83,181
Division II - Energy - Current Unit Value =	\$ 2,387	\$	67,882
Division III - Equalization - Unit Value =	\$ 7,734	\$	219,930
Academic Excellence Division III =		\$	13,921
Student Transportation Amount =		\$	411,390

Subtotal Other Sources	\$ 796,304
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Grand Total State Sources	\$3,267,320
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**Section 1.10 Budget and Finance :: Attachment 22 - Revenue
Estimates :: 100% Enrollment :: Year 4 (2026-27)**

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 4 2025-2026-100%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$4,059,532	\$1,315,372	\$5,374,903

UNITS 34.75

Enter Estimated # of 10th Graders Here:

125

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	89.00	\$2,581.21	\$229,728
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	21.00	\$6,145.73	\$129,060
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	110.00		\$358,788

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	22.00	\$679.45	\$14,948
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	5.00	\$1,617.75	\$8,089
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	27.00		\$23,037

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	179.00	\$2,533.57	\$453,509
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	42.00	\$6,032.30	\$253,357
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	221.00		\$706,866

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	22.00	\$616.57	\$13,565
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	5.00	\$1,468.03	\$7,340
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	27.00		\$20,905

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	33.00	\$905.87	\$29,894
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	8.00	\$2,156.84	\$17,255
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	41.00		\$47,148

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	67.00	\$983.82	\$65,916
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	16.00	\$2,342.43	\$37,479
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	83.00		\$103,395

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	33.00	\$1,061.21	\$35,020
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	8.00	\$2,526.70	\$20,214
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	41.00		\$55,234

The Bryan Allen Stevenson School of Excellence-Year 4 2025-2026-100%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	550
Regular:	445
Special:	105

Location

Districts:					
Appoquinimink	0	Christina	0	Laurel	27
Brandywine	0	Colonial	0	Milford	41
Caesar Rodney	0	Delmar	27	Red Clay	0
Cape Henlopen	110	Indian River	221	Seaford	83
Capital	0	Lake Forest	0	Smyrna	0
				Woodbridge	41

Transportation Eligible Students:	468			
Regular Students K-3	0	Unit size - Regular students K-3	=	16.20
Regular Students 4-12	445	Unit size - Regular students 4-12	=	20.00
Special Students K-3 Basic	0	Unit size - Basic students K-3	=	12.20
Special Students 4-12 Basic	105	Unit size - Basic students 4-12	=	8.40
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=	6.00
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=	2.60

# of Div I Units Generated =	34.75	\$35,922	\$1,248,274
Administrative Assistant =	1.00	\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.23	\$58,783	\$13,520
Percentage Transportation Supervisor =	0.07	\$58,783	\$4,115
Principal =	1.00	\$73,528	\$73,528
Assistant Principal =	1.00	\$65,200	\$65,200
Percentage Visiting Teacher =	0.14	\$46,247	\$6,475
Percentage Driver Education Teacher =	1.00	\$45,467	\$45,467
Nurse =	0.26	\$46,075	\$12,008
Academic Excellence Units =	2.20	\$44,376	\$97,627
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.61	\$52,202	\$31,825
Related Services Specialist Intensive	0.00	\$52,202	\$0
Related Services Specialist Complex	0.00	\$52,202	\$0
Clerical Units =	3.00	\$33,517	\$100,551
Custodial Units =	1.00	\$28,172	\$28,172
Cafeteria Manager =	0.73	\$29,038	\$21,198
Cafeteria Worker =	3.41	\$14,272	\$48,668
Total Staffing =	50.40		
Total Salary Costs			\$1,844,924
OEC Rate		33.11%	\$610,854
Health Insurance Per FTE		\$12,481	\$629,033

Subtotal Personnel Revenue	\$3,084,811
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Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	34.75		
Division II - All Other Costs - Current Unit Value =	\$ 2,925		\$ 101,644
Division II - Energy - Current Unit Value =	\$ 2,387		\$ 82,948
Division III - Equalization - Unit Value =	\$ 7,776		\$ 270,211
Academic Excellence Division III =			\$ 17,107
Student Transportation Amount =			\$ 502,810

Subtotal Other Sources	\$ 974,721
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Grand Total State Sources	\$4,059,532
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**Section 1.10 Budget and Finance :: Attachment 22 - Revenue
Estimates :: 100% Enrollment :: Year 5 (2027-28)**

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 4 2025-2026-100%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$4,791,978	\$1,556,709	\$6,348,687

UNITS 41.06

Enter Estimated # of 10th Graders Here:

125

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	105.00	\$2,581.21	\$271,027
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	25.00	\$6,145.73	\$153,643
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	130.00		\$424,670

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	26.00	\$679.45	\$17,666
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	6.00	\$1,617.75	\$9,707
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	32.00		\$27,372

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	212.00	\$2,533.57	\$537,117
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	50.00	\$6,032.30	\$301,615
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	262.00		\$838,732

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	26.00	\$616.57	\$16,031
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	6.00	\$1,468.03	\$8,808
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	32.00		\$24,839

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	39.00	\$905.87	\$35,329
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	9.00	\$2,156.84	\$19,412
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	48.00		\$54,740

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	79.00	\$983.82	\$77,722
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	19.00	\$2,342.43	\$44,506
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	98.00		\$122,228

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	39.00	\$1,061.21	\$41,387
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	9.00	\$2,526.70	\$22,740
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	48.00		\$64,127

The Bryan Allen Stevenson School of Excellence-Year 4 2025-2026-100%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	650
Regular:	526
Special:	124

Location

Districts:					
Appoquinimink	0	Christina	0	Laurel	32
Brandywine	0	Colonial	0	Milford	48
Caesar Rodney	0	Delmar	32	Red Clay	0
Cape Henlopen	130	Indian River	262	Seaford	98
Capital	0	Lake Forest	0	Smyrna	0
				Woodbridge	48

Transportation Eligible Students:	553			
Regular Students K-3	0	Unit size - Regular students K-3	=	16.20
Regular Students 4-12	526	Unit size - Regular students 4-12	=	20.00
Special Students K-3 Basic	0	Unit size - Basic students K-3	=	12.20
Special Students 4-12 Basic	124	Unit size - Basic students 4-12	=	8.40
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=	6.00
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=	2.60

# of Div I Units Generated =	41.06		\$35,922	\$1,475,007
Administrative Assistant =	1.00		\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.27		\$58,783	\$15,871
Percentage Transportation Supervisor =	0.08		\$58,783	\$4,703
Principal =	1.00		\$73,528	\$73,528
Assistant Principal =	1.00		\$65,200	\$65,200
Percentage Visiting Teacher =	0.16		\$46,247	\$7,400
Percentage Driver Education Teacher =	1.00		\$45,467	\$45,467
Nurse =	1.01		\$46,075	\$46,490
Academic Excellence Units =	2.60		\$44,376	\$115,378
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.72		\$52,202	\$37,606
Related Services Specialist Intensive	0.00		\$52,202	\$0
Related Services Specialist Complex	0.00		\$52,202	\$0
Clerical Units =	4.00		\$33,517	\$134,068
Custodial Units =	1.00		\$28,172	\$28,172
Cafeteria Manager =	0.73		\$29,038	\$21,198
Cafeteria Worker =	4.03		\$14,272	\$57,516
Total Staffing =	59.66			
Total Salary Costs				\$2,175,899
OEC Rate			33.11%	\$720,440
Health Insurance Per FTE			\$12,481	\$744,618

Subtotal Personnel Revenue	\$3,640,957
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Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	41.06		
Division II - All Other Costs - Current Unit Value =	\$ 2,925		\$ 120,106
Division II - Energy - Current Unit Value =	\$ 2,387		\$ 98,015
Division III - Equalization - Unit Value =	\$ 7,757		\$ 318,502
Academic Excellence Division III =			\$ 20,167
Student Transportation Amount =			\$ 594,230

Subtotal Other Sources	\$ 1,151,021
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Grand Total State Sources	\$4,791,978
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**Section 1.10 Budget and Finance :: Attachment 22 - Revenue
Estimates :: 100% Enrollment :: Year 6 (2028-29)**

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 4 2025-2026-100%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$5,420,216	\$1,791,256	\$7,211,471

UNITS 47.37

Enter Estimated # of 10th Graders Here:

125

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	121.00	\$2,581.21	\$312,326
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	29.00	\$6,145.73	\$178,226
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	150.00		\$490,553

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	30.00	\$679.45	\$20,384
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	7.00	\$1,617.75	\$11,324
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	37.00		\$31,708

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	243.00	\$2,533.57	\$615,658
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	57.00	\$6,032.30	\$343,841
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	300.00		\$959,499

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	30.00	\$616.57	\$18,497
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	7.00	\$1,468.03	\$10,276
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	37.00		\$28,773

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	46.00	\$905.87	\$41,670
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	11.00	\$2,156.84	\$23,725
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	57.00		\$65,395

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	91.00	\$983.82	\$89,528
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	21.00	\$2,342.43	\$49,191
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	112.00		\$138,719

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	46.00	\$1,061.21	\$48,816
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	11.00	\$2,526.70	\$27,794
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	57.00		\$76,609

The Bryan Allen Stevenson School of Excellence-Year 4 2025-2026-100%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	750
Regular:	607
Special:	143

Location

Districts:			
Appoquinimink	0	Christina	0
Brandywine	0	Colonial	0
Caesar Rodney	0	Delmar	37
Cape Henlopen	150	Indian River	300
Capital	0	Lake Forest	0
			Woodbridge
			37
			57
			0
			112
			0
			57

Transportation Eligible Students:	638			
Regular Students K-3	0	Unit size - Regular students K-3	=	16.20
Regular Students 4-12	607	Unit size - Regular students 4-12	=	20.00
Special Students K-3 Basic	0	Unit size - Basic students K-3	=	12.20
Special Students 4-12 Basic	143	Unit size - Basic students 4-12	=	8.40
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=	6.00
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=	2.60

# of Div I Units Generated =	47.37	\$35,922	\$1,701,740
Administrative Assistant =	1.00	\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.32	\$58,783	\$18,811
Percentage Transportation Supervisor =	0.09	\$58,783	\$5,290
Principal =	1.00	\$73,528	\$73,528
Assistant Principal =	1.00	\$65,200	\$65,200
Percentage Visiting Teacher =	0.19	\$46,247	\$8,787
Percentage Driver Education Teacher =	1.00	\$45,467	\$45,467
Nurse =	1.05	\$46,075	\$48,563
Academic Excellence Units =	3.00	\$44,376	\$133,128
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.83	\$52,202	\$43,386
Related Services Specialist Intensive	0.00	\$52,202	\$0
Related Services Specialist Complex	0.00	\$52,202	\$0
Clerical Units =	4.00	\$33,517	\$134,068
Custodial Units =	1.00	\$28,172	\$28,172
Cafeteria Manager =	0.73	\$29,038	\$21,198
Cafeteria Worker =	4.65	\$14,272	\$66,365
Total Staffing =	67.24		
Total Salary Costs			\$2,442,000
OEC Rate		33.11%	\$808,546
Health Insurance Per FTE		\$12,481	\$839,192

Subtotal Personnel Revenue	\$4,089,738
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Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	47.37		
Division II - All Other Costs - Current Unit Value =	\$ 2,925		\$ 138,568
Division II - Energy - Current Unit Value =	\$ 2,387		\$ 113,081
Division III - Equalization - Unit Value =	\$ 7,805		\$ 369,762
Academic Excellence Division III =			\$ 23,416
Student Transportation Amount =			\$ 685,650

Subtotal Other Sources	\$ 1,330,477
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Grand Total State Sources	\$5,420,216
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**Section 1.10 Budget and Finance :: Attachment 22 - Revenue
Estimates :: 80% Enrollment**

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 1 2023-2024-80%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$1,471,224	\$475,294	\$1,946,518

UNITS 12.62

Enter Estimated # of 10th Graders Here:

0

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	32.00	\$2,581.21	\$82,599
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	8.00	\$6,145.73	\$49,166
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	40.00		\$131,765

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	8.00	\$679.45	\$5,436
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	2.00	\$1,617.75	\$3,236
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	10.00		\$8,671

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	66.00	\$2,533.57	\$167,216
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	14.00	\$6,032.30	\$84,452
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	80.00		\$251,668

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	8.00	\$616.57	\$4,933
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	2.00	\$1,468.03	\$2,936
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	10.00		\$7,869

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	12.00	\$905.87	\$10,870
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	3.00	\$2,156.84	\$6,471
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	15.00		\$17,341

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	24.00	\$983.82	\$23,612
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	6.00	\$2,342.43	\$14,055
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	30.00		\$37,666

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	12.00	\$1,061.21	\$12,735
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	3.00	\$2,526.70	\$7,580
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	15.00		\$20,315

The Bryan Allen Stevenson School of Excellence-Year 1 2023-2024-80%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	200
Regular:	162
Special:	38

Location

Districts:					
Appoquinimink	0	Christina	0	Laurel	10
Brandywine	0	Colonial	0	Milford	15
Caesar Rodney	0	Delmar	10	Red Clay	0
Cape Henlopen	40	Indian River	80	Seaford	30
Capital	0	Lake Forest	0	Smyrna	0
				Woodbridge	15

Transportation Eligible Students:	170			
Regular Students K-3	0	Unit size - Regular students K-3	=	16.20
Regular Students 4-12	162	Unit size - Regular students 4-12	=	20.00
Special Students K-3 Basic	0	Unit size - Basic students K-3	=	12.20
Special Students 4-12 Basic	38	Unit size - Basic students 4-12	=	8.40
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=	6.00
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=	2.60

# of Div I Units Generated =	12.62		\$35,922	\$453,467
Administrative Assistant =	1.00		\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.08		\$58,783	\$4,703
Percentage Transportation Supervisor =	0.02		\$58,783	\$1,176
Principal =	0.00		\$73,528	\$0
Assistant Principal =	0.00		\$65,200	\$0
Percentage Visiting Teacher =	0.05		\$46,247	\$2,312
Percentage Driver Education Teacher =	0.00		\$45,467	\$0
Nurse =	0.09		\$46,075	\$4,362
Academic Excellence Units =	0.80		\$44,376	\$35,501
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.22		\$52,202	\$11,561
Related Services Specialist Intensive	0.00		\$52,202	\$0
Related Services Specialist Complex	0.00		\$52,202	\$0
Clerical Units =	1.00		\$33,517	\$33,517
Custodial Units =	1.00		\$28,172	\$28,172
Cafeteria Manager =	0.73		\$29,038	\$21,198
Cafeteria Worker =	1.24		\$14,272	\$17,697
Total Staffing =	18.86			

Total Salary Costs				\$661,963
OEC Rate			33.11%	\$219,176
Health Insurance Per FTE			\$12,481	\$235,386

Subtotal Personnel Revenue	\$1,116,525
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Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	12.62			
Division II - All Other Costs - Current Unit Value =	\$ 2,925		\$	36,925
Division II - Energy - Current Unit Value =	\$ 2,387		\$	30,133
Division III - Equalization - Unit Value =	\$ 7,807		\$	98,555
Academic Excellence Division III =			\$	6,246
Student Transportation Amount =			\$	182,840

Subtotal Other Sources	\$ 354,698
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Grand Total State Sources	\$1,471,224
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Transportation

County	Vo Tech		FY 22 Transp /Pupil
New Castle	NCCVT	\$	994.69
Kent	Polytech	\$	1,025.79
Sussex	SCVT	\$	1,075.53

Final FY2021 Div I Salary

Academia Antonia Alonso	\$38,161
Academy of Dover	\$36,540
Campus Community	\$38,692
Charter School of New Castle	\$37,435
Charter School of Wilmington	\$45,800
Delaware Military Academy	\$42,694
Early College High School at DSU	\$42,244
East Side Charter School	\$38,924
First State Military Academy	\$39,121
First State Montessori Academy	\$41,486
Freire Charter School	\$35,929
Gateway Lab School	\$42,837
Great Oaks Charter School	\$32,699
Kuumba Academy	\$37,770
Las Americas Aspira Academy	\$39,453
MOT Charter School	\$42,267
Newark Charter School	\$45,647
Odyssey Charter School	\$42,080
Positive Outcomes	\$42,878
Providence Creek	\$37,747
Sussex Academy	\$43,853
Sussex Montessori School	\$37,137
Thomas A. Edison	\$36,601
Total Charter Average	\$39,913

FY22 Equalization

Appoquinimink	\$15,602
Brandywine	\$6,465
Caesar Rodney	\$19,861
Cape Henlopen	\$1,225
Capital	\$14,796
Christina	\$6,465
Colonial	\$6,465
Delmar	\$20,617
Indian River	\$1,483
Lake Forest	\$20,756
Laurel	\$16,546
Milford	\$17,461
Red Clay	\$6,465
Seaford	\$16,969
Smyrna	\$19,860
Woodbridge	\$16,744

**Section 1.10 Budget and Finance :: Attachment 22 - Revenue
Estimates :: 80% Enrollment :: Year 1 (2023-24)**

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 1 2023-2024-80%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$1,471,224	\$475,294	\$1,946,518

UNITS 12.62

Enter Estimated # of 10th Graders Here:

0

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	32.00	\$2,581.21	\$82,599
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	8.00	\$6,145.73	\$49,166
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	40.00		\$131,765

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	8.00	\$679.45	\$5,436
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	2.00	\$1,617.75	\$3,236
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	10.00		\$8,671

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	66.00	\$2,533.57	\$167,216
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	14.00	\$6,032.30	\$84,452
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	80.00		\$251,668

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	8.00	\$616.57	\$4,933
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	2.00	\$1,468.03	\$2,936
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	10.00		\$7,869

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	12.00	\$905.87	\$10,870
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	3.00	\$2,156.84	\$6,471
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	15.00		\$17,341

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	24.00	\$983.82	\$23,612
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	6.00	\$2,342.43	\$14,055
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	30.00		\$37,666

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	12.00	\$1,061.21	\$12,735
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	3.00	\$2,526.70	\$7,580
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	15.00		\$20,315

The Bryan Allen Stevenson School of Excellence-Year 1 2023-2024-80%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	200
Regular:	162
Special:	38

Location

Districts:					
Appoquinimink	0	Christina	0	Laurel	10
Brandywine	0	Colonial	0	Milford	15
Caesar Rodney	0	Delmar	10	Red Clay	0
Cape Henlopen	40	Indian River	80	Seaford	30
Capital	0	Lake Forest	0	Smyrna	0
				Woodbridge	15

Transportation Eligible Students:	170			
Regular Students K-3	0	Unit size - Regular students K-3	=	16.20
Regular Students 4-12	162	Unit size - Regular students 4-12	=	20.00
Special Students K-3 Basic	0	Unit size - Basic students K-3	=	12.20
Special Students 4-12 Basic	38	Unit size - Basic students 4-12	=	8.40
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=	6.00
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=	2.60

# of Div I Units Generated =	12.62		\$35,922	\$453,467
Administrative Assistant =	1.00		\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.08		\$58,783	\$4,703
Percentage Transportation Supervisor =	0.02		\$58,783	\$1,176
Principal =	0.00		\$73,528	\$0
Assistant Principal =	0.00		\$65,200	\$0
Percentage Visiting Teacher =	0.05		\$46,247	\$2,312
Percentage Driver Education Teacher =	0.00		\$45,467	\$0
Nurse =	0.09		\$46,075	\$4,362
Academic Excellence Units =	0.80		\$44,376	\$35,501
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.22		\$52,202	\$11,561
Related Services Specialist Intensive	0.00		\$52,202	\$0
Related Services Specialist Complex	0.00		\$52,202	\$0
Clerical Units =	1.00		\$33,517	\$33,517
Custodial Units =	1.00		\$28,172	\$28,172
Cafeteria Manager =	0.73		\$29,038	\$21,198
Cafeteria Worker =	1.24		\$14,272	\$17,697
Total Staffing =	18.86			

Total Salary Costs				\$661,963
OEC Rate			33.11%	\$219,176
Health Insurance Per FTE			\$12,481	\$235,386

Subtotal Personnel Revenue	\$1,116,525
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Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	12.62			
Division II - All Other Costs - Current Unit Value =	\$ 2,925		\$	36,925
Division II - Energy - Current Unit Value =	\$ 2,387		\$	30,133
Division III - Equalization - Unit Value =	\$ 7,807		\$	98,555
Academic Excellence Division III =			\$	6,246
Student Transportation Amount =			\$	182,840

Subtotal Other Sources	\$ 354,698
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Grand Total State Sources	\$1,471,224
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Transportation

County	Vo Tech	FY 22 Transp /Pupil
New Castle	NCCVT	\$ 994.69
Kent	Polytech	\$ 1,025.79
Sussex	SCVT	\$ 1,075.53

Final FY2021 Div I Salary

Academia Antonia Alonso	\$38,161
Academy of Dover	\$36,540
Campus Community	\$38,692
Charter School of New Castle	\$37,435
Charter School of Wilmington	\$45,800
Delaware Military Academy	\$42,694
Early College High School at DSU	\$42,244
East Side Charter School	\$38,924
First State Military Academy	\$39,121
First State Montessori Academy	\$41,486
Freire Charter School	\$35,929
Gateway Lab School	\$42,837
Great Oaks Charter School	\$32,699
Kuumba Academy	\$37,770
Las Americas Aspira Academy	\$39,453
MOT Charter School	\$42,267
Newark Charter School	\$45,647
Odyssey Charter School	\$42,080
Positive Outcomes	\$42,878
Providence Creek	\$37,747
Sussex Academy	\$43,853
Sussex Montessori School	\$37,137
Thomas A. Edison	\$36,601
Total Charter Average	\$39,913

FY22 Equalization

Appoquinimink	\$15,602
Brandywine	\$6,465
Caesar Rodney	\$19,861
Cape Henlopen	\$1,225
Capital	\$14,796
Christina	\$6,465
Colonial	\$6,465
Delmar	\$20,617
Indian River	\$1,483
Lake Forest	\$20,756
Laurel	\$16,546
Milford	\$17,461
Red Clay	\$6,465
Seaford	\$16,969
Smyrna	\$19,860
Woodbridge	\$16,744

**Section 1.10 Budget and Finance :: Attachment 22 - Revenue
Estimates :: 80% Enrollment :: Year 2 (2024-25)**

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 2 2024-2025-80%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$2,081,590	\$665,369	\$2,746,959

UNITS 17.66

Enter Estimated # of 10th Graders Here:

0

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	45.00	\$2,581.21	\$116,154
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	11.00	\$6,145.73	\$67,603
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	56.00		\$183,757

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	11.00	\$679.45	\$7,474
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	3.00	\$1,617.75	\$4,853
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	14.00		\$12,327

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	92.00	\$2,533.57	\$233,088
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	20.00	\$6,032.30	\$120,646
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	112.00		\$353,734

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	11.00	\$616.57	\$6,782
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	3.00	\$1,468.03	\$4,404
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	14.00		\$11,186

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	17.00	\$905.87	\$15,400
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	4.00	\$2,156.84	\$8,627
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	21.00		\$24,027

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	34.00	\$983.82	\$33,450
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	8.00	\$2,342.43	\$18,739
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	42.00		\$52,189

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	17.00	\$1,061.21	\$18,041
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	4.00	\$2,526.70	\$10,107
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	21.00		\$28,147

The Bryan Allen Stevenson School of Excellence-Year 2 2024-2025-80%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	280
Regular:	227
Special:	53

Location					
Districts:					
Appoquinimink	0	Christina	0	Laurel	14
Brandywine	0	Colonial	0	Milford	21
Caesar Rodney	0	Delmar	14	Red Clay	0
Cape Henlopen	56	Indian River	112	Seaford	42
Capital	0	Lake Forest	0	Smyrna	0
				Woodbridge	21

Transportation Eligible Students:	238			
Regular Students K-3	0	Unit size - Regular students K-3	=	16.20
Regular Students 4-12	227	Unit size - Regular students 4-12	=	20.00
Special Students K-3 Basic	0	Unit size - Basic students K-3	=	12.20
Special Students 4-12 Basic	53	Unit size - Basic students 4-12	=	8.40
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=	6.00
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=	2.60

# of Div I Units Generated =	17.66		\$35,922	\$634,357
Administrative Assistant =	1.00		\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.12		\$58,783	\$7,054
Percentage Transportation Supervisor =	0.03		\$58,783	\$1,763
Principal =	1.00		\$73,528	\$73,528
Assistant Principal =	0.00		\$65,200	\$0
Percentage Visiting Teacher =	0.07		\$46,247	\$3,237
Percentage Driver Education Teacher =	0.00		\$45,467	\$0
Nurse =	0.13		\$46,075	\$6,102
Academic Excellence Units =	1.12		\$44,376	\$49,701
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.31		\$52,202	\$16,173
Related Services Specialist Intensive	0.00		\$52,202	\$0
Related Services Specialist Complex	0.00		\$52,202	\$0
Clerical Units =	1.00		\$33,517	\$33,517
Custodial Units =	1.00		\$28,172	\$28,172
Cafeteria Manager =	0.73		\$29,038	\$21,198
Cafeteria Worker =	1.74		\$14,272	\$24,833
Total Staffing =	25.91			

Total Salary Costs				\$947,934
OEC Rate			33.11%	\$313,861
Health Insurance Per FTE			\$12,481	\$323,399

Subtotal Personnel Revenue	\$1,585,193
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Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	17.66			
Division II - All Other Costs - Current Unit Value =	\$ 2,925		\$	51,654
Division II - Energy - Current Unit Value =	\$ 2,387		\$	42,153
Division III - Equalization - Unit Value =	\$ 7,807		\$	137,869
Academic Excellence Division III =			\$	8,744
Student Transportation Amount =			\$	255,976

Subtotal Other Sources	\$ 496,397
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Grand Total State Sources	\$2,081,590
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Transportation

County	Vo Tech		FY 22 Transp /Pupil
New Castle	NCCVT	\$	994.69
Kent	Polytech	\$	1,025.79
Sussex	SCVT	\$	1,075.53

Final FY2021 Div I Salary

Academia Antonia Alonso	\$38,161
Academy of Dover	\$36,540
Campus Community	\$38,692
Charter School of New Castle	\$37,435
Charter School of Wilmington	\$45,800
Delaware Military Academy	\$42,694
Early College High School at DSU	\$42,244
East Side Charter School	\$38,924
First State Military Academy	\$39,121
First State Montessori Academy	\$41,486
Freire Charter School	\$35,929
Gateway Lab School	\$42,837
Great Oaks Charter School	\$32,699
Kuumba Academy	\$37,770
Las Americas Aspira Academy	\$39,453
MOT Charter School	\$42,267
Newark Charter School	\$45,647
Odyssey Charter School	\$42,080
Positive Outcomes	\$42,878
Providence Creek	\$37,747
Sussex Academy	\$43,853
Sussex Montessori School	\$37,137
Thomas A. Edison	\$36,601
Total Charter Average	\$39,913

FY22 Equalization

Appoquinimink	\$15,602
Brandywine	\$6,465
Caesar Rodney	\$19,861
Cape Henlopen	\$1,225
Capital	\$14,796
Christina	\$6,465
Colonial	\$6,465
Delmar	\$20,617
Indian River	\$1,483
Lake Forest	\$20,756
Laurel	\$16,546
Milford	\$17,461
Red Clay	\$6,465
Seaford	\$16,969
Smyrna	\$19,860
Woodbridge	\$16,744

**Section 1.10 Budget and Finance :: Attachment 22 - Revenue
Estimates :: 80% Enrollment :: Year 3 (2025-26)**

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 3 2025-2026-80%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$2,636,385	\$864,683	\$3,501,068

UNITS 22.70

Enter Estimated # of 10th Graders Here:

0

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	58.00	\$2,581.21	\$149,710
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	17.00	\$6,145.73	\$104,477
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	75.00		\$254,188

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	15.00	\$679.45	\$10,192
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	3.00	\$1,617.75	\$4,853
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	18.00		\$15,045

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	116.00	\$2,533.57	\$293,894
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	26.00	\$6,032.30	\$156,840
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	142.00		\$450,734

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	15.00	\$616.57	\$9,249
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	3.00	\$1,468.03	\$4,404
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	18.00		\$13,653

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	22.00	\$905.87	\$19,929
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	5.00	\$2,156.84	\$10,784
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	27.00		\$30,713

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	44.00	\$983.82	\$43,288
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	9.00	\$2,342.43	\$21,082
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	53.00		\$64,370

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	22.00	\$1,061.21	\$23,347
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	5.00	\$2,526.70	\$12,634
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	27.00		\$35,980

The Bryan Allen Stevenson School of Excellence-Year 3 2025-2026-80%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	360
Regular:	292
Special:	68

Location					
Districts:					
Appoquinimink	0	Christina	0	Laurel	18
Brandywine	0	Colonial	0	Milford	27
Caesar Rodney	0	Delmar	18	Red Clay	0
Cape Henlopen	75	Indian River	142	Seaford	53
Capital	0	Lake Forest	0	Smyrna	0
				Woodbridge	27

Transportation Eligible Students:	306			
Regular Students K-3	0	Unit size - Regular students K-3	=	16.20
Regular Students 4-12	292	Unit size - Regular students 4-12	=	20.00
Special Students K-3 Basic	0	Unit size - Basic students K-3	=	12.20
Special Students 4-12 Basic	68	Unit size - Basic students 4-12	=	8.40
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=	6.00
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=	2.60

# of Div I Units Generated =	22.70		\$35,922	\$815,248
Administrative Assistant =	1.00		\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.15		\$58,783	\$8,817
Percentage Transportation Supervisor =	0.04		\$58,783	\$2,351
Principal =	1.00		\$73,528	\$73,528
Assistant Principal =	0.00		\$65,200	\$0
Percentage Visiting Teacher =	0.09		\$46,247	\$4,162
Percentage Driver Education Teacher =	0.00		\$45,467	\$0
Nurse =	0.17		\$46,075	\$7,843
Academic Excellence Units =	1.44		\$44,376	\$63,901
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.40		\$52,202	\$20,785
Related Services Specialist Intensive	0.00		\$52,202	\$0
Related Services Specialist Complex	0.00		\$52,202	\$0
Clerical Units =	2.00		\$33,517	\$67,034
Custodial Units =	1.00		\$28,172	\$28,172
Cafeteria Manager =	0.73		\$29,038	\$21,198
Cafeteria Worker =	2.23		\$14,272	\$31,827
Total Staffing =	32.94			

Total Salary Costs				\$1,193,163
OEC Rate			33.11%	\$395,056
Health Insurance Per FTE			\$12,481	\$411,161

Subtotal Personnel Revenue	\$1,999,380
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Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	22.70		
Division II - All Other Costs - Current Unit Value =	\$ 2,925		\$ 66,384
Division II - Energy - Current Unit Value =	\$ 2,387		\$ 54,174
Division III - Equalization - Unit Value =	\$ 7,762		\$ 176,158
Academic Excellence Division III =			\$ 11,177
Student Transportation Amount =			\$ 329,112

Subtotal Other Sources	\$ 637,005
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Grand Total State Sources	\$2,636,385
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Transportation

County	Vo Tech		FY 22 Transp /Pupil
New Castle	NCCVT	\$	994.69
Kent	Polytech	\$	1,025.79
Sussex	SCVT	\$	1,075.53

Final FY2021 Div I Salary

Academia Antonia Alonso	\$38,161
Academy of Dover	\$36,540
Campus Community	\$38,692
Charter School of New Castle	\$37,435
Charter School of Wilmington	\$45,800
Delaware Military Academy	\$42,694
Early College High School at DSU	\$42,244
East Side Charter School	\$38,924
First State Military Academy	\$39,121
First State Montessori Academy	\$41,486
Freire Charter School	\$35,929
Gateway Lab School	\$42,837
Great Oaks Charter School	\$32,699
Kuumba Academy	\$37,770
Las Americas Aspira Academy	\$39,453
MOT Charter School	\$42,267
Newark Charter School	\$45,647
Odyssey Charter School	\$42,080
Positive Outcomes	\$42,878
Providence Creek	\$37,747
Sussex Academy	\$43,853
Sussex Montessori School	\$37,137
Thomas A. Edison	\$36,601
Total Charter Average	\$39,913

FY22 Equalization

Appoquinimink	\$15,602
Brandywine	\$6,465
Caesar Rodney	\$19,861
Cape Henlopen	\$1,225
Capital	\$14,796
Christina	\$6,465
Colonial	\$6,465
Delmar	\$20,617
Indian River	\$1,483
Lake Forest	\$20,756
Laurel	\$16,546
Milford	\$17,461
Red Clay	\$6,465
Seaford	\$16,969
Smyrna	\$19,860
Woodbridge	\$16,744

**Section 1.10 Budget and Finance :: Attachment 22 - Revenue
Estimates :: 80% Enrollment :: Year 4 (2026-27)**

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 4 2026-2027-80%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$3,265,621	\$1,052,086	\$4,317,707

UNITS 27.80

Enter Estimated # of 10th Graders Here:

100

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	71.00	\$2,581.21	\$183,266
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	17.00	\$6,145.73	\$104,477
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	88.00		\$287,743

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	18.00	\$679.45	\$12,230
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	4.00	\$1,617.75	\$6,471
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	22.00		\$18,701

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	142.00	\$2,533.57	\$359,767
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	34.00	\$6,032.30	\$205,098
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	176.00		\$564,865

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	18.00	\$616.57	\$11,098
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	4.00	\$1,468.03	\$5,872
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	22.00		\$16,970

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	27.00	\$905.87	\$24,458
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	6.00	\$2,156.84	\$12,941
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	33.00		\$37,400

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	53.00	\$983.82	\$52,142
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	13.00	\$2,342.43	\$30,452
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	66.00		\$82,594

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	27.00	\$1,061.21	\$28,653
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	6.00	\$2,526.70	\$15,160
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	33.00		\$43,813

The Bryan Allen Stevenson School of Excellence-Year 4 2026-2027-80%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	440
Regular:	356
Special:	84

Location					
Districts:					
Appoquinimink	0	Christina	0	Laurel	22
Brandywine	0	Colonial	0	Milford	33
Caesar Rodney	0	Delmar	22	Red Clay	0
Cape Henlopen	88	Indian River	176	Seaford	66
Capital	0	Lake Forest	0	Smyrna	0
				Woodbridge	33

