

**School's Response to CSAC Initial Report - February 22, 2021**

ECHS Response  
to the  
CSAC Initial Recommendations



February 22, 2021

## **CSAC Initial Recommendations**

1. Revised embedded assessment prompts for grades 7 and 8 in ELA. Examples of what these prompts could look like will be included in the full report below.
2. Revised Scope and Sequence documents addressing gaps in Springboard to demonstrate alignment to the CCSS for mathematics, including the content and math practice standards and the instructional shifts for mathematics.
3. Confirmation of Membership in SSCD or Social Studies Curriculum Alignment Documents, Scope and Sequence Documents and Units of Instruction
4. Visual and Performing Arts Scope and Sequence Documents
5. A description of how high school standards will be aligned within middle school and how they will vertically articulate to the high school program and onward to the college course availability.
6. Provide data related to the interest in a middle school program at ECHS.
7. A structure of what the mentoring program will look like, including a description of how new teachers will be paired.

Revised Embedded Assessment  
Prompts for  
Grades 7 and 8 in ELA

## ELA Grade 7 Revised Embedded Assessments

Grade 7 Unit 1, Embedded Assessment 1: Revise the personal narrative with reflections that you drafted earlier in the unit. Use the revision techniques you have learned in the unit to improve the beginning, middle, and end of your narrative. You will also write a text explaining the revisions you made to improve your first draft and the effect of the changes on the final piece.

Grade 7 Unit 1, Embedded Assessment 2: Work with a partner to create an original myth that explains a belief, custom, or natural phenomenon through the actions of gods or heroes. Be sure that your myth teaches a lesson or a moral and includes illustrations that complement the myth as it unfolds.

Grade 7 Unit 2, Embedded Assessment 1: Write an informative essay that explains the role of advertising in the lives of people, to exchange ideas in a collaborative discussion. For your essay, you may use as sources the article in this unit and at least one additional informational text that you have researched.

Grade 7 Unit 2, Embedded Assessment 2: Your assignment is to write an argumentative essay that states and supports a claim about an issue of importance to you. You have used and been introduced to a number of strategies for constructing a well-reasoned and researched argumentative essay. Which strategies were most effective in helping you to write an effective argument and how did you use them?

Grade 7 Unit 3, Embedded Assessment 1: Your assignment is to write a multi-paragraph literary analysis essay in response to the following prompt (or another provided by your teacher): In Edward Bloor's novel, *Tangerine*, how did one character's choices and the consequence of these choices affect the development of the main character? How did the reading and notetaking strategies that you used during this unit help prepare you to write a literary analysis?

Grade 7 Unit 3, Embedded Assessment 2: Work with a research group to create and deliver a biographical multimedia presentation of a great leader whose choices have had positive consequences for society. What were the challenges of creating a collaborative multimedia presentation? How did you and your group confront these challenges?

Grade 7 Unit 4, Embedded Assessment 1: Your assignment is to write and present a monologue about a topic that sparks a strong emotion (e.g. amusement, regret, disappointment, excitement, joy, sadness, contentment, or anger). You may choose to speak as yourself or you may adopt a persona. How have your writing and speaking skills improved during this unit? You observed many other monologues. If you were to do this assessment again, what would you do differently?

Grade 7 Unit 4, Embedded Assessment 2: Your assignment is to work with a partner to plan, rehearse, and perform a dialogue from William Shakespeare's *Twelfth Night*. How did you feel about performing and speaking in front of others before this unit? How did this experience prepare you to be a confident oral presenter?

## ELA Grade 8 Revised Embedded Assessments

Grade 8 Unit 1, Embedded Assessment 1: Write and create an illustrated narrative about an original hero. Use the Hero's Journey archetype to develop and structure your ideas.

Reflection: How did your understanding of the Hero's Journey archetype help you create an original narrative?

Grade 8 Unit 1, Embedded Assessment 2: Write a multi-paragraph essay that develops your definition of heroism. Be sure to use strategies of definition (function, example, and negation) to guide your writing. Explain how the activities in this unit helped prepare you for success in the embedded assessment.

Grade 8 Unit 2, Embedded Assessment 1: Use an informational organizational structure to communicate your understanding of the concept of dystopia or the concept of the Hero's Journey. Select one of the prompts that follow:

- Write an essay that compares and contrasts life in the dystopian society of the novel you read with our modern-day society.
- Write an essay that explains how the protagonist (hero) changes as a result of conflict with his dystopian society (Road of Trials) and how this change connects to the novel's theme.

Grade 8 Unit 2, Embedded Assessment 2: Write an argumentative essay in which you convince an audience to support your claim about a debatable idea. Use your research and experience or observations to support your argument.

Grade 8 Unit 3, Embedded Assessment 1: Present a panel discussion that includes an oral reading of a significant passage from the texts read by your group. Your discussion should explain how the theme or central idea of "finding hope in themes of despair" is developed in each text.

Grade 8 Unit 3, Embedded Assessment 2: Develop a multimedia presentation that informs your peers about an issue of national or global significance and convinces them to take action. Work collaboratively to conduct and synthesize research into an engaging campaign that challenges your audience to make a difference. Which presentations were effective in convincing you to care about the issue and why?

Grade 8 Unit 4, Embedded Assessment 1: Write an essay that explains how an author creates humor for effect and uses it to communicate a universal truth. How has your understanding of how humor is created developed during this unit?

Grade 8 Unit 4, Embedded Assessment 2: Present your assigned scene in front of your peers to demonstrate your understanding of Shakespeare's text, elements of comedy, and performance. How did different performers emphasize the elements of humor in their scenes? Which performances were successful in eliciting a humorous response from the audience and what made them effective?

Revised Scope and Sequence Documents  
Addressing Gaps in Springboard to  
Demonstrate Alignment to the CCSS for  
Mathematics, Including the Content and  
Math Practice Standards and the  
Instructional Shifts for Mathematics

## Mathematics

### CSAC Recommendations:

The instructional materials do not meet the expectations for focus of the standards. The resources devote an insufficient amount of time to the major work of the grade. SpringBoard does not meet the expectations for coherence because they do not make sufficient connections between the standards within a grade and across grades.

### CSAC Expectations:

Complete a comprehensive review of the Springboard Mathematics, taking into account the EdReports review information, to ensure that the materials are aligned to the CCSS, including the content and math practice standards and the instructional shifts for mathematics. Supply needed additions or revisions to address all alignment issues.

### ECHS Response:

ECHS reviewed the EdReport for review of the Springboard Mathematics Courses 2 and 3 (Grades 7 and 8). The curriculum for each course was reviewed to assess alignment to CCSS. ECHS also reviewed the publisher's response to the EdReport (copy of the publisher's response included).

A revised scope and sequence guide is included in the response to highlight the CCSS that are the focus of each activity within the key units of each course, specific mathematical practices within the activity, and prerequisite skills expected for each unit.

The mathematical practices are embedded and integrated within the course lessons and embedded assessments. Through the process of questioning students within a lesson and asking them to think through concepts and applications, Springboard reinforces the actions and practices that help students build knowledge and skills (Springboard, 2014, p. xii). The eight practices can be clustered into the following categories as shown in the chart below:

<b>Mathematic Knowledge and Thinking</b> MP1: Make sense of problems and persevere in solving them. MP6: Attend to precision.	<b>Reasoning and Communication</b> MP2: Reason abstractly and quantitatively. MP3: Construct viable arguments and critique the reasoning of others.
	<b>Mathematical Modeling/ Representations</b> MP4: Model with mathematics. MP5: Use appropriate tools strategically.
	<b>Problem Solving</b> MP7: Look for and make use of structure. MP8: Look for and express regularity in repeated reasoning.



## Shifts in Mathematics:

**Shift 1 Focus:** The Springboard Course 2 materials are comprised of 6 key units with 26 activities. Of the 26 activities, 19 (73%) are directly focused on the major and supporting clusters for grade 7 and the other 7 additional clusters support the major clusters that lead towards middle school algebra.

### MAJOR, SUPPORTING, AND ADDITIONAL CLUSTERS FOR GRADE 7

Emphases are given at the cluster level. Refer to the Common Core State Standards for Mathematics for the specific standards that fall within each cluster.

Key: ■ Major Clusters    □ Supporting Clusters    ● Additional Clusters

- 7.RP.A | ■ Analyze proportional relationships and use them to solve real-world and mathematical problems.
- 7.NS.A | ■ Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.
- 7.EE.A | ■ Use properties of operations to generate equivalent expressions.
- 7.EE.B | ■ Solve real-life and mathematical problems using numerical and algebraic expressions and equations.
- 7.G.A | ● Draw, construct and describe geometrical figures and describe the relationships between them.
- 7.G.B | ● Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.
- 7.SP.A | □ Use random sampling to draw inferences about a population.
- 7.SP.B | ● Draw informal comparative inferences about two populations.
- 7.SP.C | □ Investigate chance processes and develop, use, and evaluate probability models.

The Springboard Course 3 materials are comprised of 5 key units with 36 activities. Of the 36 activities, 30 (83%) are directly focused on the major and supporting clusters for grade 8 and the other 6 additional clusters support the major clusters that lead towards middle school algebra.

### MAJOR, SUPPORTING, AND ADDITIONAL CLUSTERS FOR GRADE 8

Emphases are given at the cluster level. Refer to the Common Core State Standards for Mathematics for the specific standards that fall within each cluster.

Key: ■ Major Clusters    □ Supporting Clusters    ● Additional Clusters

- 8.NS.A | □ Know that there are numbers that are not rational, and approximate them by rational numbers.
- 8.EE.A | ■ Work with radicals and integer exponents.
- 8.EE.B | ■ Understand the connections between proportional relationships, lines, and linear equations.
- 8.EE.C | ■ Analyze and solve linear equations and pairs of simultaneous linear equations.
- 8.F.A | ■ Define, evaluate, and compare functions.
- 8.F.B | ■ Use functions to model relationships between quantities.
- 8.G.A | ■ Understand congruence and similarity using physical models, transparencies, or geometry software.
- 8.G.B | ■ Understand and apply the Pythagorean Theorem.
- 8.G.C | ● Solve real-world and mathematical problems involving volume of cylinders, cones and spheres.
- 8.SPA | □ Investigate patterns of association in bivariate data.

Shift 2 Coherence: The course materials are designed to connect learning within a grade to build knowledge new understanding and knowledge onto foundations built in previous years. Each unit begins with a “Getting Ready” lesson which includes exercises which can be used by teachers as formative evaluation of students’ readiness for the unit topic(s). For students who may need additional instruction on one or more of the prerequisite skills for the unit, additional resources are available in the eBook Teacher resources. The resources include worked-out examples as well as multiple opportunities for students to apply concepts learned.

There is flexibility in the pacing to accelerate instruction for students who have shown mastery and proficiency of prerequisite and foundational standards. The SpringBoard activities are based in real world problem scenarios and the supporting content provides applications to connect to major content in meaningful ways.

Shift 3 Rigor: The publisher notes at the beginning of the course material for teachers (SpringBoard, 2014, p. x) that rigor with balance is centered on – 1) Develop fluency in procedural skills – computation, application, understanding; 2) Promote depth and mastery by connecting concepts, practice, and independent application; and 3) Learn and apply the mathematical practices that lead to knowledge and fluency. The standards for mathematical practices are embedded within the instructional design through the Problem Solving, Collaborative, Reading, and Writing strategies, as well as, in the problem sets, practice, embedded assessments, and checks for understanding. Throughout the material problems and questions are included that develop conceptual understanding throughout the grade level. The teacher resource guide provides suggested teaching strategies to facilitate the learning process. Check Your Understanding and practice exercises found in the student materials provide opportunities for students to demonstrate conceptual understanding and build procedural fluency while spending sufficient time working with engaging applications of mathematics.

- Align all assessment items to the standard(s) which are being addressed and provide rubrics to support the scoring of all extended items.

## Springboard Mathematics Course 2

Each Unit correlates with a Unit in the planned text book for the course.