Transportation Eligible Students:	374			
Regular Students K-3	0	Unit size - Regular students K-3	=	16.20
Regular Students 4-12	356	Unit size - Regular students 4-12	=	20.00
Special Students K-3 Basic	0	Unit size - Basic students K-3	=	12.20
Special Students 4-12 Basic	84	Unit size - Basic students 4-12	=	8.40
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=	6.00
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=	2.60

# of Div I Units Generated =	27.80		\$35,922	\$998,619
Administrative Assistant =	1.00		\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.19		\$58,783	\$11,169
Percentage Transportation Supervisor =	0.05		\$58,783	\$2,939
Principal =	1.00		\$73,528	\$73,528
Assistant Principal =	0.65		\$65,200	\$42,380
Percentage Visiting Teacher =	0.11		\$46,247	\$5,087
Percentage Driver Education Teacher =	0.80		\$45,467	\$36,374
Nurse =	0.21		\$46,075	\$9,607
Academic Excellence Units =	1.76		\$44,376	\$78,102
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.49		\$52,202	\$25,460
Related Services Specialist Intensive	0.00		\$52,202	\$0
Related Services Specialist Complex	0.00		\$52,202	\$0
Clerical Units =	2.00		\$33,517	\$67,034
Custodial Units =	1.00		\$28,172	\$28,172
Cafeteria Manager =	0.73		\$29,038	\$21,198
Cafeteria Worker =	2.73		\$14,272	\$38,963
Total Staffing =	40.52			
Total Salary Costs				\$1,486,927
OEC Rate			33.11%	\$492,322
Health Insurance Per FTE			\$12,481	\$505,673

Subtotal Personnel Revenue	\$2,484,922
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Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	27.80		
Division II - All Other Costs - Current Unit Value =	\$ 2,925		\$ 81,315
Division II - Energy - Current Unit Value =	\$ 2,387		\$ 66,359
Division III - Equalization - Unit Value =	\$ 7,807		\$ 217,037
Academic Excellence Division III =			\$ 13,740
Student Transportation Amount =			\$ 402,248

Subtotal Other Sources	\$ 780,699
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Grand Total State Sources	\$3,265,621
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Transportation

County	Vo Tech		FY 22 Transp /Pupil
New Castle	NCCVT	\$	994.69
Kent	Polytech	\$	1,025.79
Sussex	SCVT	\$	1,075.53

Final FY2021 Div I Salary

Academia Antonia Alonso	\$38,161
Academy of Dover	\$36,540
Campus Community	\$38,692
Charter School of New Castle	\$37,435
Charter School of Wilmington	\$45,800
Delaware Military Academy	\$42,694
Early College High School at DSU	\$42,244
East Side Charter School	\$38,924
First State Military Academy	\$39,121
First State Montessori Academy	\$41,486
Freire Charter School	\$35,929
Gateway Lab School	\$42,837
Great Oaks Charter School	\$32,699
Kuumba Academy	\$37,770
Las Americas Aspira Academy	\$39,453
MOT Charter School	\$42,267
Newark Charter School	\$45,647
Odyssey Charter School	\$42,080
Positive Outcomes	\$42,878
Providence Creek	\$37,747
Sussex Academy	\$43,853
Sussex Montessori School	\$37,137
Thomas A. Edison	\$36,601
Total Charter Average	\$39,913

FY22 Equalization

Appoquinimink	\$15,602
Brandywine	\$6,465
Caesar Rodney	\$19,861
Cape Henlopen	\$1,225
Capital	\$14,796
Christina	\$6,465
Colonial	\$6,465
Delmar	\$20,617
Indian River	\$1,483
Lake Forest	\$20,756
Laurel	\$16,546
Milford	\$17,461
Red Clay	\$6,465
Seaford	\$16,969
Smyrna	\$19,860
Woodbridge	\$16,744

**Section 1.10 Budget and Finance :: Attachment 22 - Revenue
Estimates :: 80% Enrollment :: Year 5 (2027-28)**

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 5 2027-2028-80%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$3,856,250	\$1,242,162	\$5,098,412

UNITS 32.84

Enter Estimated # of 10th Graders Here:

100

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	84.00	\$2,581.21	\$216,822
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	20.00	\$6,145.73	\$122,915
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	104.00		\$339,736

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	21.00	\$679.45	\$14,268
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	5.00	\$1,617.75	\$8,089
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	26.00		\$22,357

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	168.00	\$2,533.57	\$425,640
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	40.00	\$6,032.30	\$241,292
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	208.00		\$666,932

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	21.00	\$616.57	\$12,948
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	5.00	\$1,468.03	\$7,340
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	26.00		\$20,288

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	32.00	\$905.87	\$28,988
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	7.00	\$2,156.84	\$15,098
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	39.00		\$44,086

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	63.00	\$983.82	\$61,981
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	15.00	\$2,342.43	\$35,136
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	78.00		\$97,117

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	32.00	\$1,061.21	\$33,959
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	7.00	\$2,526.70	\$17,687
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	39.00		\$51,646

The Bryan Allen Stevenson School of Excellence-Year 5 2027-2028-80%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	520			
Regular:	421			
Special:	99			
Location				
Districts:				
Appoquinimink	0	Christina	0	Laurel 26
Brandywine	0	Colonial	0	Milford 39
Caesar Rodney	0	Delmar	26	Red Clay 0
Cape Henlopen	104	Indian River	208	Seaford 78
Capital	0	Lake Forest	0	Smyrna 0
				Woodbridge 39
Transportation Eligible Students:	442			
Regular Students K-3	0	Unit size - Regular students K-3	=	16.20
Regular Students 4-12	421	Unit size - Regular students 4-12	=	20.00
Special Students K-3 Basic	0	Unit size - Basic students K-3	=	12.20
Special Students 4-12 Basic	99	Unit size - Basic students 4-12	=	8.40
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=	6.00
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=	2.60
# of Div I Units Generated =	32.84		\$35,922	\$1,179,510
Administrative Assistant =	1.00		\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.22		\$58,783	\$12,932
Percentage Transportation Supervisor =	0.06		\$58,783	\$3,527
Principal =	1.00		\$73,528	\$73,528
Assistant Principal =	1.00		\$65,200	\$65,200
Percentage Visiting Teacher =	0.13		\$46,247	\$6,012
Percentage Driver Education Teacher =	0.80		\$45,467	\$36,374
Nurse =	0.25		\$46,075	\$11,347
Academic Excellence Units =	2.08		\$44,376	\$92,302
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.58		\$52,202	\$30,072
Related Services Specialist Intensive	0.00		\$52,202	\$0
Related Services Specialist Complex	0.00		\$52,202	\$0
Clerical Units =	3.00		\$33,517	\$100,551
Custodial Units =	1.00		\$28,172	\$28,172
Cafeteria Manager =	0.73		\$29,038	\$21,198
Cafeteria Worker =	3.22		\$14,272	\$45,956
Total Staffing =	47.90			
Total Salary Costs				\$1,754,977
OEC Rate			33.11%	\$581,073
Health Insurance Per FTE			\$12,481	\$597,804

Subtotal Personnel Revenue	\$2,933,853
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Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	32.84		
Division II - All Other Costs - Current Unit Value =	\$ 2,925		\$ 96,044
Division II - Energy - Current Unit Value =	\$ 2,387		\$ 78,379
Division III - Equalization - Unit Value =	\$ 7,807		\$ 256,351
Academic Excellence Division III =			\$ 16,239
Student Transportation Amount =			\$ 475,384

Subtotal Other Sources	\$ 922,397
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Grand Total State Sources	\$3,856,250
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Transportation

County	Vo Tech		FY 22 Transp /Pupil
New Castle	NCCVT	\$	994.69
Kent	Polytech	\$	1,025.79
Sussex	SCVT	\$	1,075.53

Final FY2021 Div I Salary

Academia Antonia Alonso	\$38,161
Academy of Dover	\$36,540
Campus Community	\$38,692
Charter School of New Castle	\$37,435
Charter School of Wilmington	\$45,800
Delaware Military Academy	\$42,694
Early College High School at DSU	\$42,244
East Side Charter School	\$38,924
First State Military Academy	\$39,121
First State Montessori Academy	\$41,486
Freire Charter School	\$35,929
Gateway Lab School	\$42,837
Great Oaks Charter School	\$32,699
Kuumba Academy	\$37,770
Las Americas Aspira Academy	\$39,453
MOT Charter School	\$42,267
Newark Charter School	\$45,647
Odyssey Charter School	\$42,080
Positive Outcomes	\$42,878
Providence Creek	\$37,747
Sussex Academy	\$43,853
Sussex Montessori School	\$37,137
Thomas A. Edison	\$36,601
Total Charter Average	\$39,913

FY22 Equalization

Appoquinimink	\$15,602
Brandywine	\$6,465
Caesar Rodney	\$19,861
Cape Henlopen	\$1,225
Capital	\$14,796
Christina	\$6,465
Colonial	\$6,465
Delmar	\$20,617
Indian River	\$1,483
Lake Forest	\$20,756
Laurel	\$16,546
Milford	\$17,461
Red Clay	\$6,465
Seaford	\$16,969
Smyrna	\$19,860
Woodbridge	\$16,744

**Section 1.10 Budget and Finance :: Attachment 22 - Revenue
Estimates :: 80% Enrollment :: Year 6 (2028-29)**

Charter School Name: The Bryan Allen Stevenson School of Excellence-Year 6 2028-2029-80%

New Charter School Estimated State and Local Fund Calculations

Disclaimer: The following estimates will vary from actuals and do not account for any extenuating circumstances.
 --State funds are automatically calculated and are detailed on the "State Detail Page" tab.

Please enter the following information:

Specify grade configuration for the year of estimate: (Example K-8, 9-12)
 Specify the county in which the school will be located: Choices New Castle, Kent or Sussex
 Enter the number of students in the red cells below by school district and student type and the estimated funds will calculate below.
 Enter the number of tenth graders in the box in cell location J12

	#students per unit
Regular/Special K-3	16.2
Regular Students 4-12	20
Special Students K-3 Basic	12.2
Special Students 4-12 Basic	8.4
Special Students 4-12 Intense	6
Special Students 4-12 Complex	2.6

State Funding	Local Funding	Total Funding
\$4,355,373	\$1,427,843	\$5,783,215

UNITS 37.87

Enter Estimated # of 10th Graders Here:

100

<u>29 Appoquinimink</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$2,229.39	\$0
Regular Students 4-12	0.00	\$1,805.80	\$0
Special Students K-3 Basic	0.00	\$2,960.33	\$0
Special Students 4-12 Basic	0.00	\$4,299.53	\$0
Special Students 4-12 Intense	0.00	\$6,019.35	\$0
Special Students 4-12 Complex	0.00	\$13,890.80	\$0
Totals	0.00		\$0

<u>31 Brandywine</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$5,007.60	\$0
Regular Students 4-12	0.00	\$4,056.15	\$0
Special Students K-3 Basic	0.00	\$6,649.43	\$0
Special Students 4-12 Basic	0.00	\$9,657.50	\$0
Special Students 4-12 Intense	0.00	\$13,520.51	\$0
Special Students 4-12 Complex	0.00	\$31,201.17	\$0
Totals	0.00		\$0

<u>10 Caesar Rodney</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,585.42	\$0
Regular Students 4-12	0.00	\$1,284.19	\$0
Special Students K-3 Basic	0.00	\$2,105.23	\$0
Special Students 4-12 Basic	0.00	\$3,057.60	\$0
Special Students 4-12 Intense	0.00	\$4,280.64	\$0
Special Students 4-12 Complex	0.00	\$9,878.41	\$0
Totals	0.00		\$0

<u>17 Cape Henlopen</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,186.67	\$0
Regular Students 4-12	97.00	\$2,581.21	\$250,377
Special Students K-3 Basic	0.00	\$4,231.48	\$0
Special Students 4-12 Basic	22.00	\$6,145.73	\$135,206
Special Students 4-12 Intense	0.00	\$8,604.02	\$0
Special Students 4-12 Complex	0.00	\$19,855.42	\$0
Totals	119.00		\$385,583

<u>13 Capital</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,154.17	\$0
Regular Students 4-12	0.00	\$934.88	\$0
Special Students K-3 Basic	0.00	\$1,532.59	\$0
Special Students 4-12 Basic	0.00	\$2,225.91	\$0
Special Students 4-12 Intense	0.00	\$3,116.27	\$0
Special Students 4-12 Complex	0.00	\$7,191.39	\$0
Totals	0.00		\$0

<u>33 Christina</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,239.09	\$0
Regular Students 4-12	0.00	\$3,433.67	\$0
Special Students K-3 Basic	0.00	\$5,628.96	\$0
Special Students 4-12 Basic	0.00	\$8,175.39	\$0
Special Students 4-12 Intense	0.00	\$11,445.55	\$0
Special Students 4-12 Complex	0.00	\$26,412.81	\$0
Totals	0.00		\$0

<u>34 Colonial</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,478.77	\$0
Regular Students 4-12	0.00	\$2,817.80	\$0
Special Students K-3 Basic	0.00	\$4,619.34	\$0
Special Students 4-12 Basic	0.00	\$6,709.05	\$0
Special Students 4-12 Intense	0.00	\$9,392.67	\$0
Special Students 4-12 Complex	0.00	\$21,675.38	\$0
Totals	0.00		\$0

<u>37 Delmar</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$838.83	\$0
Regular Students 4-12	24.00	\$679.45	\$16,307
Special Students K-3 Basic	0.00	\$1,113.86	\$0
Special Students 4-12 Basic	6.00	\$1,617.75	\$9,707
Special Students 4-12 Intense	0.00	\$2,264.85	\$0
Special Students 4-12 Complex	0.00	\$5,226.58	\$0
Totals	30.00		\$26,013

<u>36 Indian River</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$3,127.86	\$0
Regular Students 4-12	196.00	\$2,533.57	\$496,580
Special Students K-3 Basic	0.00	\$4,153.39	\$0
Special Students 4-12 Basic	45.00	\$6,032.30	\$271,454
Special Students 4-12 Intense	0.00	\$8,445.22	\$0
Special Students 4-12 Complex	0.00	\$19,488.97	\$0
Totals	241.00		\$768,033

<u>15 Lake Forest</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,394.38	\$0
Regular Students 4-12	0.00	\$1,129.44	\$0
Special Students K-3 Basic	0.00	\$1,851.55	\$0
Special Students 4-12 Basic	0.00	\$2,689.15	\$0
Special Students 4-12 Intense	0.00	\$3,764.81	\$0
Special Students 4-12 Complex	0.00	\$8,688.03	\$0
Totals	0.00		\$0

<u>16 Laurel</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$761.20	\$0
Regular Students 4-12	24.00	\$616.57	\$14,798
Special Students K-3 Basic	0.00	\$1,010.77	\$0
Special Students 4-12 Basic	6.00	\$1,468.03	\$8,808
Special Students 4-12 Intense	0.00	\$2,055.24	\$0
Special Students 4-12 Complex	0.00	\$4,742.86	\$0
Totals	30.00		\$23,606

<u>18 Milford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,118.36	\$0
Regular Students 4-12	36.00	\$905.87	\$32,611
Special Students K-3 Basic	0.00	\$1,485.04	\$0
Special Students 4-12 Basic	9.00	\$2,156.84	\$19,412
Special Students 4-12 Intense	0.00	\$3,019.58	\$0
Special Students 4-12 Complex	0.00	\$6,968.26	\$0
Totals	45.00		\$52,023

<u>32 Red Clay</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$4,485.07	\$0
Regular Students 4-12	0.00	\$3,632.91	\$0
Special Students K-3 Basic	0.00	\$5,955.59	\$0
Special Students 4-12 Basic	0.00	\$8,649.78	\$0
Special Students 4-12 Intense	0.00	\$12,109.69	\$0
Special Students 4-12 Complex	0.00	\$27,945.45	\$0
Totals	0.00		\$0

<u>23 Seaford</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,214.59	\$0
Regular Students 4-12	73.00	\$983.82	\$71,819
Special Students K-3 Basic	0.00	\$1,612.82	\$0
Special Students 4-12 Basic	17.00	\$2,342.43	\$39,821
Special Students 4-12 Intense	0.00	\$3,279.40	\$0
Special Students 4-12 Complex	0.00	\$7,567.84	\$0
Totals	90.00		\$111,640

<u>24 Smyrna</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,143.26	\$0
Regular Students 4-12	0.00	\$926.04	\$0
Special Students K-3 Basic	0.00	\$1,518.10	\$0
Special Students 4-12 Basic	0.00	\$2,204.86	\$0
Special Students 4-12 Intense	0.00	\$3,086.80	\$0
Special Students 4-12 Complex	0.00	\$7,123.39	\$0
Totals	0.00		\$0

<u>35 Woodbridge</u>	#	Local Pupil Rate	Amount
Regular Students K-3	0.00	\$1,310.14	\$0
Regular Students 4-12	36.00	\$1,061.21	\$38,204
Special Students K-3 Basic	0.00	\$1,739.70	\$0
Special Students 4-12 Basic	9.00	\$2,526.70	\$22,740
Special Students 4-12 Intense	0.00	\$3,537.38	\$0
Special Students 4-12 Complex	0.00	\$8,163.19	\$0
Totals	45.00		\$60,944

The Bryan Allen Stevenson School of Excellence-Year 6 2028-2029-80%

Charter School Revenue Calculation - Estimated State Funding

Student Total:	600
Regular:	486
Special:	114

Location

Districts:			
Appoquinimink	0	Christina	0
Brandywine	0	Colonial	0
Caesar Rodney	0	Delmar	30
Cape Henlopen	119	Indian River	241
Capital	0	Lake Forest	0
			0
			30
			45
			0
			90
			0
			45

Transportation Eligible Students:	510		
Regular Students K-3	0	Unit size - Regular students K-3	=
Regular Students 4-12	486	Unit size - Regular students 4-12	=
Special Students K-3 Basic	0	Unit size - Basic students K-3	=
Special Students 4-12 Basic	114	Unit size - Basic students 4-12	=
Special Students 4-12 Intense	0	Unit size - Intense Students 4-12	=
Special Students 4-12 Complex	0	Unit size - Complex Students 4-12	=

# of Div I Units Generated =	37.87		\$35,922	\$1,360,400
Administrative Assistant =	1.00		\$48,297	\$48,297
Percentage 11 Month Supervisor =	0.25		\$58,783	\$14,696
Percentage Transportation Supervisor =	0.07		\$58,783	\$4,115
Principal =	1.00		\$73,528	\$73,528
Assistant Principal =	1.00		\$65,200	\$65,200
Percentage Visiting Teacher =	0.15		\$46,247	\$6,937
Percentage Driver Education Teacher =	0.80		\$45,467	\$36,374
Nurse =	0.28		\$46,075	\$13,087
Academic Excellence Units =	2.40		\$44,376	\$106,502
Related Services Specialist K-3, 4-12 Reg, K-3 Basic, 4-12 Basic	0.66		\$52,202	\$34,684
Related Services Specialist Intensive	0.00		\$52,202	\$0
Related Services Specialist Complex	0.00		\$52,202	\$0
Clerical Units =	3.00		\$33,517	\$100,551
Custodial Units =	1.00		\$28,172	\$28,172
Cafeteria Manager =	0.73		\$29,038	\$21,198
Cafeteria Worker =	3.72		\$14,272	\$53,092
Total Staffing =	53.94			
Total Salary Costs				\$1,966,832
OEC Rate			33.11%	\$651,218
Health Insurance Per FTE			\$12,481	\$673,210

Subtotal Personnel Revenue \$3,291,260

Other State Sources (based on Latest Available Values)

Division II Units (No Vocational Courses) =	37.87		
Division II - All Other Costs - Current Unit Value =	\$ 2,925		\$ 110,774
Division II - Energy - Current Unit Value =	\$ 2,387		\$ 90,399
Division III - Equalization - Unit Value =	\$ 7,808		\$ 295,681
Academic Excellence Division III =			\$ 18,738
Student Transportation Amount =			\$ 548,520

Subtotal Other Sources \$ 1,064,113

Grand Total State Sources \$4,355,373

Transportation

County	Vo Tech		FY 22 Transp /Pupil
New Castle	NCCVT	\$	994.69
Kent	Polytech	\$	1,025.79
Sussex	SCVT	\$	1,075.53

Final FY2021 Div I Salary

Academia Antonia Alonso	\$38,161
Academy of Dover	\$36,540
Campus Community	\$38,692
Charter School of New Castle	\$37,435
Charter School of Wilmington	\$45,800
Delaware Military Academy	\$42,694
Early College High School at DSU	\$42,244
East Side Charter School	\$38,924
First State Military Academy	\$39,121
First State Montessori Academy	\$41,486
Freire Charter School	\$35,929
Gateway Lab School	\$42,837
Great Oaks Charter School	\$32,699
Kuumba Academy	\$37,770
Las Americas Aspira Academy	\$39,453
MOT Charter School	\$42,267
Newark Charter School	\$45,647
Odyssey Charter School	\$42,080
Positive Outcomes	\$42,878
Providence Creek	\$37,747
Sussex Academy	\$43,853
Sussex Montessori School	\$37,137
Thomas A. Edison	\$36,601
Total Charter Average	\$39,913

FY22 Equalization

Appoquinimink	\$15,602
Brandywine	\$6,465
Caesar Rodney	\$19,861
Cape Henlopen	\$1,225
Capital	\$14,796
Christina	\$6,465
Colonial	\$6,465
Delmar	\$20,617
Indian River	\$1,483
Lake Forest	\$20,756
Laurel	\$16,546
Milford	\$17,461
Red Clay	\$6,465
Seaford	\$16,969
Smyrna	\$19,860
Woodbridge	\$16,744

**Section 1.10 Budget and Finance :: Attachment 19 - Budget Sheets
(also required in Section 1.8)**

State & Local Revenue		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	State Appropriations	\$0	\$1,896,707	\$2,578,165	\$3,267,320	\$4,059,532
2	School District Local Fund Transfers	\$0	\$600,404	\$841,528	\$1,081,529	\$1,315,372
3	Prior Year Carryover Funds	\$0	\$0	\$91,214	\$107,882	\$229,049
TOTAL STATE & LOCAL REVENUE		\$0	\$2,497,111	\$3,510,907	\$4,456,731	\$5,603,953

State & Local Expenses		YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
Personnel Salaries / Other Employer Costs		FTE		FTE		FTE		FTE		FTE	
4	Classroom Teachers	\$0	0.00	\$601,140	11.00	\$907,384	17.00	\$1,163,214	21.00	\$1,460,742	26.00
5	Special Education Teachers	\$0	0.00	\$67,000	1.00	\$68,340	1.00	\$69,707	1.00	\$71,101	1.00
6	Special Teachers (Phys Ed, Art, Music)	\$0	0.00	\$57,114	1.00	\$58,256	1.00	\$118,842	2.00	\$181,827	3.00
7	Counselors	\$0	0.00	\$50,000	1.00	\$51,000	1.00	\$52,020	1.00	\$106,120	2.00
8	Principal/Administrative	\$0	0.00	\$166,260	2.00	\$169,585	2.00	\$172,977	2.00	\$235,863	3.00
9	Nurse	\$0	0.00	\$44,600	1.00	\$45,492	1.00	\$46,402	1.00	\$47,330	1.00
10	Clerical	\$0	0.00	\$28,500	1.00	\$29,070	1.00	\$59,302	2.00	\$60,488	2.00
11	Custodial	\$0	0.00	\$28,000	1.00	\$57,120	2.00	\$58,262	2.00	\$59,428	2.00
12	Substitutes	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
13	Other	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
14	Other Employer Costs (33.11% of Salaries)	\$0		\$345,209		\$458,986		\$576,354		\$736,002	
15	Health Insurance	\$0		\$268,299		\$385,502		\$498,176		\$653,880	
16	Other Benefits	\$0		\$0		\$0		\$0		\$0	
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$0	0.00	\$1,656,122	19.00	\$2,230,735	26.00	\$2,815,256	32.00	\$3,612,781	40.00

17	Transportation	\$0		\$190,225		\$271,705		\$356,265		\$444,290	
18	Extra Curricular Transportation	\$0		\$0		\$0		\$0		\$0	
19	Cafeteria	\$0		\$0		\$0		\$0		\$0	
20	Extra Curricular	\$0		\$0		\$0		\$0		\$0	
21	Supplies and Materials	\$0		\$50,000		\$65,000		\$80,000		\$90,000	
22	Textbooks	\$0		\$0		\$60,000		\$70,000		\$80,000	
23	Curriculum	\$0		\$0		\$22,600		\$23,600		\$35,730	
24	Professional Development	\$0		\$5,000		\$5,000		\$6,000		\$7,500	
25	Assessments	\$0		\$0		\$0		\$0		\$0	
26	Other Educational Program	\$0		\$5,000		\$10,000		\$12,000		\$15,000	
27	Therapists (Occupational, Speech)	\$0		\$37,000		\$45,000		\$55,000		\$65,000	
28	Classroom Technology	\$0		\$16,000		\$20,000		\$25,000		\$35,000	
29	School Climate	\$0		\$0		\$0		\$0		\$0	
30	Computers	\$0		\$0		\$65,000		\$80,000		\$100,000	
31	Contracted Services	\$0		\$35,000		\$55,000		\$75,000		\$100,000	
32	Other	\$0		\$10,000		\$10,000		\$10,000		\$10,000	
SUBTOTAL STUDENT SUPPORT		\$0		\$348,225		\$629,305		\$792,865		\$982,520	

33	Insurance (Property/Liability)	\$0		\$42,000		\$48,260		\$54,708		\$61,349	
34	Rent	\$0		\$181,050		\$184,600		\$188,150		\$192,055	
35	Mortgage	\$0		\$0		\$0		\$0		\$0	
36	Utilities	\$0		\$0		\$100,000		\$135,000		\$140,000	
37	Maintenance	\$0		\$15,000		\$20,000		\$30,000		\$45,000	
38	Telephone/Communications	\$0		\$5,000		\$7,500		\$10,000		\$15,000	
39	Construction	\$0		\$0		\$0		\$0		\$0	
40	Renovation	\$0		\$0		\$0		\$0		\$0	
41	Other	\$0		\$10,000		\$10,000		\$10,000		\$10,000	
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$0		\$253,050		\$370,360		\$427,858		\$463,404	

42	Equipment Lease/Maintenance	\$0		\$3,500		\$5,000		\$5,125		\$8,253	
43	Equipment Purchase	\$0		\$35,000		\$45,000		\$50,000		\$60,000	
44	Supplies and Materials	\$0		\$5,000		\$8,000		\$12,000		\$15,000	
45	Printing and Copying	\$0		\$6,000		\$7,000		\$10,000		\$12,000	
46	Postage and Shipping	\$0		\$1,500		\$3,000		\$3,575		\$5,075	
47	Enrollment / Recruitment	\$0		\$5,000		\$5,125		\$5,253		\$6,753	
48	Staffing (recruitment and assessment)	\$0		\$5,000		\$6,000		\$7,000		\$10,000	
49	Technology Plan	\$0		\$2,500		\$3,500		\$3,750		\$4,750	
50	Other	\$0		\$10,000		\$10,000		\$10,000		\$12,000	
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$0		\$73,500		\$92,625		\$106,703		\$133,831	

51	Management Company Fees	\$0		\$0		\$0		\$0		\$0	
52	Salaries/Other Employee Costs	\$0		\$0		\$0		\$0		\$0	
53	Curriculum	\$0		\$0		\$0		\$0		\$0	
54	Accounting and Payroll	\$0		\$75,000		\$80,000		\$85,000		\$95,000	
55	Other	\$0		\$0		\$0		\$0		\$0	
SUBTOTAL MANAGEMENT COMPANY		\$0		\$75,000		\$80,000		\$85,000		\$95,000	

STATE & LOCAL EXPENDITURES		\$0	\$2,405,897	\$3,403,025	\$4,227,682	\$5,287,536
56	# Students	0	250	350	450	550
REVENUE LESS EXPENDITURES		\$0	\$91,214	\$107,882	\$229,049	\$316,417
2% CONTINGENCY CHECK		\$0.00	\$49,942.22	\$70,218.14	\$89,134.62	\$112,079.06

Federal Funds		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	Entitlement Funding	\$0	\$175,280	\$245,229	\$315,437	\$385,835
2	Other Federal Grants	\$0	\$0	\$0	\$0	\$0
TOTAL FEDERAL REVENUE		\$0	\$175,280	\$245,229	\$315,437	\$385,835
Federal Expenses		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Personnel Salaries / Other Employer Costs						
		FTE	FTE	FTE	FTE	FTE
3	Classroom Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
4	Special Education Teachers	\$0 0.00	\$59,614 1.00	\$121,612 2.00	\$124,044 2.00	\$189,786 3.00
5	Special Teachers (Phys Ed, Art, Music)	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
6	Counselors	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
7	Principal/Administrative	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
8	Nurse	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
9	Clerical	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
10	Custodial	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
11	Substitutes	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
12	Other	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
13	Other Employer Costs (33.11% of Salaries)	\$0	\$19,738	\$40,266	\$41,071	\$62,838
14	Health Insurance	\$0	\$14,121	\$29,654	\$31,136	\$49,041
15	Other Benefits	\$0	\$0	\$0	\$0	\$0
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$0 0.00	\$93,473 1.00	\$191,532 2.00	\$196,251 2.00	\$301,665 3.00
Student Support						
16	Transportation	\$0	\$0	\$0	\$0	\$0
17	Extra Curricular Transportation	\$0	\$0	\$0	\$0	\$0
18	Cafeteria	\$0	\$0	\$0	\$0	\$0
19	Extra Curricular	\$0	\$0	\$0	\$0	\$0
20	Supplies and Materials	\$0	\$10,000	\$10,000	\$10,000	\$5,000
21	Textbooks	\$0	\$6,807	\$5,852	\$5,742	\$1,281
22	Curriculum	\$0	\$0	\$0	\$0	\$0
23	Professional Development	\$0	\$5,000	\$5,000	\$5,000	\$5,000
24	Assessments	\$0	\$0	\$0	\$0	\$0
25	Other Educational Program	\$0	\$0	\$0	\$0	\$0
26	Therapists (Occupational, Speech)	\$0	\$0	\$0	\$0	\$0
27	Classroom Technology	\$0	\$0	\$0	\$10,000	\$0
28	School Climate	\$0	\$0	\$0	\$0	\$0
29	Computers	\$0	\$15,000	\$5,000	\$0	\$0
30	Contracted Services	\$0	\$25,000	\$27,845	\$73,680	\$72,332
31	Other	\$0	\$20,000	\$0	\$14,764	\$557
SUBTOTAL STUDENT SUPPORT		\$0	\$81,807	\$53,697	\$119,186	\$84,170
Operations and Maintenance of Facilities						
32	Insurance (Property/Liability)	\$0	\$0	\$0	\$0	\$0
33	Rent	\$0	\$0	\$0	\$0	\$0
34	Mortgage	\$0	\$0	\$0	\$0	\$0
35	Utilities	\$0	\$0	\$0	\$0	\$0
36	Maintenance	\$0	\$0	\$0	\$0	\$0
37	Telephone/Communications	\$0	\$0	\$0	\$0	\$0
38	Construction	\$0	\$0	\$0	\$0	\$0
39	Renovation	\$0	\$0	\$0	\$0	\$0
40	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$0	\$0	\$0	\$0	\$0
Administrative/Operations Support						
42	Equipment Lease/Maintenance	\$0	\$0	\$0	\$0	\$0
41	Equipment Purchase	\$0	\$0	\$0	\$0	\$0
42	Supplies and Materials	\$0	\$0	\$0	\$0	\$0
43	Printing and Copying	\$0	\$0	\$0	\$0	\$0
44	Postage and Shipping	\$0	\$0	\$0	\$0	\$0
45	Enrollment / Recruitment	\$0	\$0	\$0	\$0	\$0
46	Staffing (recruitment and assessment)	\$0	\$0	\$0	\$0	\$0
47	Technology Plan	\$0	\$0	\$0	\$0	\$0
48	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$0	\$0	\$0	\$0	\$0
Management Company						
49	Fees	\$0	\$0	\$0	\$0	\$0
50	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
51	Curriculum	\$0	\$0	\$0	\$0	\$0
52	Accounting and Payroll	\$0	\$0	\$0	\$0	\$0
53	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL MANAGEMENT COMPANY		\$0	\$0	\$0	\$0	\$0
FEDERAL EXPENDITURES		\$0	\$175,280	\$245,229	\$315,437	\$385,835
54	# Students	0	250	350	450	550
REVENUE LESS EXPENDITURES		\$0	\$0	\$0	\$0	\$0

Other Funds		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	Non Profit Grants	\$0	\$0	\$0	\$0	\$0
2	Foundations Funds	\$1,250,000	\$150,000	\$150,000	\$150,000	\$150,000
3	Donations	\$150,000	\$50,000	\$50,000	\$50,000	\$50,000
4	Construction / Bank Loans	\$0	\$0	\$0	\$0	\$0
5	Cafeteria Funds	\$0	\$168,750	\$236,250	\$303,750	\$371,250
6	Miscellaneous Revenue	\$0	\$0	\$0	\$0	\$0
7	Prior Year Carryover Funds	\$0	\$296,581	\$223,129	\$230,754	\$217,668
TOTAL OTHER REVENUE		\$1,400,000	\$665,331	\$659,379	\$734,504	\$788,918

Other Expenses		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Personnel Salaries / Other Employer Costs						
		FTE	FTE	FTE	FTE	FTE
8	Classroom Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
9	Special Education Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
10	Special Teachers (Phys Ed, Art, Music)	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
11	Counselors	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
12	Principal/Administrative	\$193,000 3.00	\$69,360 1.00	\$70,747 1.00	\$72,162 1.00	\$73,605 1.00
13	Nurse	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
14	Clerical	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
15	Custodial	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
16	Substitutes	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
17	Other	\$0 0.00	\$42,243 3.00	\$43,089 3.00	\$43,950 3.00	\$59,772 4.00
18	Other Employer Costs (33.11% of Salaries)	\$63,902	\$22,965	\$23,424	\$23,893	\$24,371
19	Health Insurance	\$45,000	\$14,121	\$14,827	\$15,568	\$16,347
20	Other Benefits	\$0	\$0	\$0	\$0	\$0
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$301,902 3.00	\$148,689 4.00	\$152,087 4.00	\$155,573 4.00	\$174,095 5.00
Student Support						
21	Transportation	\$0	\$0	\$0	\$0	\$0
22	Extra Curricular Transportation	\$0	\$0	\$0	\$0	\$0
23	Cafeteria	\$0	\$146,813	\$205,538	\$264,263	\$322,988
24	Extra Curricular	\$0	\$20,000	\$50,000	\$75,000	\$100,000
25	Supplies and Materials	\$5,000	\$4,000	\$4,000	\$4,000	\$4,000
26	Textbooks	\$200,000	\$0	\$0	\$0	\$0
27	Curriculum	\$4,600	\$16,700	\$0	\$0	\$0
28	Professional Development	\$5,000	\$0	\$0	\$0	\$0
29	Assessments	\$0	\$0	\$0	\$0	\$0
30	Other Educational Program	\$0	\$0	\$0	\$0	\$0
31	Therapists (Occupational, Speech)	\$0	\$0	\$0	\$0	\$0
32	Classroom Technology	\$35,000	\$0	\$0	\$0	\$0
33	School Climate	\$0	\$0	\$0	\$0	\$0
34	Computers	\$100,000	\$0	\$0	\$0	\$0
35	Contracted Services	\$0	\$0	\$0	\$0	\$0
36	Other	\$0	\$0	\$0	\$0	\$5,000
SUBTOTAL STUDENT SUPPORT		\$349,600	\$187,513	\$259,538	\$343,263	\$431,988
Operations and Maintenance of Facilities						
37	Insurance (Property/Liability)	\$25,000	\$0	\$0	\$0	\$0
38	Rent	\$147,917	\$0	\$0	\$0	\$0
39	Mortgage	\$0	\$0	\$0	\$0	\$0
40	Utilities	\$50,000	\$90,000	\$0	\$0	\$0
41	Maintenance	\$0	\$0	\$0	\$0	\$0
42	Telephone/Communications	\$0	\$0	\$0	\$0	\$0
43	Construction	\$80,500	\$0	\$0	\$0	\$0
44	Renovation	\$0	\$0	\$0	\$0	\$0
45	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$303,417	\$90,000	\$0	\$0	\$0
Administrative/Operations Support						
46	Equipment Lease/Maintenance	\$0	\$0	\$0	\$0	\$0
47	Equipment Purchase	\$45,000	\$0	\$0	\$0	\$0
48	Supplies and Materials	\$2,500	\$0	\$0	\$0	\$0
49	Printing and Copying	\$2,500	\$0	\$0	\$0	\$0
50	Postage and Shipping	\$1,500	\$0	\$0	\$0	\$0
51	Enrollment / Recruitment	\$10,000	\$0	\$0	\$0	\$0
52	Staffing (recruitment and assessment)	\$0	\$0	\$0	\$0	\$0
53	Technology Plan	\$0	\$0	\$0	\$0	\$0
54	Other	\$10,000	\$0	\$0	\$0	\$0
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$71,500	\$0	\$0	\$0	\$0
Management Company						
55	Fees	\$0	\$0	\$0	\$0	\$0
56	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
57	Curriculum	\$0	\$0	\$0	\$0	\$0
58	Accounting and Payroll	\$65,000	\$0	\$0	\$0	\$0
59	Other	\$12,000	\$16,000	\$17,000	\$18,000	\$19,000
SUBTOTAL MANAGEMENT COMPANY		\$77,000	\$16,000	\$17,000	\$18,000	\$19,000
OTHER EXPENDITURES		\$1,103,419	\$442,202	\$428,625	\$516,836	\$625,083
60	# Students	0	250	350	450	550
REVENUE LESS EXPENDITURES		\$296,581	\$223,129	\$230,754	\$217,668	\$163,835

Charter School Application Budget Worksheet-Consolidated Funds Statement

The Bryan Allen Stevenson School of Excellence

	2022/2023		2023/2024		2024/2025		2025/2026		2026/2027	
	YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
1 State Appropriations	\$0		\$1,896,707		\$2,578,165		\$3,267,320		\$4,059,532	
2 School District Local Fund Transfers	\$0		\$600,404		\$841,528		\$1,081,529		\$1,315,372	
3 Federal Entitlements	\$0		\$175,280		\$245,229		\$315,437		\$385,835	
4 Cafeteria Funds	\$0		\$168,750		\$236,250		\$303,750		\$371,250	
4 Non Profit Grants	\$0		\$0		\$0		\$0		\$0	
4 Foundation Grants	\$1,250,000		\$150,000		\$150,000		\$150,000		\$150,000	
4 Donations/Other Grants	\$150,000		\$50,000		\$50,000		\$50,000		\$50,000	
5 Prior Year Carryover Funds	\$0		\$296,581		\$314,342		\$338,635		\$446,716	
6										
7 TOTAL STATE & LOCAL REVENUE	\$1,400,000		\$3,337,722		\$4,415,514		\$5,506,671		\$6,778,705	
8										
9 State & Local Expenses										
	YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
Personnel Salaries / Other Employer Costs		FTE		FTE		FTE		FTE		FTE
10 Classroom Teachers	\$0	0.00	\$601,140	11.00	\$907,384	17.00	\$1,163,214	21.00	\$1,460,742	26.00
11 Special Education Teachers	\$0	0.00	\$126,614	2.00	\$189,952	3.00	\$193,751	3.00	\$260,887	4.00
12 Special Teachers (Phys Ed, Art, Music)	\$0	0.00	\$57,114	1.00	\$58,256	1.00	\$118,842	2.00	\$181,827	3.00
13 Counselors	\$0	0.00	\$50,000	1.00	\$51,000	1.00	\$52,020	1.00	\$106,120	2.00
14 Principal/Administrative	\$193,000	3.00	\$235,620	3.00	\$240,332	3.00	\$245,139	3.00	\$309,468	4.00
15 Nurse	\$0	0.00	\$44,600	1.00	\$45,492	1.00	\$46,402	1.00	\$47,330	1.00
16 Clerical	\$0	0.00	\$28,500	1.00	\$29,070	1.00	\$59,302	2.00	\$60,488	2.00
17 Custodial	\$0	0.00	\$28,000	1.00	\$57,120	2.00	\$58,262	2.00	\$59,428	2.00
18 Substitutes	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
19 Other	\$0	0.00	\$42,243	3.00	\$43,089	3.00	\$43,950	3.00	\$59,772	4.00
20 Other Employer Costs (33.11% of Salaries)	\$63,902		\$387,913		\$522,676		\$641,318		\$823,211	
21 Health Insurance	\$45,000		\$296,541		\$429,983		\$544,880		\$719,268	
22 Other Benefits	\$0		\$0		\$0		\$0		\$0	
23										
24 SUBTOTAL SALARIES / OTHER EMPLOYER COSTS	\$301,902	3.0	\$1,898,285	24.0	\$2,574,354	32.0	\$3,167,080	38.0	\$4,088,541	48.0
25										
26 Student Support										
27 Transportation	\$0		\$190,225		\$271,705		\$356,265		\$444,290	
28 Extra Curricular Transportation	\$0		\$0		\$0		\$0		\$0	
29 Cafeteria	\$0		\$146,813		\$205,538		\$264,263		\$322,988	
30 Extra Curricular	\$0		\$20,000		\$50,000		\$75,000		\$100,000	
31 Supplies and Materials	\$5,000		\$64,000		\$79,000		\$94,000		\$99,000	
32 Textbooks	\$200,000		\$6,807		\$65,852		\$75,742		\$81,281	
33 Curriculum	\$4,600		\$16,700		\$22,600		\$23,600		\$35,730	
34 Professional Development	\$5,000		\$10,000		\$10,000		\$11,000		\$12,500	
35 Assessments	\$0		\$0		\$0		\$0		\$0	
36 Other Educational Program	\$0		\$5,000		\$10,000		\$12,000		\$15,000	
37 Therapists (Occupational, Speech)	\$0		\$37,000		\$45,000		\$55,000		\$65,000	
38 Classroom Technology	\$35,000		\$16,000		\$20,000		\$35,000		\$35,000	
39 School Climate	\$0		\$0		\$0		\$0		\$0	
40 Computers	\$100,000		\$15,000		\$70,000		\$80,000		\$100,000	
41 Contracted Services	\$0		\$60,000		\$82,845		\$148,680		\$172,332	
42 Other	\$0		\$30,000		\$10,000		\$24,764		\$15,557	
43										
44 SUBTOTAL STUDENT SUPPORT	\$349,600		\$617,545		\$942,540		\$1,255,314		\$1,498,678	
45										
46 Operations and Maintenance of Facilities										
47 Insurance (Property/Liability)	\$25,000		\$42,000		\$48,260		\$54,708		\$61,349	

\$0	cumulative 4-year non profit grants
\$350,000	cumulative 4-year Donations/Other Grants
\$1,850,000	cumulative 4-year fundraising/donations-Operations
\$2,200,000	Total Fundraising Requirement

Consolidated State, Local, Federal Foundation Revenue Funds

State & Local Revenue		2022/2023	2023/2024	2024/2025	2025/2026	2026/2027
		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
48	Rent	\$147,917	\$181,050	\$184,600	\$188,150	\$192,055
49	Mortgage	\$0	\$0	\$0	\$0	\$0
50	Utilities	\$50,000	\$90,000	\$100,000	\$135,000	\$140,000
51	Maintenance	\$0	\$15,000	\$20,000	\$30,000	\$45,000
52	Telephone/Communications	\$0	\$5,000	\$7,500	\$10,000	\$15,000
53	Construction	\$80,500	\$0	\$0	\$0	\$0
54	Renovation	\$0	\$0	\$0	\$0	\$0
55	Other	\$0	\$10,000	\$10,000	\$10,000	\$10,000
56						
57	SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES	\$303,417	\$343,050	\$370,360	\$427,858	\$463,404
58						
59	Administrative/Operations Support					
60	Equipment Lease/Maintenance	\$0	\$3,500	\$5,000	\$5,125	\$8,253
61	Equipment Purchase	\$45,000	\$35,000	\$45,000	\$50,000	\$60,000
62	Supplies and Materials	\$2,500	\$5,000	\$8,000	\$12,000	\$15,000
63	Printing and Copying	\$2,500	\$6,000	\$7,000	\$10,000	\$12,000
64	Postage and Shipping	\$1,500	\$1,500	\$3,000	\$3,575	\$5,075
65	Enrollment / Recruitment	\$10,000	\$5,000	\$5,125	\$5,253	\$6,753
66	Staffing (recruitment and assessment)	\$0	\$5,000	\$6,000	\$7,000	\$10,000
67	Technology Plan	\$0	\$2,500	\$3,500	\$3,750	\$4,750
68	Other	\$10,000	\$10,000	\$10,000	\$10,000	\$12,000
69						
70	SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT	\$71,500	\$73,500	\$92,625	\$106,703	\$133,831
71						
72	Management Company					
73	Fees	\$0	\$0	\$0	\$0	\$0
74	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
75	Curriculum	\$0	\$0	\$0	\$0	\$0
76	Accounting and Payroll	\$65,000	\$75,000	\$80,000	\$85,000	\$95,000
77	Other	\$12,000	\$16,000	\$17,000	\$18,000	\$19,000
78						
79	SUBTOTAL MANAGEMENT COMPANY	\$77,000	\$91,000	\$97,000	\$103,000	\$114,000
80	STATE & LOCAL EXPENDITURES	\$1,103,419	\$3,023,380	\$4,076,879	\$5,059,955	\$6,298,454
81						
82	# Students	0	250	350	450	550
83	REVENUE LESS EXPENDITURES	\$296,581	\$314,342	\$338,635	\$446,716	\$480,251
84	2% CONTINGENCY CHECK	\$28,000.00	\$66,754.44	\$88,310.28	\$110,133.42	\$135,574.10
85	Cummulative Fund Balance	\$296,581.00	\$610,923	\$949,558	\$1,396,274	\$1,876,525
86	Days Cash On Hand		73.75	85.01	100.72	108.75

Fiscal Year	23/24	24/25	25/26	26/27	27/28	28/29	
Year	1	2	3	4	5	6	
<u>Student Enrollment</u>							
Projected General Education	202	283	364	445	526	607	
Projected Special Education	48	67	86	105	124	143	
Percent Special Education	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%
Total Student Population (Paid)	250	350	450	550	650	750	
Projected ESL Students	55	77	99	121	143	165	22.00%
<u>Classroom Distribution</u>							100.00%
6th	125	100	100	100	100	100	
7th	125	125	100	100	100	100	
8th		125	125	100	100	100	
9th			125	125	100	100	
10th				125	125	100	
11th					125	125	
12th						125	
Total	250	350	450	550	650	750	
Average Number of Students/Grade	25	25	25	25	25	25	
Approximate # of Classes per Grade	5	2	2	2	2	2	
Total Required # of Classrooms	10	14	18	22	26	30	

Distribution of Enrollment from Surrounding School Districts														
	% Distribution								Federal Funds					
		23/24	24/25	25/26	26/27	27/28	28/29	23/24	24/25	25/26	26/27	27/28	28/29	
Indian River	40.00%													
GENED		82	114	146	179	212	243	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645	
SPED		19	28	35	42	50	57	65,145	91,590	116,745	142,545	168,990	193,500	
Delmar	5.00%													
GENED		10	14	18	22	26	30	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463	
SPED		2	3	4	5	6	7	5,556	7,871	10,186	12,501	14,816	17,131	
Laurel	5.00%													
GENED		10	14	18	22	26	30	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	
SPED		2	3	4	5	6	7	8,784	12,444	16,104	19,764	23,424	27,084	
Seaford	15.00%													
GENED		30	42	55	67	79	91	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996	
SPED		7	10	13	16	19	21	36,852	51,792	67,728	82,668	97,608	111,552	
Woodbridge	7.50%													
GENED		15	21	27	33	39	46	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869	
SPED		4	5	6	8	9	11	16,511	22,594	28,677	35,629	41,712	49,533	
Milford	7.50%													
GENED		15	21	27	33	39	46	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778	
SPED		4	5	6	8	9	11	14,782	20,228	25,674	31,898	37,344	44,346	
Cape Henlopen	20.00%													
GENED		40	57	73	89	105	121	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553	
SPED		10	13	18	21	25	29	27,650	38,710	50,323	60,830	71,890	82,950	
GENED		202	283	364	445	526	607							
SPED		48	67	86	105	124	143							
Total	100.00%	250	350	450	550	650	750	175,280	245,229	315,437	385,835	455,784	526,096	

Estimated Revenue	23/24	24/25	25/26	26/27	27/28	28/29
State Funding (from Revenue Sheets)	\$1,896,707	\$2,578,165	\$3,267,320	\$4,059,532	\$4,791,978	\$5,420,216
Local Funding (from Revenue Sheets)	\$600,404	\$841,528	\$1,081,529	\$1,315,372	\$1,556,709	\$1,791,256
Federal Funding	\$175,280	\$245,229	\$315,437	\$385,835	\$455,784	\$526,096
Cafeteria Service Revenue	\$168,750	\$236,250	\$303,750	\$371,250	\$438,750	\$506,250
Total Estimated Revenues (State/Local/Federal)	\$2,841,141	\$3,901,172	\$4,968,036	\$6,131,989	\$7,243,221	\$8,243,818

100% Enrollment

Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6						
Executive Director	1	1	1	1	1	1	1						
School Founding Leader	1	0	0	0	0	0	0						
Director of Development	1	1	1	1	1	0	0						
Dean of Academic Excellence	0	1	1	1	1	1	1						
Dean of Community Partnerships	0	0	0	0	1	1	1						
6th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1						
7th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1						
8th Grade Academic Coach (Lead Teacher)	0	0	1	1	1	1	1						
9th Grade Academic Coach (Lead Teacher)	0	0	0	1	1	1	1						
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	1	1	1						
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	1	1						
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	1						
6th Grade Content Teachers	0	4	3	3	3	3	3						
7th Grade Content Teachers	0	4	4	3	3	3	3						
8th Grade Content Teachers	0	0	4	4	3	3	3						
9th Grade Content Teachers	0	0	0	4	4	3	3						
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	4	4	3						
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	4	4						
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	4						
Special Education Coordinator	0	1	1	1	1	1	1						
Special Education Teacher	0	1	2	2	3	5	5						
Language Teacher	0	0	0	1	2	2	2						
Arts Teacher	0	1	1	1	1	2	2						
Paraprofessional	0	1	3	3	4	4	4						
Office Staff	0	1	1	2	2	2	2						
Custodian	0	1	2	2	2	3	3						
Cafeteria Aide (Part-Time)	0	3	3	3	4	4	4.5						
Nurse	0	1	1	1	1	1	1						
Counselor	0	1	1	1	1	1	1						
College Career Counselor	0	0	0	0	1	1	1						
Total Staff	3.00	24.00	32.00	38.00	48.00	55.00	59.50	Average Health Insurance cost by year					
Health Insurance		338,904	474,464	591,584	784,656	944,020	1,072,488	1	2	3	4	5	6
Total Enrollment		250	350	450	550	650	750	14,121	14,827	15,568	16,347	17,164	18,025

100% Enrollment

Salary Grid for Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Step	Indian River Salary Schedule
Inflation Factor		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	1-2	46,324 BA
Executive Director	95,000	96,900	98,838	100,815	102,831	104,888	106,986	3-5	54,955 Masters
School Founding Leader	30,000	30,600	31,212	31,836	32,473	33,122	33,784	6-8	58,992 Masters
Director of Development	68,000	69,360	70,747	72,162	73,605	75,077	76,579	9-12	68,183 Masters +15
Dean of Academic Excellence	-	69,360	70,747	72,162	73,605	75,077	76,579		
Dean of Community Partnerships		56,000	57,120	58,262	59,427	60,616	61,828	Average	57,114
6th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
7th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
8th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
9th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
10th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
11th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
12th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
6th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
7th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
8th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
9th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
10th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
11th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
12th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
Special Education Coordinator		67,000	68,340	69,707	71,101	72,523	73,973		
Special Education Teacher		59,614	60,806	62,022	63,262	64,527	65,818		
Language Teacher		57,114	58,256	59,421	60,609	61,821	63,057		
Arts Teacher		57,114	58,256	59,421	60,609	61,821	63,057		
Paraprofessional		30,000	30,600	31,212	31,836	32,473	33,122		
Office Staff		28,500	29,070	29,651	30,244	30,849	31,466		
Custodian		28,000	28,560	29,131	29,714	30,308	30,914		
Cafeteria Aide (Part-Time)(included 9.31% OEC Rate)		14,081	14,363	14,650	14,943	15,242	15,547		
Nurse		44,600	45,492	46,402	47,330	48,277	49,243		
Counselor		50,000	51,000	52,020	53,060	54,121	55,203		
College Career Counselor		50,000	51,000	52,020	53,060	54,121	55,203		

Total Annual Salary for Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Executive Director	95,000	96,900	98,838	100,815	102,831	104,888	106,986
School Founding Leader	30,000	-	-	-	-	-	-
Director of Development	68,000	69,360	70,747	72,162	73,605	-	-
Dean of Academic Excellence	-	69,360	70,747	72,162	73,605	75,077	76,579
Dean of Community Partnerships	-	-	-	-	59,427	60,616	61,828
6th Grade Academic Coach (Lead Teacher)	-	57,114	58,256	59,421	60,609	61,821	63,057
7th Grade Academic Coach (Lead Teacher)	-	57,114	58,256	59,421	60,609	61,821	63,057
8th Grade Academic Coach (Lead Teacher)	-	-	58,256	59,421	60,609	61,821	63,057
9th Grade Academic Coach (Lead Teacher)	-	-	-	59,421	60,609	61,821	63,057
10th Grade Academic Coach (Lead Teacher)	-	-	-	-	60,609	61,821	63,057
11th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	61,821	63,057
12th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	-	63,057
6th Grade Content Teachers	-	228,456	174,768	178,263	181,827	185,463	189,171
7th Grade Content Teachers	-	228,456	233,024	178,263	181,827	185,463	189,171
8th Grade Content Teachers	-	-	233,024	237,684	181,827	185,463	189,171
9th Grade Content Teachers	-	-	-	237,684	242,436	185,463	189,171
10th Grade Academic Coach (Lead Teacher)	-	-	-	-	242,436	247,284	189,171
11th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	247,284	252,228
12th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	-	252,228
Special Education Coordinator	-	67,000	68,340	69,707	71,101	72,523	73,973
Special Education Teacher	-	59,614	121,612	124,044	189,786	322,635	329,090
Language Teacher	-	-	-	59,421	121,218	123,642	126,114
Arts Teacher	-	57,114	58,256	59,421	60,609	123,642	126,114
Paraprofessional	-	30,000	91,800	93,636	127,344	129,892	132,488
Office Staff	-	28,500	29,070	59,302	60,488	61,698	62,932
Custodian	-	28,000	57,120	58,262	59,428	90,924	92,742
Cafeteria Aide (Part-Time)	-	42,243	43,089	43,950	59,772	60,968	69,962
Nurse	-	44,600	45,492	46,402	47,330	48,277	49,243
Counselor	-	50,000	51,000	52,020	53,060	54,121	55,203
College Career Counselor	-	-	-	-	53,060	54,121	55,203
Total Salaries	193,000	1,213,831	1,621,695	1,980,882	2,546,062	2,990,370	3,310,167

	Year 0	Year 1	Year 1	Year 2	Year 2	Year 3	Year 3	Year 4	Year 4	Year 5	Year 5	Year 6	Year 6
Classroom Teachers	-	601,140	11	907,384	17	1,163,214	21	1,460,742	26	1,737,238	30	2,024,198	34
Special Education Coordinator		67,000	1	68,340	1	69,707	1	71,101	1	72,523	1	73,973	1
Special Education Teachers (Federal Funds Tab)	-	59,614	1	121,612	2	124,044	2	189,786	3	322,635	5	329,090	5
Special Teachers (Phys Ed, Art, Music)		57,114	1	58,256	1	118,842	2	181,827	3	247,284	4	252,228	4
Counselors		50,000	1	51,000	1	52,020	1	106,120	2	108,242	2	110,406	2
Principal/Administrative	193,000	166,260	2	169,585	2	172,977	2	235,863	3	240,581	3	245,393	3
Nurse		44,600	1	45,492	1	46,402	1	47,330	1	48,277	1	49,243	1
Clerical		28,500	1	29,070	1	59,302	2	60,488	2	61,698	2	62,932	2
Custodial		28,000	1	57,120	2	58,262	2	59,428	2	90,924	3	92,742	3
Substitutes													
Other		-	-	-	-	-	-	-	-	-	-	-	-
Other Employer Costs (33.11% of Salaries)													
Health Insurance													
Other Benefits													
Total	193,000	1,102,228	20.00	1,507,859	28.00	1,864,770	34.00	2,412,685	43.00	2,929,402	51.00	3,240,205	55.00
Allocated to Principal/Administration-Other													
Funds Sheet-Paid by Foundation Funds	3	69,360	1	70,747	1	72,162	1	73,605	1	-	0	-	0
Allocated to Cafeteria - Other Funds Sheet	0	42,243	3	43,089	3	43,950	3	59,772	4	60,968	4	69,962	4.5

	30-Jun-23	30-Jun-24	1-Jul-25	2-Jul-26	3-Jul-27	3-Jul-28	Eligibility
Transportation Expense							
Percent Eligible	175	245	315	385	455	525	70.0%
Estimated Annual Cost for Transportation	190,225	271,705	356,265	444,290	535,535	630,525	
Cost per Student	1,087	1,109	1,131	1,154	1,177	1,201	

IB Curriculum Programming Cost	30-Jun-23	29-Jun-24	29-Jun-25	29-Jun-26	30-Jun-27	30-Jun-28
Enrollment	0	250	350	450	550	650
Teacher Count	0	11	17	21	26	30
CP Program Training	-	-	-	-	1,480	1,480
CP Program Authorization Fee	-	-	-	-	8,500	-
Middle Years Program Training	600	7,200	3,600	3,600	3,600	3,000
Application Fee	4,000	-	-	10,500	10,500	10,500
Candidate Fee	-	9,500	9,500	-	-	-
Diploma Program Training	-	-	-	-	-	7,200
Diploma Program Application Fee	-	-	-	-	-	4,000
Candidate Fee	-	-	9,500	9,500	11,650	11,650
Total Cost of IB Programs	4,600	16,700	22,600	23,600	35,730	37,830

Health Insurance Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
State and Local Tab	268,299	385,502	498,176	653,880	789,544	901,250
Federal Funds Tab	14,121	29,654	31,136	49,041	85,820	90,125
Other Funds Tab	14,121	14,827	15,568	16,347	-	-
Total	296,541	429,983	544,880	719,268	875,364	991,375
Total Employees	24	32	38	48	55	60

Health Insurance Calculation	Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Highmark Delaware Comprehensive PPO Plan							
Employee	55%	13.20	17.60	20.90	26.40	30.25	32.73
Employee & Spouse	25%	6.00	8.00	9.50	12.00	13.75	14.88
Employee & Child(ren)	10%	2.40	3.20	3.80	4.80	5.50	5.95
Family	10%	2.40	3.20	3.80	4.80	5.50	5.95
Inflation factor	5.0%						
Monthly Cost per Class							
Employee		793.86	833.55	875.23	918.99	964.94	1,013.19
Employee & Spouse		1,647.34	1,729.71	1,816.20	1,907.01	2,002.36	2,102.48
Employee & Child(ren)		1,223.46	1,284.63	1,348.86	1,416.30	1,487.12	1,561.48
Family		2,059.40	2,162.37	2,270.49	2,384.01	2,503.21	2,628.37
Annual Cost per Class-All Employees							
Employee		125,747	176,046	219,508	291,136	350,273	397,941
Employee & Spouse		118,608	166,052	207,047	274,609	330,389	375,419
Employee & Child(ren)		35,236	49,330	61,508	81,579	98,150	111,490
Family		59,311	83,035	103,534	137,319	165,212	187,666
Average Cost/Year/Employee		14,121	14,827	15,568	16,347	17,164	18,025

100% Enrollment

The Bryan Allen Stevenson School of Excellence

Capital Expenditures of 20346 Ennis Street Property

	<u>Amount</u>
Architectural	-
Mechanical	35,000
Interior Renovations	30,000
Electrical	3,000
Floor-Paint	10,000
Other	2,500

Total Estimated Project Cost	80,500
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Finance

Funding from BASSE	80,500	100
Bank Loan	-	0

The Bryan Allen Stevenson School of Excellence
 Square Footage Requirement Calculation

Facility Needs Worksheet	30-Jun-23	30-Jun-24	30-Jun-25	30-Jun-26	30-Jun-27
Enrollment	250	350	450	550	650
Number of Primary Classrooms	10	14	18	22	26
Number of Specialty Classrooms	3	5	6	7	9
Offices	5	7	8	8	8
Square Footage (Net) per Primary Classroom	10,000	14,000	18,000	22,000	26,000
Square Footage (Net) per Specialty Classroom	2,025	3,375	4,050	4,725	6,075
Offices	500	700	800	800	800
Lunch Room	7,000	7,000	7,000	7,000	7,000
Gymnasium	10,000	10,000	10,000	10,000	10,000
Subtotal Net Square Footage Requirement-Program	29,525	35,075	39,850	44,525	49,875
Efficiency Factor-allowance for hallways, closets, storage, bathrooms	84.50%	84.50%	84.50%	84.50%	84.50%
Gross Square Footage Needed	34,941	41,509	47,160	52,692	59,024
Program of Existing School	35,500	sf			
Natorium	10,500	sf			
Classroom Spaces	26	800-900 sf each			
Life Skills	1	2000 sf	can be split into two classrooms		
Escalator	2.00%				
Rent	Annual Rental	Rent/S.F.	Lease Year		
Year 1 (start-up yr.) (rent payment commences on 11/1/22)	147,917	\$ 5.00	22-23		
Year 2	181,050	5.10	23-24		
Year 3	184,600	5.20	24-25		
Year 4	188,150	5.30	25-26		
Year 5	192,055	5.41	26-27		
Option					
Year 6	192,055	5.52	27-28		
Year 7	199,865	5.63	28-29		
Year 8	203,770	5.74	29-30		

The Bryan Allen Stevenson School of Excellence
 Budget and Sources of Funds for Nylon Capital Site

Gross Square Footage Requirement 50,000

	<u>Cost</u>	
Acquisition of Land	3,000,000	
Building Cost	12,150,000	243.00 per square foot
Site Costs	1,972,000	Includes \$1.0 million for s
Soft Costs	2,268,000	45.00 per square foot
Contingency	810,000	16.20 per square foot
Total Estimated Project Cost	<u><u>20,200,000</u></u>	

Proposed Occupancy Date no Later than 12/31/2024

Proposed Sources of Funds

ARPA	11,000,000
New Market Tax Credit	1,142,857
Other (USDA) Grant	5,000,000
Foundation	3,057,143
Total Proposed Sources of Funds	<u><u>20,200,000</u></u>

Estimated Annual Rental



**Section 1.10 Budget and Finance :: Attachment 19 - Budget Sheets
(also required in Section 1.8) :: Budget Sheets 100% Enrollment**

State & Local Revenue		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	State Appropriations	\$0	\$1,896,707	\$2,578,165	\$3,267,320	\$4,059,532
2	School District Local Fund Transfers	\$0	\$600,404	\$841,528	\$1,081,529	\$1,315,372
3	Prior Year Carryover Funds	\$0	\$0	\$91,214	\$107,882	\$229,049
TOTAL STATE & LOCAL REVENUE		\$0	\$2,497,111	\$3,510,907	\$4,456,731	\$5,603,953

State & Local Expenses		YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
Personnel Salaries / Other Employer Costs		FTE		FTE		FTE		FTE		FTE	
4	Classroom Teachers	\$0	0.00	\$601,140	11.00	\$907,384	17.00	\$1,163,214	21.00	\$1,460,742	26.00
5	Special Education Teachers	\$0	0.00	\$67,000	1.00	\$68,340	1.00	\$69,707	1.00	\$71,101	1.00
6	Special Teachers (Phys Ed, Art, Music)	\$0	0.00	\$57,114	1.00	\$58,256	1.00	\$118,842	2.00	\$181,827	3.00
7	Counselors	\$0	0.00	\$50,000	1.00	\$51,000	1.00	\$52,020	1.00	\$106,120	2.00
8	Principal/Administrative	\$0	0.00	\$166,260	2.00	\$169,585	2.00	\$172,977	2.00	\$235,863	3.00
9	Nurse	\$0	0.00	\$44,600	1.00	\$45,492	1.00	\$46,402	1.00	\$47,330	1.00
10	Clerical	\$0	0.00	\$28,500	1.00	\$29,070	1.00	\$59,302	2.00	\$60,488	2.00
11	Custodial	\$0	0.00	\$28,000	1.00	\$57,120	2.00	\$58,262	2.00	\$59,428	2.00
12	Substitutes	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
13	Other	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
14	Other Employer Costs (33.11% of Salaries)	\$0		\$345,209		\$458,986		\$576,354		\$736,002	
15	Health Insurance	\$0		\$268,299		\$385,502		\$498,176		\$653,880	
16	Other Benefits	\$0		\$0		\$0		\$0		\$0	
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$0	0.00	\$1,656,122	19.00	\$2,230,735	26.00	\$2,815,256	32.00	\$3,612,781	40.00

17	Transportation	\$0		\$190,225		\$271,705		\$356,265		\$444,290	
18	Extra Curricular Transportation	\$0		\$0		\$0		\$0		\$0	
19	Cafeteria	\$0		\$0		\$0		\$0		\$0	
20	Extra Curricular	\$0		\$0		\$0		\$0		\$0	
21	Supplies and Materials	\$0		\$50,000		\$65,000		\$80,000		\$90,000	
22	Textbooks	\$0		\$0		\$60,000		\$70,000		\$80,000	
23	Curriculum	\$0		\$0		\$22,600		\$23,600		\$35,730	
24	Professional Development	\$0		\$5,000		\$5,000		\$6,000		\$7,500	
25	Assessments	\$0		\$0		\$0		\$0		\$0	
26	Other Educational Program	\$0		\$5,000		\$10,000		\$12,000		\$15,000	
27	Therapists (Occupational, Speech)	\$0		\$37,000		\$45,000		\$55,000		\$65,000	
28	Classroom Technology	\$0		\$16,000		\$20,000		\$25,000		\$35,000	
29	School Climate	\$0		\$0		\$0		\$0		\$0	
30	Computers	\$0		\$0		\$65,000		\$80,000		\$100,000	
31	Contracted Services	\$0		\$35,000		\$55,000		\$75,000		\$100,000	
32	Other	\$0		\$10,000		\$10,000		\$10,000		\$10,000	
SUBTOTAL STUDENT SUPPORT		\$0		\$348,225		\$629,305		\$792,865		\$982,520	

33	Insurance (Property/Liability)	\$0		\$42,000		\$48,260		\$54,708		\$61,349	
34	Rent	\$0		\$181,050		\$184,600		\$188,150		\$192,055	
35	Mortgage	\$0		\$0		\$0		\$0		\$0	
36	Utilities	\$0		\$0		\$100,000		\$135,000		\$140,000	
37	Maintenance	\$0		\$15,000		\$20,000		\$30,000		\$45,000	
38	Telephone/Communications	\$0		\$5,000		\$7,500		\$10,000		\$15,000	
39	Construction	\$0		\$0		\$0		\$0		\$0	
40	Renovation	\$0		\$0		\$0		\$0		\$0	
41	Other	\$0		\$10,000		\$10,000		\$10,000		\$10,000	
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$0		\$253,050		\$370,360		\$427,858		\$463,404	

42	Equipment Lease/Maintenance	\$0		\$3,500		\$5,000		\$5,125		\$8,253	
43	Equipment Purchase	\$0		\$35,000		\$45,000		\$50,000		\$60,000	
44	Supplies and Materials	\$0		\$5,000		\$8,000		\$12,000		\$15,000	
45	Printing and Copying	\$0		\$6,000		\$7,000		\$10,000		\$12,000	
46	Postage and Shipping	\$0		\$1,500		\$3,000		\$3,575		\$5,075	
47	Enrollment / Recruitment	\$0		\$5,000		\$5,125		\$5,253		\$6,753	
48	Staffing (recruitment and assessment)	\$0		\$5,000		\$6,000		\$7,000		\$10,000	
49	Technology Plan	\$0		\$2,500		\$3,500		\$3,750		\$4,750	
50	Other	\$0		\$10,000		\$10,000		\$10,000		\$12,000	
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$0		\$73,500		\$92,625		\$106,703		\$133,831	