Units	Number Systems				Expressions and Equations			Ratio and Proportion					
Activity Name	Operations on Positive Rational Numbers	Addition and Subtraction of Integers	Multiplication and Division of Integers	Operations on Rational Numbers	Properties of Operations	Writing and Solving Equations	Solving and Graphing Inequalities	Ration and Proportion	Proportional Reasoning	Proportional Relationships and Scale	Percent Problems	More Percent Problems	
Focus Standards Aligned to	7.NS.A.1 7.NS.A.2 7.NS.A.2d	7.NS.A.1 7.NS.A.1a 7.NS.A.1b 7.NS.A.1c 7.NS.A.1d 7.NS.A.3	7.NS.A.2 7.NS.A.2b 7.NS.A.3	7.NS.A.1 7.NS.A.1b 7.NS.A.1c	7.EE.A.1 7.EE.A.2	7.EE.A.2 7.EE.B.3 7.EE.B.4 7.EE.B.4a	7.EE.B.3 7.EE.B.4 7.EE.B.4b	7.RP.A.1 7.RP.A.2 7.RP.A.2a 7.RP.A.2b	7.RP.A.2 7.RP.A.2a 7.RP.A.2c 7.RP.A.2d	7.RP.A.2 7.RP.A.2b 7.RP.A.2c 7.RP.A.3 7.G.A.1	7.RP.A.3 7.EE.B.3	7.RP.A.3 7.EE.B.3	
Math Practices	MP1 MP2 MP3 MP5 MP7	MP2 MP4 MP5	MP2 MP3 MP5 MP7	MP1 MP2 MP3 MP4 MP6 MP7	MP2 MP3	MP1 MP2 MP4 MP6 MP7	MP1 MP2 MP4 MP8	MP1 MP2 MP3 MP4 MP5 MP6 MP7 MP8	MP3 MP4 MP6 MP7 MP8	MP1 MP2 MP4 MP5 MP6 MP8	MP1 MP2 MP3 MP6	MP1 MP2	
Embedded Assessments	<b>Embedded Assessment 1</b> -Operations on decimals -Operations on fractions & mixed numbers -Converting rational numbers to decimals -Find the absolute value of an integer -Compare integers -Add integers -Subtract integers		<b>Embedded Assessment 2</b> -Multiply integers -Divide integers -Operations on rational numbers		<b>Embedded Assessment 1</b> -Apply properties of operations -Model two-step equations -Write two-step equations -Solve two-step equations		<b>Embedded Assessment 2</b> -Model two-step inequalities -Write two-step inequalities -Solve two-step inequalities		<b>Embedded Assessment 1</b> -Solve problems involving proportional relationships -Convert between measurement systems using unit rates and using proportions -Represent constant rates of change with equations of the form $y = kx$ -Determine the constant of proportionality from a table, graph, or equation		<b>Embedded Assessment 2</b> -Solve problems using scale -Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing -Reproduce a scale drawing at a different scale		<b>Embedded Assessment 3</b> -Find the percent of a number -Find the percent that one number is another -Given the percent and the whole, find the part -Solve problems about sales tax, tips, and commissions -Solve problems about percent increase, percent decrease, markups, and discounts -Solve problems about interest and percent error
Expected Prior Learning	Determining addition facts and related subtraction facts; Understanding of place value for numbers; Basic understanding of integers; Relate improper fractions to mixed numbers; Demonstration of an understanding of multiplication and division of decimals				Represent generalizations arising from number relationships using equations with letter variables			Demonstration of an understanding of multiplication and division of decimals; Understanding of ratio concepts; Demonstrate an understanding of percent (limited to whole numbers); Relating decimals to fractions;					

Units	Geometry							Probability					Statistics		
Activity Name	Angle Pairs	Triangle Measurements	Similar Figures	Circles: Circumferences and Areas	Composite Area	Sketching Solids	Volume: Prisms & Pyramids	Exploring Probability	Probability	Games & Probability	Probability	Statistics	Exploring Sampling Variability	Comparative Statistics	
Focus Standards Aligned to CCSS	7.EE.B.3 7.EE.B.4 7.G.B.5	7.G.A.2	7.G.A.1	7.G.B.4	7.G.B.4 7.G.B.6	7.G.A.3 7.G.B.6	7.G.B.6	7.SP.C.5 7.SP.C.6	7.SP.C.7 7.SP.C.7a 7.SP.C.7b	7.SP.C.8 7.SP.C.8a 7.SP.C.8b	7.SP.C.8 7.SP.C.8c	7.SP.A.1	7.SP.A.2	7.SP.B.3 7.SP.B.4	
Math Practices	MP2 MP3 MP4 MP7	MP2 MP3 MP5 MP7 MP8	MP1 MP2 MP3 MP4	MP1 MP2 MP4 MP6 MP7	MP1 MP2 MP3 MP7	MP1 MP2 MP3 MP4 MP6 MP7 MP8	MP1 MP2 MP3 MP4 MP7	MP1 MP2 MP3 MP4 MP7	MP1 MP3 MP6 MP8	MP1 MP2 MP3 MP4 MP8	MP1 MP2 MP3 MP5	MP1 MP2 MP5	MP1 MP2 MP3 MP4 MP5	MP2 MP3 MP4 MP5	
Embedded Assessments	<b>Embedded Assessment 1</b> -Adjacent, vertical, complementary, and supplementary angles -Angles of a triangle		<b>Embedded Assessment 2</b> -Area of rectangles and circles -Area of composite plane shapes			<b>Embedded Assessment 3</b> -Nets for a prism -Surface area of a prism -Cross section of a solid		<b>Embedded Assessment 1</b> -Anticipate outcomes based on a probability model -Reason about plausible probability -Calculate theoretical probabilities for a probability experiment that has equally likely outcomes (a uniform probability model) -Estimate probabilities		<b>Embedded Assessment 2</b> -Use tables and tree diagrams to represent outcomes -Use a tree diagram to assign probabilities to outcomes in the sample space -Reason about equally likely outcomes -Plan a simulation for a given probability experiment -Use simulation to estimate probabilities		<b>Embedded Assessment 1</b> -Determine methods for selecting a random sample -Identify sampling variability -Use data from a sample to draw a conclusion about a population		<b>Embedded Assessment 2</b> -Understand sampling variability -Use data from random samples to compare populations	
Expected Prior Learning	Design and construct different rectangles given either perimeter or area, or both (whole numbers) and draw conclusions; Demonstrate an understanding of measuring length, able to model and describe the relationship between units						Describe the likelihood of a single outcome occurring using words such as: impossible, possible, and certain; Compare the likelihood of two possible outcomes using words such as: less likely, equally likely, or more likely					Create, label, and interpret line graphs to draw conclusions; Construct and interpret double bar graphs to draw conclusions; Demonstrate an understanding of probability			

Unit 1 Embedded Assessment 1: Positive Rational Numbers and Adding and Subtracting Integers				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	<b>The solution demonstrates these characteristics:</b>			
<b>Mathematics Knowledge and Thinking</b> (Items 1a-d, 2a-c, 3a-c, 4)	<ul style="list-style-type: none"> <li>- Clear and accurate understanding of operations with fractions, decimals, and integers.</li> <li>- Effective understanding and accuracy in ordering and comparing integers</li> </ul>	<ul style="list-style-type: none"> <li>- Operations with fractions, decimals, and integers that are usually correct.</li> <li>- Correct comparison of integers by ordering a set or using absolute value</li> </ul>	<ul style="list-style-type: none"> <li>- Operations with fractions, decimals, and integers that are sometimes correct.</li> <li>- Partially correct comparison or ordering of integers; incorrect use of absolute value</li> </ul>	<ul style="list-style-type: none"> <li>- Incorrect or incomplete computation in operations with fractions, decimals, and integers.</li> </ul>
<b>Problem Solving</b> (Items 1d, 2a-c, 3a-b)	<ul style="list-style-type: none"> <li>- An appropriate and efficient strategy that results in a correct answer.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that may include unnecessary steps but results in a correct answer.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that results in some incorrect answers.</li> </ul>	<ul style="list-style-type: none"> <li>- No clear strategy when solving problems.</li> </ul>
<b>Mathematical Modeling/ Representations</b> (Items 1a-d, 2a-c, 3a-c, 4)	<ul style="list-style-type: none"> <li>- Clear and accurately written expressions involving operations with fractions, decimals, and integers.</li> <li>- Clear and correct ordering and comparison of integers.</li> <li>- Correct use of absolute value to compare scores.</li> </ul>	<ul style="list-style-type: none"> <li>- Some difficulty in writing the best expressions for a problem situation, but can get correct answers.</li> <li>- Correct conversion of fractions to decimals.</li> <li>- An understanding of ordering integers.</li> <li>- An understanding of absolute value.</li> </ul>	<ul style="list-style-type: none"> <li>- Errors in writing expressions for a given problem situation.</li> <li>- Errors in ordering rational numbers (for example, orders least to greatest instead of greatest to least).</li> <li>- Incorrect use of absolute value to compare scores.</li> </ul>	<ul style="list-style-type: none"> <li>- Inaccurately written expressions.</li> <li>- Inaccurate conversion of fractions to decimals.</li> <li>- Incorrect ordering of rational numbers.</li> <li>- Little or no understanding of absolute value.</li> </ul>
<b>Reasoning and Communication</b> (Items 1a-b, 4)	<ul style="list-style-type: none"> <li>- Precise use of appropriate math terms and language to explain finding a mean and estimating a difference.</li> <li>- A thorough understanding of using absolute value to compare scores.</li> </ul>	<ul style="list-style-type: none"> <li>- An adequate explanation of finding a mean and estimating a difference.</li> <li>- An adequate explanation of how to use absolute value to compare scores.</li> </ul>	<ul style="list-style-type: none"> <li>- A misleading or confusing explanation of finding a mean or estimating a difference.</li> <li>- Partial understanding of absolute value.</li> </ul>	<ul style="list-style-type: none"> <li>- An incomplete or inaccurate description of finding a mean or estimating a difference.</li> <li>- Little or no understanding of absolute value.</li> </ul>

**Common Core State Standards:**

- 7.NS.A.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.
- 7.NS.A.1a Describe situations in which opposite quantities combine to make 0. For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.
- 7.NS.A.1b 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.

- 7.NS.A.1c 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.
- 7.NS.A.1d Apply properties of operations as strategies to add and subtract rational numbers.
- 7.NS.A.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
- 7.NS.A.2d 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.
- 7.NS.A.3 Solve real-world and mathematical problems involving the four operations with rational numbers.

**Unit 1 Embedded Assessment 2: Rational Number Operations and Multiplying and Dividing Integers**

Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1a-c, 2a-b, 3a-b, 4, 5a-b, 6a-c)	- A clear and accurate understanding of operations with rational numbers and integers.	- Operations with rational numbers and integers that are usually correct.	- Operations with rational numbers and integers that are sometimes correct.	- Incorrect or incomplete computation of operations with rational numbers and integers.
<b>Problem Solving</b> (Items 1a-c, 2a-b, 3a-b, 4, 5a-b, 6a-c)	- An appropriate and efficient strategy that results in a correct answer.	- A strategy that may include unnecessary steps that result in a correct answer.	- A strategy that results in some incorrect answers.	- No clear strategy when solving problems.
<b>Mathematical Modeling/ Representations</b> (Items 1a-b, 2a, 3a-b, 4, 5a-b, 6a-c)	- Clear and accurately written expressions involving operations with rational numbers and integers that result in a correct answer.	- Some difficulty in writing the best expressions for operations on rational numbers and integers, but with correct answers.	- Errors in writing expressions for operations on rational numbers and integers.	- Inaccurately written or missing expressions for operations on rational numbers and integers.
<b>Reasoning and Communication</b> (Items 2b)	- Precise use of appropriate math terms and language when explaining the process of dividing integers.	- An adequate explanation of the process of dividing integers.	- A misleading or confusing explanation of the process of dividing integers.	- An incomplete or inaccurate explanation of the process of dividing integers.

**Common Core State Standards:**

- 7.NS.A.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
- 7.NS.A.2a 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.
- 7.NS.A.2b 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.
- 7.NS.A.2c Apply properties of operations as strategies to multiply and divide rational numbers.
- 7.NS.A.2d 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.
- 7.NS.A.3 Solve real-world and mathematical problems involving the four operations with rational numbers.

Unit 2 Embedded Assessment 1: Writing and Solving Equations				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1a-c, 2a-d)	- A clear and understanding of properties of operations - Effective understanding of and accuracy in writing and evaluating expressions and solving equations.	- A functional understanding of properties of operations. - Writing and evaluating expressions, and solving equations that usually result in correct answers.	- Partial understanding of properties of operations. - Difficulty with writing and evaluating expressions and solving equations.	- Little or no understanding of properties of operations. - Little or no understanding of writing and evaluating expressions and solving equations.
<b>Problem Solving</b> (Items 1c, 2b, 2d)	- An appropriate and efficient strategy that results in a correct answer.	- A strategy that may include unnecessary steps that result in a correct answer.	- A strategy that results in some incorrect answers.	- No clear strategy when solving problems.
<b>Mathematical Modeling/ Representations</b> (Items 1a, 2a-b, 2d)	- Clear and accurate representations of problems as expressions and equations.	- Some difficulty in representing problems as expressions and equations.	- Difficulty in writing expressions and equations leading to errors.	- No understanding of representing problems as expressions and equations.
<b>Reasoning and Communication</b> (Items 2b)	- Precise use of appropriate math terms and language to explain solutions to problems and the role of properties of operations.	- Adequate explanations solutions to problems and the role of properties of operations.	- Misleading or confusing explanation of solutions to problems and the role properties of operations.	- Incomplete or inaccurate explanation of solutions to problems and the role properties of operations.