51	Fees	\$0		\$0		\$0		\$0		\$0	
52	Salaries/Other Employee Costs	\$0		\$0		\$0		\$0		\$0	
53	Curriculum	\$0		\$0		\$0		\$0		\$0	
54	Accounting and Payroll	\$0		\$75,000		\$80,000		\$85,000		\$95,000	
55	Other	\$0		\$0		\$0		\$0		\$0	
SUBTOTAL MANAGEMENT COMPANY		\$0		\$75,000		\$80,000		\$85,000		\$95,000	

STATE & LOCAL EXPENDITURES		\$0	\$2,405,897	\$3,403,025	\$4,227,682	\$5,287,536
56	# Students	0	250	350	450	550
REVENUE LESS EXPENDITURES		\$0	\$91,214	\$107,882	\$229,049	\$316,417
2% CONTINGENCY CHECK		\$0.00	\$49,942.22	\$70,218.14	\$89,134.62	\$112,079.06

Federal Funds		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	Entitlement Funding	\$0	\$175,280	\$245,229	\$315,437	\$385,835
2	Other Federal Grants	\$0	\$0	\$0	\$0	\$0
TOTAL FEDERAL REVENUE		\$0	\$175,280	\$245,229	\$315,437	\$385,835
Federal Expenses		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Personnel Salaries / Other Employer Costs						
		FTE	FTE	FTE	FTE	FTE
3	Classroom Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
4	Special Education Teachers	\$0 0.00	\$59,614 1.00	\$121,612 2.00	\$124,044 2.00	\$189,786 3.00
5	Special Teachers (Phys Ed, Art, Music)	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
6	Counselors	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
7	Principal/Administrative	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
8	Nurse	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
9	Clerical	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
10	Custodial	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
11	Substitutes	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
12	Other	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
13	Other Employer Costs (33.11% of Salaries)	\$0	\$19,738	\$40,266	\$41,071	\$62,838
14	Health Insurance	\$0	\$14,121	\$29,654	\$31,136	\$49,041
15	Other Benefits	\$0	\$0	\$0	\$0	\$0
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$0 0.00	\$93,473 1.00	\$191,532 2.00	\$196,251 2.00	\$301,665 3.00
Student Support						
16	Transportation	\$0	\$0	\$0	\$0	\$0
17	Extra Curricular Transportation	\$0	\$0	\$0	\$0	\$0
18	Cafeteria	\$0	\$0	\$0	\$0	\$0
19	Extra Curricular	\$0	\$0	\$0	\$0	\$0
20	Supplies and Materials	\$0	\$10,000	\$10,000	\$10,000	\$5,000
21	Textbooks	\$0	\$6,807	\$5,852	\$5,742	\$1,281
22	Curriculum	\$0	\$0	\$0	\$0	\$0
23	Professional Development	\$0	\$5,000	\$5,000	\$5,000	\$5,000
24	Assessments	\$0	\$0	\$0	\$0	\$0
25	Other Educational Program	\$0	\$0	\$0	\$0	\$0
26	Therapists (Occupational, Speech)	\$0	\$0	\$0	\$0	\$0
27	Classroom Technology	\$0	\$0	\$0	\$10,000	\$0
28	School Climate	\$0	\$0	\$0	\$0	\$0
29	Computers	\$0	\$15,000	\$5,000	\$0	\$0
30	Contracted Services	\$0	\$25,000	\$27,845	\$73,680	\$72,332
31	Other	\$0	\$20,000	\$0	\$14,764	\$557
SUBTOTAL STUDENT SUPPORT		\$0	\$81,807	\$53,697	\$119,186	\$84,170
Operations and Maintenance of Facilities						
32	Insurance (Property/Liability)	\$0	\$0	\$0	\$0	\$0
33	Rent	\$0	\$0	\$0	\$0	\$0
34	Mortgage	\$0	\$0	\$0	\$0	\$0
35	Utilities	\$0	\$0	\$0	\$0	\$0
36	Maintenance	\$0	\$0	\$0	\$0	\$0
37	Telephone/Communications	\$0	\$0	\$0	\$0	\$0
38	Construction	\$0	\$0	\$0	\$0	\$0
39	Renovation	\$0	\$0	\$0	\$0	\$0
40	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$0	\$0	\$0	\$0	\$0
Administrative/Operations Support						
42	Equipment Lease/Maintenance	\$0	\$0	\$0	\$0	\$0
41	Equipment Purchase	\$0	\$0	\$0	\$0	\$0
42	Supplies and Materials	\$0	\$0	\$0	\$0	\$0
43	Printing and Copying	\$0	\$0	\$0	\$0	\$0
44	Postage and Shipping	\$0	\$0	\$0	\$0	\$0
45	Enrollment / Recruitment	\$0	\$0	\$0	\$0	\$0
46	Staffing (recruitment and assessment)	\$0	\$0	\$0	\$0	\$0
47	Technology Plan	\$0	\$0	\$0	\$0	\$0
48	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$0	\$0	\$0	\$0	\$0
Management Company						
49	Fees	\$0	\$0	\$0	\$0	\$0
50	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
51	Curriculum	\$0	\$0	\$0	\$0	\$0
52	Accounting and Payroll	\$0	\$0	\$0	\$0	\$0
53	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL MANAGEMENT COMPANY		\$0	\$0	\$0	\$0	\$0
FEDERAL EXPENDITURES		\$0	\$175,280	\$245,229	\$315,437	\$385,835
54	# Students	0	250	350	450	550
REVENUE LESS EXPENDITURES		\$0	\$0	\$0	\$0	\$0

Other Funds		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	Non Profit Grants	\$0	\$0	\$0	\$0	\$0
2	Foundations Funds	\$1,250,000	\$150,000	\$150,000	\$150,000	\$150,000
3	Donations	\$150,000	\$50,000	\$50,000	\$50,000	\$50,000
4	Construction / Bank Loans	\$0	\$0	\$0	\$0	\$0
5	Cafeteria Funds	\$0	\$168,750	\$236,250	\$303,750	\$371,250
6	Miscellaneous Revenue	\$0	\$0	\$0	\$0	\$0
7	Prior Year Carryover Funds	\$0	\$296,581	\$223,129	\$230,754	\$217,668
TOTAL OTHER REVENUE		\$1,400,000	\$665,331	\$659,379	\$734,504	\$788,918

Other Expenses		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Personnel Salaries / Other Employer Costs						
		FTE	FTE	FTE	FTE	FTE
8	Classroom Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
9	Special Education Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
10	Special Teachers (Phys Ed, Art, Music)	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
11	Counselors	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
12	Principal/Administrative	\$193,000 3.00	\$69,360 1.00	\$70,747 1.00	\$72,162 1.00	\$73,605 1.00
13	Nurse	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
14	Clerical	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
15	Custodial	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
16	Substitutes	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
17	Other	\$0 0.00	\$42,243 3.00	\$43,089 3.00	\$43,950 3.00	\$59,772 4.00
18	Other Employer Costs (33.11% of Salaries)	\$63,902	\$22,965	\$23,424	\$23,893	\$24,371
19	Health Insurance	\$45,000	\$14,121	\$14,827	\$15,568	\$16,347
20	Other Benefits	\$0	\$0	\$0	\$0	\$0
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$301,902 3.00	\$148,689 4.00	\$152,087 4.00	\$155,573 4.00	\$174,095 5.00
Student Support						
21	Transportation	\$0	\$0	\$0	\$0	\$0
22	Extra Curricular Transportation	\$0	\$0	\$0	\$0	\$0
23	Cafeteria	\$0	\$146,813	\$205,538	\$264,263	\$322,988
24	Extra Curricular	\$0	\$20,000	\$50,000	\$75,000	\$100,000
25	Supplies and Materials	\$5,000	\$4,000	\$4,000	\$4,000	\$4,000
26	Textbooks	\$200,000	\$0	\$0	\$0	\$0
27	Curriculum	\$4,600	\$16,700	\$0	\$0	\$0
28	Professional Development	\$5,000	\$0	\$0	\$0	\$0
29	Assessments	\$0	\$0	\$0	\$0	\$0
30	Other Educational Program	\$0	\$0	\$0	\$0	\$0
31	Therapists (Occupational, Speech)	\$0	\$0	\$0	\$0	\$0
32	Classroom Technology	\$35,000	\$0	\$0	\$0	\$0
33	School Climate	\$0	\$0	\$0	\$0	\$0
34	Computers	\$100,000	\$0	\$0	\$0	\$0
35	Contracted Services	\$0	\$0	\$0	\$0	\$0
36	Other	\$0	\$0	\$0	\$0	\$5,000
SUBTOTAL STUDENT SUPPORT		\$349,600	\$187,513	\$259,538	\$343,263	\$431,988
Operations and Maintenance of Facilities						
37	Insurance (Property/Liability)	\$25,000	\$0	\$0	\$0	\$0
38	Rent	\$147,917	\$0	\$0	\$0	\$0
39	Mortgage	\$0	\$0	\$0	\$0	\$0
40	Utilities	\$50,000	\$90,000	\$0	\$0	\$0
41	Maintenance	\$0	\$0	\$0	\$0	\$0
42	Telephone/Communications	\$0	\$0	\$0	\$0	\$0
43	Construction	\$80,500	\$0	\$0	\$0	\$0
44	Renovation	\$0	\$0	\$0	\$0	\$0
45	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$303,417	\$90,000	\$0	\$0	\$0
Administrative/Operations Support						
46	Equipment Lease/Maintenance	\$0	\$0	\$0	\$0	\$0
47	Equipment Purchase	\$45,000	\$0	\$0	\$0	\$0
48	Supplies and Materials	\$2,500	\$0	\$0	\$0	\$0
49	Printing and Copying	\$2,500	\$0	\$0	\$0	\$0
50	Postage and Shipping	\$1,500	\$0	\$0	\$0	\$0
51	Enrollment / Recruitment	\$10,000	\$0	\$0	\$0	\$0
52	Staffing (recruitment and assessment)	\$0	\$0	\$0	\$0	\$0
53	Technology Plan	\$0	\$0	\$0	\$0	\$0
54	Other	\$10,000	\$0	\$0	\$0	\$0
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$71,500	\$0	\$0	\$0	\$0
Management Company						
55	Fees	\$0	\$0	\$0	\$0	\$0
56	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
57	Curriculum	\$0	\$0	\$0	\$0	\$0
58	Accounting and Payroll	\$65,000	\$0	\$0	\$0	\$0
59	Other	\$12,000	\$16,000	\$17,000	\$18,000	\$19,000
SUBTOTAL MANAGEMENT COMPANY		\$77,000	\$16,000	\$17,000	\$18,000	\$19,000
OTHER EXPENDITURES		\$1,103,419	\$442,202	\$428,625	\$516,836	\$625,083
60	# Students	0	250	350	450	550
REVENUE LESS EXPENDITURES		\$296,581	\$223,129	\$230,754	\$217,668	\$163,835

Charter School Application Budget Worksheet-Consolidated Funds Statement

The Bryan Allen Stevenson School of Excellence

	2022/2023		2023/2024		2024/2025		2025/2026		2026/2027	
	YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
1 State Appropriations	\$0		\$1,896,707		\$2,578,165		\$3,267,320		\$4,059,532	
2 School District Local Fund Transfers	\$0		\$600,404		\$841,528		\$1,081,529		\$1,315,372	
3 Federal Entitlements	\$0		\$175,280		\$245,229		\$315,437		\$385,835	
4 Cafeteria Funds	\$0		\$168,750		\$236,250		\$303,750		\$371,250	
4 Non Profit Grants	\$0		\$0		\$0		\$0		\$0	
4 Foundation Grants	\$1,250,000		\$150,000		\$150,000		\$150,000		\$150,000	
4 Donations/Other Grants	\$150,000		\$50,000		\$50,000		\$50,000		\$50,000	
5 Prior Year Carryover Funds	\$0		\$296,581		\$314,342		\$338,635		\$446,716	
6										
7 TOTAL STATE & LOCAL REVENUE	\$1,400,000		\$3,337,722		\$4,415,514		\$5,506,671		\$6,778,705	
8										
9 State & Local Expenses										
	YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
Personnel Salaries / Other Employer Costs		FTE		FTE		FTE		FTE		FTE
10 Classroom Teachers	\$0	0.00	\$601,140	11.00	\$907,384	17.00	\$1,163,214	21.00	\$1,460,742	26.00
11 Special Education Teachers	\$0	0.00	\$126,614	2.00	\$189,952	3.00	\$193,751	3.00	\$260,887	4.00
12 Special Teachers (Phys Ed, Art, Music)	\$0	0.00	\$57,114	1.00	\$58,256	1.00	\$118,842	2.00	\$181,827	3.00
13 Counselors	\$0	0.00	\$50,000	1.00	\$51,000	1.00	\$52,020	1.00	\$106,120	2.00
14 Principal/Administrative	\$193,000	3.00	\$235,620	3.00	\$240,332	3.00	\$245,139	3.00	\$309,468	4.00
15 Nurse	\$0	0.00	\$44,600	1.00	\$45,492	1.00	\$46,402	1.00	\$47,330	1.00
16 Clerical	\$0	0.00	\$28,500	1.00	\$29,070	1.00	\$59,302	2.00	\$60,488	2.00
17 Custodial	\$0	0.00	\$28,000	1.00	\$57,120	2.00	\$58,262	2.00	\$59,428	2.00
18 Substitutes	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
19 Other	\$0	0.00	\$42,243	3.00	\$43,089	3.00	\$43,950	3.00	\$59,772	4.00
20 Other Employer Costs (33.11% of Salaries)	\$63,902		\$387,913		\$522,676		\$641,318		\$823,211	
21 Health Insurance	\$45,000		\$296,541		\$429,983		\$544,880		\$719,268	
22 Other Benefits	\$0		\$0		\$0		\$0		\$0	
23										
24 SUBTOTAL SALARIES / OTHER EMPLOYER COSTS	\$301,902	3.0	\$1,898,285	24.0	\$2,574,354	32.0	\$3,167,080	38.0	\$4,088,541	48.0
25										
26 Student Support										
27 Transportation	\$0		\$190,225		\$271,705		\$356,265		\$444,290	
28 Extra Curricular Transportation	\$0		\$0		\$0		\$0		\$0	
29 Cafeteria	\$0		\$146,813		\$205,538		\$264,263		\$322,988	
30 Extra Curricular	\$0		\$20,000		\$50,000		\$75,000		\$100,000	
31 Supplies and Materials	\$5,000		\$64,000		\$79,000		\$94,000		\$99,000	
32 Textbooks	\$200,000		\$6,807		\$65,852		\$75,742		\$81,281	
33 Curriculum	\$4,600		\$16,700		\$22,600		\$23,600		\$35,730	
34 Professional Development	\$5,000		\$10,000		\$10,000		\$11,000		\$12,500	
35 Assessments	\$0		\$0		\$0		\$0		\$0	
36 Other Educational Program	\$0		\$5,000		\$10,000		\$12,000		\$15,000	
37 Therapists (Occupational, Speech)	\$0		\$37,000		\$45,000		\$55,000		\$65,000	
38 Classroom Technology	\$35,000		\$16,000		\$20,000		\$35,000		\$35,000	
39 School Climate	\$0		\$0		\$0		\$0		\$0	
40 Computers	\$100,000		\$15,000		\$70,000		\$80,000		\$100,000	
41 Contracted Services	\$0		\$60,000		\$82,845		\$148,680		\$172,332	
42 Other	\$0		\$30,000		\$10,000		\$24,764		\$15,557	
43										
44 SUBTOTAL STUDENT SUPPORT	\$349,600		\$617,545		\$942,540		\$1,255,314		\$1,498,678	
45										
46 Operations and Maintenance of Facilities										
47 Insurance (Property/Liability)	\$25,000		\$42,000		\$48,260		\$54,708		\$61,349	

\$0	cumulative 4-year non profit grants
\$350,000	cumulative 4-year Donations/Other Grants
\$1,850,000	cumulative 4-year fundraising/donations-Operations
\$2,200,000	Total Fundraising Requirement

Consolidated State, Local, Federal Foundation Revenue Funds

State & Local Revenue		2022/2023	2023/2024	2024/2025	2025/2026	2026/2027
		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
48	Rent	\$147,917	\$181,050	\$184,600	\$188,150	\$192,055
49	Mortgage	\$0	\$0	\$0	\$0	\$0
50	Utilities	\$50,000	\$90,000	\$100,000	\$135,000	\$140,000
51	Maintenance	\$0	\$15,000	\$20,000	\$30,000	\$45,000
52	Telephone/Communications	\$0	\$5,000	\$7,500	\$10,000	\$15,000
53	Construction	\$80,500	\$0	\$0	\$0	\$0
54	Renovation	\$0	\$0	\$0	\$0	\$0
55	Other	\$0	\$10,000	\$10,000	\$10,000	\$10,000
56						
57	SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES	\$303,417	\$343,050	\$370,360	\$427,858	\$463,404
58						
59	Administrative/Operations Support					
60	Equipment Lease/Maintenance	\$0	\$3,500	\$5,000	\$5,125	\$8,253
61	Equipment Purchase	\$45,000	\$35,000	\$45,000	\$50,000	\$60,000
62	Supplies and Materials	\$2,500	\$5,000	\$8,000	\$12,000	\$15,000
63	Printing and Copying	\$2,500	\$6,000	\$7,000	\$10,000	\$12,000
64	Postage and Shipping	\$1,500	\$1,500	\$3,000	\$3,575	\$5,075
65	Enrollment / Recruitment	\$10,000	\$5,000	\$5,125	\$5,253	\$6,753
66	Staffing (recruitment and assessment)	\$0	\$5,000	\$6,000	\$7,000	\$10,000
67	Technology Plan	\$0	\$2,500	\$3,500	\$3,750	\$4,750
68	Other	\$10,000	\$10,000	\$10,000	\$10,000	\$12,000
69						
70	SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT	\$71,500	\$73,500	\$92,625	\$106,703	\$133,831
71						
72	Management Company					
73	Fees	\$0	\$0	\$0	\$0	\$0
74	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
75	Curriculum	\$0	\$0	\$0	\$0	\$0
76	Accounting and Payroll	\$65,000	\$75,000	\$80,000	\$85,000	\$95,000
77	Other	\$12,000	\$16,000	\$17,000	\$18,000	\$19,000
78						
79	SUBTOTAL MANAGEMENT COMPANY	\$77,000	\$91,000	\$97,000	\$103,000	\$114,000
80	STATE & LOCAL EXPENDITURES	\$1,103,419	\$3,023,380	\$4,076,879	\$5,059,955	\$6,298,454
81						
82	# Students	0	250	350	450	550
83	REVENUE LESS EXPENDITURES	\$296,581	\$314,342	\$338,635	\$446,716	\$480,251
84	2% CONTINGENCY CHECK	\$28,000.00	\$66,754.44	\$88,310.28	\$110,133.42	\$135,574.10
85	Cummulative Fund Balance	\$296,581.00	\$610,923	\$949,558	\$1,396,274	\$1,876,525
86	Days Cash On Hand		73.75	85.01	100.72	108.75

Fiscal Year	23/24	24/25	25/26	26/27	27/28	28/29	
Year	1	2	3	4	5	6	
<u>Student Enrollment</u>							
Projected General Education	202	283	364	445	526	607	
Projected Special Education	48	67	86	105	124	143	
Percent Special Education	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%
Total Student Population (Paid)	250	350	450	550	650	750	
Projected ESL Students	55	77	99	121	143	165	22.00%
<u>Classroom Distribution</u>							100.00%
6th	125	100	100	100	100	100	
7th	125	125	100	100	100	100	
8th		125	125	100	100	100	
9th			125	125	100	100	
10th				125	125	100	
11th					125	125	
12th						125	
Total	250	350	450	550	650	750	
Average Number of Students/Grade	25	25	25	25	25	25	
Approximate # of Classes per Grade	5	2	2	2	2	2	
Total Required # of Classrooms	10	14	18	22	26	30	

Distribution of Enrollment from Surrounding School Districts														
	% Distribution								Federal Funds					
		23/24	24/25	25/26	26/27	27/28	28/29	23/24	24/25	25/26	26/27	27/28	28/29	
Indian River	40.00%													
GENED		82	114	146	179	212	243	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645	
SPED		19	28	35	42	50	57	65,145	91,590	116,745	142,545	168,990	193,500	
Delmar	5.00%													
GENED		10	14	18	22	26	30	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463	
SPED		2	3	4	5	6	7	5,556	7,871	10,186	12,501	14,816	17,131	
Laurel	5.00%													
GENED		10	14	18	22	26	30	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	
SPED		2	3	4	5	6	7	8,784	12,444	16,104	19,764	23,424	27,084	
Seaford	15.00%													
GENED		30	42	55	67	79	91	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996	
SPED		7	10	13	16	19	21	36,852	51,792	67,728	82,668	97,608	111,552	
Woodbridge	7.50%													
GENED		15	21	27	33	39	46	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869	
SPED		4	5	6	8	9	11	16,511	22,594	28,677	35,629	41,712	49,533	
Milford	7.50%													
GENED		15	21	27	33	39	46	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778	
SPED		4	5	6	8	9	11	14,782	20,228	25,674	31,898	37,344	44,346	
Cape Henlopen	20.00%													
GENED		40	57	73	89	105	121	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553	
SPED		10	13	18	21	25	29	27,650	38,710	50,323	60,830	71,890	82,950	
GENED		202	283	364	445	526	607							
SPED		48	67	86	105	124	143							
Total	100.00%	250	350	450	550	650	750	175,280	245,229	315,437	385,835	455,784	526,096	

Estimated Revenue	23/24	24/25	25/26	26/27	27/28	28/29
State Funding (from Revenue Sheets)	\$1,896,707	\$2,578,165	\$3,267,320	\$4,059,532	\$4,791,978	\$5,420,216
Local Funding (from Revenue Sheets)	\$600,404	\$841,528	\$1,081,529	\$1,315,372	\$1,556,709	\$1,791,256
Federal Funding	\$175,280	\$245,229	\$315,437	\$385,835	\$455,784	\$526,096
Cafeteria Service Revenue	\$168,750	\$236,250	\$303,750	\$371,250	\$438,750	\$506,250
Total Estimated Revenues (State/Local/Federal)	\$2,841,141	\$3,901,172	\$4,968,036	\$6,131,989	\$7,243,221	\$8,243,818

100% Enrollment

Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6						
Executive Director	1	1	1	1	1	1	1						
School Founding Leader	1	0	0	0	0	0	0						
Director of Development	1	1	1	1	1	0	0						
Dean of Academic Excellence	0	1	1	1	1	1	1						
Dean of Community Partnerships	0	0	0	0	1	1	1						
6th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1						
7th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1						
8th Grade Academic Coach (Lead Teacher)	0	0	1	1	1	1	1						
9th Grade Academic Coach (Lead Teacher)	0	0	0	1	1	1	1						
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	1	1	1						
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	1	1						
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	1						
6th Grade Content Teachers	0	4	3	3	3	3	3						
7th Grade Content Teachers	0	4	4	3	3	3	3						
8th Grade Content Teachers	0	0	4	4	3	3	3						
9th Grade Content Teachers	0	0	0	4	4	3	3						
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	4	4	3						
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	4	4						
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	4						
Special Education Coordinator	0	1	1	1	1	1	1						
Special Education Teacher	0	1	2	2	3	5	5						
Language Teacher	0	0	0	1	2	2	2						
Arts Teacher	0	1	1	1	1	2	2						
Paraprofessional	0	1	3	3	4	4	4						
Office Staff	0	1	1	2	2	2	2						
Custodian	0	1	2	2	2	3	3						
Cafeteria Aide (Part-Time)	0	3	3	3	4	4	4.5						
Nurse	0	1	1	1	1	1	1						
Counselor	0	1	1	1	1	1	1						
College Career Counselor	0	0	0	0	1	1	1						
Total Staff	3.00	24.00	32.00	38.00	48.00	55.00	59.50	Average Health Insurance cost by year					
Health Insurance		338,904	474,464	591,584	784,656	944,020	1,072,488	1	2	3	4	5	6
Total Enrollment		250	350	450	550	650	750	14,121	14,827	15,568	16,347	17,164	18,025

100% Enrollment

Salary Grid for Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Step	Indian River Salary Schedule
Inflation Factor		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	1-2	46,324 BA
Executive Director	95,000	96,900	98,838	100,815	102,831	104,888	106,986	3-5	54,955 Masters
School Founding Leader	30,000	30,600	31,212	31,836	32,473	33,122	33,784	6-8	58,992 Masters
Director of Development	68,000	69,360	70,747	72,162	73,605	75,077	76,579	9-12	68,183 Masters +15
Dean of Academic Excellence	-	69,360	70,747	72,162	73,605	75,077	76,579		
Dean of Community Partnerships		56,000	57,120	58,262	59,427	60,616	61,828	Average	57,114
6th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
7th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
8th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
9th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
10th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
11th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
12th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
6th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
7th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
8th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
9th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
10th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
11th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
12th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
Special Education Coordinator		67,000	68,340	69,707	71,101	72,523	73,973		
Special Education Teacher		59,614	60,806	62,022	63,262	64,527	65,818		
Language Teacher		57,114	58,256	59,421	60,609	61,821	63,057		
Arts Teacher		57,114	58,256	59,421	60,609	61,821	63,057		
Paraprofessional		30,000	30,600	31,212	31,836	32,473	33,122		
Office Staff		28,500	29,070	29,651	30,244	30,849	31,466		
Custodian		28,000	28,560	29,131	29,714	30,308	30,914		
Cafeteria Aide (Part-Time)(included 9.31% OEC Rate)		14,081	14,363	14,650	14,943	15,242	15,547		
Nurse		44,600	45,492	46,402	47,330	48,277	49,243		
Counselor		50,000	51,000	52,020	53,060	54,121	55,203		
College Career Counselor		50,000	51,000	52,020	53,060	54,121	55,203		

Total Annual Salary for Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Executive Director	95,000	96,900	98,838	100,815	102,831	104,888	106,986
School Founding Leader	30,000	-	-	-	-	-	-
Director of Development	68,000	69,360	70,747	72,162	73,605	-	-
Dean of Academic Excellence	-	69,360	70,747	72,162	73,605	75,077	76,579
Dean of Community Partnerships	-	-	-	-	59,427	60,616	61,828
6th Grade Academic Coach (Lead Teacher)	-	57,114	58,256	59,421	60,609	61,821	63,057
7th Grade Academic Coach (Lead Teacher)	-	57,114	58,256	59,421	60,609	61,821	63,057
8th Grade Academic Coach (Lead Teacher)	-	-	58,256	59,421	60,609	61,821	63,057
9th Grade Academic Coach (Lead Teacher)	-	-	-	59,421	60,609	61,821	63,057
10th Grade Academic Coach (Lead Teacher)	-	-	-	-	60,609	61,821	63,057
11th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	61,821	63,057
12th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	-	63,057
6th Grade Content Teachers	-	228,456	174,768	178,263	181,827	185,463	189,171
7th Grade Content Teachers	-	228,456	233,024	178,263	181,827	185,463	189,171
8th Grade Content Teachers	-	-	233,024	237,684	181,827	185,463	189,171
9th Grade Content Teachers	-	-	-	237,684	242,436	185,463	189,171
10th Grade Academic Coach (Lead Teacher)	-	-	-	-	242,436	247,284	189,171
11th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	247,284	252,228
12th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	-	252,228
Special Education Coordinator	-	67,000	68,340	69,707	71,101	72,523	73,973
Special Education Teacher	-	59,614	121,612	124,044	189,786	322,635	329,090
Language Teacher	-	-	-	59,421	121,218	123,642	126,114
Arts Teacher	-	57,114	58,256	59,421	60,609	123,642	126,114
Paraprofessional	-	30,000	91,800	93,636	127,344	129,892	132,488
Office Staff	-	28,500	29,070	59,302	60,488	61,698	62,932
Custodian	-	28,000	57,120	58,262	59,428	90,924	92,742
Cafeteria Aide (Part-Time)	-	42,243	43,089	43,950	59,772	60,968	69,962
Nurse	-	44,600	45,492	46,402	47,330	48,277	49,243
Counselor	-	50,000	51,000	52,020	53,060	54,121	55,203
College Career Counselor	-	-	-	-	53,060	54,121	55,203
Total Salaries	193,000	1,213,831	1,621,695	1,980,882	2,546,062	2,990,370	3,310,167

	Year 0	Year 1	Year 1	Year 2	Year 2	Year 3	Year 3	Year 4	Year 4	Year 5	Year 5	Year 6	Year 6
Classroom Teachers	-	601,140	11	907,384	17	1,163,214	21	1,460,742	26	1,737,238	30	2,024,198	34
Special Education Coordinator		67,000	1	68,340	1	69,707	1	71,101	1	72,523	1	73,973	1
Special Education Teachers (Federal Funds Tab)	-	59,614	1	121,612	2	124,044	2	189,786	3	322,635	5	329,090	5
Special Teachers (Phys Ed, Art, Music)		57,114	1	58,256	1	118,842	2	181,827	3	247,284	4	252,228	4
Counselors		50,000	1	51,000	1	52,020	1	106,120	2	108,242	2	110,406	2
Principal/Administrative	193,000	166,260	2	169,585	2	172,977	2	235,863	3	240,581	3	245,393	3
Nurse		44,600	1	45,492	1	46,402	1	47,330	1	48,277	1	49,243	1
Clerical		28,500	1	29,070	1	59,302	2	60,488	2	61,698	2	62,932	2
Custodial		28,000	1	57,120	2	58,262	2	59,428	2	90,924	3	92,742	3
Substitutes													
Other		-	-	-	-	-	-	-	-	-	-	-	-
Other Employer Costs (33.11% of Salaries)													
Health Insurance													
Other Benefits													
Total	193,000	1,102,228	20.00	1,507,859	28.00	1,864,770	34.00	2,412,685	43.00	2,929,402	51.00	3,240,205	55.00
Allocated to Principal/Administration-Other													
Funds Sheet-Paid by Foundation Funds	3	69,360	1	70,747	1	72,162	1	73,605	1	-	0	-	0
Allocated to Cafeteria - Other Funds Sheet	0	42,243	3	43,089	3	43,950	3	59,772	4	60,968	4	69,962	4.5

	30-Jun-23	30-Jun-24	1-Jul-25	2-Jul-26	3-Jul-27	3-Jul-28	Eligibility
Transportation Expense							
Percent Eligible	175	245	315	385	455	525	70.0%
Estimated Annual Cost for Transportation	190,225	271,705	356,265	444,290	535,535	630,525	
Cost per Student	1,087	1,109	1,131	1,154	1,177	1,201	

IB Curriculum Programming Cost	30-Jun-23	29-Jun-24	29-Jun-25	29-Jun-26	30-Jun-27	30-Jun-28
Enrollment	0	250	350	450	550	650
Teacher Count	0	11	17	21	26	30
CP Program Training	-	-	-	-	1,480	1,480
CP Program Authorization Fee	-	-	-	-	8,500	-
Middle Years Program Training	600	7,200	3,600	3,600	3,600	3,000
Application Fee	4,000	-	-	10,500	10,500	10,500
Candidate Fee	-	9,500	9,500	-	-	-
Diploma Program Training	-	-	-	-	-	7,200
Diploma Program Application Fee	-	-	-	-	-	4,000
Candidate Fee	-	-	9,500	9,500	11,650	11,650
Total Cost of IB Programs	4,600	16,700	22,600	23,600	35,730	37,830

Health Insurance Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
State and Local Tab	268,299	385,502	498,176	653,880	789,544	901,250
Federal Funds Tab	14,121	29,654	31,136	49,041	85,820	90,125
Other Funds Tab	14,121	14,827	15,568	16,347	-	-
Total	296,541	429,983	544,880	719,268	875,364	991,375
Total Employees	24	32	38	48	55	60

Health Insurance Calculation	Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Highmark Delaware Comprehensive PPO Plan							
Employee	55%	13.20	17.60	20.90	26.40	30.25	32.73
Employee & Spouse	25%	6.00	8.00	9.50	12.00	13.75	14.88
Employee & Child(ren)	10%	2.40	3.20	3.80	4.80	5.50	5.95
Family	10%	2.40	3.20	3.80	4.80	5.50	5.95
Inflation factor	5.0%						
Monthly Cost per Class							
Employee		793.86	833.55	875.23	918.99	964.94	1,013.19
Employee & Spouse		1,647.34	1,729.71	1,816.20	1,907.01	2,002.36	2,102.48
Employee & Child(ren)		1,223.46	1,284.63	1,348.86	1,416.30	1,487.12	1,561.48
Family		2,059.40	2,162.37	2,270.49	2,384.01	2,503.21	2,628.37
Annual Cost per Class-All Employees							
Employee		125,747	176,046	219,508	291,136	350,273	397,941
Employee & Spouse		118,608	166,052	207,047	274,609	330,389	375,419
Employee & Child(ren)		35,236	49,330	61,508	81,579	98,150	111,490
Family		59,311	83,035	103,534	137,319	165,212	187,666
Average Cost/Year/Employee		14,121	14,827	15,568	16,347	17,164	18,025

100% Enrollment

The Bryan Allen Stevenson School of Excellence

Capital Expenditures of 20346 Ennis Street Property

	<u>Amount</u>
Architectural	-
Mechanical	35,000
Interior Renovations	30,000
Electrical	3,000
Floor-Paint	10,000
Other	2,500

Total Estimated Project Cost	80,500
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Finance

Funding from BASSE	80,500	100
Bank Loan	-	0

The Bryan Allen Stevenson School of Excellence
 Square Footage Requirement Calculation

Facility Needs Worksheet	30-Jun-23	30-Jun-24	30-Jun-25	30-Jun-26	30-Jun-27
Enrollment	250	350	450	550	650
Number of Primary Classrooms	10	14	18	22	26
Number of Specialty Classrooms	3	5	6	7	9
Offices	5	7	8	8	8
Square Footage (Net) per Primary Classroom	10,000	14,000	18,000	22,000	26,000
Square Footage (Net) per Specialty Classroom	2,025	3,375	4,050	4,725	6,075
Offices	500	700	800	800	800
Lunch Room	7,000	7,000	7,000	7,000	7,000
Gymnasium	10,000	10,000	10,000	10,000	10,000
Subtotal Net Square Footage Requirement-Program	29,525	35,075	39,850	44,525	49,875
Efficiency Factor-allowance for hallways, closets, storage, bathrooms	84.50%	84.50%	84.50%	84.50%	84.50%
Gross Square Footage Needed	34,941	41,509	47,160	52,692	59,024
Program of Existing School	35,500	sf			
Natorium	10,500	sf			
Classroom Spaces	26	800-900 sf each			
Life Skills	1	2000 sf	can be split into two classrooms		
Escalator	2.00%				
Rent	Annual Rental	Rent/S.F.	Lease Year		
Year 1 (start-up yr.) (rent payment commences on 11/1/22)	147,917	\$ 5.00	22-23		
Year 2	181,050	5.10	23-24		
Year 3	184,600	5.20	24-25		
Year 4	188,150	5.30	25-26		
Year 5	192,055	5.41	26-27		
Option					
Year 6	192,055	5.52	27-28		
Year 7	199,865	5.63	28-29		
Year 8	203,770	5.74	29-30		

The Bryan Allen Stevenson School of Excellence
 Budget and Sources of Funds for Nylon Capital Site

Gross Square Footage Requirement 50,000

	<u>Cost</u>	
Acquisition of Land	3,000,000	
Building Cost	12,150,000	243.00 per square foot
Site Costs	1,972,000	Includes \$1.0 million for s
Soft Costs	2,268,000	45.00 per square foot
Contingency	810,000	16.20 per square foot
Total Estimated Project Cost	<u><u>20,200,000</u></u>	

Proposed Occupancy Date no Later than 12/31/2024

Proposed Sources of Funds

ARPA	11,000,000
New Market Tax Credit	1,142,857
Other (USDA) Grant	5,000,000
Foundation	3,057,143
Total Proposed Sources of Funds	<u><u>20,200,000</u></u>

Estimated Annual Rental



**Section 1.10 Budget and Finance :: Attachment 19 - Budget Sheets
(also required in Section 1.8) :: Budget Sheets 80% Enrollment**

State & Local Revenue		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	State Appropriations	\$0	\$1,471,224	\$2,081,590	\$2,636,385	\$3,265,621
2	School District Local Fund Transfers	\$0	\$475,294	\$665,369	\$864,683	\$1,052,086
3	Prior Year Carryover Funds	\$0	\$0	\$166,778	\$89,932	\$117,717
TOTAL STATE & LOCAL REVENUE		\$0	\$1,946,518	\$2,913,737	\$3,591,000	\$4,435,424
State & Local Expenses		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Personnel Salaries / Other Employer Costs						
		FTE	FTE	FTE	FTE	FTE
4	Classroom Teachers	\$0 0.00	\$456,912 8.00	\$683,067 12.20	\$886,876 15.40	\$1,130,392 19.60
5	Special Education Teachers	\$0 0.00	\$67,000 1.00	\$68,340 1.00	\$69,707 1.00	\$71,101 1.00
6	Special Teachers (Phys Ed, Art, Music)	\$0 0.00	\$0 0.00	\$58,256 1.00	\$118,842 2.00	\$181,827 3.00
7	Counselors	\$0 0.00	\$0 0.00	\$51,000 1.00	\$52,020 1.00	\$106,120 2.00
8	Principal/Administrative	\$0 0.00	\$96,900 1.00	\$169,585 2.00	\$172,977 2.00	\$235,863 3.00
9	Nurse	\$0 0.00	\$44,600 1.00	\$45,492 1.00	\$46,402 1.00	\$47,330 1.00
10	Clerical	\$0 0.00	\$28,500 1.00	\$29,070 1.00	\$29,651 1.00	\$30,244 1.00
11	Custodial	\$0 0.00	\$28,000 1.00	\$28,560 1.00	\$58,262 2.00	\$59,428 2.00
12	Substitutes	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
13	Other	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
14	Other Employer Costs (33.11% of Salaries)	\$0	\$239,025	\$375,259	\$475,041	\$616,609
15	Health Insurance	\$0	\$183,573	\$299,627	\$395,630	\$533,043
16	Other Benefits	\$0	\$0	\$0	\$0	\$0
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$0 0.00	\$1,144,510 13.00	\$1,808,256 20.20	\$2,305,408 25.40	\$3,011,957 32.60
Student Support						
17	Transportation	\$0	\$152,180	\$217,364	\$285,012	\$355,432
18	Extra Curricular Transportation	\$0	\$0	\$0	\$0	\$0
19	Cafeteria	\$0	\$0	\$0	\$0	\$0
20	Extra Curricular	\$0	\$0	\$0	\$0	\$0
21	Supplies and Materials	\$0	\$35,000	\$44,000	\$76,000	\$96,000
22	Textbooks	\$0	\$0	\$50,000	\$52,000	\$60,000
23	Curriculum	\$0	\$0	\$22,600	\$23,600	\$35,730
24	Professional Development	\$0	\$5,000	\$5,000	\$5,125	\$5,253
25	Assessments	\$0	\$0	\$0	\$0	\$0
26	Other Educational Program	\$0	\$5,000	\$6,000	\$6,000	\$6,000
27	Therapists (Occupational, Speech)	\$0	\$25,000	\$36,000	\$40,000	\$45,000
28	Classroom Technology	\$0	\$5,000	\$12,100	\$12,402	\$16,713
29	School Climate	\$0	\$0	\$0	\$0	\$0
30	Computers	\$0	\$0	\$50,000	\$50,000	\$50,000
31	Contracted Services	\$0	\$20,000	\$40,000	\$41,000	\$41,840
32	Other	\$0	\$5,000	\$8,000	\$8,000	\$8,000
SUBTOTAL STUDENT SUPPORT		\$0	\$252,180	\$491,064	\$599,139	\$719,968
Operations and Maintenance of Facilities						
33	Insurance (Property/Liability)	\$0	\$42,000	\$48,260	\$54,708	\$61,349
34	Rent	\$0	\$181,050	\$184,600	\$188,150	\$192,055
35	Mortgage	\$0	\$0	\$0	\$0	\$0
36	Utilities	\$0	\$0	\$100,000	\$125,000	\$128,125
37	Maintenance	\$0	\$15,000	\$15,375	\$15,759	\$16,153
38	Telephone/Communications	\$0	\$5,000	\$5,125	\$5,253	\$5,384
39	Construction	\$0	\$0	\$0	\$0	\$0
40	Renovation	\$0	\$0	\$0	\$0	\$0
41	Other	\$0	\$15,000	\$25,000	\$28,125	\$28,828
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$0	\$258,050	\$378,360	\$416,995	\$431,894
Administrative/Operations Support						
42	Equipment Lease/Maintenance	\$0	\$2,000	\$5,000	\$5,125	\$8,253
43	Equipment Purchase	\$0	\$28,000	\$28,000	\$28,000	\$32,000
44	Supplies and Materials	\$0	\$3,000	\$6,000	\$7,000	\$8,000
45	Printing and Copying	\$0	\$3,000	\$6,500	\$6,663	\$7,000
46	Postage and Shipping	\$0	\$1,000	\$2,000	\$2,200	\$2,500
47	Enrollment / Recruitment	\$0	\$4,000	\$5,125	\$5,253	\$6,753
48	Staffing (recruitment and assessment)	\$0	\$4,000	\$5,000	\$5,000	\$5,000
49	Technology Plan	\$0	\$0	\$3,500	\$2,500	\$2,500
50	Other	\$0	\$10,000	\$10,000	\$10,000	\$12,000
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$0	\$55,000	\$71,125	\$71,741	\$84,006
Management Company						
51	Fees	\$0	\$0	\$0	\$0	\$0
52	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
53	Curriculum	\$0	\$0	\$0	\$0	\$0
54	Accounting and Payroll	\$0	\$70,000	\$75,000	\$80,000	\$85,000
55	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL MANAGEMENT COMPANY		\$0	\$70,000	\$75,000	\$80,000	\$85,000
STATE & LOCAL EXPENDITURES		\$0	\$1,779,740	\$2,823,805	\$3,473,283	\$4,332,825
56	# Students	0	200	280	360	440
REVENUE LESS EXPENDITURES		\$0	\$166,778	\$89,932	\$117,717	\$102,599
2% CONTINGENCY CHECK		\$0.00	\$38,930.36	\$58,274.74	\$71,820.00	\$88,708.48

Federal Funds		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	Entitlement Funding	\$0	\$140,255	\$196,357	\$251,832	\$308,561
2	Other Federal Grants	\$0	\$0	\$0	\$0	\$0
TOTAL FEDERAL REVENUE		\$0	\$140,255	\$196,357	\$251,832	\$308,561

Federal Expenses		YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
Personnel Salaries / Other Employer Costs			FTE		FTE		FTE		FTE		FTE
3	Classroom Teachers	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
4	Special Education Teachers	\$0	0.00	\$59,614	1.00	\$91,209	1.50	\$108,539	1.75	\$158,155	2.50
5	Special Teachers (Phys Ed, Art, Music)	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
6	Counselors	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
7	Principal/Administrative	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
8	Nurse	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
9	Clerical	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
10	Custodial	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
11	Substitutes	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
12	Other	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
13	Other Employer Costs (33.11% of Salaries)	\$0		\$19,738		\$30,199		\$35,937		\$52,365	
14	Health Insurance	\$0		\$14,121		\$22,250		\$27,258		\$40,878	
15	Other Benefits	\$0		\$0		\$0		\$0		\$0	
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$0	0.00	\$93,473	1.00	\$143,658	1.50	\$171,734	1.75	\$251,398	2.50
Student Support											
16	Transportation	\$0		\$0		\$0		\$0		\$0	
17	Extra Curricular Transportation	\$0		\$0		\$0		\$0		\$0	
18	Cafeteria	\$0		\$0		\$0		\$0		\$0	
19	Extra Curricular	\$0		\$0		\$0		\$0		\$0	
20	Supplies and Materials	\$0		\$10,000		\$10,000		\$10,000		\$5,000	
21	Textbooks	\$0		\$6,807		\$5,852		\$5,742		\$1,281	
22	Curriculum	\$0		\$0		\$0		\$0		\$0	
23	Professional Development	\$0		\$2,475		\$2,500		\$5,000		\$5,000	
24	Assessments	\$0		\$0		\$0		\$0		\$0	
25	Other Educational Program	\$0		\$0		\$0		\$0		\$0	
26	Therapists (Occupational, Speech)	\$0		\$0		\$0		\$0		\$0	
27	Classroom Technology	\$0		\$0		\$0		\$2,500		\$0	
28	School Climate	\$0		\$0		\$0		\$0		\$0	
29	Computers	\$0		\$2,500		\$2,500		\$3,000		\$0	
30	Contracted Services	\$0		\$20,000		\$26,847		\$39,092		\$45,325	
31	Other	\$0		\$5,000		\$5,000		\$14,764		\$557	
SUBTOTAL STUDENT SUPPORT		\$0		\$46,782		\$52,699		\$80,098		\$57,163	
Operations and Maintenance of Facilities											
32	Insurance (Property/Liability)	\$0		\$0		\$0		\$0		\$0	
33	Rent	\$0		\$0		\$0		\$0		\$0	
34	Mortgage	\$0		\$0		\$0		\$0		\$0	
35	Utilities	\$0		\$0		\$0		\$0		\$0	
36	Maintenance	\$0		\$0		\$0		\$0		\$0	
37	Telephone/Communications	\$0		\$0		\$0		\$0		\$0	
38	Construction	\$0		\$0		\$0		\$0		\$0	
39	Renovation	\$0		\$0		\$0		\$0		\$0	
40	Other	\$0		\$0		\$0		\$0		\$0	
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$0		\$0		\$0		\$0		\$0	
Administrative/Operations Support											
42	Equipment Lease/Maintenance	\$0		\$0		\$0		\$0		\$0	
41	Equipment Purchase	\$0		\$0		\$0		\$0		\$0	
42	Supplies and Materials	\$0		\$0		\$0		\$0		\$0	
43	Printing and Copying	\$0		\$0		\$0		\$0		\$0	
44	Postage and Shipping	\$0		\$0		\$0		\$0		\$0	
45	Enrollment / Recruitment	\$0		\$0		\$0		\$0		\$0	
46	Staffing (recruitment and assessment)	\$0		\$0		\$0		\$0		\$0	
47	Technology Plan	\$0		\$0		\$0		\$0		\$0	
48	Other	\$0		\$0		\$0		\$0		\$0	
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$0		\$0		\$0		\$0		\$0	
Management Company											
49	Fees	\$0		\$0		\$0		\$0		\$0	
50	Salaries/Other Employee Costs	\$0		\$0		\$0		\$0		\$0	
51	Curriculum	\$0		\$0		\$0		\$0		\$0	
52	Accounting and Payroll	\$0		\$0		\$0		\$0		\$0	
53	Other	\$0		\$0		\$0		\$0		\$0	
SUBTOTAL MANAGEMENT COMPANY		\$0		\$0		\$0		\$0		\$0	
FEDERAL EXPENDITURES		\$0		\$140,255		\$196,357		\$251,832		\$308,561	

54	# Students	0	200	280	360	440
REVENUE LESS EXPENDITURES		\$0	\$0	\$0	\$0	\$0

Other Funds		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1	Non Profit Grants	\$0	\$0	\$0	\$0	\$0
2	Foundations Funds	\$1,250,000	\$150,000	\$150,000	\$150,000	\$150,000
3	Donations	\$150,000	\$50,000	\$50,000	\$50,000	\$50,000
4	Construction / Bank Loans	\$0	\$0	\$0	\$0	\$0
5	Cafeteria Funds	\$0	\$135,000	\$189,000	\$243,000	\$297,000
6	Miscellaneous Revenue	\$0	\$0	\$0	\$0	\$0
7	Prior Year Carryover Funds	\$0	\$256,748	\$192,990	\$194,467	\$173,476
TOTAL OTHER REVENUE		\$1,400,000	\$591,748	\$581,990	\$637,467	\$670,476

Other Expenses		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Personnel Salaries / Other Employer Costs						
		FTE	FTE	FTE	FTE	FTE
8	Classroom Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
9	Special Education Teachers	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
10	Special Teachers (Phys Ed, Art, Music)	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
11	Counselors	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
12	Principal/Administrative	\$268,000 3.00	\$69,360 1.00	\$70,747 1.00	\$72,162 1.00	\$73,605 1.00
13	Nurse	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
14	Clerical	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
15	Custodial	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
16	Substitutes	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00	\$0 0.00
17	Other	\$0 0.00	\$28,162 2.00	\$43,089 3.00	\$43,950 3.00	\$59,772 4.00
18	Other Employer Costs (33.11% of Salaries)	\$88,735	\$22,965	\$23,424	\$23,893	\$24,371
19	Health Insurance	\$45,000	\$14,121	\$14,833	\$15,576	\$16,351
20	Other Benefits	\$0	\$0	\$0	\$0	\$0
SUBTOTAL SALARIES / OTHER EMPLOYER COSTS		\$401,735 3.00	\$134,608 3.00	\$152,093 4.00	\$155,581 4.00	\$174,099 5.00
Student Support						
21	Transportation	\$0	\$0	\$0	\$0	\$0
22	Extra Curricular Transportation	\$0	\$0	\$0	\$0	\$0
23	Cafeteria	\$0	\$117,450	\$164,430	\$211,410	\$258,390
24	Extra Curricular	\$0	\$20,000	\$50,000	\$75,000	\$100,000
25	Supplies and Materials	\$5,000	\$4,000	\$4,000	\$4,000	\$4,000
26	Textbooks	\$160,000	\$0	\$0	\$0	\$0
27	Curriculum	\$4,600	\$16,700	\$0	\$0	\$0
28	Professional Development	\$5,000	\$0	\$0	\$0	\$0
29	Assessments	\$0	\$0	\$0	\$0	\$0
30	Other Educational Program	\$0	\$0	\$0	\$0	\$0
31	Therapists (Occupational, Speech)	\$0	\$0	\$0	\$0	\$0
32	Classroom Technology	\$35,000	\$0	\$0	\$0	\$0
33	School Climate	\$0	\$0	\$0	\$0	\$0
34	Computers	\$80,000	\$0	\$0	\$0	\$0
35	Contracted Services	\$0	\$0	\$0	\$0	\$0
36	Other	\$0	\$0	\$0	\$0	\$5,000
SUBTOTAL STUDENT SUPPORT		\$289,600	\$158,150	\$218,430	\$290,410	\$367,390
Operations and Maintenance of Facilities						
37	Insurance (Property/Liability)	\$25,000	\$0	\$0	\$0	\$0
38	Rent	\$147,917	\$0	\$0	\$0	\$0
39	Mortgage	\$0	\$0	\$0	\$0	\$0
40	Utilities	\$50,000	\$90,000	\$0	\$0	\$0
41	Maintenance	\$0	\$0	\$0	\$0	\$0
42	Telephone/Communications	\$0	\$0	\$0	\$0	\$0
43	Construction	\$80,500	\$0	\$0	\$0	\$0
44	Renovation	\$0	\$0	\$0	\$0	\$0
45	Other	\$0	\$0	\$0	\$0	\$0
SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES		\$303,417	\$90,000	\$0	\$0	\$0
Administrative/Operations Support						
46	Equipment Lease/Maintenance	\$0	\$0	\$0	\$0	\$0
47	Equipment Purchase	\$45,000	\$0	\$0	\$0	\$0
48	Supplies and Materials	\$2,500	\$0	\$0	\$0	\$0
49	Printing and Copying	\$2,500	\$0	\$0	\$0	\$0
50	Postage and Shipping	\$1,500	\$0	\$0	\$0	\$0
51	Enrollment / Recruitment	\$10,000	\$0	\$0	\$0	\$0
52	Staffing (recruitment and assessment)	\$0	\$0	\$0	\$0	\$0
53	Technology Plan	\$0	\$0	\$0	\$0	\$0
54	Other	\$10,000	\$0	\$0	\$0	\$0
SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT		\$71,500	\$0	\$0	\$0	\$0
Management Company						
55	Fees	\$0	\$0	\$0	\$0	\$0
56	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
57	Curriculum	\$0	\$0	\$0	\$0	\$0
58	Accounting and Payroll	\$65,000	\$0	\$0	\$0	\$0
59	Other	\$12,000	\$16,000	\$17,000	\$18,000	\$19,000
SUBTOTAL MANAGEMENT COMPANY		\$77,000	\$16,000	\$17,000	\$18,000	\$19,000
OTHER EXPENDITURES		\$1,143,252	\$398,758	\$387,523	\$463,991	\$560,489
60	# Students	0	200	280	360	440
REVENUE LESS EXPENDITURES		\$256,748	\$192,990	\$194,467	\$173,476	\$109,987

Charter School Application Budget Worksheet-Consolidated Funds Statement

The Bryan Allen Stevenson School of Excellence

State & Local Revenue		2022/2023		2023/2024		2024/2025		2025/2026		2026/2027	
		YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
1	State Appropriations	\$0		\$1,471,224		\$2,081,590		\$2,636,385		\$3,265,621	
2	School District Local Fund Transfers	\$0		\$475,294		\$665,369		\$864,683		\$1,052,086	
3	Federal Entitlements	\$0		\$140,255		\$196,357		\$251,832		\$308,561	
4	Cafeteria Funds	\$0		\$135,000		\$189,000		\$243,000		\$297,000	
4	Non Profit Grants	\$0		\$0		\$0		\$0		\$0	
4	Foundation Grants	\$1,250,000		\$150,000		\$150,000		\$150,000		\$150,000	
4	Donations/Other Grants	\$150,000		\$50,000		\$50,000		\$50,000		\$50,000	
5	Prior Year Carryover Funds	\$0		\$256,748		\$359,768		\$284,399		\$291,192	
6											
7	TOTAL STATE & LOCAL REVENUE	\$1,400,000		\$2,678,521		\$3,692,084		\$4,480,299		\$5,414,460	
8											
State & Local Expenses											
		YEAR 0		YEAR 1		YEAR 2		YEAR 3		YEAR 4	
Personnel Salaries / Other Employer Costs			FTE		FTE		FTE		FTE		FTE
10	Classroom Teachers	\$0	0.00	\$456,912	8.00	\$683,067	12.20	\$886,876	15.40	\$1,130,392	19.60
11	Special Education Teachers	\$0	0.00	\$126,614	2.00	\$159,549	2.50	\$178,246	2.75	\$229,256	3.50
12	Special Teachers (Phys Ed, Art, Music)	\$0	0.00	\$0	0.00	\$58,256	1.00	\$118,842	2.00	\$181,827	3.00
13	Counselors	\$0	0.00	\$0	0.00	\$51,000	1.00	\$52,020	1.00	\$106,120	2.00
14	Principal/Administrative	\$268,000	3.00	\$166,260	2.00	\$240,332	3.00	\$245,139	3.00	\$309,468	4.00
15	Nurse	\$0	0.00	\$44,600	1.00	\$45,492	1.00	\$46,402	1.00	\$47,330	1.00
16	Clerical	\$0	0.00	\$28,500	1.00	\$29,070	1.00	\$29,651	1.00	\$30,244	1.00
17	Custodial	\$0	0.00	\$28,000	1.00	\$28,560	1.00	\$58,262	2.00	\$59,428	2.00
18	Substitutes	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0	0.00
19	Other	\$0	0.00	\$28,162	2.00	\$43,089	3.00	\$43,950	3.00	\$59,772	4.00
20	Other Employer Costs (33.11% of Salaries)	\$88,735		\$281,728		\$428,882		\$534,872		\$693,345	
21	Health Insurance	\$45,000		\$211,815		\$336,710		\$438,464		\$590,272	
22	Other Benefits	\$0		\$0		\$0		\$0		\$0	
23											
24	SUBTOTAL SALARIES / OTHER EMPLOYER COSTS	\$401,735	3.0	\$1,372,591	17.0	\$2,104,007	25.7	\$2,632,724	31.2	\$3,437,454	40.1
25											
Student Support											
27	Transportation	\$0		\$152,180		\$217,364		\$285,012		\$355,432	
28	Extra Curricular Transportation	\$0		\$0		\$0		\$0		\$0	
29	Cafeteria	\$0		\$117,450		\$164,430		\$211,410		\$258,390	
30	Extra Curricular	\$0		\$20,000		\$50,000		\$75,000		\$100,000	
31	Supplies and Materials	\$5,000		\$49,000		\$58,000		\$90,000		\$105,000	
32	Textbooks	\$160,000		\$6,807		\$55,852		\$57,742		\$61,281	
33	Curriculum	\$4,600		\$16,700		\$22,600		\$23,600		\$35,730	
34	Professional Development	\$5,000		\$7,475		\$7,500		\$10,125		\$10,253	
35	Assessments	\$0		\$0		\$0		\$0		\$0	
36	Other Educational Program	\$0		\$5,000		\$6,000		\$6,000		\$6,000	
37	Therapists (Occupational, Speech)	\$0		\$25,000		\$36,000		\$40,000		\$45,000	
38	Classroom Technology	\$35,000		\$5,000		\$12,100		\$14,902		\$16,713	
39	School Climate	\$0		\$0		\$0		\$0		\$0	
40	Computers	\$80,000		\$2,500		\$52,500		\$53,000		\$50,000	
41	Contracted Services	\$0		\$40,000		\$66,847		\$80,092		\$87,165	
42	Other	\$0		\$10,000		\$13,000		\$22,764		\$13,557	
43											
44	SUBTOTAL STUDENT SUPPORT	\$289,600		\$457,112		\$762,193		\$969,647		\$1,144,521	
45											
46	Operations and Maintenance of Facilities										
47	Insurance (Property/Liability)	\$25,000		\$42,000		\$48,260		\$54,708		\$61,349	

\$0	cumulative 4-year non profit grants
\$350,000	cumulative 4-year Donations/Other Grants
\$1,850,000	cumulative 4-year fundraising/donations-Operations
\$2,200,000	Total Fundraising Requirement

Consolidated State, Local, Federal Foundation Revenue Funds

State & Local Revenue		2022/2023	2023/2024	2024/2025	2025/2026	2026/2027
		YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
48	Rent	\$147,917	\$181,050	\$184,600	\$188,150	\$192,055
49	Mortgage	\$0	\$0	\$0	\$0	\$0
50	Utilities	\$50,000	\$90,000	\$100,000	\$125,000	\$128,125
51	Maintenance	\$0	\$15,000	\$15,375	\$15,759	\$16,153
52	Telephone/Communications	\$0	\$5,000	\$5,125	\$5,253	\$5,384
53	Construction	\$80,500	\$0	\$0	\$0	\$0
54	Renovation	\$0	\$0	\$0	\$0	\$0
55	Other	\$0	\$15,000	\$25,000	\$28,125	\$28,828
56						
57	SUBTOTAL OPERATIONS AND MAINTENANCE OF FACILITIES	\$303,417	\$348,050	\$378,360	\$416,995	\$431,894
58						
59	Administrative/Operations Support					
60	Equipment Lease/Maintenance	\$0	\$2,000	\$5,000	\$5,125	\$8,253
61	Equipment Purchase	\$45,000	\$28,000	\$28,000	\$28,000	\$32,000
62	Supplies and Materials	\$2,500	\$3,000	\$6,000	\$7,000	\$8,000
63	Printing and Copying	\$2,500	\$3,000	\$6,500	\$6,663	\$7,000
64	Postage and Shipping	\$1,500	\$1,000	\$2,000	\$2,200	\$2,500
65	Enrollment / Recruitment	\$10,000	\$4,000	\$5,125	\$5,253	\$6,753
66	Staffing (recruitment and assessment)	\$0	\$4,000	\$5,000	\$5,000	\$5,000
67	Technology Plan	\$0	\$0	\$3,500	\$2,500	\$2,500
68	Other	\$10,000	\$10,000	\$10,000	\$10,000	\$12,000
69						
70	SUBTOTAL ADMINISTRATIVE/ OPERATIONS SUPPORT	\$71,500	\$55,000	\$71,125	\$71,741	\$84,006
71						
72	Management Company					
73	Fees	\$0	\$0	\$0	\$0	\$0
74	Salaries/Other Employee Costs	\$0	\$0	\$0	\$0	\$0
75	Curriculum	\$0	\$0	\$0	\$0	\$0
76	Accounting and Payroll	\$65,000	\$70,000	\$75,000	\$80,000	\$85,000
77	Other	\$12,000	\$16,000	\$17,000	\$18,000	\$19,000
78						
79	SUBTOTAL MANAGEMENT COMPANY	\$77,000	\$86,000	\$92,000	\$98,000	\$104,000
80	STATE & LOCAL EXPENDITURES	\$1,143,252	\$2,318,753	\$3,407,685	\$4,189,107	\$5,201,875
81						
82	# Students	0	200	280	360	440
83	REVENUE LESS EXPENDITURES	\$256,748	\$359,768	\$284,399	\$291,192	\$212,585
84	2% CONTINGENCY CHECK	\$28,000.00	\$53,570.42	\$73,841.68	\$89,605.98	\$108,289.20
85	Cummulative Fund Balance	\$256,748.00	\$616,516	\$900,915	\$1,192,107	\$1,404,692
86	Days Cash On Hand		97.05	96.50	103.87	98.56

Fiscal Year	23/24	24/25	25/26	26/27	27/28	28/29	
Year	1	2	3	4	5	6	
<u>Student Enrollment</u>							
Projected General Education	162	227	292	356	421	486	
Projected Special Education	38	53	68	84	99	114	
Percent Special Education	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%
Total Student Population (Paid)	200	280	360	440	520	600	
Projected ESL Students	44	62	79	97	114	132	22.00%
<u>Classroom Distribution</u>							80.00%
6th	100	80	80	80	80	80	
7th	100	100	80	80	80	80	
8th		100	100	80	80	80	
9th			100	100	80	80	
10th				100	100	80	
11th					100	100	
12th						100	
Total	200	280	360	440	520	600	
Average Number of Students/Grade	25	25	25	25	25	25	
Approximate # of Classes per Grade	4	3.2	3.2	3.2	3.2	3.2	
Total Required # of Classrooms	8	11.2	14.4	17.6	20.8	24	

Distribution of Enrollment from Surrounding School Districts													
	% Distribution	Federal Funds											
		23/24	24/25	25/26	26/27	27/28	28/29	23/24	24/25	25/26	26/27	27/28	28/29
Indian River	40.00%												
GENED		66	92	116	142	168	196	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645
SPED		14	20	26	34	40	45	\$ 51,600	\$ 72,240	\$ 91,590	\$ 113,520	\$ 134,160	\$ 155,445
Delmar	5.00%												
GENED		8	11	15	18	21	24	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463
SPED		2	3	3	4	5	6	\$ 4,630	\$ 6,482	\$ 8,334	\$ 10,186	\$ 12,038	\$ 13,890
Laurel	5.00%												
GENED		8	11	15	18	21	24	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732
SPED		2	3	3	4	5	6	\$ 7,320	\$ 10,248	\$ 13,176	\$ 16,104	\$ 19,032	\$ 21,960
Seaford	15.00%												
GENED		24	34	44	53	63	73	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996
SPED		6	8	9	13	15	17	\$ 29,880	\$ 41,832	\$ 52,788	\$ 65,736	\$ 77,688	\$ 89,640
Woodbridge	7.50%												
GENED		12	17	22	27	32	36	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869
SPED		3	4	5	6	7	9	\$ 13,035	\$ 18,249	\$ 23,463	\$ 28,677	\$ 33,891	\$ 39,105
Milford	7.50%												
GENED		12	17	22	27	32	36	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778
SPED		3	4	5	6	7	9	\$ 11,670	\$ 16,338	\$ 21,006	\$ 25,674	\$ 30,342	\$ 35,010
Cape Henlopen	20.00%												
GENED		32	45	58	71	84	97	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553
SPED		8	11	17	17	20	22	\$ 22,120	\$ 30,968	\$ 41,475	\$ 48,664	\$ 57,512	\$ 65,807
GENED		162	227	292	356	421	486						
SPED		38	53	68	84	99	114						
Total	100.00%	200	280	360	440	520	600	140,255	196,357	251,832	308,561	364,663	420,857

Estimated Revenue	23/24	24/25	25/26	26/27	27/28	28/29
State Funding (from Revenue Sheets)	\$1,471,224	\$2,081,590	\$2,636,385	\$3,265,621	\$4,791,978	\$5,420,216
Local Funding (from Revenue Sheets)	\$475,294	\$665,369	\$864,683	\$1,052,086	\$1,556,709	\$1,791,256
Federal Funding	\$140,255	\$196,357	\$251,832	\$308,561	\$364,663	\$420,857
Cafeteria Service Revenue	\$135,000	\$189,000	\$243,000	\$297,000	\$351,000	\$405,000
Total Estimated Revenues (State/Local/Federal)	\$2,221,773	\$3,132,316	\$3,995,900	\$4,923,268	\$7,064,350	\$8,037,329

80% Enrollment

Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Executive Director	1	1	1	1	1	1	1
School Founding Leader	1	0	0	0	0	0	0
Director of Development	1	1	1	1	1	0	0
Dean of Academic Excellence	0	0	1	1	1	1	1
Dean of Community Partnerships	0	0	0	0	1	1	1
6th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1
7th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1
8th Grade Academic Coach (Lead Teacher)	0	0	1	1	1	1	1
9th Grade Academic Coach (Lead Teacher)	0	0	0	1	1	1	1
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	1	1	1
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	1	1
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	1
6th Grade Content Teachers	0	3	2.7	2.6	2.5	2.4	2.4
7th Grade Content Teachers	0	3	2.7	2.6	2.5	2.4	2.4
8th Grade Content Teachers	0	0	2.8	2.6	2.5	2.5	2.4
9th Grade Content Teachers	0	0	0	2.6	2.5	2.5	2.4
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	2.6	2.5	2.4
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	2.5	2.5
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	2.5
Special Education Coordinator	0	1	1	1	1	1	1
Special Education Teacher	0	1	1.5	1.75	2.5	3.5	4.5
Language Teacher	0	0	0	1	2	2	2
Arts Teacher	0	0	1	1	1	2	2
Paraprofessional	0	0	1	1	2	3	4
Office Staff	0	1	1	1	1	2	2
Custodian	0	1	1	2	2	3	3
Cafeteria Aide (Part-Time)	0	2	3	3	4	4	4
Nurse	0	1	1	1	1	1	1
Counselor	0	0	1	1	1	1	1
College Career Counselor	0	0	0	0	1	1	1
Total Staff	3.00	17.00	25.70	31.15	40.10	47.30	52.50
Health Insurance		240,057	381,208	485,192	655,675	812,046	946,365
Total Enrollment		200	280	360	440	520	600

Average Health Insurance cost by year

	1	2	3	4	5	6
Health Insurance	14,121	14,833	15,576	16,351	17,168	18,026

Salary Grid for Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Step	Indian River Salary Schedule
Inflation Factor		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	1-2	46,324 BA
Executive Director	95,000	96,900	98,838	100,815	102,831	104,888	106,986	3-5	54,955 Masters
School Founding Leader	30,000	30,600	31,212	31,836	32,473	33,122	33,784	6-8	58,992 Masters
Director of Development	68,000	69,360	70,747	72,162	73,605	75,077	76,579	9-12	68,183 Masters +15
Dean of Academic Excellence	-	69,360	70,747	72,162	73,605	75,077	76,579		
Dean of Community Partnerships		56,000	57,120	58,262	59,427	60,616	61,828	Average	57,114
6th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
7th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
8th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
9th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
10th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
11th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
12th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
6th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
7th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
8th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
9th Grade Content Teachers		57,114	58,256	59,421	60,609	61,821	63,057		
10th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
11th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
12th Grade Academic Coach (Lead Teacher)		57,114	58,256	59,421	60,609	61,821	63,057		
Special Education Coordinator		67,000	68,340	69,707	71,101	72,523	73,973		
Special Education Teacher		59,614	60,806	62,022	63,262	64,527	65,818		
Language Teacher		57,114	58,256	59,421	60,609	61,821	63,057		
Arts Teacher		57,114	58,256	59,421	60,609	61,821	63,057		
Paraprofessional		30,000	30,600	31,212	31,836	32,473	33,122		
Office Staff		28,500	29,070	29,651	30,244	30,849	31,466		
Custodian		28,000	28,560	29,131	29,714	30,308	30,914		
Cafeteria Aide (Part-Time)(included 9.31% OEC Rate)		14,081	14,363	14,650	14,943	15,242	15,547		
Nurse		44,600	45,492	46,402	47,330	48,277	49,243		
Counselor		50,000	51,000	52,020	53,060	54,121	55,203		
College Career Counselor		50,000	51,000	52,020	53,060	54,121	55,203		