**Common Core State Standards:**

- 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."*
- 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 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.
- 7.EE.B.4a 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?*



Unit 2 Embedded Assessment 2: Solving Inequalities				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1a-b, 2, 3, 4a-3c)	- Effective understanding of and accuracy in writing, evaluating, and solving inequalities.	- Writing, evaluating, and solving inequalities correctly.	- Difficulty with writing, evaluating, and solving inequalities.	- Little or no understanding of writing, evaluating, and solving inequalities.
<b>Problem Solving</b> (Items 3, 4a, 4c)	- An appropriate and efficient strategy that results in a correct answer. - A correct and complete interpretation of the solution to an inequality.	- A strategy that may include unnecessary steps that result in a correct answer. - A correct interpretation of the solution to an inequality.	- A strategy that results in some incorrect answers. - Difficulty interpreting the solution to an inequality.	- No clear strategy when solving problems. - No understanding of interpreting an inequality or its solution.
<b>Mathematical Modeling/ Representations</b> (Items 1a-b, 2, 3, 4a-b)	- A clear and accurate representation of a situation as an inequality. - Accurate and precise graphing of an inequality.	- Some difficulty in representing situations as inequalities. - Correct graphing of an inequality.	- Difficulty in writing inequalities leading to errors. - Some errors in graphing inequalities.	- No understanding of representing situations as inequalities. - Incomplete or inaccurate graphing of inequalities.
<b>Reasoning and Communication</b> (Items 2, 4b-c)	- Precise use of appropriate math terms and language to explain solutions of inequalities. - Clear and accurate writing of a situation to match an inequality.	- Adequate explanation of solutions to inequalities. - Writing a situation to match an inequality.	- Misleading or confusing explanation of solutions to inequalities. - Writing a situation that partially matches an inequality.	- Incomplete or inaccurate explanation of solutions to inequalities. - An inaccurately written situation to match an inequality.

**Common Core State Standards:**

- 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  $\frac{1}{10}$  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.
- 7.EE.B.4b 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.

**Unit 3 Embedded Assessment 1: Ratios, Proportions, and Proportional Reasoning**

Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13)	- A clear and accurate understanding of ratios, unit rates, and solving proportions.	- An understanding of ratios, unit rates, and solving proportions that usually results in correct answers.	- An understanding of ratios, unit rates, and solving proportions that sometimes results in correct answers.	- Incorrect or incomplete understanding of ratios, unit rates, and solving proportions.
<b>Problem Solving</b> (Items 4, 7, 9, 10, 12)	- Accurate interpretation of the solution of a proportion to solve a problem.	- Interpretation of the solution of a proportion to solve a problem.	- Difficulty interpreting the solution of a proportion to solve a problem.	- Incorrect or incomplete interpretation of the solution of a proportion to solve a problem.
<b>Mathematical Modeling/ Representations</b> (Items 1, 5, 6, 7, 8, 13)	- Accurate representation of a problem situation with a proportional equation of a graph.	- A mostly correct representation of a problem situation with a proportional equation of a graph.	- Difficulty representing a problem situation with a proportional equation of a graph.	- An incorrect or incomplete representation of a problem situation with a proportional equation of a graph.
<b>Reasoning and Communication</b> (Items 6, 11)	- Precise use of appropriate math terms and language to explain proportional relationships.	- An adequate explanation of solutions using proportional relationships.	- A misleading or confusing explanation of solutions using proportional relationships.	- An incomplete or inaccurate description of solutions using proportional relationships.

**Common Core State Standards:**

- 7.RP.A.1      Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks  $\frac{1}{2}$  mile in each  $\frac{1}{4}$  hour, compute the unit rate as the complex fraction  $\frac{1/2}{1/4}$  miles per hour, equivalently 2 miles per hour.
- 7.RP.A.2      Recognize and represent proportional relationships between quantities.
- 7.RP.A.2a     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.
- 7.RP.A.2b     Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
- 7.RP.A.2c     Represent proportional relationships by equations. 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  $t = pn$ .
- 7.RP.A.2d     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.

Unit 3 Embedded Assessment 2: Proportional Relationships and Scale				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1a-c, 2, 3, 4a-b, 5a-b)	<ul style="list-style-type: none"> <li>- Effective understanding and accuracy in using proportional relationships and scale to relate dimensions of real objects and dimensions in scale drawings.</li> <li>- Correctly determining a scale factor.</li> </ul>	<ul style="list-style-type: none"> <li>- Using proportional relationships and scale to relate dimensions of real objects and dimensions in scale drawings with few errors.</li> <li>- Determining a scale factor.</li> </ul>	<ul style="list-style-type: none"> <li>- Using proportional relationships and scale to relate dimensions of real objects and dimensions in scale drawings with multiple errors.</li> <li>- Errors in determining a scale factor.</li> </ul>	<ul style="list-style-type: none"> <li>- Incorrect or incomplete understanding of using proportional relationships and scale to relate dimensions of real objects and dimensions in scale drawings.</li> <li>- No understanding of determining a scale factor.</li> </ul>
<b>Problem Solving</b> (Items 1b-c, 2, 3, 5b)	<ul style="list-style-type: none"> <li>- An appropriate and efficient strategy that results in a correct answer.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that may include unnecessary steps that result in a correct answer.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that results in some incorrect answers.</li> </ul>	<ul style="list-style-type: none"> <li>- No clear strategy when solving problems.</li> </ul>
<b>Mathematical Modeling/ Representations</b> (Items 1a-c, 2, 3, 4a-b, 5b)	<ul style="list-style-type: none"> <li>- Clear and accurate understanding of writing a proportion to solve a problem involving scale.</li> <li>- Creating a clear and accurate scale drawing.</li> </ul>	<ul style="list-style-type: none"> <li>- Writing a proportion to solve a problem involving scale.</li> <li>- Creating a scale drawing that is largely correct.</li> </ul>	<ul style="list-style-type: none"> <li>- Difficulty writing a proportion to solve a problem involving scale.</li> <li>- Difficulty creating a scale drawing.</li> </ul>	<ul style="list-style-type: none"> <li>- Little or no understanding of writing a proportion to solve a problem involving scale.</li> <li>- An inaccurate or incomplete scale drawing.</li> </ul>
<b>Reasoning and Communication</b> (Items 1a, 3, 4d)	<ul style="list-style-type: none"> <li>- Precise use of appropriate math terms and language to explain scale and scale drawings.</li> </ul>	<ul style="list-style-type: none"> <li>- An adequate explanation of scale and scale drawings.</li> </ul>	<ul style="list-style-type: none"> <li>- A misleading or confusing explanation of scale and scale drawings.</li> </ul>	<ul style="list-style-type: none"> <li>- An incomplete or inaccurate explanation of scale and scale drawings.</li> </ul>

**Common Core State Standards:**

- 7.RP.A.2 Recognize and represent proportional relationships between quantities.
- 7.RP.A.2b Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
- 7.RP.A.2c Represent proportional relationships by equations. 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  $t = pn$ .
- 7.RP.A.3 Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.
- 7.G.A.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.

Unit 3 Embedded Assessment 3: Percents and Proportions				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10)	<ul style="list-style-type: none"> <li>- Effective understanding and accuracy in calculating percents, percent increase, percent decrease, and finding a part given a percent.</li> <li>- Effective understanding and accuracy in calculating sales tax, commissions, and interest.</li> </ul>	<ul style="list-style-type: none"> <li>- Few if any errors in calculating percents, percent increase, percent decrease, and finding a part given a percent.</li> <li>- Few if any errors in calculating sales tax, commissions, and interest.</li> </ul>	<ul style="list-style-type: none"> <li>- Multiple errors in calculating percents, percent increase, percent decrease, and finding a part given a percent.</li> <li>- Multiple errors in calculating sales tax, commissions, and interest.</li> </ul>	<ul style="list-style-type: none"> <li>- Incorrect or incomplete understanding of calculating percents, percent increase, percent decrease, and finding a part given a percent.</li> <li>- Incorrect or incomplete understanding of calculating sales tax, commissions, and interest.</li> </ul>
<b>Problem Solving</b> (Items 1a-c, 2a-b, 3a-b, 4, 5a-b, 6a-c)	<ul style="list-style-type: none"> <li>- An appropriate and efficient strategy that results in a correct answer.</li> <li>- Accurate interpretation of a percent to solve a problem.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that may include unnecessary steps that result in a correct answer.</li> <li>- Interpretation of a percent to solve a problem.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that results in some incorrect answers.</li> <li>- Difficulty interpreting a percent to solve a problem.</li> </ul>	<ul style="list-style-type: none"> <li>- No clear strategy when solving problems.</li> <li>- Incorrect interpretation of a percent to solve a problem.</li> </ul>
<b>Mathematical Modeling/ Representations</b> (Items 2, 4, 5, 7, 8, 9)	<ul style="list-style-type: none"> <li>- Clear and accurate interpretation of a percent problem to write and solve an equation.</li> </ul>	<ul style="list-style-type: none"> <li>- Interpreting a percent problem to write and solve an equation.</li> </ul>	<ul style="list-style-type: none"> <li>- Difficulty interpreting a percent problem to write and solve an equation.</li> </ul>	<ul style="list-style-type: none"> <li>- Incorrect or incomplete interpretation of a percent problem to write and solve an equation.</li> </ul>
<b>Reasoning and Communication</b> (Items 2, 5, 6, 7, 8, 9, 10)	<ul style="list-style-type: none"> <li>- Effective understanding and command of terms relating to percents.</li> </ul>	<ul style="list-style-type: none"> <li>- An adequate knowledge of terms relating to percents.</li> </ul>	<ul style="list-style-type: none"> <li>- Difficulty understanding and distinguishing terms relating to percents.</li> </ul>	<ul style="list-style-type: none"> <li>- An incomplete or inaccurate understanding of terms relating to percents.</li> </ul>

**Common Core State Standards:**

- 7.RP.A.3 Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.
- 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.

Unit 4 Embedded Assessment 1: Angles and Triangles				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1, 2a-b, 3, 4a-b, 5, 6a-c, 7, 8b)	- A clear and accurate understanding of adjacent angle relationships and angle relationships in a triangle.	- An understanding of adjacent angle relationships and angle relationships in a triangle.	- A partial understanding of adjacent angle relationships and angle relationships in a triangle.	- Incorrect or incomplete understanding of adjacent angle relationships and angle relationships in a triangle.
<b>Problem Solving</b> (Items 2a-b, 4a, 5, 6a-b)	- An accurate interpretation of a problem in order to find missing angle measurements.	- A somewhat accurate interpretation of a problem in order to find missing angle measurements.	- Difficulty interpreting a problem in order to find missing angle measurements.	- Incorrect or incomplete interpretation of a problem.
<b>Mathematical Modeling/ Representations</b> (Items 4b, 6c, 8a-b)	- An accurate drawing of a triangle given information on the side lengths and angles.	- A drawing of a triangle given information on the side lengths and angles.	- Difficulty in drawing a triangle given information on the side lengths and angles.	- An incorrect drawing of a triangle given information on the side lengths and angles.
<b>Reasoning and Communication</b> (Items 1, 3, 4, b, 6c, 7, 8b)	- Precise use of appropriate terms to describe angle relationships and triangles.	- Use of appropriate terms to describe angle relationships and triangles.	- A partially correct use of terms to describe angle relationships and triangles.	- An incomplete or inaccurate use of terms to describe angle relationships and triangles.

**Common Core State Standards:**

- 7.G.A.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.B.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.

Unit 4 Embedded Assessment 2: Circumference and Area				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1, 2, 3a-b, 4, 5a-b, 6a-b, 7)	- Accurately and efficiently finding the circumference and area of circles and the area of composite figures.	- Finding the circumference and area of circles and the area of composite figures.	- Difficulty finding the circumference and area of circles and the area of composite figures.	- No understanding of finding the circumference and area of circles and the area of composite figures.
<b>Problem Solving</b> (Items 1, 2, 4, 5a, 6a-b)	- An appropriate and efficient strategy that results in a correct answer.	- A strategy that may include unnecessary steps that result in a correct answer.	- A strategy that results in some incorrect answers.	- No clear strategy when solving problems.
<b>Mathematical Modeling/ Representations</b> (Items 3a-b, 7)	- Clear and accurate understanding of similar figures. - Solving composite figures by adding or subtracting.	- An understanding of similar figures. - Recognizing that composite figures are made up of simpler figures.	- Difficulty recognizing similar figures. - Difficulty in working with composite figures.	- No understanding of similar figures. - No understanding of composite figures.
<b>Reasoning and Communication</b> (Items 1, 3a-b, 5b, 7)	- Precise use of appropriate terms to explain similar figures, finding area, and $\pi$ .	- An adequate explanation of similar figures, finding area, and $\pi$ .	- A partially correct explanation of similar figures, finding area, and $\pi$ .	- An incomplete or inaccurate explanation of similar figures, finding area, and $\pi$ .

**Common Core State Standards:**

- 7.G.A.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.
- 7.G.B.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.
- 7.G.B.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.

Unit 4 Embedded Assessment 3: Surface Area and Volume				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1a-c, 2b, 3, 4, 5)	- Accurately and efficiently finding the surface area and volume of prisms and pyramids.	- Finding the surface area and volume of prisms and pyramids.	- Difficulty finding the surface area and volume of prisms and pyramids.	- No understanding of finding the surface area and volume of prisms and pyramids.
<b>Problem Solving</b> (Items 1b-c, 2b, 4, 5)	- An appropriate and efficient strategy that results in a correct answer.	- A strategy that may include unnecessary steps that result in a correct answer.	- A strategy that results in some incorrect answers.	- No clear strategy when solving problems.
<b>Mathematical Modeling/ Representations</b> (Items 1a-b, 2a, 4, 5)	- Clear and accurate understanding of how a net represents a three-dimensional figure.	- Relating a net to the surfaces of a three-dimensional figure.	- Difficulty recognizing how a net represents a three-dimensional figure.	- No understanding how a net represents a three-dimensional figure.
<b>Reasoning and Communication</b> (Items 1b, 2b, 3)	- Precise use of appropriate math terms to explain finding surface area and volume of solids. - A precise and accurate description of the relationship between the volume of a pyramid and a cube.	- An adequate explanation of finding surface area and volume of solids. - A basically correct description of the relationship between the volume of a pyramid and a cube.	- A partially correct explanation of finding surface area and volume of solids. - A partial description of the relationship between the volume of a pyramid and a cube..	- An incomplete or inaccurate explanation of finding surface area and volume of solids. - A partial description of the relationship between the volume of a pyramid and a cube.

**Common Core State Standards:**

- 7.G.A.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.
- 7.G.B.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.

Unit 5 Embedded Assessment 1: Finding Probabilities				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1, 2, 3, 4a-d, 5a-c, 6, 7, 8a-c, 9, 10)	- A clear and accurate understanding of calculating estimated and theoretical probabilities.	- Calculating estimated and theoretical probabilities with few if any errors.	- Difficulty calculating estimated and theoretical probabilities.	- Incorrect or incomplete calculation of estimated and theoretical probabilities.
<b>Problem Solving</b> (Items 4a, 5a)	- Accurately interpreting possible outcomes as probability.	- Interpreting possible outcomes as probability.	- Difficulty interpreting possible outcomes as probability.	- No clear understanding of interpreting outcomes.
<b>Mathematical Modeling/ Representations</b> (Items 1, 3, 5b-c)	- Accurately using theoretical probability to model outcomes of events.	- Using theoretical probability to model outcomes of events.	- Errors in using theoretical probability to model outcomes of events.	- Inaccurate or incomplete use of theoretical probability to model outcomes.
<b>Reasoning and Communication</b> (Items 2, 3, 4c-d, 5b-c, 6, 7, 8a-c, 9, 10)	- Clear and accurate explanation of estimated and theoretical probabilities.	- An adequate explanation of estimated and theoretical probabilities.	- Difficulty in explaining estimated and theoretical probability.	- An inaccurate explanation of estimated and theoretical probability.

**Common Core State Standards:**

- 7.SP.C.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  $\frac{1}{2}$  indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
- 7.SP.C.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. *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.*
- 7.SP.C.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.
- 7.SP.C.7a Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. *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.*
- 7.SP.C.7b Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. *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?*



Unit 5 Embedded Assessment 2: Probability and Simulation				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1, 2, 3, 4, 5, 6, 7, 8, 9 10. 11. 12, 13, 14)	- A clear and accurate understanding of listing outcomes and probabilities of experiments, and of conducting simulations.	- Adequate understanding of listing outcomes and probabilities of experiments, and of conducting simulations.	- Difficulty with listing outcomes and probabilities of experiments, and of conducting simulations.	- Incorrect or incomplete understanding of outcomes and probabilities of experiments, and of conducting simulations.
<b>Problem Solving</b> (Items 7, 8, 12, 13, 14)	- Accurately and precisely interpreting an experiment or simulation.	- Interpreting an experiment or simulation.	- Difficulty interpreting an experiment or simulation.	- No understanding of interpreting an experiment or simulation.
<b>Mathematical Modeling/ Representations</b> (Items 2, 3, 4, 5, 11, 12, 13, 14)	- Accurately using tables and trees to represent outcomes, and simulations to model experiments.	- Adequate use of tables and trees to represent outcomes, and simulations to model experiments.	- Difficulty using tables and trees to represent outcomes, and simulations to model experiments.	- Inaccurate or incomplete use of tables and trees to represent outcomes, and simulations to model experiments.
<b>Reasoning and Communication</b> (Items 2b)	- Clear and accurate explanation of sample spaces and simulations.	- An adequate explanation of sample spaces and simulations.	- Difficulty explaining sample spaces and simulations..	- An inaccurate explanation of sample spaces and simulations.

**Common Core State Standards:**

- 7.SP.C.8 Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.
- 7.SP.C.8a 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.
- 7.SP.C.8b 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.
- 7.SP.C.8c Design and use a simulation to generate frequencies for compound events. *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?*

Unit 6 Embedded Assessment 1: Random Sampling and Sampling Variability				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1, 3, 4, 5, 6, 7, 8, 9, 10)	<ul style="list-style-type: none"> <li>- A clear and accurate understanding of populations, population variability, and sampling variability.</li> <li>- Effective understanding and accuracy in making predictions and drawing conclusions about a population.</li> </ul>	<ul style="list-style-type: none"> <li>- A functional understanding of populations, population variability, and sampling variability.</li> <li>- Making predictions and drawing conclusions about a population that are largely correct.</li> </ul>	<ul style="list-style-type: none"> <li>- Partial understanding of populations, population variability, and sampling variability.</li> <li>- Partially correct predictions and conclusions about a population.</li> </ul>	<ul style="list-style-type: none"> <li>- Inaccurate or incomplete understanding of populations, population variability, and sampling variability.</li> <li>- Inaccurate or incomplete predictions and conclusions about a population.</li> </ul>
<b>Problem Solving</b> (Items 7, 9)	<ul style="list-style-type: none"> <li>- An appropriate and efficient strategy that results in a correct answer.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that may include unnecessary steps that result in a correct answer.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that results in some incorrect answers.</li> </ul>	<ul style="list-style-type: none"> <li>- No clear strategy when solving problems.</li> </ul>
<b>Mathematical Modeling/ Representations</b> (Items 1, 3, 4, 5, 6, 8, 9, 10)	<ul style="list-style-type: none"> <li>- Clear and accurate understanding of sampling a population and obtaining random samples.</li> </ul>	<ul style="list-style-type: none"> <li>- An understanding of population samples and random samples that is largely correct.</li> </ul>	<ul style="list-style-type: none"> <li>- Partial understanding of population samples and random samples.</li> </ul>	<ul style="list-style-type: none"> <li>- Inaccurate or incomplete understanding of population samples and random samples.</li> </ul>
<b>Reasoning and Communication</b> (Items 2, 3, 4, 5, 6, 8, 9, 10)	<ul style="list-style-type: none"> <li>- Precise use of appropriate math terms and language to explain sampling methods, variability, and predictions.</li> </ul>	<ul style="list-style-type: none"> <li>- An adequate explanation of sampling methods, variability, and predictions.</li> </ul>	<ul style="list-style-type: none"> <li>- A misleading or confusing explanation of sampling methods, variability, and predictions.</li> </ul>	<ul style="list-style-type: none"> <li>- An incomplete or inaccurate explanation of sampling methods, variability, and predictions.</li> </ul>

**Common Core State Standards:**

- 7.SP.A.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.
- 7.SP.A.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. *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.*

Unit 6 Embedded Assessment 2: Comparing Populations				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1, 2, 3, 4, 5, 6, 7, 8)	- A clear and accurate understanding of variability and mean absolute deviation (MAD).	- A functional understanding of variability and mean absolute deviation (MAD).	- Partial understanding of variability and mean absolute deviation (MAD).	- Incorrect or incomplete understanding of variability and mean absolute deviation (MAD).
<b>Problem Solving</b> (Items 7, 8)	- An appropriate and efficient strategy that results in a correct answer.	- A strategy that may include unnecessary steps that result in a correct answer.	- A strategy that results in some incorrect answers.	- No clear strategy when solving problems.
<b>Mathematical Modeling/ Representations</b> (Items 2, 3, 4, 5, 6)	- Clear and accurate understanding of representing a sample with a dotplot, mean, and MAD.	- Correctly representing a sample with a dotplot, mean, and MAD.	- Partial understanding of representing a sample with a dotplot, mean, and MAD.	- Little or no understanding of representing a sample with a dotplot, mean, and MAD.
<b>Reasoning and Communication</b> (Items 1, 3, 7, 8)	- Precise use of appropriate math terms and language to explain variability, MAD, and conclusions drawn from the MAD.	- An adequate explanation of variability, MAD, and conclusions drawn from the MAD.	- A misleading or confusing explanation of variability, MAD, and conclusions drawn from the MAD.	- An incomplete or inaccurate explanation of variability, MAD, and conclusions drawn from the MAD.

**Common Core State Standards:**

- 7.SP.B.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. *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.*
- 7.SP.B.4 Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. *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.*

## Springboard Mathematics Course 3

Each Unit correlates with a Unit in the planned text book for the course.

Units	Numerical Relationships									Equations					
Activity Name	Investigating Patterns	Operations with Fractions	Powers and Roots	Rational Numbers	Rational and Irrational Numbers	Properties of Exponents	Scientific Notation	Operations with Scientific Notation	Writing Expressions	Solving Equations	Exploring Slope	Slope-Intercept Form	Proportional Relationships	Graphing Systems of Linear Equations	Solving Systems of Linear Equations Algebraically
Focus Standards Aligned to	Preparing student for Functions cluster	7.NS.A.1 7.NS.A.2	8.NS.A.1 8.EE.A.2	8.NS.A.1	8.NS.A.2 8.EE.A.2	8.EE.A.1	8.EE.A.3	8.EE.A.3 8.EE.A.4	7.EE.A.1 7.EE.A.2	8.EE.C.7 8.EE.C.7a 8.EE.C.7b	8.EE.B.5 8.EE.B.6	8.EE.B.5 8.EE.B.6	8.EE.B.5	8.EE.C.8 8.EE.C.8a 8.EE.C.8b 8.EE.C.8c	8.EE.C.8 8.EE.C.8a 8.EE.C.8b 8.EE.C.8c
Math Practices	MP1 MP2 MP3 MP6 MP7 MP8	MP2 MP3 MP4 MP6 MP7	MP2 MP3 MP7	MP2 MP3 MP4 MP6	MP2 MP3 MP5 MP6 MP7	MP1 MP2 MP3 MP6 MP7 MP8	MP1 MP2 MP3 MP7	MP1 MP2 MP3 MP5 MP7	MP2 MP3 MP4	MP1 MP3 MP7	MP1 MP2 MP3 MP4 MP6 MP8	MP1 MP2 MP3 MP6 MP7	MP2 MP3 MP4	MP1 MP2 MP3 MP4 MP5	MP2 MP3
Embedded Assessments	<b>Embedded Assessment 1</b> -Recognize patterns -Compute with mixed fractions to solve real-world problems		<b>Embedded Assessment 2</b> -Convert between fractions, decimals, and percents -Determine square roots and cube roots of perfect squares and perfect cubes -Distinguish between rational and irrational numbers			<b>Embedded Assessment 3</b> -Compute with exponents -Write a number in scientific notation -Recognize exponential number patterns			<b>Embedded Assessment 1</b> -Write linear equations -Solve linear equations		<b>Embedded Assessment 2</b> -Determine and interpret rate of change -Write linear equations		<b>Embedded Assessment 3</b> -Solve systems of linear equations graphically -Solve systems of linear equations algebraically		
Expected Prior Learning	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation; Understand ordering and absolute value of rational numbers; Understand rational numbers as a point on a number line; Able to apply the properties of operations to generate equivalent expressions; Understanding of fractions as numbers									Write, read, and evaluate expressions in which letters stand for numbers; 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; 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					