Total Annual Salary for Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Executive Director	95,000	96,900	98,838	100,815	102,831	104,888	106,986
School Founding Leader	30,000	-	-	-	-	-	-
Director of Development	68,000	69,360	70,747	72,162	73,605	-	-
Dean of Academic Excellence	75,000	-	70,747	72,162	73,605	75,077	76,579
Dean of Community Partnerships	-	-	-	-	59,427	60,616	61,828
6th Grade Academic Coach (Lead Teacher)	-	57,114	58,256	59,421	60,609	61,821	63,057
7th Grade Academic Coach (Lead Teacher)	-	57,114	58,256	59,421	60,609	61,821	63,057
8th Grade Academic Coach (Lead Teacher)	-	-	58,256	59,421	60,609	61,821	63,057
9th Grade Academic Coach (Lead Teacher)	-	-	-	59,421	60,609	61,821	63,057
10th Grade Academic Coach (Lead Teacher)	-	-	-	-	60,609	61,821	63,057
11th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	61,821	63,057
12th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	-	63,057
6th Grade Content Teachers	-	171,342	157,291	154,495	151,523	148,370	151,337
7th Grade Content Teachers	-	171,342	157,291	154,495	151,523	148,370	151,337
8th Grade Content Teachers	-	-	163,117	154,495	151,523	154,553	151,337
9th Grade Content Teachers	-	-	-	154,495	151,523	154,553	151,337
10th Grade Academic Coach (Lead Teacher)	-	-	-	-	157,583	154,553	151,337
11th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	154,553	157,643
12th Grade Academic Coach (Lead Teacher)	-	-	-	-	-	-	157,643
Special Education Coordinator	-	67,000	68,340	69,707	71,101	72,523	73,973
Special Education Teacher	-	59,614	91,209	108,539	158,155	225,845	296,181
Language Teacher	-	-	-	59,421	121,218	123,642	126,114
Arts Teacher	-	-	58,256	59,421	60,609	123,642	126,114
Paraprofessional	-	-	30,600	31,212	63,672	97,419	132,488
Office Staff	-	28,500	29,070	29,651	30,244	61,698	62,932
Custodian	-	28,000	28,560	58,262	59,428	90,924	92,742
Cafeteria Aide (Part-Time)	-	28,162	43,089	43,950	59,772	60,968	62,188
Nurse	-	44,600	45,492	46,402	47,330	48,277	49,243
Counselor	-	-	51,000	52,020	53,060	54,121	55,203
College Career Counselor	-	-	-	-	53,060	54,121	55,203
Total Salaries	268,000	879,048	1,338,415	1,659,388	2,153,837	2,539,639	2,891,144

	Year 0	Year 1	Year 1	Year 2	Year 2	Year 3	Year 3	Year 4	Year 4	Year 5	Year 5	Year 6	Year 6
Classroom Teachers	-	456,912	8	683,067	12.2	886,876	15.4	1,130,392	19.6	1,383,297	23.8	1,645,858	28
Special Education Coordinator		67,000	1	68,340	1	69,707	1	71,101	1	72,523	1	73,973	1
Special Education Teachers (Federal Funds Tab)	-	59,614	1	91,209	1.5	108,539	1.75	158,155	2.5	225,845	3.5	296,181	4.5
Special Teachers (Phys Ed, Art, Music)		-	0	58,256	1	118,842	2	181,827	3	247,284	4	252,228	4
Counselors		-	0	51,000	1	52,020	1	106,120	2	108,242	2	110,406	2
Principal/Administrative	268,000	96,900	1	169,585	2	172,977	2	235,863	3	240,581	3	245,393	3
Nurse		44,600	1	45,492	1	46,402	1	47,330	1	48,277	1	49,243	1
Clerical		28,500	1	29,070	1	29,651	1	30,244	1	61,698	2	62,932	2
Custodial		28,000	1	28,560	1	58,262	2	59,428	2	90,924	3	92,742	3
Substitutes													
Other		-	-	-	-	-	-	-	-	-	-	-	-
Other Employer Costs (33.11% of Salaries)													
Health Insurance													
Other Benefits													
Total	268,000	781,526	14.00	1,224,579	21.70	1,543,276	27.15	2,020,460	35.10	2,478,671	43.30	2,828,956	48.50
Allocated to Principal/Administration-Other													
Funds Sheet-Paid by Foundation Funds	3	69,360	1	70,747	1	72,162	1	73,605	1	-	0	-	0
Allocated to Cafeteria - Other Funds Sheet	0	28,162	2	43,089	3	43,950	3	59,772	4	60,968	4	62,188	4

	30-Jun-23	30-Jun-24	1-Jul-25	2-Jul-26	3-Jul-27	3-Jul-28	Eligibility
Transportation Expense							
Percent Eligible	140	196	252	308	364	420	70.0%
Estimated Annual Cost for Transportation	152,180	217,364	285,012	355,432	428,428	504,420	
Cost per Student	1,087	1,109	1,131	1,154	1,177	1,201	

IB Curriculum Programming Cost	30-Jun-23	29-Jun-24	29-Jun-25	29-Jun-26	30-Jun-27	30-Jun-28
Enrollment	0	200	280	360	440	520
Teacher Count	0	8	12.2	15.4	19.6	23.8
CP Program Training	-	-	-	-	1,480	1,480
CP Program Authorization Fee	-	-	-	-	8,500	-
Middle Years Program Training	600	7,200	3,600	3,600	3,600	3,000
Application Fee	4,000	-	-	10,500	10,500	10,500
Candidate Fee	-	9,500	9,500	-	-	-
Diploma Program Training	-	-	-	-	-	7,200
Diploma Program Application Fee	-	-	-	-	-	4,000
Candidate Fee	-	-	9,500	9,500	11,650	11,650
Total Cost of IB Programs	4,600	16,700	22,600	23,600	35,730	37,830

Health Insurance Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
State and Local Tab	183,573	299,627	395,630	533,043	683,286	793,144
Federal Funds Tab	14,121	22,250	27,258	40,878	60,088	81,117
Other Funds Tab	14,121	14,833	15,576	16,351	-	-
Total	211,815	336,710	438,464	590,272	743,374	874,261
Total Employees	17	26	31	40	47	53

Health Insurance Calculation	Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Highmark Delaware Comprehensive PPO Plan							
Employee	55%	9.35	14.14	17.13	22.06	26.02	28.88
Employee & Spouse	25%	4.25	6.43	7.79	10.03	11.83	13.13
Employee & Child(ren)	10%	1.70	2.57	3.12	4.01	4.73	5.25
Family	10%	1.70	2.57	3.12	4.01	4.73	5.25
Inflation factor	5.0%						
Monthly Cost per Class							
Employee		793.86	833.55	875.23	918.99	964.94	1,013.19
Employee & Spouse		1,647.34	1,729.71	1,816.20	1,907.01	2,002.36	2,102.48
Employee & Child(ren)		1,223.46	1,284.63	1,348.86	1,416.30	1,487.12	1,561.48
Family		2,059.40	2,162.37	2,270.49	2,384.01	2,503.21	2,628.37
Annual Cost per Class-All Employees							
Employee		89,071	141,437	179,912	243,275	301,293	351,131
Employee & Spouse		84,014	133,464	169,778	229,528	284,255	331,267
Employee & Child(ren)		24,959	39,618	50,501	68,152	84,409	98,373
Family		42,012	66,687	85,007	114,719	142,082	165,587
Average Cost/Year/Employee		14,121	14,833	15,576	16,351	17,168	18,026

80% Enrollment

The Bryan Allen Stevenson School of Excellence

Capital Expenditures of 20346 Ennis Street Property

	<u>Amount</u>
Architectural	-
Mechanical	35,000
Interior Renovations	30,000
Electrical	3,000
Floor-Paint	10,000
Other	2,500

Total Estimated Project Cost	80,500
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Finance

Funding from BASSE	80,500	100
Bank Loan	-	0

The Bryan Allen Stevenson School of Excellence
 Square Footage Requirement Calculation

Facility Needs Worksheet	30-Jun-23	30-Jun-24	30-Jun-25	30-Jun-26	30-Jun-27
Enrollment	200	280	360	440	520
Number of Primary Classrooms	8	11	14	18	21
Number of Specialty Classrooms	3	4	5	6	7
Offices	5	7	8	8	8
Square Footage (Net) per Primary Classroom	8,000	11,200	14,400	17,600	20,800
Square Footage (Net) per Specialty Classroom	2,025	2,700	3,375	4,050	4,725
Offices	500	700	800	800	800
Lunch Room	7,000	7,000	7,000	7,000	7,000
Gymnasium	10,000	10,000	10,000	10,000	10,000
Subtotal Net Square Footage Requirement-Program	27,525	31,600	35,575	39,450	43,325
Efficiency Factor-allowance for hallways, closets, storage, bathrooms	84.50%	84.50%	84.50%	84.50%	84.50%
Gross Square Footage Needed	32,574	37,396	42,101	46,686	51,272
Program of Existing School	35,500	sf			
Natorium	10,500	sf			
Classroom Spaces	26	800-900 sf each			
Life Skills	1	2000 sf	can be split into two classrooms		
Escalator	2.00%				
Rent	Annual Rental	Rent/S.F.	Lease Year		
Year 1 (start-up yr.) (rent payment commences on 11/1/22)	147,917	\$ 5.00	22-23		
Year 2	181,050	5.10	23-24		
Year 3	184,600	5.20	24-25		
Year 4	188,150	5.30	25-26		
Year 5	192,055	5.41	26-27		
Option					
Year 6	192,055	5.52	27-28		
Year 7	199,865	5.63	28-29		
Year 8	203,770	5.74	29-30		

The Bryan Allen Stevenson School of Excellence
 Budget and Sources of Funds for Nylon Capital Site

Gross Square Footage Requirement 50,000

	<u>Cost</u>	
Acquisition of Land	3,000,000	
Building Cost	12,150,000	243.00 per square foot
Site Costs	1,972,000	Includes \$1.0 million for s
Soft Costs	2,268,000	45.00 per square foot
Contingency	810,000	16.20 per square foot
Total Estimated Project Cost	<u><u>20,200,000</u></u>	

Proposed Occupancy Date no Later than 12/31/2024

Proposed Sources of Funds

ARPA	11,000,000
New Market Tax Credit	1,142,857
Other (USDA) Grant	5,000,000
Foundation	3,057,143
Total Proposed Sources of Funds	<u><u>20,200,000</u></u>

Estimated Annual Rental



Section 1.10 Budget and Finance :: Attachment 23 - Budget Narrative

State and Local Funds

Line 1 – The state and local funds recorded in the budget were derived using the Revenue Estimate Sheets provided in the application for grades 6 through 10 (years 1 through 4 respectively). Estimated Revenues for years 5 and 6 (adding grades 11 and 12) were estimated by using the Revenue Estimate Sheets and are listed in the Assumptions tabs. In year 1, the school will enroll 125 students in each grade, 6, and 7th grades. In Year 1, the school will have 250 students in 6th and 7th grades. In year 2, 8th grade will be added with 125 students and the incoming 6th grade class will be reduced to 100 total students. In years three through six, 9th, 10th, 11th and 12 grades will be added respectively. By year 6 the school will have 750 students at scale. The enrollment mix for years 1-6 by school district and student classification is estimated to be in accordance with the chart below.

The Bryan Allen Stevenson School of Excellence
 Section 10 – Attachment 23.1 – 100% Enrollment Budget Narrative

Distribution of Enrollment from Surrounding School Districts							
	% Distribution	23/24	24/25	25/26	26/27	27/28	28/29
Indian River	40.00%						
GENED		82	114	146	179	212	243
SPED		19	28	35	42	50	57
Delmar	5.00%						
GENED		10	14	18	22	26	30
SPED		2	3	4	5	6	7
Laurel	5.00%						
GENED		10	14	18	22	26	30
SPED		2	3	4	5	6	7
Seaford	15.00%						
GENED		30	42	55	67	79	91
SPED		7	10	13	16	19	21
Woodbridge	7.50%						
GENED		15	21	27	33	39	46
SPED		4	5	6	8	9	11
Milford	7.50%						
GENED		15	21	27	33	39	46
SPED		4	5	6	8	9	11
Cape Henlopen	20.00%						
GENED		40	57	73	89	105	121
SPED		10	13	18	21	25	29
GENED		202	283	364	445	526	607
SPED		48	67	86	105	124	143
Total	100.00%	250	350	450	550	650	750
Estimated Revenue	23/24	24/25	25/26	26/27	27/28	28/29	
State Funding (from Revenue Sheets)	\$1,896,707	\$2,578,165	\$3,267,320	\$4,059,532	\$4,791,978	\$5,420,216	
Local Funding (from Revenue Sheets)	\$600,404	\$841,528	\$1,081,529	\$1,315,372	\$1,556,709	\$1,791,256	
Federal Funding	\$175,280	\$245,229	\$315,437	\$385,835	\$455,784	\$526,096	
Cafeteria Service Revenue	\$168,750	\$236,250	\$303,750	\$371,250	\$438,750	\$506,250	
Total Estimated Revenues (State/Local/Federal)	\$2,841,141	\$3,901,172	\$4,968,036	\$6,131,989	\$7,243,221	\$8,243,818	

Student enrollment by year is illustrated below along with the anticipated special education and ESL populations.

The Bryan Allen Stevenson School of Excellence
 Section 10 – Attachment 23.1 – 100% Enrollment Budget Narrative

Fiscal Year	23/24	24/25	25/26	26/27	27/28	28/29	
Year	1	2	3	4	5	6	
Student Enrollment							
Projected General Education	202	283	364	445	526	607	
Projected Special Education	48	67	86	105	124	143	
Percent Special Education	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%
Total Student Population (Paid)	250	350	450	550	650	750	
Projected ESL Students	55	77	99	121	143	165	22.00%
Classroom Distribution							100.00%
6th	125	100	100	100	100	100	
7th	125	125	100	100	100	100	
8th		125	125	100	100	100	
9th			125	125	100	100	
10th				125	125	100	
11th					125	125	
12th						125	
Total	250	350	450	550	650	750	
Average Number of Students/Grade	25	25	25	25	25	25	25
Approximate # of Classes per Grade	5	2	2	2	2	2	2
Total Required # of Classrooms	10	14	18	22	26	30	

Line 2 – The School District Local Fund recorded in the budget were derived using the Revenue Estimate Sheets provided in the application and using the school district distribution and special education population exhibited above.

Line 3 – Carryover funds from prior fiscal year budgets were brought forward.

Line 4 through 11 and line 13, – See Salary Schedule below. The School plans to hire one teacher for every 25 students. The teachers are expected to be primarily those with a bachelor’s degree and 3 to 5 years’ experience. One teacher in each grade will hold a dual certification in general and special education. In year 1, a full-time Special Education Coordinator and 1 special education Teacher will be hired. Salaries will increase by 2.5% in Years 1 & 4. We expect to have 24 FTEs in year 1 and will grow to 48 FTEs in year 4 of the budget, (550 students).

The Bryan Allen Stevenson School of Excellence
Section 10 – Attachment 23.1 – 100% Enrollment Budget Narrative

Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Executive Director	1	1	1	1	1	1	1
School Founding Leader	1	0	0	0	0	0	0
Director of Development	1	1	1	1	1	0	0
Dean of Academic Excellence	0	1	1	1	1	1	1
Dean of Community Partnerships	0	0	0	0	1	1	1
6th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1
7th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1
8th Grade Academic Coach (Lead Teacher)	0	0	1	1	1	1	1
9th Grade Academic Coach (Lead Teacher)	0	0	0	1	1	1	1
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	1	1	1
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	1	1
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	1
6th Grade Content Teachers	0	4	3	3	3	3	3
7th Grade Content Teachers	0	4	4	3	3	3	3
8th Grade Content Teachers	0	0	4	4	3	3	3
9th Grade Content Teachers	0	0	0	4	4	3	3
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	4	4	3
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	4	4
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	4
Special Education Coordinator	0	1	1	1	1	1	1
Special Education Teacher	0	1	2	2	3	5	5
Language Teacher	0	0	0	1	2	2	2
Arts Teacher	0	1	1	1	1	2	2
Paraprofessional	0	1	3	3	4	4	4
Office Staff	0	1	1	2	2	2	2
Custodian	0	1	2	2	2	3	3
Cafeteria Aide (Part-Time)	0	3	3	3	4	4	4.5
Nurse	0	1	1	1	1	1	1
Counselor	0	1	1	1	1	1	1
College Career Counselor	0	0	0	0	1	1	1
Total Staff	3.00	24.00	32.00	38.00	48.00	55.00	59.50
Health Insurance		338,904	474,464	591,584	784,656	944,020	1,072,488
Total Enrollment		250	350	450	550	650	750

Other Staffing explanations: The School has currently hired a Director of Development in year 0 that will manage the community partnerships between BASSE and the organizations (nonprofit and businesses). This will include communications and support to the school regarding service-learning experiences that the nonprofit and businesses can offer our students in the future. The Director of Development will also be responsible for overseeing the lunch program and maintaining compliance with all program reporting.

Line 12-Substitutes are included in the contracted services line (31).

Line 13-N/A

Line 14 – Line 14 is automatically calculated at a rate of 33.11% of gross payroll.

Line 15 – The state of Delaware Highmark Delaware Comprehensive PPO Plan rates (effective 7/1/21) was used. To arrive at an average health insurance rate in year 1 of operation of \$13,097, we projected the employee census per the chart below. An inflation rate of 5.0% per Section 10.23.1-4

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year was used to project increases in premiums.

Health Insurance Calculation	Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Highmark Delaware Comprehensive PPO Plan							
Employee	55%	13.20	17.60	20.90	26.40	30.25	32.73
Employee & Spouse	25%	6.00	8.00	9.50	12.00	13.75	14.88
Employee & Child(ren)	10%	2.40	3.20	3.80	4.80	5.50	5.95
Family	10%	2.40	3.20	3.80	4.80	5.50	5.95
Inflation factor	5.0%						
Monthly Cost per Class							
Employee		793.86	833.55	875.23	918.99	964.94	1,013.19
Employee & Spouse		1,647.34	1,729.71	1,816.20	1,907.01	2,002.36	2,102.48
Employee & Child(ren)		1,223.46	1,284.63	1,348.86	1,416.30	1,487.12	1,561.48
Family		2,059.40	2,162.37	2,270.49	2,384.01	2,503.21	2,628.37
Annual Cost per Class-All Employees							
Employee		125,747	176,046	219,508	291,136	350,273	397,941
Employee & Spouse		118,608	166,052	207,047	274,609	330,389	375,419
Employee & Child(ren)		35,236	49,330	61,508	81,579	98,150	111,490
Family		59,311	83,035	103,534	137,319	165,212	187,666
Average Cost/Year/Employee		14,121	14,827	15,568	16,347	17,164	18,025

Line 16 – The school will offer no additional health or employee benefits.

Line 17 – The amount indicated for transportation was derived by using approximately \$1,087 per student based on an eligibility for transportation of 70%. This is based on the proposal for transportation from RJK transportation, Inc. The cost of transportation grows by 2.50% each year and increases proportionately based on the student enrollment.

Transportation Expense	30-Jun-23	30-Jun-24	1-Jul-25	2-Jul-26	3-Jul-27	3-Jul-28	Eligibility
Percent Eligible	175	245	315	385	455	525	70.0%
Estimated Annual Cost for Transportation	190,225	271,705	356,265	444,290	535,535	630,525	
Cost per Student	1,087	1,109	1,131	1,154	1,177	1,201	

Line 18 and 19 – N/A-in Other Funds.

Line 20 – N/A

Line 21 – Supplies and Materials consist of instructional supplies and instructional software for the classrooms and general supplies for the nurse’s office. Examples of instructional supplies are science lab materials, art class supplies, calculators, consumable materials, etc.

Line 22 – The amount for textbooks in Year 1 is in **Other Funds**, Year 0 and is budgeted at \$200,000 in line item 26. In Year 2-4, a budget for new and replacement textbooks is \$60,000, \$70,000, and \$80,000 respectively.

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Line 23 – Curriculum is based on the IB Curriculum Training Schedule (years 1-4) per the chart below. In Year 0 and 1, Curriculum training is captured in Other Funds.

IB Curriculum Programming Cost	30-Jun-23	29-Jun-24	29-Jun-25	29-Jun-26	30-Jun-27	30-Jun-28
Enrollment	0	250	350	450	550	650
Teacher Count	0	11	17	21	26	30
CP Program Training	-	-	-	-	1,480	1,480
CP Program Authorization Fee	-	-	-	-	8,500	-
Middle Years Program Training	600	7,200	3,600	3,600	3,600	3,000
Application Fee	4,000	-	-	10,500	10,500	10,500
Candidate Fee	-	9,500	9,500	-	-	-
Diploma Program Training	-	-	-	-	-	7,200
Diploma Program Application Fee	-	-	-	-	-	4,000
Candidate Fee	-	-	9,500	9,500	11,650	11,650
Total Cost of IB Programs	4,600	16,700	22,600	23,600	35,730	37,830

Line 24 – Professional Development includes staff development activities starting in the summer of 2022, prior to school opening in September 2023 and throughout each school year. The professional development cost in Year 0 are captured in Other Funds.

Line 25 – We plan to contract with an outside company to provide services for progress monitoring and summative assessments and that cost is captured in Contracted Services.

Line 26 – It is anticipated there will be ancillary educational programs sponsored by the School.

Line 27 – We plan to contract with an outside company(s) that offers speech and occupational therapy, academic evaluations, etc. The estimated cost is based on speaking with vendors that provide these services and the projected student enrollment.

Line 28 – The School will provide white boards and other technology for the delivery of certain educational programs.

Line 29 –
N/A

Line 30 – The School will set up a computer lab and provide computers throughout the school to support the educational programs. A budget of \$100,000 has been established in Year 0 in **Other Funds** to begin Year 1 of school. A budget of \$65,000, \$80,000, and \$100,000 is established for Years 2, 3 and 4 respectively.

Line 31 – We plan to contract with an outside company that provides substitute teachers and other educational consultants as needed.

Line 32 – Other costs are miscellaneous costs for instructional support.

Line 33 – The amount budgeted for commercial liability insurance is based on providing the statutory levels of insurance per the Delaware Department of Education. The School solicited Section 10.23.1-6

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an estimate from a licensed insurance broker based on the four-year budget worksheet. Please see the attached letter. The cost assumes a July 1, 2023 go-live date.

Line 34 – Rent is based on the signed letter of intent with Delaware Technical and Community College, for the former Howard T. Ennis School located at 21179 College Drive, Georgetown, Delaware. The building is approximately 35,500 square feet and is currently occupied by the Indian River School District (See Floorplan in Attachment). The school building contains all the classrooms to meet the programmatic needs of the school for years 1 through 4. The school building has offices and a fully fit-out commercial kitchen/cafeteria. The proposed terms are for a five-year lease term effective on 9/1/22 with one three-year option to renew. The School will have an option to terminate the lease for any reason, at any time with a twelve month advance written notice. This gives the school flexibility to find a permeant location. Beginning in year 4 and 5, there will be a need to add two modular classroom buildings, one each year to accommodate the additional 100 enrollment.

The school is working with National Development Council (NDC) and Community Education Building (CEB) on the development of a permanent newly constructed school building on a property that will support all the programs of the school. As part of the discussions, a proposed site has been identified in Sussex County. An application for American Rescue Plan Funds (ARPA), and other governmental and foundation grants to put together a \$20 million dollar development. The preliminary sources and uses of funds is below. The occupancy date is currently set at no later than December 31, 2024 (midway through the first year of school operations). The facility will be owned by CEB. The proposed rental rates are not yet negotiated but they are expected to be in sync with this budget.

Bryan Stevenson School For Excellence					
USES OF FUNDS	\$	\$/sf	%		
Acquisition	\$3,000,000	\$60	15%	Total acquisition costs split equally over two projects	
Site Work	\$1,972,000	\$39	10%	6%	
Hard Costs	\$12,150,000	\$243	60%	75%	
Soft Costs	\$2,268,000	\$45	11%	14%	
Reserves/Contingencies	\$810,000	\$16	4%	5%	
Total	\$20,200,000	\$404	100%	\$16,200,000	Improvement costs
SOURCES OF FUNDS				50,000	SF
ARPA	\$11,000,000	\$220	54%		
NMTC	\$1,142,857	\$23	6%		
Other (USDA)	\$5,000,000	\$100	25%		
Foundation	\$3,057,143	\$61	15%		
Total	\$20,200,000	\$404	100%		

Line 35 – N/A, there will be no mortgage.

Line 36 – The utilities for are budgeted based on an estimate usage for the school property. In year 0 and 1, the utility charges will be paid for by Other Funds. The actual operating costs of the property were evaluated using public documents from the Indian River School District.

Line 37 –Maintenance also includes routine maintenance and repairs such as hiring plumbers, electricians, locksmiths, etc. when needed. It also includes HVAC maintenance, trash removal

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services, exterminators, and shredding services.

Line 38 –Internet access, hotspots, landlines, VoIP service, cell phones, and air cards. These services can be discounted up to 90% by E-rate, a federal program that provides funds to help schools pay for their telecommunications.

Line 39 – N/A.

Line 40 – N/A, a budget of \$80,500 is established to perform cosmetic maintenance to the school building in Year 0 under Other Funds.

Capital Expenditures of 20346 Ennis Street Property	
	Amount
Architectural	-
Mechanical	35,000
Interior Renovations	30,000
Electrical	3,000
Floor-Paint	10,000
Other	2,500
Total Estimated Project Cost	80,500

Line 41 – Facilities supplies are budgeted in this line. Supplies include toilet paper, trash bags, soap, paint, hardware, and other school supplies.

Line 42 – We plan to lease a postage meter and a copier. This category also includes maintenance costs for copiers and computers.

Line 43 – This category consists of classroom furniture, computers, laptops, servers, and projectors that the School purchases.

Line 44 – This category consists of general office supplies as well as supplies and materials purchased by Administration.

Line 45 – This amount is for printing and copying for parent and community mailings.

Line 46 – Postage and Shipping expenses for School-related mailings to families and the community.

Line 47 – We will advertise in local newspapers, magazines, and other forms of advertising to promote the School. We will also hold open houses and attend high school fairs. We will also

The Bryan Allen Stevenson School of Excellence
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conduct presentations at other schools located in the Sussex County area and distribute materials.

Line 48 – We plan to recruit teachers by advertising on websites that target Delaware certified teachers. Other forms of recruitment that carry a fee will be employed if necessary.

Line 49 – The School will pursue E-rate funding to help defer the cost of telecom and certain IT infrastructure.

Line 50 – Other costs consists of consulting, legal fees and meals and travel expense incurred by Administration.

Line 51-N/A

Line 52-53 - N/A

Line 54-Accounting and payroll cost services of Michelle J Lambert, CPA and OmniVest Management, Inc. to process daily accounting transactions in PSF and PHRST, preparation of annual operating budget, prepare monthly financial reports, and the oversight of having an independent audit of the financial statements and the preparation of the Form 990 Tax Return.

Line 55 – N/A

Line 56 – Our school will consist of grades 6-12th grades and each grade level will have between 100 and 125 students per grade. In year 1, we will enroll students in grades 6-7. In years 2 through 6, the school will add a grade each year until 12th grade is achieved in year 6. The total enrollment at scale will be 750 students and this will be achieved in year 6.

The end-of-year surplus exceeds the 2.0% check each year of operations.

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Federal Funds

Line 1 – We took an average of the Entitlement funds actual amounts awarded to the Seven Sussex County School Districts for the fiscal year ending June 30, 2020, which included Title I, Title II, Title IV, and IDEA. The amounts budgeted are an average of what was awarded to the seven school districts in Sussex County and using the estimated mix of student enrollment per the chart below. The Federal Funds numbers in red below are what was budgeted in the Federal Funds tabs of the Revenue Estimate sheets.

Distribution of Enrollment from Surrounding School Districts								Federal Funds					
	% Distribution	23/24	24/25	25/26	26/27	27/28	28/29	23/24	24/25	25/26	26/27	27/28	28/29
Indian River	40.00%												
GENED		82	114	146	179	212	243	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645
SPED		19	28	35	42	50	57	65,145	91,590	116,745	142,545	168,990	193,500
Delmar	5.00%												
GENED		10	14	18	22	26	30	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463
SPED		2	3	4	5	6	7	5,556	7,871	10,186	12,501	14,816	17,131
Laurel	5.00%												
GENED		10	14	18	22	26	30	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732
SPED		2	3	4	5	6	7	8,784	12,444	16,104	19,764	23,424	27,084
Seaford	15.00%												
GENED		30	42	55	67	79	91	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996
SPED		7	10	13	16	19	21	36,852	51,792	67,728	82,668	97,608	111,552
Woodbridge	7.50%												
GENED		15	21	27	33	39	46	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869
SPED		4	5	6	8	9	11	16,511	22,594	28,677	35,629	41,712	49,533
Milford	7.50%												
GENED		15	21	27	33	39	46	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778
SPED		4	5	6	8	9	11	14,782	20,228	25,674	31,898	37,344	44,346
Cape Henlopen	20.00%												
GENED		40	57	73	89	105	121	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553
SPED		10	13	18	21	25	29	27,650	38,710	50,323	60,830	71,890	82,950
GENED		202	283	364	445	526	607						
SPED		48	67	86	105	124	143						
Total	100.00%	250	350	450	550	650	750	175,280	245,229	315,437	385,835	455,784	526,096

Line 2 – N/A

Line 3 – No classroom teachers are being paid from federal funds.

Lines 4 –The School will hire a Special Education Coordinator and teachers and will engage contractors as needed to provide special education and ESL services. See staffing plan for special education below:

Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Special Education Coordinator	0	1	1	1	1	1
Special Education Teacher	0	1	2	2	3	5

Line 5-12 - No positions are being paid from federal funds.

Line 13 –would be automatically calculated, 33.11%.

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Line 14 – The state of Delaware Highmark Delaware Comprehensive PPO Plan rates (effective 7/1/21) was used. To arrive at an average health insurance rate in year 1 of operation of \$14,121, we projected the employee census per the chart below. An inflation rate of 5.0% per year was used to project increases in premiums.

Line 15 – The school will offer no other health benefits.

Line 16-19 – N/A

Line 20 – Supplies and materials used in federal funded activities.

Line 21 – Purchase of special education curricular materials.

Line 22 – N/A

Line 23 – Professional development activities under the Title II Grant. It is possible a School teacher will provide some of the PD and therefore a portion of her salary will be paid for with Title II funds.

Line 24-28 – No federal funds are being used.

Line 29 – Acquisition of computers and software to be used solely for the special education programs.

Line 30 – Contracted services that could be supported with Federal funds under IDEA could consist of SPED Coordinator/Director as well as support services for SPED students such as OT and Speech services. Other possible contracted services that could be supported under Title I, II or IV funding include but are not limited to Counselors, Psychologists, PD Consultants, IT support services and Educational Software or materials.

Lines 31-53 – No federal funds are being used.

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Other Funds

Line 1- N/A

Line 2 – The Longwood Foundation has awarded The Bryan Allen Stevenson School of Excellence \$1.0 million in an unrestricted grant to open the school. The funds were received in the month of June 2021. In addition, \$250,000 from the Welfare Fund has been awarded and received in the summer of 2021. Each year, \$150,000 is budgeted for new foundation funding. For the four years of operations, a total of \$1,795,000 will be raised through Proximate Network, Inc., of which approximately \$1,250,000 has already been secured.

Line 3 – Proximate Network will raise 150,000 by July 2022. As of August 2021, since inception, Proximate Network has raised \$263,000 and is expected to raise additional funds.

Line 4 – N/A

Line 5 – Cafeteria funds include those funds estimated to be derived from the School participating in the USDA child nutrition program. This program is budgeted to fund two part-time cafeteria aides and some basic supplies for the cafeteria. The program is budgeted to break-even after paying the expenses from the two cafeteria aides and miscellaneous supplies.

Line 6 – N/A

Line 7 – Carryover funds from prior fiscal year budgets were brought forward.

Lines 8-11– N/A

Line 12 – This cost (for the startup year only) includes a salary for the Executive Director/Principal, School Founding Leader, Director of Development, and a full-time Director of Fundraising whose primary duties during this period will be getting the school up and operating on July 1, 2023.

Line 13-16 – N/A

Line 17 – Includes two part-time cafeteria aides that will earn approximately \$14,000 each beginning in year one and will not be eligible for health benefits. Calculation of the OEC rate adds approximately 0.50 FTE per actual FTE. The Director of Development will be overseeing the lunch program and completing reporting to assure compliance.

Line 18 – Line 18 is automatically calculated at 33.11% of payroll. Part time staff that work less than 30 hours a week are subject to an OEC rate of 9.31% (No Pension or Health Insurance Cost). The State's budget sheet doesn't apply an OEC rate to Substitutes & Other employees. The FTE count does reflect this OEC rate for the Cafeteria Staff. Since the cafeteria staff are part time, each one will equal a fraction of an FTE depending on the number of hours they will work. This is set at a plus .50 FTE per cafeteria worker totaling 1 FTE (2 x .50).

Lines 19 - The state of Delaware Highmark Delaware Comprehensive PPO Plan rates (effective 7/1/21) was used. To arrive at an average health insurance rate in year 1 of operation of \$14,121, we projected the employee census per the chart below. An inflation rate of 5.0% per year was used to

Section 10.23.1-12

Commented [ML1]: 2 aides @ \$14K each equals \$28K. \$42,243 is budgeted in year 1, what other position is here? FTE is 3.00 so I am assuming that there is more than 2 part time Cafeteria Aides. Narrative just needs to agree with budget sheet.

Commented [KH2R1]: What other staff should be mentioned here? She is correct there are 3 FTEs.

The Bryan Allen Stevenson School of Excellence
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 project increases in premiums.