Geometry											
Units											
Activity Name	Angle-Pair Relationships	Angles of Triangles and Quadrilaterals	Introduction to Transformations	Rigid Transformations and Compositions	Similar Triangles	Dilations	The Pythagorean Theorem	Applying the Pythagorean Theorem	The Converse of the Pythagorean Theorem	Surface Area	Volumes of Solids
Focus Standards Aligned to CCSS	8.G.A.5	8.G.A.5	8.G.A.1 8.G.A.1a 8.G.A.1b 8.G.A.1c 8.G.A.3	8.G.A.1 8.G.A.1a 8.G.A.1b 8.G.A.1c 8.G.A.2 8.G.A.3	8.G.A.5	8.G.A.3 8.G.A.4	8.G.B.6 8.G.B.7 8.G.B.8	8.G.B.6 8.G.B.7 8.G.B.8	8.G.B.6 8.G.B.8	7.G.B.4 7.G.B.6	8.G.C.9
Math Practices	MP1 MP3 MP4 MP7	MP3 MP4 MP7 MP8	MP1 MP2 MP3 MP6 MP7 MP8	MP2 MP3 MP4 MP6 MP8	MP3 MP4 MP7 MP8	MP1 MP2 MP3 MP5 MP7	MP3 MP4 MP6 MP7	MP1 MP5 MP6 MP7	MP2 MP3 MP4 MP7 MP8	MP1 MP3 MP4 MP6 MP7 MP8	MP1 MP2 MP3 MP4 MP5 MP6
Embedded Assessments	<b>Embedded Assessment 1</b> -Identify and determine the measures of complementary and supplementary angles -Determine the measures of the angles of a triangle or quadrilateral -Determine the measures of the angles formed by parallel lines that are cut by a transversal		<b>Embedded Assessment 2</b> -Perform translations, reflections, and rotations on the coordinate plane -Identify transformations that preserve congruence		<b>Embedded Assessment 3</b> -Identify similar figures and find unknown measures -Perform dilations on the coordinate plane -Find perimeters and areas of similar figures		<b>Embedded Assessment 4</b> -Solve problems using the Pythagorean Theorem -Use the converse of the Pythagorean Theorem			<b>Embedded Assessment 5</b> -Calculate the surface area and lateral area of three-dimensional figures -Calculate the volume of three-dimensional figures, including composite solids	
Expected Prior Learning	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation; Understand ordering and absolute value of rational numbers; Understand rational numbers as a point on a number line; Able to apply the properties of operations to generate equivalent expressions; Understanding of fractions as numbers										

Units	Functions					Probability and Statistics			
Activity Name	Introduction to Functions	Comparing Functions	Constructing Functions	Linear Functions	Linear and Non-Linear Functions	Analyzing Data	Bivariate Data	Median-Median Line	Two-Way Tables and Associations
Focus Standards Aligned to CCSS	8.F.A.1	8.F.A.2	8.F.A.3	8.F.B.5	8.F.A.3 8.F.B.4	8.SP.A.1 8.SP.A.2 8.SP.A.3 8.SP.A.4	8.SP.A.1 8.SP.A.2 8.SP.A.3 8.SP.A.4	8.SP.A.1 8.SP.A.2 8.SP.A.3	8.SPA.1 8.SPA.2 8.SP.A.3 8.SPA.4
Math Practices	MP2 MP3 MP4 MP5 MP7	MP2 MP3 MP4 MP7	MP1 MP2 MP3 MP4	MP2 MP3 MP4 MP7 MP8	MP3 MP4 MP5 MP6 MP7	MP2 MP3 MP4 MP5	MP1 MP2 MP3 MP4 MP5 MP6 MP7	MP2 MP3 MP4 MP6 MP7	MP1 MP2 MP3 MP4 MP7
Embedded Assessments	<b>Embedded Assessment 1</b> -Determine whether a relation is a function -Determine whether a function is a proportional function -Represent functions in different ways			<b>Embedded Assessment 2</b> -Create and interpret a scatter plot -Use a trend line to make a prediction -Identify linear equations		<b>Embedded Assessment 1</b> -Generate a scatter plot from data collected from a random sample -Describe the association between variables of a scatter plot -Write an interpret trend line		<b>Embedded Assessment 2</b> -Write and use the median-median line -Compute row percentages for a two-way table -Create a segmented bar graph -Determine association in a two-way table	
Expected Prior Learning	Represent and analyze quantitative relationships between dependent and independent variables; Solve word problems leading to equations of form $px + q = r$ and $p(x+q) = r$ , where $p$ , $q$ , and $r$ are rational numbers				Represent and analyze quantitative relationships between dependent and independent variables; 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; Understand decimal notation for fractions, and compare decimal fractions; Use data from a random sample to draw inferences; Use proportional relationships to solve multistep ratio and percent problems				

Unit 1 Embedded Assessment 1: Patterns and Quantitative Reasoning				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1a-e, 2, 3, 4, 5)	<ul style="list-style-type: none"> <li>- Clear and accurate understanding of operations with fractions and mixed numbers.</li> <li>- Effective understanding and finding the pattern and missing terms in a sequence.</li> </ul>	<ul style="list-style-type: none"> <li>- Operations with fractions and mixed numbers that are usually correct.</li> <li>- Finding the pattern in a sequence and extending it.</li> </ul>	<ul style="list-style-type: none"> <li>- Partially correct operations with fractions and mixed numbers.</li> <li>- Errors in extending sequences and finding the pattern.</li> </ul>	<ul style="list-style-type: none"> <li>- Incorrect or incomplete computation in operations with fractions and mixed numbers.</li> <li>- Little or no understanding of sequences.</li> </ul>
<b>Problem Solving</b> (Items 1a-e, 2, 3, 4, 5)	<ul style="list-style-type: none"> <li>- An appropriate and efficient strategy that results in a correct answer.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that may include unnecessary steps but results in a correct answer.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that results in some incorrect answers.</li> </ul>	<ul style="list-style-type: none"> <li>- No clear strategy when solving problems.</li> </ul>
<b>Mathematical Modeling/ Representations</b> (Items 1a-e, 2, 3, 4, 5)	<ul style="list-style-type: none"> <li>- Writing accurate expressions for operations with fractions and mixed numbers.</li> <li>- Accurately writing an expression to represent a sequence.</li> </ul>	<ul style="list-style-type: none"> <li>- Writing an expression for operations with fractions and mixed numbers.</li> <li>- Writing an expression to represent a sequence.</li> </ul>	<ul style="list-style-type: none"> <li>- Errors in writing expressions for a given problem situation.</li> <li>- Errors in writing an expression to represent a sequence.</li> </ul>	<ul style="list-style-type: none"> <li>- Inaccurately written expressions.</li> <li>- Little or no understanding of writing an expression to represent a sequence.</li> </ul>
<b>Reasoning and Communication</b> (Items 1a-e, 2, 3, 4, 5)	<ul style="list-style-type: none"> <li>- Precise and accurate description of a sequence.</li> </ul>	<ul style="list-style-type: none"> <li>- An adequate description of a sequence.</li> </ul>	<ul style="list-style-type: none"> <li>- A misleading or confusing description of a sequence.</li> </ul>	<ul style="list-style-type: none"> <li>- An incomplete or inaccurate description of a sequence.</li> </ul>

**Common Core State Standards:**

- 7.NS.A.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.
- 7.NS.A.1a Describe situations in which opposite quantities combine to make 0. For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.
- 7.NS.A.1b 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.
- 7.NS.A.1c 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.
- 7.NS.A.1d Apply properties of operations as strategies to add and subtract rational numbers.
- 7.NS.A.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
- 7.NS.A.2d 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.

Unit 1 Embedded Assessment 2: Representing Rational Numbers				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1a-c, 2a-b, 3a-b, 4a-b, 5, 6a-b)	<ul style="list-style-type: none"> <li>- Clear and accurate understanding of converting between fractions, decimals, and percent.</li> <li>- Effective understanding of squares and square roots; cubes and cube roots.</li> </ul>	<ul style="list-style-type: none"> <li>- Converting between fractions, decimals, and percent.</li> <li>- Understanding of squares and square roots; cubes and cube roots.</li> </ul>	<ul style="list-style-type: none"> <li>- Errors in converting between fractions, decimals, and percent.</li> <li>- Some errors in working with squares and square roots; cubes and cube roots.</li> </ul>	<ul style="list-style-type: none"> <li>- Incorrect or incomplete converting between fractions, decimals, and percent.</li> <li>- Little or no understanding of squares and square roots; cubes and cube roots.</li> </ul>
<b>Problem Solving</b> (Items 3a-b, 4a-b, 6a-b)	<ul style="list-style-type: none"> <li>- An appropriate and efficient strategy that results in a correct answer.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that may include unnecessary steps but results in a correct answer.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that results in some incorrect answers.</li> </ul>	<ul style="list-style-type: none"> <li>- No clear strategy when solving problems.</li> </ul>
<b>Mathematical Modeling/ Representations</b> (Items 1a-c, 2a-b, 3a-b, 4a-b, 5, 6a-b)	<ul style="list-style-type: none"> <li>- Clear and accurate understanding of representing a rational number as a fraction, decimal, or percent.</li> <li>- Clearly and accurately relating a volume to a cube, an area to a square, and the root to a side length.</li> </ul>	<ul style="list-style-type: none"> <li>- Representing a rational number as a fraction, decimal, or percent.</li> <li>- Relating a volume to a cube, an area to a square, and the root to a side length.</li> </ul>	<ul style="list-style-type: none"> <li>- Errors in representing a rational number as a fraction, decimal, or percent.</li> <li>- Errors in relating a volume to a cube, an area to a square, and the root to a side length.</li> </ul>	<ul style="list-style-type: none"> <li>- Inaccurately representing a rational number as a fraction, decimal, or percent.</li> <li>- Little or no understanding of relating a volume to a cube, an area to a square, and the root to a side length.</li> </ul>
<b>Reasoning and Communication</b> (Items 5, 6a-b)	<ul style="list-style-type: none"> <li>- Precise explanation of the difference between rational and irrational numbers.</li> <li>- Clear and precise explanation of the relationship between volume and edge length of a cube.</li> </ul>	<ul style="list-style-type: none"> <li>- An adequate explanation of the difference between rational and irrational numbers.</li> <li>- Adequate explanation of the relationship between volume and edge length of a cube.</li> </ul>	<ul style="list-style-type: none"> <li>- A misleading or confusing explanation of the difference between rational and irrational numbers.</li> <li>- A confusing explanation of the relationship between volume and edge length of a cube.</li> </ul>	<ul style="list-style-type: none"> <li>- An incomplete or inaccurate explanation of the difference between rational and irrational numbers.</li> <li>- An incomplete or inaccurate explanation of the relationship between volume and edge length of a cube.</li> </ul>

**Common Core State Standards:**

- 8.NS.A.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.
- 8.NS.A.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.,  $\pi^2$ ). 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.
- 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.



Unit 1 Embedded Assessment 3: Exponents and Scientific Notation				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1, 2, 3, 4a-c, 5, 6a-b, 7a-c, 8a-b, 9)	<ul style="list-style-type: none"> <li>- Clear and accurate understanding of multiplying and dividing with exponents and scientific notation.</li> <li>- Clear and accurate understanding of writing numbers in exponential form and in scientific notation.</li> </ul>	<ul style="list-style-type: none"> <li>- Multiplying and dividing with exponents and scientific notation.</li> <li>- Writing numbers in exponential form and in scientific notation.</li> </ul>	<ul style="list-style-type: none"> <li>- Errors in multiplying and dividing with exponents and scientific notation.</li> <li>- Errors in writing numbers in exponential form and in scientific notation.</li> </ul>	<ul style="list-style-type: none"> <li>- Incorrect or incomplete multiplication and division with exponents and scientific notation.</li> <li>- Little or no understanding of writing numbers in exponential form and in scientific notation.</li> </ul>
<b>Problem Solving</b> (Items 2, 3, 4, 7a-b, 8a-b)	<ul style="list-style-type: none"> <li>- An appropriate and efficient strategy that results in a correct answer.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that may include unnecessary steps but results in a correct answer.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that results in some incorrect answers.</li> </ul>	<ul style="list-style-type: none"> <li>- No clear strategy when solving problems.</li> </ul>
<b>Mathematical Modeling/ Representations</b> (Items 1, 2, 4a-c, 8)	<ul style="list-style-type: none"> <li>- Clear and accurate understanding of representing a number in exponential form and in scientific notation.</li> </ul>	<ul style="list-style-type: none"> <li>- Representing a number in exponential form and in scientific notation.</li> </ul>	<ul style="list-style-type: none"> <li>- Errors in representing a number in exponential form and in scientific notation.</li> </ul>	<ul style="list-style-type: none"> <li>- Inaccurately representing a number in exponential form and in scientific notation.</li> </ul>
<b>Reasoning and Communication</b> (Items 3, 6, 10)	<ul style="list-style-type: none"> <li>- Precise and accurate explanation of how to multiply and divide with exponents.</li> <li>- Clear and precise explanation of the level of difficulty experienced with the problems.</li> </ul>	<ul style="list-style-type: none"> <li>- Adequate explanation of how to multiply and divide with exponents.</li> <li>- Adequate explanation of the level of difficulty experienced with the problems.</li> </ul>	<ul style="list-style-type: none"> <li>- A misleading or confusing explanation of how to multiply and divide with exponents.</li> <li>- A confusing description of the level of difficulty experienced with the problems.</li> </ul>	<ul style="list-style-type: none"> <li>- An incomplete or inaccurate explanation of how to multiply and divide with exponents.</li> <li>- An incomplete description of the level of difficulty experienced with the problems.</li> </ul>

**Common Core State Standards:**

- 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.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. For example, estimate the population of the United States as 3 times  $10^8$  and the population of the world as 7 times  $10^9$ , and determine that the world population is more than 20 times larger.
- 8.EE.A.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

Unit 2 Embedded Assessment 1: Expressions and Equations				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1a-e, 2a-b, 3)	- Clear and accurate understanding of solving expressions and equations.	- Solving expressions and equations with few if any errors.	- Difficulty solving expressions and equations.	- Incorrect or incomplete solving expressions and equations.
<b>Problem Solving</b> (Items 1e, 2a-b, 3)	- An appropriate and efficient strategy that results in a correct answer.	- A strategy that may include unnecessary steps but results in a correct answer.	- A strategy that results in some incorrect answers.	- No clear strategy when solving problems.
<b>Mathematical Modeling/ Representations</b> (Items 1a-d, 2a-b, 3)	- Writing accurate expressions and equations from a table or a problem situation. - Accurately creating tables to represent a problem situation.	- Writing expressions and equations that usually result in the correct answer. - Creating tables to represent a problem situation.	- Errors in writing expressions and equations to represent a problem situation. - Errors in creating tables to represent a problem situation.	- Writing inaccurate or incomplete expressions or equations. - Creating inaccurate or incomplete tables to represent a problem situation.
<b>Reasoning and Communication</b> (Items 1e, 2b)	- Precise and accurate explanation of how to multiply and divide with exponents. - Clear and precise explanation of the level of difficulty experienced with the problems.	- Adequate explanation of how to multiply and divide with exponents. - Adequate explanation of the level of difficulty experienced with the problems.	- A misleading or confusing explanation of how to multiply and divide with exponents. - A confusing description of the level of difficulty experienced with the problems.	- An incomplete or inaccurate explanation of how to multiply and divide with exponents. - An incomplete description of the level of difficulty experienced with the problems.

**Common Core State Standards:**

- 8.EE.C.7 Solve linear equations in one variable.
- 8.EE.C.7a 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).
- 8.EE.C.7b Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.

**Unit 2 Embedded Assessment 2: Linear Equations and Rates of Change**

Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1, 2, 3a-d, 4a-c, 5a-c, 6a-b, 7a-b)	- Precise and accurate understanding of linear equations, linear graphs, slope, intercept, and proportional relationships.	- Understanding of linear equations, linear graphs, slope, intercept, and proportional relationships.	- Some understanding of linear equations, linear graphs, slope, intercept, and proportional relationships, but with errors.	- Incorrect or incomplete solving expressions and equations.
<b>Problem Solving</b> (Items 7a-b)	- An appropriate and efficient strategy that results in a correct answer.	- A strategy that may include unnecessary steps but results in a correct answer.	- A strategy that results in some incorrect answers.	- No clear strategy when solving problems.
<b>Mathematical Modeling/ Representations</b> (Items 1, 3c, 4a, 5a, 6a-b)	- Clear and accurate representation of linear relationships with graphs and equations.	- Representing linear relationships with graphs and equations.	- Errors in representing linear relationships with graphs and equations.	- Inaccurate or incomplete representation of linear relationships with graphs and equations.
<b>Reasoning and Communication</b> (Items 2, 3a-b, 3d, 4b-c, 5b-c, 7a-b)	- Accurately and precisely describing the meaning of slope and intercept and whether a relationship is proportional.	- Describing the meaning of slope and intercept and whether a relationship is proportional.	- Errors in describing the meaning of slope and intercept and whether a relationship is proportional.	- An incomplete or inaccurate description of the meaning of slope and intercept and whether a relationship is proportional.

**Common Core State Standards:**

- 8.EE.B.5      Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.
- 8.EE.B.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  $b$ .

Unit 2 Embedded Assessment 3: Solving Systems of Linear Equations				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1, 2, 3, 4, 5, 6, 7)	- Precise and accurate understanding of solving systems of linear equations algebraically or by graphing.	- An understanding of solving systems of linear equations algebraically or by graphing.	- Some understanding of solving systems of linear equations algebraically or by graphing.	- Incorrect or incomplete understanding of solving systems of linear equations algebraically or by graphing.
<b>Problem Solving</b> (Items 1, 4)	- An appropriate and efficient strategy that results in a correct answer.	- A strategy that may include unnecessary steps but results in a correct answer.	- A strategy that results in some incorrect answers.	- No clear strategy when solving problems.
<b>Mathematical Modeling/ Representations</b> (Items 4, 7)	- Clear and accurate representation of systems of linear equations with graphs and equations.	- Representing systems of linear equations with graphs and equations.	- Errors in representing systems of linear equations with graphs and equations.	- Inaccurate or incomplete representation of systems of linear equations with graphs and equations.
<b>Reasoning and Communication</b> (Items 2,3, 5, 6, 7)	- Accurately and precisely communicating the numerical or graphical solution as a real-world result.	- Describing the numerical or graphical solution as a real-world result.	- Errors in describing the numerical or graphical solution as a real-world result.	- An incomplete or inaccurate description of the numerical or graphical solution as a real-world result.

**Common Core State Standards:**

- 8.EE.C.8 Analyze and solve pairs of simultaneous linear equations.
- 8.EE.C.8a 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.
- 8.EE.C.8b 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.
- 8.EE.C.8c 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.

Unit 3 Embedded Assessment 1: Angle Measures				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1, 2, 3a-b, 4a-c, 5, 6, 7, 8)	- Clear and accurate understanding of angle relationships, and finding angle measures in a triangle and quadrilateral.	- An understanding of angle relationships, and finding angle measures in a triangle and quadrilateral.	- Partial understanding of angle relationships, and finding angle measures in a triangle and quadrilateral.	- Little or no understanding of angle relationships, and finding angle measures in a triangle and quadrilateral.
<b>Problem Solving</b> (Items 3a-b, 4a-c, 5, 6, 7, 8)	- Interpreting a problem accurately in order to find missing angle measures.	- Interpreting a problem to find missing angle measures.	- Difficulty interpreting a problem to find missing angle measures.	- Incorrect or incomplete interpretation of a problem.
<b>Mathematical Modeling/ Representations</b> (Items 1, 2, 3a-b, 4a-c, 5, 6, 7, 8)	- Accurately interpreting figures in order to characterize angle pairs and find angle measures.	- Interpreting figures in order to find angle pairs and find missing angle measures.	- Difficulty interpreting figures in order to find angle pairs and find missing angle measures.	- Incorrectly interpreting figures in order to find angle pairs and find missing angle measures.
<b>Reasoning and Communication</b> (Items 4a-c, 6)	- Precise use of appropriate terms to describe finding angle measures.	- An adequate description of finding of missing angle measures.	- A confusing description of finding of missing angle measures.	- An inaccurate description of finding of missing angle measures.

**Common Core State Standards:**

8.G.A.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. 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.

Unit 3 Embedded Assessment 2: Rigid Transformations				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1a-b, 2a-b, 3a-b, 4a-b, 5)	- Clear and accurate understanding of reflections, rotations, and translations in the coordinate plane.	- An understanding of reflections, rotations, and translations in the coordinate plane.	- Partial understanding of reflections, rotations, and translations in the coordinate plane.	- Little or no understanding of reflections, rotations, and translations in the coordinate plane.
<b>Problem Solving</b> (Items 1a-b, 2a-b, 3a-b, 4a-b)	- Interpreting a problem accurately in order to carry out a transformation.	- Interpreting a problem to carry out a transformation.	- Difficulty interpreting a problem to carry out a transformation.	- Incorrect or incomplete interpretation of a transformation situation.
<b>Mathematical Modeling/ Representations</b> (Items 1a, 2a, 3a, 4a)	- Accurately transforming pre-images and drawing the images.	- Interpreting pre-images and drawing the images with few, if any, errors.	- Difficulty transforming pre-images and drawing the images.	- Incorrectly transforming pre-images and drawing the images.
<b>Reasoning and Communication</b> (Items 4b, 5)	- A precise explanation of congruent transformations.	- An understanding of transformations that retain congruence.	- A confusing explanation of congruent transformations.	- An inaccurate explanation of congruent transformations.

**Common Core State Standards:**

- 8.G.A.1 Verify experimentally the properties of rotations, reflections, and translations:
- 8.G.A.1a Lines are taken to lines, and line segments to line segments of the same length.
- 8.G.A.1b Angles are taken to angles of the same measure.
- 8.G.A.1c Parallel lines are taken to parallel lines.
- 8.G.A.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.
- 8.G.A.3 Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.

Unit 3 Embedded Assessment 3: Similarity and Dilations				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1, 2a-c, 3a-c, 4, 5)	- Accurately finding side lengths and angle measures in similar triangles. - Accurately using dilations and scale factors.	- Finding side lengths and angle measures in similar triangles. - Using dilations and scale factors.	- Difficulty finding side lengths and angle measures in similar triangles. - Difficulty using dilations and scale factors.	- Little or no understanding of finding side lengths and angle measures in similar triangles. - Little or no understanding of dilations.
<b>Problem Solving</b> (Items 3b-c, 4, 5)	- An appropriate and efficient strategy that results in a correct answer.	- A strategy that may include unnecessary steps but is correct.	- A strategy that results in some incorrect answers.	- No clear strategy when solving problems.
<b>Mathematical Modeling/ Representations</b> (Items 3a, 5)	- Modeling dilations accurately and clearly.	- Drawing similar figures correctly.	- Difficulty drawing similar figures accurately.	- Incorrectly transforming pre-images and drawing the images.
<b>Reasoning and Communication</b> (Items 4, 5)	- Using precise language to justify that two triangles are similar.	- Explaining why two triangles are similar.	- A confusing explanation of triangle similarity.	- An inaccurate explanation of triangle similarity.

**Common Core State Standards:**

- 8.G.A.3 Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.
- 8.G.A.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.
- 8.G.A.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. 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.