Health Insurance Calculation	Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Highmark Delaware Comprehensive PPO Plan							
Employee	55%	13.20	17.60	20.90	26.40	30.25	32.73
Employee & Spouse	25%	6.00	8.00	9.50	12.00	13.75	14.88
Employee & Child(ren)	10%	2.40	3.20	3.80	4.80	5.50	5.95
Family	10%	2.40	3.20	3.80	4.80	5.50	5.95
Inflation factor	5.0%						
Monthly Cost per Class							
Employee		793.86	833.55	875.23	918.99	964.94	1,013.19
Employee & Spouse		1,647.34	1,729.71	1,816.20	1,907.01	2,002.36	2,102.48
Employee & Child(ren)		1,223.46	1,284.63	1,348.86	1,416.30	1,487.12	1,561.48
Family		2,059.40	2,162.37	2,270.49	2,384.01	2,503.21	2,628.37
Annual Cost per Class-All Employees							
Employee		125,747	176,046	219,508	291,136	350,273	397,941
Employee & Spouse		118,608	166,052	207,047	274,609	330,389	375,419
Employee & Child(ren)		35,236	49,330	61,508	81,579	98,150	111,490
Family		59,311	83,035	103,534	137,319	165,212	187,666
Average Cost/Year/Employee		14,121	14,827	15,568	16,347	17,164	18,025

Line 20 – N/A

Line 21 – N/A

Line 22 – N/A

Line 23 – Food Service will be outsourced to a qualified food service vendor in accordance with regulation of the Free & Reduced Lunch program. Food expense is budgeted at 90% of the revenue each year.

Line 24 – The school plans on having a summer program (s) beginning in the start-up year and each year thereafter. Summer programming will include but not be limited to summer enrichment, career development and other programming to support the student population. The budgeted cost grows each year based on the enrollment growth of the school and will be funded through the Foundation Funds line.

Line 25 – In the startup year – general administrative supplies related to startup, and in Years 1 through 4 -- General supplies for the cafeteria.

Lines 26 – Textbooks will be purchased in the start-up year for year 1 of school. The budget for books is \$200,000.

Line 27 – Curriculum expense is the requisite IB Curriculum Programming Cost.

Line28 – Professional Development in the startup year prior to opening school in September 2023.

Line 29-31 – N/A

Line 32 – Purchase of smart boards and other classroom technology.

Section 10.23.1-13

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 Line 33 – N/A

Line 34 – Computers for the school operation in year 1 will be acquired in the startup year. The budget is \$100,000.

Lines 35-36 – N/A

Line 37 – In the startup year, it is anticipated that some level of liability insurance will be required to be acquired (budget of \$25,000).

Lines 38 – According to the Letter of Intent, rent commences in September 2022. A budget of \$147,917 is established for the startup year ending June 30, 2023. In year 2 and forward, rent is paid through State and Local Funds.

Line 39 – N/A

Line 40 – Utilities will be paid through Other Funds in the startup year.

Lines 41-42 – N/A

Line 43 – Renovations of the property are highlighted below and explained in line 35 of State and Local Tab and are estimated to be \$80,500.

The Bryan Allen Stevenson School of Excellence		
Capital Expenditures of 20346 Ennis Street Property		
	Amount	
Architectural	-	
Mechanical	35,000	
Interior Renovations	30,000	
Electrical	3,000	
Floor-Paint	10,000	
Other	2,500	
Total Estimated Project Cost	80,500	
Finance		
Funding from BASSE	80,500	100
Bank Loan	-	0

Lines 44-45 – N/A

Line 46 – N/A

Line 47 – Indian River School District will be leaving much of classroom equipment, office furniture, commercial kitchen equipment, etc. in the building. The school will need to supplement this equipment. During the start-up year, an inventory will be prepared, and the additional furniture, fixtures, and equipment will be purchased.

Line 48 – The purchase of supplies and materials during the startup year.

Section 10.23.1-14

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Line 49 – The purchase of printing and copying during the startup year.

Line 50 – The purchase of postage during the startup year.

Line 51 – The cost of student and staff recruitment during the startup year.

Lines 52 -53 – N/A

Line 54 – Other costs related to the startup activities such as marketing and recruitment materials for both staff and students.

Lines 55 – 57 – N/A

Line 58 – Accounting and payroll cost services of Michelle J Lambert, CPA and OmniVest Management, Inc. to process daily accounting transactions in FSF and PHRST, preparation of annual operating budget.

Line 59 – Engagement of an independent auditor each year of operation to prepare audited financial statement, and the preparation of the Form 990 Tax Return.

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Consolidated State and Local, Federal Funds, and Other Funds Tabs

A Consolidated Funds Tab was created to consolidate the three Budget Worksheets, primarily to show the effect of the Foundation and Donations line in the Other Funds tab. A total of \$2,200,000 will be raised through Foundation and Donation support. Approximately \$1,400,000 of this projected fundraising budget has already been raised. A full-time fundraising position has been hired in the late fall of 2021 and will focus solely on fundraising.

**Section 1.10 Budget and Finance :: Attachment 23 - Budget Narrative ::
100% Enrollment**

State and Local Funds

Line 1 – The state and local funds recorded in the budget were derived using the Revenue Estimate Sheets provided in the application for grades 6 through 10 (years 1 through 4 respectively). Estimated Revenues for years 5 and 6 (adding grades 11 and 12) were estimated by using the Revenue Estimate Sheets and are listed in the Assumptions tabs. In year 1, the school will enroll 125 students in each grade, 6, and 7th grades. In Year 1, the school will have 250 students in 6th and 7th grades. In year 2, 8th grade will be added with 125 students and the incoming 6th grade class will be reduced to 100 total students. In years three through six, 9th, 10th, 11th and 12 grades will be added respectively. By year 6 the school will have 750 students at scale. The enrollment mix for years 1-6 by school district and student classification is estimated to be in accordance with the chart below.

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Distribution of Enrollment from Surrounding School Districts							
	% Distribution	23/24	24/25	25/26	26/27	27/28	28/29
Indian River	40.00%						
GENED		82	114	146	179	212	243
SPED		19	28	35	42	50	57
Delmar	5.00%						
GENED		10	14	18	22	26	30
SPED		2	3	4	5	6	7
Laurel	5.00%						
GENED		10	14	18	22	26	30
SPED		2	3	4	5	6	7
Seaford	15.00%						
GENED		30	42	55	67	79	91
SPED		7	10	13	16	19	21
Woodbridge	7.50%						
GENED		15	21	27	33	39	46
SPED		4	5	6	8	9	11
Milford	7.50%						
GENED		15	21	27	33	39	46
SPED		4	5	6	8	9	11
Cape Henlopen	20.00%						
GENED		40	57	73	89	105	121
SPED		10	13	18	21	25	29
GENED		202	283	364	445	526	607
SPED		48	67	86	105	124	143
Total	100.00%	250	350	450	550	650	750
Estimated Revenue	23/24	24/25	25/26	26/27	27/28	28/29	
State Funding (from Revenue Sheets)	\$1,896,707	\$2,578,165	\$3,267,320	\$4,059,532	\$4,791,978	\$5,420,216	
Local Funding (from Revenue Sheets)	\$600,404	\$841,528	\$1,081,529	\$1,315,372	\$1,556,709	\$1,791,256	
Federal Funding	\$175,280	\$245,229	\$315,437	\$385,835	\$455,784	\$526,096	
Cafeteria Service Revenue	\$168,750	\$236,250	\$303,750	\$371,250	\$438,750	\$506,250	
Total Estimated Revenues (State/Local/Federal)	\$2,841,141	\$3,901,172	\$4,968,036	\$6,131,989	\$7,243,221	\$8,243,818	

Student enrollment by year is illustrated below along with the anticipated special education and ESL populations.

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Fiscal Year	23/24	24/25	25/26	26/27	27/28	28/29	
Year	1	2	3	4	5	6	
Student Enrollment							
Projected General Education	202	283	364	445	526	607	
Projected Special Education	48	67	86	105	124	143	
Percent Special Education	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%
Total Student Population (Paid)	250	350	450	550	650	750	
Projected ESL Students	55	77	99	121	143	165	22.00%
Classroom Distribution							100.00%
6th	125	100	100	100	100	100	
7th	125	125	100	100	100	100	
8th		125	125	100	100	100	
9th			125	125	100	100	
10th				125	125	100	
11th					125	125	
12th						125	
Total	250	350	450	550	650	750	
Average Number of Students/Grade	25	25	25	25	25	25	
Approximate # of Classes per Grade	5	2	2	2	2	2	
Total Required # of Classrooms	10	14	18	22	26	30	

Line 2 – The School District Local Fund recorded in the budget were derived using the Revenue Estimate Sheets provided in the application and using the school district distribution and special education population exhibited above.

Line 3 – Carryover funds from prior fiscal year budgets were brought forward.

Line 4 through 11 and line 13, – See Salary Schedule below. The School plans to hire one teacher for every 25 students. The teachers are expected to be primarily those with a bachelor’s degree and 3 to 5 years’ experience. One teacher in each grade will hold a dual certification in general and special education. In year 1, a full-time Special Education Coordinator and 1 special education Teacher will be hired. Salaries will increase by 2.5% in Years 1 & 4. We expect to have 24 FTEs in year 1 and will grow to 48 FTEs in year 4 of the budget, (550 students).

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Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Executive Director	1	1	1	1	1	1	1
School Founding Leader	1	0	0	0	0	0	0
Director of Development	1	1	1	1	1	0	0
Dean of Academic Excellence	0	1	1	1	1	1	1
Dean of Community Partnerships	0	0	0	0	1	1	1
6th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1
7th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1
8th Grade Academic Coach (Lead Teacher)	0	0	1	1	1	1	1
9th Grade Academic Coach (Lead Teacher)	0	0	0	1	1	1	1
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	1	1	1
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	1	1
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	1
6th Grade Content Teachers	0	4	3	3	3	3	3
7th Grade Content Teachers	0	4	4	3	3	3	3
8th Grade Content Teachers	0	0	4	4	3	3	3
9th Grade Content Teachers	0	0	0	4	4	3	3
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	4	4	3
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	4	4
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	4
Special Education Coordinator	0	1	1	1	1	1	1
Special Education Teacher	0	1	2	2	3	5	5
Language Teacher	0	0	0	1	2	2	2
Arts Teacher	0	1	1	1	1	2	2
Paraprofessional	0	1	3	3	4	4	4
Office Staff	0	1	1	2	2	2	2
Custodian	0	1	2	2	2	3	3
Cafeteria Aide (Part-Time)	0	3	3	3	4	4	4.5
Nurse	0	1	1	1	1	1	1
Counselor	0	1	1	1	1	1	1
College Career Counselor	0	0	0	0	1	1	1
Total Staff	3.00	24.00	32.00	38.00	48.00	55.00	59.50
Health Insurance		338,904	474,464	591,584	784,656	944,020	1,072,488
Total Enrollment		250	350	450	550	650	750

Other Staffing explanations: The School has currently hired a Director of Development in year 0 that will manage the community partnerships between BASSE and the organizations (nonprofit and businesses). This will include communications and support to the school regarding service-learning experiences that the nonprofit and businesses can offer our students in the future. The Director of Development will also be responsible for overseeing the lunch program and maintaining compliance with all program reporting.

Line 12-Substitutes are included in the contracted services line (31).

Line 13-N/A

Line 14 – Line 14 is automatically calculated at a rate of 33.11% of gross payroll.

Line 15 – The state of Delaware Highmark Delaware Comprehensive PPO Plan rates (effective 7/1/21) was used. To arrive at an average health insurance rate in year 1 of operation of \$13,097, we projected the employee census per the chart below. An inflation rate of 5.0% per Section 10.23.1-4

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year was used to project increases in premiums.

Health Insurance Calculation	Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Highmark Delaware Comprehensive PPO Plan							
Employee	55%	13.20	17.60	20.90	26.40	30.25	32.73
Employee & Spouse	25%	6.00	8.00	9.50	12.00	13.75	14.88
Employee & Child(ren)	10%	2.40	3.20	3.80	4.80	5.50	5.95
Family	10%	2.40	3.20	3.80	4.80	5.50	5.95
Inflation factor	5.0%						
Monthly Cost per Class							
Employee		793.86	833.55	875.23	918.99	964.94	1,013.19
Employee & Spouse		1,647.34	1,729.71	1,816.20	1,907.01	2,002.36	2,102.48
Employee & Child(ren)		1,223.46	1,284.63	1,348.86	1,416.30	1,487.12	1,561.48
Family		2,059.40	2,162.37	2,270.49	2,384.01	2,503.21	2,628.37
Annual Cost per Class-All Employees							
Employee		125,747	176,046	219,508	291,136	350,273	397,941
Employee & Spouse		118,608	166,052	207,047	274,609	330,389	375,419
Employee & Child(ren)		35,236	49,330	61,508	81,579	98,150	111,490
Family		59,311	83,035	103,534	137,319	165,212	187,666
Average Cost/Year/Employee		14,121	14,827	15,568	16,347	17,164	18,025

Line 16 – The school will offer no additional health or employee benefits.

Line 17 – The amount indicated for transportation was derived by using approximately \$1,087 per student based on an eligibility for transportation of 70%. This is based on the proposal for transportation from RJK transportation, Inc. The cost of transportation grows by 2.50% each year and increases proportionately based on the student enrollment.

Transportation Expense	30-Jun-23	30-Jun-24	1-Jul-25	2-Jul-26	3-Jul-27	3-Jul-28	Eligibility
Percent Eligible	175	245	315	385	455	525	70.0%
Estimated Annual Cost for Transportation	190,225	271,705	356,265	444,290	535,535	630,525	
Cost per Student	1,087	1,109	1,131	1,154	1,177	1,201	

Line 18 and 19 – N/A-in Other Funds.

Line 20 – N/A

Line 21 – Supplies and Materials consist of instructional supplies and instructional software for the classrooms and general supplies for the nurse’s office. Examples of instructional supplies are science lab materials, art class supplies, calculators, consumable materials, etc.

Line 22 – The amount for textbooks in Year 1 is in **Other Funds**, Year 0 and is budgeted at \$200,000 in line item 26. In Year 2-4, a budget for new and replacement textbooks is \$60,000, \$70,000, and \$80,000 respectively.

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Line 23 – Curriculum is based on the IB Curriculum Training Schedule (years 1-4) per the chart below. In Year 0 and 1, Curriculum training is captured in Other Funds.

IB Curriculum Programming Cost	30-Jun-23	29-Jun-24	29-Jun-25	29-Jun-26	30-Jun-27	30-Jun-28
Enrollment	0	250	350	450	550	650
Teacher Count	0	11	17	21	26	30
CP Program Training	-	-	-	-	1,480	1,480
CP Program Authorization Fee	-	-	-	-	8,500	-
Middle Years Program Training	600	7,200	3,600	3,600	3,600	3,000
Application Fee	4,000	-	-	10,500	10,500	10,500
Candidate Fee	-	9,500	9,500	-	-	-
Diploma Program Training	-	-	-	-	-	7,200
Diploma Program Application Fee	-	-	-	-	-	4,000
Candidate Fee	-	-	9,500	9,500	11,650	11,650
Total Cost of IB Programs	4,600	16,700	22,600	23,600	35,730	37,830

Line 24 – Professional Development includes staff development activities starting in the summer of 2022, prior to school opening in September 2023 and throughout each school year. The professional development cost in Year 0 are captured in Other Funds.

Line 25 – We plan to contract with an outside company to provide services for progress monitoring and summative assessments and that cost is captured in Contracted Services.

Line 26 – It is anticipated there will be ancillary educational programs sponsored by the School.

Line 27 – We plan to contract with an outside company(s) that offers speech and occupational therapy, academic evaluations, etc. The estimated cost is based on speaking with vendors that provide these services and the projected student enrollment.

Line 28 – The School will provide white boards and other technology for the delivery of certain educational programs.

Line 29 –
 N/A

Line 30 – The School will set up a computer lab and provide computers throughout the school to support the educational programs. A budget of \$100,000 has been established in Year 0 in **Other Funds** to begin Year 1 of school. A budget of \$65,000, \$80,000, and \$100,000 is established for Years 2, 3 and 4 respectively.

Line 31 – We plan to contract with an outside company that provides substitute teachers and other educational consultants as needed.

Line 32 – Other costs are miscellaneous costs for instructional support.

Line 33 – The amount budgeted for commercial liability insurance is based on providing the statutory levels of insurance per the Delaware Department of Education. The School solicited Section 10.23.1-6

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an estimate from a licensed insurance broker based on the four-year budget worksheet. Please see the attached letter. The cost assumes a July 1, 2023 go-live date.

Line 34 – Rent is based on the signed letter of intent with Delaware Technical and Community College, for the former Howard T. Ennis School located at 21179 College Drive, Georgetown, Delaware. The building is approximately 35,500 square feet and is currently occupied by the Indian River School District (See Floorplan in Attachment). The school building contains all the classrooms to meet the programmatic needs of the school for years 1 through 4. The school building has offices and a fully fit-out commercial kitchen/cafeteria. The proposed terms are for a five-year lease term effective on 9/1/22 with one three-year option to renew. The School will have an option to terminate the lease for any reason, at any time with a twelve month advance written notice. This gives the school flexibility to find a permeant location. Beginning in year 4 and 5, there will be a need to add two modular classroom buildings, one each year to accommodate the additional 100 enrollment.

The school is working with National Development Council (NDC) and Community Education Building (CEB) on the development of a permanent newly constructed school building on a property that will support all the programs of the school. As part of the discussions, a proposed site has been identified in Sussex County. An application for American Rescue Plan Funds (ARPA), and other governmental and foundation grants to put together a \$20 million dollar development. The preliminary sources and uses of funds is below. The occupancy date is currently set at no later than December 31, 2024 (midway through the first year of school operations). The facility will be owned by CEB. The proposed rental rates are not yet negotiated but they are expected to be in sync with this budget.

Bryan Stevenson School For Excellence					
USES OF FUNDS	\$	\$/sf	%		
Acquisition	\$3,000,000	\$60	15%	Total acquisition costs split equally over two projects	
Site Work	\$1,972,000	\$39	10%	6%	
Hard Costs	\$12,150,000	\$243	60%	75%	
Soft Costs	\$2,268,000	\$45	11%	14%	
Reserves/Contingencies	\$80,000	\$16	4%	5%	
Total	\$20,200,000	\$404	100%	\$16,200,000	Improvement costs
SOURCES OF FUNDS				50,000	SF
ARPA	\$11,000,000	\$220	54%		
NMTC	\$1,142,857	\$23	6%		
Other (USDA)	\$5,000,000	\$100	25%		
Foundation	\$3,057,143	\$61	15%		
Total	\$20,200,000	\$404	100%		

Line 35 – N/A, there will be no mortgage.

Line 36 – The utilities for are budgeted based on an estimate usage for the school property. In year 0 and 1, the utility charges will be paid for by Other Funds. The actual operating costs of the property were evaluated using public documents from the Indian River School District.

Line 37 –Maintenance also includes routine maintenance and repairs such as hiring plumbers, electricians, locksmiths, etc. when needed. It also includes HVAC maintenance, trash removal

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services, exterminators, and shredding services.

Line 38 –Internet access, hotspots, landlines, VoIP service, cell phones, and air cards. These services can be discounted up to 90% by E-rate, a federal program that provides funds to help schools pay for their telecommunications.

Line 39 – N/A.

Line 40 – N/A, a budget of \$80,500 is established to perform cosmetic maintenance to the school building in Year 0 under Other Funds.

Capital Expenditures of 20346 Ennis Street Property	
	Amount
Architectural	-
Mechanical	35,000
Interior Renovations	30,000
Electrical	3,000
Floor-Paint	10,000
Other	2,500
Total Estimated Project Cost	80,500

Line 41 – Facilities supplies are budgeted in this line. Supplies include toilet paper, trash bags, soap, paint, hardware, and other school supplies.

Line 42 – We plan to lease a postage meter and a copier. This category also includes maintenance costs for copiers and computers.

Line 43 – This category consists of classroom furniture, computers, laptops, servers, and projectors that the School purchases.

Line 44 – This category consists of general office supplies as well as supplies and materials purchased by Administration.

Line 45 – This amount is for printing and copying for parent and community mailings.

Line 46 – Postage and Shipping expenses for School-related mailings to families and the community.

Line 47 – We will advertise in local newspapers, magazines, and other forms of advertising to promote the School. We will also hold open houses and attend high school fairs. We will also

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conduct presentations at other schools located in the Sussex County area and distribute materials.

Line 48 – We plan to recruit teachers by advertising on websites that target Delaware certified teachers. Other forms of recruitment that carry a fee will be employed if necessary.

Line 49 – The School will pursue E-rate funding to help defer the cost of telecom and certain IT infrastructure.

Line 50 – Other costs consists of consulting, legal fees and meals and travel expense incurred by Administration.

Line 51-N/A

Line 52-53 - N/A

Line 54-Accounting and payroll cost services of Michelle J Lambert, CPA and OmniVest Management, Inc. to process daily accounting transactions in PSF and PHRST, preparation of annual operating budget, prepare monthly financial reports, and the oversight of having an independent audit of the financial statements and the preparation of the Form 990 Tax Return.

Line 55 – N/A

Line 56 – Our school will consist of grades 6-12th grades and each grade level will have between 100 and 125 students per grade. In year 1, we will enroll students in grades 6-7. In years 2 through 6, the school will add a grade each year until 12th grade is achieved in year 6. The total enrollment at scale will be 750 students and this will be achieved in year 6.

The end-of-year surplus exceeds the 2.0% check each year of operations.

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Federal Funds

Line 1 – We took an average of the Entitlement funds actual amounts awarded to the Seven Sussex County School Districts for the fiscal year ending June 30, 2020, which included Title I, Title II, Title IV, and IDEA. The amounts budgeted are an average of what was awarded to the seven school districts in Sussex County and using the estimated mix of student enrollment per the chart below. The Federal Funds numbers in red below are what was budgeted in the Federal Funds tabs of the Revenue Estimate sheets.

Distribution of Enrollment from Surrounding School Districts								Federal Funds					
	% Distribution	23/24	24/25	25/26	26/27	27/28	28/29	23/24	24/25	25/26	26/27	27/28	28/29
Indian River	40.00%												
GENED		82	114	146	179	212	243	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645
SPED		19	28	35	42	50	57	65,145	91,590	116,745	142,545	168,990	193,500
Delmar	5.00%												
GENED		10	14	18	22	26	30	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463
SPED		2	3	4	5	6	7	5,556	7,871	10,186	12,501	14,816	17,131
Laurel	5.00%												
GENED		10	14	18	22	26	30	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732
SPED		2	3	4	5	6	7	8,784	12,444	16,104	19,764	23,424	27,084
Seaford	15.00%												
GENED		30	42	55	67	79	91	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996
SPED		7	10	13	16	19	21	36,852	51,792	67,728	82,668	97,608	111,552
Woodbridge	7.50%												
GENED		15	21	27	33	39	46	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869
SPED		4	5	6	8	9	11	16,511	22,594	28,677	35,629	41,712	49,533
Milford	7.50%												
GENED		15	21	27	33	39	46	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778
SPED		4	5	6	8	9	11	14,782	20,228	25,674	31,898	37,344	44,346
Cape Henlopen	20.00%												
GENED		40	57	73	89	105	121	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553
SPED		10	13	18	21	25	29	27,650	38,710	50,323	60,830	71,890	82,950
GENED		202	283	364	445	526	607						
SPED		48	67	86	105	124	143						
Total	100.00%	250	350	450	550	650	750	175,280	245,229	315,437	385,835	455,784	526,096

Line 2 – N/A

Line 3 – No classroom teachers are being paid from federal funds.

Lines 4 –The School will hire a Special Education Coordinator and teachers and will engage contractors as needed to provide special education and ESL services. See staffing plan for special education below:

Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Special Education Coordinator	0	1	1	1	1	1
Special Education Teacher	0	1	2	2	3	5

Line 5-12 - No positions are being paid from federal funds.

Line 13 –would be automatically calculated, 33.11%.

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Line 14 – The state of Delaware Highmark Delaware Comprehensive PPO Plan rates (effective 7/1/21) was used. To arrive at an average health insurance rate in year 1 of operation of \$14,121, we projected the employee census per the chart below. An inflation rate of 5.0% per year was used to project increases in premiums.

Line 15 – The school will offer no other health benefits.

Line 16-19 – N/A

Line 20 – Supplies and materials used in federal funded activities.

Line 21 – Purchase of special education curricular materials.

Line 22 – N/A

Line 23 – Professional development activities under the Title II Grant. It is possible a School teacher will provide some of the PD and therefore a portion of her salary will be paid for with Title II funds.

Line 24-28 – No federal funds are being used.

Line 29 – Acquisition of computers and software to be used solely for the special education programs.

Line 30 – Contracted services that could be supported with Federal funds under IDEA could consist of SPED Coordinator/Director as well as support services for SPED students such as OT and Speech services. Other possible contracted services that could be supported under Title I, II or IV funding include but are not limited to Counselors, Psychologists, PD Consultants, IT support services and Educational Software or materials.

Lines 31-53 – No federal funds are being used.

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Other Funds

Line 1- N/A

Line 2 – The Longwood Foundation has awarded The Bryan Allen Stevenson School of Excellence \$1.0 million in an unrestricted grant to open the school. The funds were received in the month of June 2021. In addition, \$250,000 from the Welfare Fund has been awarded and received in the summer of 2021. Each year, \$150,000 is budgeted for new foundation funding. For the four years of operations, a total of \$1,795,000 will be raised through Proximate Network, Inc., of which approximately \$1,250,000 has already been secured.

Line 3 – Proximate Network will raise 150,000 by July 2022. As of August 2021, since inception, Proximate Network has raised \$263,000 and is expected to raise additional funds.

Line 4 – N/A

Line 5 – Cafeteria funds include those funds estimated to be derived from the School participating in the USDA child nutrition program. This program is budgeted to fund two part-time cafeteria aides and some basic supplies for the cafeteria. The program is budgeted to break-even after paying the expenses from the two cafeteria aides and miscellaneous supplies.

Line 6 – N/A

Line 7 – Carryover funds from prior fiscal year budgets were brought forward.

Lines 8-11– N/A

Line 12 – This cost (for the startup year only) includes a salary for the Executive Director/Principal, School Founding Leader, Director of Development, and a full-time Director of Fundraising whose primary duties during this period will be getting the school up and operating on July 1, 2023.

Line 13-16 – N/A

Line 17 – Includes two part-time cafeteria aides that will earn approximately \$14,000 each beginning in year one and will not be eligible for health benefits. Calculation of the OEC rate adds approximately 0.50 FTE per actual FTE. The Director of Development will be overseeing the lunch program and completing reporting to assure compliance.

Line 18 – Line 18 is automatically calculated at 33.11% of payroll. Part time staff that work less than 30 hours a week are subject to an OEC rate of 9.31% (No Pension or Health Insurance Cost). The State's budget sheet doesn't apply an OEC rate to Substitutes & Other employees. The FTE count does reflect this OEC rate for the Cafeteria Staff. Since the cafeteria staff are part time, each one will equal a fraction of an FTE depending on the number of hours they will work. This is set at a plus .50 FTE per cafeteria worker totaling 1 FTE (2 x .50).

Lines 19 - The state of Delaware Highmark Delaware Comprehensive PPO Plan rates (effective 7/1/21) was used. To arrive at an average health insurance rate in year 1 of operation of \$14,121, we projected the employee census per the chart below. An inflation rate of 5.0% per year was used to

Section 10.23.1-12

Commented [ML1]: 2 aides @ \$14K each equals \$28K. \$42,243 is budgeted in year 1, what other position is here? FTE is 3.00 so I am assuming that there is more than 2 part time Cafeteria Aides. Narrative just needs to agree with budget sheet.

Commented [KH2R1]: What other staff should be mentioned here? She is correct there are 3 FTEs.

The Bryan Allen Stevenson School of Excellence
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 project increases in premiums.

Health Insurance Calculation	Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Highmark Delaware Comprehensive PPO Plan							
Employee	55%	13.20	17.60	20.90	26.40	30.25	32.73
Employee & Spouse	25%	6.00	8.00	9.50	12.00	13.75	14.88
Employee & Child(ren)	10%	2.40	3.20	3.80	4.80	5.50	5.95
Family	10%	2.40	3.20	3.80	4.80	5.50	5.95
Inflation factor	5.0%						
Monthly Cost per Class							
Employee		793.86	833.55	875.23	918.99	964.94	1,013.19
Employee & Spouse		1,647.34	1,729.71	1,816.20	1,907.01	2,002.36	2,102.48
Employee & Child(ren)		1,223.46	1,284.63	1,348.86	1,416.30	1,487.12	1,561.48
Family		2,059.40	2,162.37	2,270.49	2,384.01	2,503.21	2,628.37
Annual Cost per Class-All Employees							
Employee		125,747	176,046	219,508	291,136	350,273	397,941
Employee & Spouse		118,608	166,052	207,047	274,609	330,389	375,419
Employee & Child(ren)		35,236	49,330	61,508	81,579	98,150	111,490
Family		59,311	83,035	103,534	137,319	165,212	187,666
Average Cost/Year/Employee		14,121	14,827	15,568	16,347	17,164	18,025

Line 20 – N/A

Line 21 – N/A

Line 22 – N/A

Line 23 – Food Service will be outsourced to a qualified food service vendor in accordance with regulation of the Free & Reduced Lunch program. Food expense is budgeted at 90% of the revenue each year.

Line 24 – The school plans on having a summer program (s) beginning in the start-up year and each year thereafter. Summer programming will include but not be limited to summer enrichment, career development and other programming to support the student population. The budgeted cost grows each year based on the enrollment growth of the school and will be funded through the Foundation Funds line.

Line 25 – In the startup year – general administrative supplies related to startup, and in Years 1 through 4 -- General supplies for the cafeteria.

Lines 26 – Textbooks will be purchased in the start-up year for year 1 of school. The budget for books is \$200,000.

Line 27 – Curriculum expense is the requisite IB Curriculum Programming Cost.

Line28 – Professional Development in the startup year prior to opening school in September 2023.

Line 29-31 – N/A

Line 32 – Purchase of smart boards and other classroom technology.

Section 10.23.1-13

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 Line 33 – N/A

Line 34 – Computers for the school operation in year 1 will be acquired in the startup year. The budget is \$100,000.

Lines 35-36 – N/A

Line 37 – In the startup year, it is anticipated that some level of liability insurance will be required to be acquired (budget of \$25,000).

Lines 38 – According to the Letter of Intent, rent commences in September 2022. A budget of \$147,917 is established for the startup year ending June 30, 2023. In year 2 and forward, rent is paid through State and Local Funds.

Line 39 – N/A

Line 40 – Utilities will be paid through Other Funds in the startup year.

Lines 41-42 – N/A

Line 43 – Renovations of the property are highlighted below and explained in line 35 of State and Local Tab and are estimated to be \$80,500.

The Bryan Allen Stevenson School of Excellence		
Capital Expenditures of 20346 Ennis Street Property		
	Amount	
Architectural	-	
Mechanical	35,000	
Interior Renovations	30,000	
Electrical	3,000	
Floor-Paint	10,000	
Other	2,500	
Total Estimated Project Cost	80,500	
Finance		
Funding from BASSE	80,500	100
Bank Loan	-	0

Lines 44-45 – N/A

Line 46 – N/A

Line 47 – Indian River School District will be leaving much of classroom equipment, office furniture, commercial kitchen equipment, etc. in the building. The school will need to supplement this equipment. During the start-up year, an inventory will be prepared, and the additional furniture, fixtures, and equipment will be purchased.

Line 48 – The purchase of supplies and materials during the startup year.

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Line 49 – The purchase of printing and copying during the startup year.

Line 50 – The purchase of postage during the startup year.

Line 51 – The cost of student and staff recruitment during the startup year.

Lines 52 -53 – N/A

Line 54 – Other costs related to the startup activities such as marketing and recruitment materials for both staff and students.

Lines 55 – 57 – N/A

Line 58 – Accounting and payroll cost services of Michelle J Lambert, CPA and OmniVest Management, Inc. to process daily accounting transactions in FSF and PHRST, preparation of annual operating budget.

Line 59 – Engagement of an independent auditor each year of operation to prepare audited financial statement, and the preparation of the Form 990 Tax Return.

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Consolidated State and Local, Federal Funds, and Other Funds Tabs

A Consolidated Funds Tab was created to consolidate the three Budget Worksheets, primarily to show the effect of the Foundation and Donations line in the Other Funds tab. A total of \$2,200,000 will be raised through Foundation and Donation support. Approximately \$1,400,000 of this projected fundraising budget has already been raised. A full-time fundraising position has been hired in the late fall of 2021 and will focus solely on fundraising.

**Section 1.10 Budget and Finance :: Attachment 23 - Budget Narrative ::
80% Enrollment**

The Bryan Allen Stevenson School of Excellence
 Section 10 – Attachment 23.2 – Budget Narrative 80% enrollment

State and Local Funds Tab

Line 1 – The state funds recorded in the budget were derived using 80% if the Revenue Estimate Sheets provided in the application. Based on this reduced enrollment, the School will enroll 200, 280, 360, 440, 520, and 600 students in years 1 through 6 respectively. The grade configuration is 6th through 12th grade. The enrollment mix, by school district is estimated to be in accordance with the chart below. The 80% enrollment model reduces the enrollment in years 1 through 4 by 50, 70, 90 and, 110 students respectively.

Distribution of Enrollment from Surrounding School Districts							
	% Distribution	23/24	24/25	25/26	26/27	27/28	28/29
Indian River	40.00%						
GENED		66	92	116	142	168	196
SPED		14	20	26	34	40	45
Delmar	5.00%						
GENED		2	3	3	4	5	6
SPED							
Laurel	5.00%						
GENED		8	11	15	18	21	24
SPED		2	3	3	4	5	6
Seaford	15.00%						
GENED		24	34	44	53	63	73
SPED		6	8	9	13	15	17
Woodbridge	7.50%						
GENED		12	17	22	27	32	36
SPED		3	4	5	6	7	9
Milford	7.50%						
GENED		12	17	22	27	32	36
SPED		3	4	5	6	7	9
Cape Henlopen	20.00%						
GENED		32	45	58	71	84	97
SPED		8	11	17	17	20	22
GENED		162	227	292	356	421	486
SPED		38	53	68	84	99	114
Total	100.00%	200	280	360	440	520	600

Student enrollment by year is illustrated below, along with the anticipated special education and ESL population (19.0% and 22.00% respectively) to closely mirror those which are being recorded in the

The Bryan Allen Stevenson School of Excellence
 Section 10 – Attachment 23.2 – Budget Narrative 80% enrollment
 Indian River School District.