**Unit 3 Embedded Assessment 4: The Pythagorean Theorem**

Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 2, 3, 5, 6a-c, 7a-c, 8)	<ul style="list-style-type: none"> <li>- Using the Pythagorean Theorem to accurately find missing triangle side lengths and distance in the coordinate plane.</li> <li>- Using the converse of the Pythagorean Theorem to correctly determine if a triangle is a right triangle.</li> </ul>	<ul style="list-style-type: none"> <li>- Using the Pythagorean Theorem to accurately find missing triangle side lengths and distance in the coordinate plane with few errors.</li> <li>- Using the converse of the Pythagorean Theorem to decide if a triangle is a right triangle.</li> </ul>	<ul style="list-style-type: none"> <li>- Difficulty in finding missing triangle side lengths and distance in the coordinate plane.</li> <li>- Difficulty determining if a triangle is a right triangle.</li> </ul>	<ul style="list-style-type: none"> <li>- Little or no understanding of using the Pythagorean Theorem.</li> <li>- Little or no understanding of using the converse of the Pythagorean Theorem.</li> </ul>
<b>Problem Solving</b> (Items 2, 3, 5, 6, 7, 8)	<ul style="list-style-type: none"> <li>- An appropriate and efficient strategy that results in a correct answer.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that may include unnecessary steps but is correct.</li> </ul>	<ul style="list-style-type: none"> <li>- A strategy that results in some incorrect answers.</li> </ul>	<ul style="list-style-type: none"> <li>- No clear strategy when solving problems.</li> </ul>
<b>Mathematical Modeling/ Representations</b> (Items 1, 4)	<ul style="list-style-type: none"> <li>- Precisely modeling a problem situation with an accurate diagram.</li> </ul>	<ul style="list-style-type: none"> <li>- Drawing a reasonably accurate diagram to model a problem situation.</li> </ul>	<ul style="list-style-type: none"> <li>- Difficulty drawing a diagram to model a problem situation.</li> </ul>	<ul style="list-style-type: none"> <li>- Drawing an incorrect diagram to model a problem situation.</li> </ul>
<b>Reasoning and Communication</b> (Items 2, 3, 5, 7)	<ul style="list-style-type: none"> <li>- Correctly using the Pythagorean Theorem to justify answers to problems.</li> </ul>	<ul style="list-style-type: none"> <li>- Explaining an answer using the Pythagorean Theorem.</li> </ul>	<ul style="list-style-type: none"> <li>- Difficulty using the Pythagorean Theorem to justify answers.</li> </ul>	<ul style="list-style-type: none"> <li>- Little or no understanding of the Pythagorean Theorem.</li> </ul>

**Common Core State Standards:**

- 8.G.B.6 Explain a proof of the Pythagorean Theorem and its converse.
- 8.G.B.7 Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.
- 8.G.B.8 Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.



Unit 3 Embedded Assessment 5: Surface Area and Volume				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1, 2a-g, 3a-c)	- Accurately and efficiently finding the surface area and volume of three-dimensional figures.	- Finding the surface area and volume of three-dimensional figures with few, if any, errors.	- Difficulty finding the surface area and volume of three-dimensional figures.	- Little or no understanding of finding the surface area and volume of three-dimensional figures.
<b>Problem Solving</b> (Items 2a-g, 3a-c)	- An appropriate and efficient strategy that results in a correct answer.	- A strategy that may include unnecessary steps but is correct.	- A strategy that results in some incorrect answers.	- No clear strategy when solving problems.
<b>Mathematical Modeling/ Representations</b> (Items 1)	- Precisely modeling a problem situation with an accurate diagram.	- Drawing a reasonably accurate diagram to model a problem situation.	- Difficulty drawing a diagram to model a problem situation.	- Drawing an incorrect diagram to model a problem situation.
<b>Reasoning and Communication</b> (Items 3a-c)	- Correctly understanding the difference between total surface area and lateral surface area.	- Distinguishing between total surface area and lateral surface area.	- Confusion in distinguishing between total surface area and lateral surface area.	- No understanding of the difference between total surface area and lateral surface area.

**Common Core State Standards:**

8.G.C.9 Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.

Unit 4 Embedded Assessment 1: Functions				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1, 2, 3, 4, 5a-c, 6a-c)	- Clear and accurate understanding of functions, proportional functions, and evaluating functions.	- Correct understanding of functions, proportional functions, and evaluating functions.	- Partial understanding of functions, proportional functions, and evaluating functions.	- Inaccurate or incomplete understanding of functions, proportional functions, and evaluating functions.
<b>Problem Solving</b> (Items 4)	- An appropriate and efficient strategy that results in a correct answer.	- A strategy that may include unnecessary steps but is correct.	- A strategy that results in some incorrect answers.	- No clear strategy when solving problems.
<b>Mathematical Modeling/ Representations</b> (Items 1, 2, 3, 4, 5a-c, 6a)	- Clear and accurate understanding of representing a function using a table, a graph, a list of ordered pairs, a diagram, or an equation.	- An understanding of representing a function using a table, a graph, a list of ordered pairs, a diagram, or an equation.	- Partial understanding of representing a function using a table, a graph, a list of ordered pairs, a diagram, or an equation.	- Inaccurate or incomplete understanding of representing a function using a table, a graph, a list of ordered pairs, a diagram, or an equation.
<b>Reasoning and Communication</b> (Items 1, 2, 4, 5a-c, 6a, 6c)	- Precise use of appropriate math terms and language to explain why a relation is a function or proportional function. - Precise use of appropriate math terms and language to describe a function or to compare and contrast two functions.	- An adequate explanation of why a relation is a function or proportional function. - An adequate description of a function or comparison of two functions.	- A misleading or confusing explanation of why a relation is a function or proportional function. - A misleading or confusing description of a function or comparison of two functions.	- An incomplete or inaccurate explanation of why a relation is a function or proportional function. - An incomplete or inaccurate description of a function or comparison of two functions.

**Common Core State Standards:**

- 8.F.A.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.
- 8.F.A.2 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). 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.
- 8.F.A.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. 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.

Unit 4 Embedded Assessment 2: Scatter Plots and Trend Lines				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 2, 3, 4, 5, 6, 7, 8c-d)	- Clear and accurate understanding of linear relationships, scatter plots, and trend lines.	- A functional understanding of linear relationships, scatter plots, and trend lines.	- Partial understanding of linear relationships, scatter plots, and trend lines.	- Inaccurate or incomplete understanding of linear relationships, scatter plots, and trend lines.
<b>Problem Solving</b> (Items 8c-d)	- An appropriate and efficient strategy that results in a correct answer. - Correct checking of a prediction.	- A strategy that may include unnecessary steps but is correct.	- A strategy that results in some incorrect answers. - Partial checking of a prediction.	- No clear strategy when solving problems. - No understanding of checking a prediction.
<b>Mathematical Modeling/ Representations</b> (Items 1, 2, 3, 4, 5, 6, 7, 8a-d)	- Clear and accurate understanding of plotting data, drawing a trend line, and writing an equation from a trend line.	- Largely correct plotting of data, drawing a trend line, and writing an equation from a trend line.	- Partial understanding of plotting data, drawing a trend line, and writing an equation from a trend line.	- Inaccurate or incomplete understanding of plotting data, drawing a trend line, or writing an equation.
<b>Reasoning and Communication</b> (Items 4, 5a-c, 6a, 6c)	- Precise use of appropriate math terms and language to characterize a relationship from a scatter plot or trend line. - Making clear and accurate predictions from a graph.	- Correct characterization of a relationship from a scatter plot or trend line. - Making reasonable predictions from a graph.	- Misleading or confusing characterization of a relationship from a scatter plot or trend line. - Making partially correct predictions from a graph.	- An incomplete or inaccurate characterization of a relationship from a scatter plot or trend line. - Making incomplete or inaccurate predictions from a graph.

**Common Core State Standards:**

- 8.F.A.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. 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.
- 8.F.B.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.
- 8.F.B.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.

Unit 5 Embedded Assessment 1: Scatter Plots, Associations, and Trends				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1a-d, 2a-g)	<ul style="list-style-type: none"> <li>- Clear and accurate understanding of associations in bivariate data.</li> <li>- Clear and accurate understanding of scatter plots and trend lines.</li> </ul>	<ul style="list-style-type: none"> <li>- Recognition of associations in bivariate data.</li> <li>- A functional understanding of scatter plots and trend lines.</li> </ul>	<ul style="list-style-type: none"> <li>- Partial recognition of associations in bivariate data.</li> <li>- Partial understanding of scatter plots and trend lines.</li> </ul>	<ul style="list-style-type: none"> <li>- Little or no understanding of associations in bivariate data.</li> <li>- Little or no understanding of scatter plots and trend lines.</li> </ul>
<b>Problem Solving</b> (Items 2g)	<ul style="list-style-type: none"> <li>- Clear and accurate interpretation of data displays to make a prediction.</li> </ul>	<ul style="list-style-type: none"> <li>- Interpreting data displays to make a prediction.</li> </ul>	<ul style="list-style-type: none"> <li>- Difficulty making an accurate prediction from data displays.</li> </ul>	<ul style="list-style-type: none"> <li>- Inaccurate interpretation of data displays.</li> </ul>
<b>Mathematical Modeling/ Representations</b> (Items 1d, 2a, 2c-d)	<ul style="list-style-type: none"> <li>- Clear and accurate understanding of linear and non-linear models.</li> <li>- Clear and accurate understanding of plotting data, drawing a trend line, and writing an equation from a trend line.</li> </ul>	<ul style="list-style-type: none"> <li>- Understanding the difference between linear and non-linear models.</li> <li>- Mostly correct plotting of data, drawing a trend line, and writing an equation from a trend line.</li> </ul>	<ul style="list-style-type: none"> <li>- Partial understanding of linear and non-linear models.</li> <li>- Partial understanding of plotting data, drawing a trend line, and writing an equation from a trend line.</li> </ul>	<ul style="list-style-type: none"> <li>- Little or no understanding of linear and non-linear models.</li> <li>- Inaccurate or incomplete understanding of plotting data, drawing a trend line, or writing an equation.</li> </ul>
<b>Reasoning and Communication</b> (Items 1a, 1, 2b, 2e-g)	<ul style="list-style-type: none"> <li>- Precise use of appropriate math terms and language to characterize associations in bivariate data using a scatter plot or trend line.</li> <li>- Making clear and accurate predictions from a graph.</li> </ul>	<ul style="list-style-type: none"> <li>- Correct characterization of associations in bivariate data using a scatter plot or trend line.</li> <li>- Making reasonable predictions from a graph.</li> </ul>	<ul style="list-style-type: none"> <li>- Misleading or confusing characterization of associations in bivariate data using a scatter plot or trend line.</li> <li>- Making partially correct predictions from a graph.</li> </ul>	<ul style="list-style-type: none"> <li>- An incomplete or inaccurate characterization of associations in bivariate data using a scatter plot or trend line.</li> <li>- Making incomplete or inaccurate predictions from a graph.</li> </ul>

**Common Core State Standards:**

- 8.SP.A.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.
- 8.SP.A.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.
- 8.SP.A.3 Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. 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.
- 8.SP.A.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. 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?

Unit 5 Embedded Assessment 2: Median-Median Line and Two-Way Tables				
Scoring Guide	Exemplary	Proficient	Emerging	Incomplete
	The solution demonstrates these characteristics:			
<b>Mathematics Knowledge and Thinking</b> (Items 1a-f, 2a-c)	- Clear and accurate understanding of scatter plots, median-median lines, and other data displays.	- A functional understanding of scatter plots, median-median lines, and other data displays.	- Partial understanding of scatter plots, median-median lines, and other data displays.	- Little or no understanding of scatter plots, median-median lines, and other data displays.
<b>Problem Solving</b> (Items 1f, 2c)	- Clear and accurate interpretation of data displays to make a prediction and to characterize an association.	- Interpreting data displays to make a prediction and to characterize an association.	- Difficulty making an accurate prediction or characterizing an association using data displays.	- Inaccurate interpretation of data displays.
<b>Mathematical Modeling/ Representations</b> (Items 1a, c, 2a-b)	- Clear and accurate understanding of creating tables and graphs from data.	- Creating tables and graphs from data that are mostly correct.	- Errors in creating tables and graphs from data.	- Inaccurate or incomplete tables and graphs.
<b>Reasoning and Communication</b> (Items 1a, 1, 2b, 2e-g)	- Precise use of appropriate math terms and language to characterize associations in bivariate data. -	- Correct characterization of associations in bivariate data. -	- Misleading or confusing characterization of associations in bivariate data.	- An incomplete or inaccurate characterization of associations in bivariate data.

**Common Core State Standards:**

- 8.SP.A.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.
- 8.SP.A.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.
- 8.SP.A.3 Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. 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.
- 8.SP.A.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. 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?