Fiscal Year	23/24	24/25	25/26	26/27	27/28	28/29	
Year	1	2	3	4	5	6	
Student Enrollment							
Projected General Education	162	227	292	356	421	486	
Projected Special Education	38	53	68	84	99	114	
Percent Special Education	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%	19.00%
Total Student Population (Paid)	200	280	360	440	520	600	
Projected ESL Students	44	62	79	97	114	132	22.00%
							80.00%
Classroom Distribution							
6th	100	80	80	80	80	80	
7th	100	100	80	80	80	80	
8th		100	100	80	80	80	
9th			100	100	80	80	
10th				100	100	80	
11th					100	100	
12th						100	
Total	200	280	360	440	520	600	
Average Number of Students/Grade	25	25	25	25	25	25	
Approximate # of Classes per Grade	4	3.2	3.2	3.2	3.2	3.2	
Total Required # of Classrooms	8	11.2	14.4	17.6	20.8	24	

Line 2 – The School District Local Fund recorded in the budget were derived using the Revenue Estimate Sheets provided in the application and using the school district distribution and special education population exhibited above, all calculated at 80% of the proposed maximum enrollment.

Line 3 – Carryover funds from prior fiscal year budgets were brought forward.

Line 4 through 11 and line 13, –BASSE plans to hire one teacher for every 25 students. As a result of the reduced enrollment, the staffing levels are proportionately reduced. Below is a comparison of the total staffing at 100% enrollment and 80% enrollment.

Comparison of Staffing (100% vs 80% Enrollment)	Year 0	Year 1	Year 2	Year 3	Year 4	Year 4	Year 4
100% Enrollment	3.00	24.00	32.00	38.00	48.00	55.00	59.50
80% Enrollment	3.00	17.00	25.70	31.15	40.10	47.30	52.50
Variance	0.00	(7.00)	(6.30)	(6.85)	(7.90)	(7.70)	(7.00)

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 Section 1.10 – Attachment 23 – Budget Narrative 80% enrollment

Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Executive Director	1	1	1	1	1	1	1
School Founding Leader	1	0	0	0	0	0	0
Director of Development	1	1	1	1	1	0	0
Dean of Academic Excellence	0	0	1	1	1	1	1
Dean of Community Partnerships	0	0	0	0	1	1	1
6th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1
7th Grade Academic Coach (Lead Teacher)	0	1	1	1	1	1	1
8th Grade Academic Coach (Lead Teacher)	0	0	1	1	1	1	1
9th Grade Academic Coach (Lead Teacher)	0	0	0	1	1	1	1
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	1	1	1
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	1	1
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	1
6th Grade Content Teachers	0	3	2.7	2.6	2.5	2.4	2.4
7th Grade Content Teachers	0	3	2.7	2.6	2.5	2.4	2.4
8th Grade Content Teachers	0	0	2.8	2.6	2.5	2.5	2.4
9th Grade Content Teachers	0	0	0	2.6	2.5	2.5	2.4
10th Grade Academic Coach (Lead Teacher)	0	0	0	0	2.6	2.5	2.4
11th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	2.5	2.5
12th Grade Academic Coach (Lead Teacher)	0	0	0	0	0	0	2.5
Special Education Coordinator	0	1	1	1	1	1	1
Special Education Teacher	0	1	1.5	1.75	2.5	3.5	4.5
Language Teacher	0	0	0	1	2	2	2
Arts Teacher	0	0	1	1	1	2	2
Paraprofessional	0	0	1	1	2	3	4
Office Staff	0	1	1	1	1	2	2
Custodian	0	1	1	2	2	3	3
Cafeteria Aide (Part-Time)	0	2	3	3	4	4	4
Nurse	0	1	1	1	1	1	1
Counselor	0	0	1	1	1	1	1
College Career Counselor	0	0	0	0	1	1	1
Total Staff	3.00	17.00	25.70	31.15	40.10	47.30	52.50
Health Insurance		240,057	381,208	485,192	655,675	812,046	946,365
Total Enrollment		200	280	360	440	520	600

Line 12- Substitutes are included in the contracted services line 31.

Line 13-N/A

Line 14 – Line 14 is automatically calculated at a rate of 33.11% of gross payroll.

Line 15 – The state of Delaware Highmark Delaware Comprehensive PPO Plan rates (effective 7/1/21) was used. To arrive at an average health insurance rate in year 1 of operation of \$14,121, we projected the employee census per the chart below. An inflation rate of 5.0% per year was used to project increases in premiums.

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Health Insurance Calculation	Allocation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Highmark Delaware Comprehensive PPO Plan							
Employee	55%	9.35	14.14	17.13	22.06	26.02	28.88
Employee & Spouse	25%	4.25	6.43	7.79	10.03	11.83	13.13
Employee & Child(ren)	10%	1.70	2.57	3.12	4.01	4.73	5.25
Family	10%	1.70	2.57	3.12	4.01	4.73	5.25
Inflation factor	5.0%						
Monthly Cost per Class							
Employee		793.86	833.55	875.23	918.99	964.94	1,013.19
Employee & Spouse		1,647.34	1,729.71	1,816.20	1,907.01	2,002.36	2,102.48
Employee & Child(ren)		1,223.46	1,284.63	1,348.86	1,416.30	1,487.12	1,561.48
Family		2,059.40	2,162.37	2,270.49	2,384.01	2,503.21	2,628.37
Annual Cost per Class-All Employees							
Employee		89,071	141,437	179,912	243,275	301,293	351,131
Employee & Spouse		84,014	133,464	169,778	229,528	284,255	331,267
Employee & Child(ren)		24,959	39,618	50,501	68,152	84,409	98,373
Family		42,012	66,687	85,007	114,719	142,082	165,587
Average Cost/Year/Employee		14,121	14,833	15,576	16,351	17,168	18,026

Line 16 – The school will offer no additional health or employee benefits.

Line 17 – The amount indicated for transportation was derived by using approximately \$1,087 per student based on an eligibility for transportation of 70%. This is based on the proposal for transportation from RJK transportation, Inc. The cost of transportation grows by 2.50% each year and increases proportionately based on the student enrollment.

	30-Jun-23	30-Jun-24	1-Jul-25	2-Jul-26	3-Jul-27	3-Jul-28	Eligibility
Transportation Expense							
Percent Eligible	140	196	252	308	364	420	70.0%
Estimated Annual Cost for Transportation	152,180	217,364	285,012	355,432	428,428	504,420	
Cost per Student	1,087	1,109	1,131	1,154	1,177	1,201	

Line 18 –N/A

Line 19 – N/A

Line 20 – Extra-Curricular is comprised of a summer program (s) and extracurricular activities. The budget is in the “Other Funds Tab” and paid for via Foundation Grants and Fundraising.

Line 21 – Supplies and Materials budget was reduced, using the original formulas but lower enrollment of students (80%). Supplies and Materials consist of instructional supplies and instructional software for the classrooms and general supplies for the nurse’s office. Examples of instructional supplies are science lab materials, art class supplies, calculators, consumable materials, etc.

Line 22 – The amount for textbooks in Year 1 is in Other Funds, Year 0 and is budgeted at Section 10.23.2-4

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Section 1.10 – Attachment 23 – Budget Narrative 80% enrollment

\$160,000 in line item 26. In Year 2-4, a budget for new and replacement textbooks is \$50,000, \$52,000, and \$60,000 respectively.

Line 23 – Curriculum expense is budgeted to be the same as the 100% enrollment model. This expense is professional development and fees related to the IB Curriculum Programming rollout.

IB Curriculum Programming Cost	30-Jun-23	29-Jun-24	29-Jun-25	29-Jun-26	30-Jun-27	30-Jun-28
Enrollment	0	200	280	360	440	520
Teacher Count	0	8	12.2	15.4	19.6	23.8
CP Program Training	-	-			1,480	1,480
CP Program Authorization Fee	-	-			8,500	
Middle Years Program Training	600	7,200	3,600	3,600	3,600	3,000
Application Fee	4,000	-		10,500	10,500	10,500
Candidate Fee	-	9,500	9,500	-	-	-
Diploma Program Training						7,200
Diploma Program Application Fee						4,000
Candidate Fee		-	9,500	9,500	11,650	11,650
Total Cost of IB Programs	4,600	16,700	22,600	23,600	35,730	37,830

The \$4,600 budget in Year 0 is in the “**Other Funds**” tab, Line 27 under Year 0.

Line 24 – Professional Development includes staff development activities starting in the summer of 2021, prior to school opening, and throughout the school year. The cost of professional development in Year 0 is in the “**Other Funds**” Tab.

Line 25 – We plan to contract with an outside company to provide services for progress monitoring and summative assessments and those costs will be in line 31, Contracted Services.

Line 26 – It is anticipated there will be ancillary educational programs sponsored by the school.

Line 27 – We plan to contract with an outside company(s) that offers speech and occupational therapy, academic evaluations, etc. The estimated cost is based on speaking with vendors that provide these services, their estimates, and the projected student enrollment.

Line 28 – The School will provide smartboards and other technology for the delivery of certain educational programs. In the early years, the School will lease this equipment. In year 0, there is a \$35,000 budget to equip the school with this technology and the expense is in **Other Funds**, line 32.

Line 29 – The School will provide state safety and security personnel, as necessary under contracted services.

Line 30 – The School will set up a computer lab and provide computers throughout the school to support the educational programs. A budget of \$80,000 has been established in Year 0 in **Other Funds** to begin Year 1 of school. A budget of \$50,000 per year is established for Years 2, 3 and 4 respectively for new computers and school technology.

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Line 31 – We plan to contract with an outside company(s) and other educational consultants as needed. The budgeted amounts were reduced to reflect the lower enrollment.

Line 32 – Other costs are miscellaneous costs for instructional support.

Line 33 – The amount budgeted for commercial insurance and did not change from the 100% enrollment model.

Line 34 – Rent is based on the signed letter of intent with Delaware Technical and Community College, for the former Howard T. Ennis School located at 21179 College Drive, Georgetown, Delaware. The building is approximately 35,500 square feet and is currently occupied by the Indian River School District (See Floorplan in Attachment). The school building contains all the classrooms to meet the programmatic needs of the school for years 1 through 4. The school building has offices and a fully fit-out commercial kitchen/cafeteria. The proposed terms are for a five-year lease term effective on 9/1/22 with one three-year option to renew. The School will have an option to terminate the lease for any reason, at any time with a twelve month advance written notice. This gives the school flexibility to find a permanent location. Beginning in year 4 and 5, there will be a need to add two modular classroom buildings, one each year to accommodate the additional 100 student enrollment.

The school is working with National Development Council (NDC) and Community Education Building (CEB) on the development of a permanent newly constructed school building on a property that will support all the programs of the school. As part of the discussions, a proposed site has been identified in Sussex County. An application for American Rescue Plan Funds (ARPA), and other governmental and foundation grants to put together a \$20 million dollar development. The preliminary sources and uses of funds is below. The occupancy date is currently set at no later than December 31, 2024 (midway through the first year of school operations). The facility will be owned by CEB. The proposed rental rates are not yet negotiated but they are expected to be in sync with this budget.

Bryan Stevenson School For Excellence					
USES OF FUNDS	\$	\$/sf	%		
Acquisition	\$3,000,000	\$60	15%	Total acquisition costs split equally over two projects	
Site Work	\$1,972,000	\$39	10%	6%	
Hard Costs	\$12,150,000	\$243	60%	75%	
Soft Costs	\$2,268,000	\$45	11%	14%	
Reserves/Contingencies	\$810,000	\$16	4%	5%	
Total	\$20,200,000	\$404	100%	\$16,200,000	Improvement costs
SOURCES OF FUNDS				50,000	SF
ARPA	\$11,000,000	\$220	54%		
NMTC	\$1,142,857	\$23	6%		
Other (USDA)	\$5,000,000	\$100	25%		
Foundation	\$3,057,143	\$61	15%		
Total	\$20,200,000	\$404	100%		

The Bryan Allen Stevenson School of Excellence
Section 1.10 – Attachment 23 – Budget Narrative 80% enrollment

Line 35 – N/A, there will be no mortgage.

Line 36 – No changes to the utilities from the original 100% enrollment model.

Line 37 – No changes in the maintenance budget.

Line 38 – No changes in the Telephone/Communications budget.

Line 39 – N/A.

Line 40 – N/A, a budget of \$80,500 is established to perform cosmetic maintenance to the school building in Year 0 under Other Funds.

Capital Expenditures of 20346 Ennis Street Property	
	Amount
Architectural	-
Mechanical	35,000
Interior Renovations	30,000
Electrical	3,000
Floor-Paint	10,000
Other	2,500
Total Estimated Project Cost	80,500

Line 41 – No changes in the Facilities Supplies budget.

Line 42 – No changes to the Equipment Lease/Maintenance budget.

Line 43 – No changes to the Equipment Purchases budget.

Line 44 – No changes to the Supplies and Materials budget.

Line 45 – No changes to the Printing and Copying budget.

Line 46 – No changes to the Postage and Shipping budget.

Line 47 – No changes to the Enrollment and Recruitment budget.

Line 48 – No changes to the Staffing (recruitment and assessment) budget.

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Line 49 – No changes to the Technology Plan budget.

Line 50- No changes to the Other budget.

Line 51-52-53- N/A

Line 54 - Accounting and payroll cost was reduced to reflect the lower enrollment.

Line 55 – N/A

Line 56 – Enrollment is reduced to 80% of the total anticipated enrollment, each year.

The end-of-year surplus exceeds the 2.0% check each year of operations.

In summary, this exercise in sensitivity analysis was important to show that the Founding Board is cognizant of the relationship between enrollment and the budget and if enrollment numbers are not achieved, the variable expenditures of the school must be adjusted accordingly, almost in real time to right-size the organization and guarantee the integrity of the educational model.

The Bryan Allen Stevenson School of Excellence Section 1.10 –
Attachment 23 – Budget Narrative 80% enrollment

Federal Funds Tab

Line 1 – We took an average of the Entitlement funds actual amounts awarded to the Seven Sussex County School Districts for the fiscal year ending June 30, 2020, which included Title I, Title II, Title IV, and IDEA. The amounts budgeted are an average of what was awarded to the seven school districts in Sussex County and using the estimated mix of student enrollment per the chart below. The Federal Funds numbers in red below are what was budgeted in the Federal Funds tabs of the Revenue Estimate sheets.

Distribution of Enrollment from Surrounding School Districts								Federal Funds					
	% Distribution	23/24	24/25	25/26	26/27	27/28	28/29	23/24	24/25	25/26	26/27	27/28	28/29
Indian River	40.00%												
GENED		66	92	116	142	168	196	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645	\$ 645
SPED		14	20	26	34	40	45	51,600	72,240	91,590	113,520	134,160	155,445
Delmar	5.00%												
GENED		8	11	15	18	21	24	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463	\$ 463
SPED		2	3	3	4	5	6	4,630	6,482	8,334	10,186	12,038	13,890
Laurel	5.00%												
GENED		8	11	15	18	21	24	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732
SPED		2	3	3	4	5	6	7,320	10,248	13,176	16,104	19,032	21,960
Seaford	15.00%												
GENED		24	34	44	53	63	73	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996	\$ 996
SPED		6	8	9	13	15	17	29,880	41,832	52,788	65,736	77,688	89,640
Woodbridge	7.50%												
GENED		12	17	22	27	32	36	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869	\$ 869
SPED		3	4	5	6	7	9	13,035	18,249	23,463	28,677	33,891	39,105
Milford	7.50%												
GENED		12	17	22	27	32	36	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778	\$ 778
SPED		3	4	5	6	7	9	11,670	16,338	21,006	25,674	30,342	35,010
Cape Henlopen	20.00%												
GENED		32	45	58	71	84	97	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553	\$ 553
SPED		8	11	17	17	20	22	22,120	30,968	41,475	48,664	57,512	65,807
GENED		162	227	292	356	421	486						
SPED		38	53	68	84	99	114						
Total	100.00%	200	280	360	440	520	600	140,255	196,357	251,832	308,561	364,663	420,857

Line 2 – N/A

Line 3 – No classroom teachers are being paid from federal funds.

Lines 4 – The School will hire a Special Education Coordinator and teachers and will engage contractors as needed to provide special education and ESL services. See staffing plan for special education below:

Staffing Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Special Education Coordinator	0	1	1	1	1	1	1
Special Education Teacher	0	1	1.5	1.75	2.5	3.5	4.5

Line 5-12 - No positions are being paid from federal funds.

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Line 13 –Automatically calculated, 33.11% of the gross payroll cost.

Line 14 – The state of Delaware Highmark Delaware Comprehensive PPO Plan rates (effective 7/1/21) was used. To arrive at an average health insurance rate in year 1 of operation of \$14,121, we projected the employee census per the chart below. An inflation rate of 5.0% per year was used to project increases in premiums.

Line 15 – The school will offer no other health benefits.

Line 16-19 – N/A

Line 20 – Supplies and materials used in federal funded activities.

Line 21 -- Purchase of special education curricular materials.

Line 22 – N/A

Line 23 – Professional development activities under the Title II Grant. It is possible a School teacher will provide some of the PD and therefore a portion of her salary will be paid for with Title II funds.

Line 24-28 – No federal funds are being used.

Line 29 -- Acquisition of computers and software to be used solely for the special education programs.

Line 30 – Contracted services that could be supported with Federal funds under IDEA could consist of SPED Coordinator/Director (prior to hiring in year 2) as well as support services for SPED students such as OT and Speech services. Other possible contracted services that could be supported under Title I, II or IV funding include but are not limited to Counselors, Psychologists, PD Consultants, IT support services and Educational Software or materials.

Lines 31-53 – No federal funds are being used.

Other Funds Tab

Line 1- N/A

Line 2 – No changes from the 100% enrollment model. The Longwood Foundation has awarded The Bryan Allen Stevenson School of Excellence \$1.0 million in an unrestricted grant to open the school. The funds were received in the month of June 2021. In addition, \$250,000 from the Welfare Fund has been awarded and received in the summer of 2021. Each year, \$150,000 is budgeted for new foundation funding. For the four years of operations, a total of \$1,795,000 will be raised through Proximate Network, Inc., of which approximately \$1,250,000 has already been secured.

Line 3 Proximate Network will raise 150,000 by July 2022. As of August 2021, since inception, Proximate Network has raised \$263,000 and is expected to raise additional funds. Line 4 – Per the construction budget, a bank loan of \$1,122,030 will be secured through a CDFI Bank or other lending institution.

Line 4 – N/A

Line 5 – Cafeteria funds include those funds derived from the school participating in the USDA child nutrition program. This program is budgeted to fund two part-time cafeteria aides and some basic supplies for the cafeteria. The program is budgeted to break-even after paying the expenses from the two cafeteria aides and miscellaneous supplies.

Line 6 – N/A

Line 7 – Carryover funds from prior fiscal year budgets were brought forward.

Lines 8-11– N/A

Line 12 – This cost (for the startup year only) includes a salary for the Executive Director/Principal, School Founding Leader, Director of Development, and a full-time Director of Fundraising whose primary duties during this period will be getting the school up and operating on July 1, 2023.

Line 13-16 – N/A

Line 17 – Includes part-time cafeteria aides that will earn approximately \$14,000 each beginning in year one and will not be eligible for health benefits. Calculation of the OEC rate adds approximately 0.50 FTE per actual FTE. The Director of Development will be overseeing the lunch program and completing reporting to assure compliance.

The Bryan Allen Stevenson School of Excellence Section 1.10 –
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Line 18 – Line 18 is automatically calculated at 33.11% of payroll. Part time staff that work less than 30 hours a week are subject to an OEC rate of 9.31% (No Pension or Health Insurance Cost). The State’s budget sheet doesn’t apply an OEC rate to Substitutes & Other employees. The FTE count does reflect this OEC rate for the Cafeteria Staff. Since the cafeteria staff are part time, each one will equal a fraction of an FTE depending on the number of hours they will work. This is set at a plus .50 FTE per cafeteria worker totaling 1 FTE (2 x .50).

Line 19 -- The state of Delaware Highmark Delaware Comprehensive PPO Plan rates (effective 7/1/21) was used. To arrive at an average health insurance rate in year 1 of operation of \$14,121, we projected the employee census per the chart below. An inflation rate of 5.0% per year was used to project increases in premiums.

Line 20 – N/A

Line 21 – N/A

Line 22 – N/A

Line 23 – Food Service will be outsourced to a qualified food service vendor in accordance with regulation of the Free & Reduced Lunch program. Food expense is budgeted at approximately 90% of the revenue each year.

Line 24 – Extracurricular programs that include summer programming, afterschool, student activities, etc., funded through Foundation Grants in each of the four years.

Line 25 – In the startup year – general administrative supplies related to startup, and in Years 1 through 4 -- General supplies for the cafeteria.

Line 26— Textbooks will be purchased in the start-up year for year 1 of school. The budget for books is \$160,000.

Line 27 – Curriculum expense is the requisite IB Curriculum Programming Cost.

Line 28 – Professional Development in the startup year prior to opening school in September 2023.

Line 29-31 – N/A

Line 32 – Purchase of smart boards and other classroom technology.

Line 33 – N/A

Line 34 – Computers for the school operation in year 1 will be acquired in the startup year. The budget is \$80,000.

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Attachment 23 – Budget Narrative 80% enrollment
Lines 35-36 – N/A

Line 37 In the startup year, it is anticipated that some level of liability insurance will be required to be acquired (budget of \$25,000).

Lines 38 – According to the Letter of Intent, rent commences in September 2022. A budget of \$147,917 is established for the startup year ending June 30, 2023. In year 2 and forward, rent is paid through State and Local Funds.

Line 39 – N/A

Lines 40- Utilities will be paid through Other Funds in the startup year.

Lines 41-42 – N/A

Line 43 – Renovations of the property are explained in line 35 of State and Local Tab and are estimated to be \$80,500.

Lines 44-45 – N/A

Line 46 – N/A

Line 47 – Indian River School District will be leaving much of classroom equipment, office furniture, commercial kitchen equipment, etc. in the building. The school will need to supplement this equipment. During the start-up year, an inventory will be prepared, and the additional furniture, fixtures, and equipment will be purchased.

Line 48 – The purchase of supplies and materials during the startup year.

Line 49 – The purchase of printing and copying during the startup year.

Line 50 – The purchase of postage during the startup year.

Line 51 – The cost of student and staff recruitment during the startup year.

Lines 52 -53 – N/A

Line 54 – Other costs related to the startup activities such as marketing and recruitment materials for both staff and students.

Lines 55 – 57 – N/A

Line 58 – Accounting and payroll cost services of Michelle J Lambert, CPA and OmniVest Management, Inc. to process daily accounting transactions in FSF and PHRST, preparation of annual operating budget.

Line 59 – Engagement of an independent auditor each year of operation to prepare audited financial statement, and the preparation of the Form 990 Tax Return.

Consolidated State and Local, Federal Funds, and Other Funds Tabs

A Consolidated Funds Tab was created to consolidate the three Budget Worksheets, primarily to show the effect of the Foundation and Donations line in the Other Funds tab. A total of \$2,200,000 will be raised through Foundation and Donation support. Approximately \$1,400,000 of this projected fundraising budget has already been raised. A full-time fundraising position has been hired in the late fall of 2021 and will focus solely on fundraising.

A separate capital campaign will be developed to support the fund for all future real estate and development-related costs.

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- a. **Expected Funding Sources.** Indicate the amount and sources of funds, property, or other resources expected to be available through banks, lending institutions, corporations, foundations, grants, etc. Note which are secured and which are anticipated, and include evidence of firm commitments, where applicable. Describe the school's contingency plan to meet financial needs if anticipated revenues are not received or are lower than the estimated budget.

The Bryan Allen Stevenson School of Excellence (BASSE) will be deriving its revenue from the following sources:

- state and local appropriations based on a unit count scenario;
- federal funds for mandated programs, such as Title I, Title II, Title III, Title IV, and Free and Reduced Lunch programs (Free and Reduced Lunch revenue and expenditures are captured in Other Funds Tab);
- private donations, foundation giving, and grants.

It is the intent of The Bryan Allen Stevenson School of Excellence that the operating costs of the school, primarily personnel costs and fringe benefits, contracts, facility lease, and transportation, be paid through State and Local Appropriations unless otherwise specified by federal law in the case of federal funding. Private funds will be used to provide specific programming (for now, foundation contributions in the startup year and year 1 of operations to defer the cost of rent) and can be changed if funding does not materialize so that the academic fidelity of the program does not suffer. A minimum 2% contingent reserve will be available in each of the four projection years.

Money raised through fundraising activities will be collected by a Fundraising Committee of the BASSE board and deposited into the school's fundraising bank account, in accordance with required procedures. Decisions for the use of these funds will become part of the school's overall financial planning process, subject to review by the Board, and will be included in the school's annual financial audit. Currently, BASSE has received \$1,381,583 amount of funding through a combination of fundraising efforts such as grants, individual donors, and corporate donors. BASSE's development team is gearing up to increase their fundraising to prepare for the 2023 school year. Once BASSE has been approved as a State Charter school, we will then apply for all funding streams that are targeted for State Charter Schools. BASSE will be applying for two separate grants in January of 2022 to the New School Venture Fund and the Charter School Growth Fund, which can be accessed prior to approval. BASSE currently has received funding from the Kim ad Evans Family Foundation, GLOW Fund, Mildred H. and Ray A. Thompson Fund, Jordyn K. Owens Memorial Foundation Fund, Young Conaway Stargatt and Taylor, Delmarva Power, individual giving campaigns, the Longwood Foundation, and the Welfare Foundation. BASSE knows the importance of maintaining financial stability by braiding federal, state, and local funding as well as creating a prospects list for prime candidates that support our mission in vision. Please find a dynamic development plan [here](#).

- b. **Operations Overview.** Describe the systems and processes by which the school will manage accounting, purchasing, payroll, and audits, pursuant to 14 Del. C. § 512(8) and (9). Specify

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any administrative services expected to be contracted for the school and describe the criteria and procedures for the selection of contractors. Provide details on how financial, personnel, and administrative support will be provided to the charter school and how internal controls will be maintained.

Financial operations, including payroll and accounts payable for The Bryan Allen Stevenson School of Excellence, will be under the direction of the Executive Director, with the assistance of the Treasurer of the Operating Board, and ultimately, the entire Board. The school will also be supported by two independent financial services contractors. One (MJL, see [proposal](#)) will assist with financial accounting, reporting, payroll, budgeting, and compliance reporting. The other contractor (OmniVest) will provide the school with all financial reports to the School Leadership Team, Board Treasurer, and Board on a monthly basis. The Executive Director will provide oversight to all contracts negotiated for the school, such as professional vendor contracting, transportation, and food services.

Decisions regarding financial, personnel, and administrative support contracts will be initiated by the founding Board upon approval of the application and finalized by the Executive Director. All selections will be made via a Request for Proposal process. The firm or persons contracted by BASSE for this support will need to demonstrate an understanding of the State of Delaware financial system, especially pertaining to charter schools, human resources experience, and someone with public school finance experience.

The Bryan Allen Stevenson School of Excellence will follow the State Budget and Accounting Policy Manual as it relates to all transaction regulations, guidelines, and filing procedures. The school will use the First State Financials (FSF) system for all financial, accounting, and purchasing transactions. BASSE's financial reports will be posted on the school's website on a monthly basis following Board approval. Financial Position Reports, required by Title 14, will be prepared and submitted to the Department of Education. In addition, the school will commission an annual independent financial audit and single audit, if necessary, to ensure compliance with the standards of the State Auditor's Office with respect to process controls and segregation of duties.

BASSE will utilize the Payroll Human Resource Statewide Technology (PHRST) system to manage and report compensation, payroll, personnel information, and employee benefits. All pension-related functions, from the initial actuarial form at the time of employment through the pension application at retirement, will be processed by the third-party independent vendor, who will be properly credentialed in accordance with state requirements.

BASSE intends to hire its teachers as state employees, and as such, will offer compensation packages, retirement, and benefits through the State of Delaware. The school will take advantage of the state purchasing system in order to maximize its buying power. The school may independently contract for certain goods and services as needed and appropriate.

In order to maintain responsible fiscal accounting, planning, and management practices and to comply with the requirements of Title 14, Sec 736 of the Delaware Administrative Code, an

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Oversight Committee will be established prior to Year 1 to review and analyze all financial expenditures, management practices, and budgeting. This committee will have five or more members, including one educator from BASSE, one board member, at least two parents or community members who are not school employees or board members, and a representative from the DDOE. Training for the CBOC will be provided by DDOE. The CBOC will regularly consult with the Board and school leader. The committee will remain active during each year of school operation and will comply with the regulatory requirements for membership, training, and operations.

The Bryan Allen Stevenson School of Excellence Charter School, under the direction of the Board of Directors, has drafted an Internal Controls Policy (to be approved in winter of 2022) that will establish and maintain adequate accounting records and internal control procedures in order to assure compliance with generally accepted audit principles (GAAP), the requirements and regulations of the PHRST and FSF systems and the State of Delaware payroll and benefits administration. The Internal Controls Policy consists of five components: control environment, risk assessment, control activities, information and communication, and monitoring. The financial policies and procedures outlined in this document will highlight the internal accounting procedures for The Bryan Allen Stevenson School of Excellence Charter School (BASSE) and its independent contracted financial service providers (OmniVest and MJL) to maintain governance and management regarding budgeting, accounting, and payroll procedures, financial reporting, and internal control procedures for disbursement, fixed assets, payroll, purchases, and receipts. A fundamental concept in a good system of internal control is the segregation of duties. BASSE will be utilizing its administrative staff, board, OmniVest Management, and MJL staff to implement segregation of duties in the above areas. The Internal Controls Policy will be approved by the Board of Directors and reviewed annually to ensure effectiveness and compliance. The draft Internal Control Policy can be seen in the Governance section attachments.

MJL has over 15 years of Delaware Charter School experience in the areas of budgeting, financial reporting, payroll, and accounting processing. MJL's staff has extensive experience in processing transactions in PHRST and FSF and has extensive knowledge of the State of Delaware's rules and regulations listed in the Budget and Accounting manual and the State of Delaware payroll and benefits administration. MJL staff is trained in all modules in FSF and PHRST. BASSE will contract with MJL to provide payroll, accounts payable, and accounts receivable services in the start-up of the School.

OmniVest Management, Inc. has over 20 years of experience providing comprehensive business management services to Charter Schools across the country. They provide full back office Financial and Operations services as well as Real Estate Development support. BASSE will contract with OmniVest who will provide the monthly summary of financial statements to be presented to the Board in an accrual format. MJL and OmniVest will work closely together in the annual budgeting processing monthly close, and forecasting. OmniVest will provide operational services to BASSE in federal, state, and local compliance especially in areas of federal revenue sources. OmniVest will designate employees to receive training in the FSF and PHRST programs.

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- c. Depositing Funds. Describe the process by which funds will be deposited into the school's state account. If a state account is not used, describe where the funds will be deposited to ensure that all school funds are available for audit by the State Auditor's Office upon request.**

All funds not directly uploaded into the school's FSF appropriations or delivered via Inter-Governmental Voucher, wire, or ACH will be deposited in person to the state bank account at the bank office by a member of the school staff.

- d. Audits. Describe the financial controls that the school will have in place, including the annual audit of the financial and administrative operations of the school. Include evidence that the school will adhere to the accounting, auditing, and reporting procedures and requirements that apply to public schools operating in Delaware in accordance with the [State Budget and Accounting Manual](#) and 29 Del. C. Ch. 69.**

In order to maintain responsible fiscal accounting, planning, and management practices and to comply with the requirements of Title 14, Sec 736 of the Delaware Administrative Code, a Budget Oversight Committee will be established prior to Year 1 to review and analyze all financial expenditures, management practices, and budgeting.

BASSE will follow the State Budget and Accounting Policy Manual as it relates to all transaction regulations, guidelines, and filing procedures. The school will use the First State Financials (FSF) system for all financial, accounting, and purchasing transactions. BASSE's financial reports will be posted on the school's website on a monthly basis, following board approval. Financial Position Reports, required by Title 14, will be prepared and submitted to the Department of Education. In addition, the school will commission an annual independent financial audit to ensure compliance with the standards of the State Auditor's Office with respect to process controls and segregation of duties.

- e. School closure, non-renewal, or dissolution. Describe the plan and procedures that the school will follow in the event of the closure, non-renewal, or dissolution of the school. Also, the applicant is to put forth a reasonable plan to establish sufficient available balances pursuant to 14 Del. C. § 515(k) below.**

[§ 515. Oversight and revocation process.](#)

(k) In the event that all state and local funds due to a charter school are paid timely as required by 14 Del. C. § 509, a charter school authorized to operate in the State must by December 31 of that fiscal year maintain an available balance sufficient to pay the minimum costs necessary to provide students with the minimum annual instructional hours required by the Department of Education during the remainder of that fiscal year as reasonably projected by the charter school. Such costs include, but are not limited to, all employee compensation required to attain the minimum annual instructional hours during the remainder of that fiscal year. Such costs also include all fixed and variable non-payroll expenditures incurred through the final month of that school year. A school's failure to

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maintain sufficient available funds by December 31 of its third year of operation shall be deemed a material violation of its charter.

To prepare for possible closure or dissolution of the school, BASSE will set aside adequate funds to ensure that all employees are paid according to their contractual agreements with the school; to pay any staff who would be required for close-out activities; and to pay any vendors such as auditors, movers, liquidators, etc. that would be needed. All cash and cash equivalents will be distributed first to satisfy outstanding payroll obligations for employees of the school, then to the remaining creditors of the school. To ensure that the funds are available to satisfy all closing costs, the school's Board will, over the next five fiscal years, build into its budget a cash reserve until it is at an adequate level to do so. The Board will review fund balances and financial projections on a monthly basis to ensure the school's fiscal health and the maintenance of the reserve fund. In the event that BASSE is closed for nonfinancial reasons and, following the authorizer's charter school closure protocol, the BASSE board would work closely with the DDOE concerning the steps necessary (parent notification, transfer of records, disposition of school assets, etc.) to ensure a smooth and orderly closure and transition.