# Confirmation of Membership in SSCD or Social Studies Curriculum Alignment Documents, Scope and Sequence Documents and Units of Instruction

**Please see attached SSCD MOU copy.**

# Visual and Performing Arts Scope and Sequence Documents



Middle School Music – Grade 7 Chorus				
Scope and Sequence				
Semester 1				
August	September	October	November	December
Unit 1		Unit 2	Unit 3	
<p><b>Procedures, Rules and Review</b></p> <p>In this unit choral students will review and be assessed on voice types, proper vocal placement, elements and knowledge of music. Reviewing basic music theory, solfege syllables, Curwen hand signs with introduction to choral music repertoire, proper performance and rehearsal practices. Student may be introduced to familiar and new vocal warmups and techniques, unison and 2-3-part singing. In addition, these first lessons are used to teach classroom procedures, rules and expectations. The teacher will also begin introducing choral music repertoire for the start of the school year.</p>		<p><b>Choral Singing and Techniques</b></p> <p>In this unit the choral students will review prior knowledge on singing and may be introduced to new techniques for singing choral music in three to four singing parts, singing posture and vocal techniques through the modeled exercises and differentiating breathing types. Choral students will also continue development of musical literacy, Curwen hand-signs and building rehearsal procedure, techniques and appropriate behavior in the music classroom.</p>	<p><b>Vocal Production, Intonation, Choral Singing and Techniques</b></p> <p>In this unit choral students will continue to receive instruction in new techniques for singing choral music in three to four singing parts, singing posture, and vocal techniques through the modeled exercises and differentiating breathing types, intonation and expression. Choral students will development of musical literacy, Curwen hand-signs and building rehearsal procedure, techniques and appropriate behavior in the music classroom. The student will also be introduced to seasonal music for performance purposes.</p>	
Semester 2				
January	February	March	April	May
Unit 4		Unit 5	Unit 6	
<p><b>Enhanced Vocal Production Through Choral Repertoire</b></p> <p>In this unit choral students will demonstrate an advanced knowledge vocal production through vocal warm-ups, breathing support, choral repertoire and rehearsal techniques. Students continue study of music theory through sight-reading repertoire and music literacy using Curwen hand signs and choral repertoire displaying knowledge of various rhythms, musical intervals and dynamics. Students can maintain a consistent tone quality, intonation, balance, and blend responding to the conductor’s cues. There will also be continued development of musical literacy, building rehearsal and performance procedures, techniques and appropriate behavior in the music classroom. The teacher will also begin introducing culturally relevant choral music repertoire for performances purposes.</p>		<p><b>Performance (Vocal Production, Blend, Balance and Intonation) Through Choral Repertoire</b></p> <p>In this unit choral students will perform music with three to four singing parts accurately with minimal difficulty demonstrating musical skills, literacy and expression through choral repertoire and rehearsal techniques. Students continue study of music theory through sight-reading (Keys of F and G) repertoire and music literacy using Curwen hand signs and choral repertoire displaying knowledge of various rhythms, musical intervals and dynamics. There will also be continued development of musical literacy, building rehearsal and performance procedures, techniques and appropriate behavior in the music classroom.</p>	<p><b>Performance Practices Unit</b></p> <p>In this unit choral students are expected to have successfully learned tools, techniques and aesthetic qualities needed to communicate specific musical works singing alone and in an ensemble. Using vocal production, vowel formation, singing and breath control, they will perform two to four-part literature demonstrating sight-reading, ear training and sight singing skills. Students will also continue study in music theory and use of Curwen hand-signs through choral repertoire and further development of performance and rehearsal practices. Students will also exhibit appropriate interpersonal and expressive skills, both individually and within ensembles responding to the conductor’s cues of balance and blend while singing and maintaining a consistent tone quality, intonation, balance, and blend.</p>	

**Middle School Music – Grade 8 Chorus**

Scope and Sequence

Semester 1

<b>August</b>	<b>September</b>	<b>October</b>	<b>November</b>	<b>December</b>
Unit 1	Unit 2	Unit 3		
<p align="center"><b>Procedures, Rules and Review</b></p> <p>In this unit the student will review elements of music, basic knowledge, key components and skills taught in Middle School Choral II class. Reviewing music theory, solfege syllables, Curwen hand signs with introduction to choral music repertoire, proper performance and rehearsal practices. Student may be introduced to familiar and new vocal warmups and techniques, unison and part singing. In addition, these first lessons are used to teach the classroom procedures, rules and expectations. The teacher will also begin introducing choral music repertoire for the start of the school year.</p>	<p align="center"><b>Choral Singing and Techniques</b></p> <p>In this unit, students will demonstrate vocal production, vowel formation, singing and breath control and begin development in SSA, SSAA, SAB, SAT, SATB singing music with accompaniment and acappella. Sight-reading, eartraining and sightsinging skills will be reinforced with four-part repertoire in multiple keys. Students may begin study in music from diverse genres, styles, and cultures, with increased sensitivity and expression making greater connections and distinctions between various cultures and languages. Student will also continue study in music theory and use of Curwen handsigns through choral repertoire and further development of performance and rehearsal practices. Using music terminology, the student will listen to or watch and critique their rehearsals.</p>	<p align="center"><b>Enhanced Vocal Production, Intonation, Choral Singing and Techniques</b></p> <p>In this unit, students will continue development in SSA, SSAA, SAB, SAT, SATB singing, demonstrating vocal production, vowel formation, singing and breath control with increased focus on following the conductor’s cues with greater expression, while maintaining their vocal part, balance and blend within the ensemble. The reinforcement of sight-reading, eartraining and sightsinging skills will be through four-part repertoire and choral exercises. Students will also continue study in music theory and use of Curwen hand-signs through choral repertoire and further development of performance and rehearsal practices. Choral students may also be introduced to seasonal music for performance purposes.</p>		

Semester 2

<b>January</b>	<b>February</b>	<b>March</b>	<b>April</b>	<b>May</b>
Unit 4	Unit 5	Unit 6		
<p align="center"><b>Enhanced Vocal Production Through Choral Repertoire</b></p> <p>Choral students will sing a wide repertoire of music, with proper habits of posture, tone quality, proper diction and may begin study in music from diverse genres, styles, and cultures, with increased sensitivity and more expression for the piece being sung, by making greater connections and distinctions between various cultures. Students will also continue study in music theory and use of Curwen handsigns through choral repertoire and further development of performance and rehearsal practices. The teacher will also begin introducing culturally relevant choral music repertoire for performances purposes.</p>	<p align="center"><b>Performance (Vocal Production, Blend, Balance and Intonation) Through Choral Repertoire</b></p> <p>In this unit, through the progression of SATB singing, choral students will demonstrate vocal production, vowel formation, singing and breath control. sight-reading and build ear-training and sight-singing skills with four-part repertoire. The student will sing a wide repertoire of music, some in different languages with proper habits of posture, tone quality, proper diction and may begin study in music from diverse genres, styles, and cultures, with increased sensitivity and more expression for the piece being sung, by making greater connections and distinctions between various cultures. . Students will also be introduced to</p>	<p align="center"><b>Performance Practices Unit</b></p> <p>In this unit, the student will be expected to have successfully learned tools, techniques and aesthetic qualities needed to communicate specific musical works. Singing in four to six-part harmony with vocal production, vowel formation, singing and breath control, they will perform literature selections demonstrating proficiency in sightreading, eartraining and sightsinging skills. Student will demonstrate study in music theory and use of Curwen hand- signs through choral repertoire with increased focus on following the conductor’s cues with greater expression, while maintaining their vocal part, balance and blend within the ensemble.</p>		

culturally relevant choral music repertoire for performances purposes and for Spring/End of Year performances.

**Middle School Music – Grade 7/8 Band**

**Scope and Sequence**

**Semester 1**

<b>August</b>	<b>September</b>	<b>October</b>	<b>November</b>	<b>December</b>
Unit 1	Unit 2		Unit 3	
<p><b>Performance Review</b> Teachers will review and assess performance and literacy skills in the 4 strands. They will use this information to select performance literature and plan for instruction. Students will continue to build on concepts such as sight-reading, application of nomenclature related to dynamics, intonation, tempo and overall musicianship.</p>	<p><b>Developing Ensemble Performance Skills</b> Students will use middle school level theory skill (beginning to advanced) with knowledge of tone production to begin performing on instruments. Concepts of intonation and tone quality will be at the forefront of goals. Sound exemplars, live or recorded, will serve as the models for students. Metronomic tools should be used to help students begin to develop a strong sense of pulse. Tuning tools and exercises should be used to develop accurate pitch. These can include singing while the teacher reproduces pitches on an instrument or using a tuner or a visual tuning aid.</p>		<p><b>Winter Concert Performance Assessment</b> Students will use knowledge and skills to prepare for their winter performance assessment concert</p>	

**Semester 2**

<b>January</b>	<b>February</b>	<b>March</b>	<b>April</b>	<b>May</b>
Unit 4	Unit 5		Unit 6	
<p><b>Focus on SightReading Skills</b> Students will use their literacy and performance skills to sight-read. They will demonstrate basic knowledge of dynamics, articulations, tempo, and other terminology affecting the performance.</p>	<p><b>Spring Concert Performance Assessment</b> Students will use knowledge and skills to prepare for their winter performance assessment concert</p>		<p><b>Assessments and Performances</b> Teachers will use end of the year performances to integrate culturally and socially relevant music, explore vocations and avocations in music, and crosscurricular relationships.</p>	

**Music: 7th Grade**

<b>Strand</b>	<b>Anchor</b>	<b>Standard</b>
Creating: Conceiving and developing new artistic ideas and work.	1. Generate and conceptualize artistic ideas and work.	MU:Cr1.7.1 Generate rhythmic, melodic, and harmonic phrases and variations over harmonic accompaniments within AB, ABA, or theme and variation forms that convey expressive intent.
	2. Organize and develop artistic ideas and work.	<p>MU:Cr2.7.1 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.</p> <p>MU:Cr2.7.2 Use standard and/or iconic notation and/or audio/ video recording to document personal simple rhythmic phrases, melodic phrases, and harmonic sequences.</p>
	<p>3. Refine and complete artistic work.</p> <p>3. Culminating presentation of completed work.</p>	<p>MU:Cr3.7.1 Evaluate their own work, applying selected criteria such as appropriate application of elements of music including style, form, and use of sound sources.</p> <p>MU:Cr3.7.2 Describe the rationale for making revisions to the music based on evaluation criteria and feedback from others (teacher and peers).</p> <p>MU:Cr3.7.3 Present the final version of their documented personal composition, song, or arrangement, using craftsmanship and originality to demonstrate unity and variety, and convey expressive intent.</p>
Performing: Realizing artistic work through interpretation and presentation.	4. Select, analyze, and interpret artistic work for presentation	<p>MU:Pr4.7.1 Sing and play instruments to age-appropriate literature.</p> <p>MU:Pr4.7.2 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:Pr4.7.3 Explain and demonstrate the structure of contrasting pieces of music selected for performance and how elements of music are used.</p> <p>MU:Pr4.7.4 Analyze selected music to, read and identify by name or function standard symbols for rhythm, pitch articulation, dynamics, tempo, and form.</p>

		<p>MU:PR4.7.5 Identify how cultural and historical context inform performances and result in different music interpretations</p> <p>MU:Pr4.7.6 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>5. Develop and refine artistic techniques and work for presentation.</p>	<p>MU:Pr5.7.1 Identify and apply 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>

<b>Strand</b>	<b>Anchor</b>	<b>Standard</b>
	6. Convey meaning through the presentation of artistic work.	MU:Pr6.7.1 Perform the music with technical accuracy and stylistic expression to convey the creator's intent.  MU:Pr6.7.2 Demonstrate performance decorum (such as stage presence, attire, and behavior) and audience etiquette appropriate for venue, purpose, and context.
Responding: Understanding and evaluating how the arts convey meaning.	7. Perceive and analyze work.	MU:Re7.7.1 Select or choose contrasting music to listen to and compare the connections to specific interests or experiences for a specific purpose.  MU:Re7.7.2 Classify and explain how the elements of music and expressive qualities relate to the structure of contrasting pieces.  MU:Re7.7.3 Identify and compare the context of music from a variety of genres, cultures, and historical periods.
	8. Interpret intent and meaning in artistic work	MU:Re8.7.1 Describe a personal interpretation of contrasting works and explain how creators' and performers' application of the elements of music and expressive qualities, within genres, cultures, and historical periods, convey expressive intent.
	9. Apply criteria to evaluate artistic work.	MU:Re9.7.1 Select from teacher-provided criteria to evaluate musical works or performances.
Connecting: Relating artistic ideas and work with personal meaning and external context.	10. Apply and relate knowledge and personal experiences to make art.	MU:Cn10.7.1 Describe how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. Embedded within: MU:Cr2.7.1, MU:Cr3.7.2, MU:Pr4.7.1, MU:Pr4.7.3, MU:Re7.7.1
	11. Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding.	MU:Cn11.7.1 Demonstrate understanding Classify and explain relationships between music and the other arts, other disciplines, varied contexts, and daily life. Embedded within: MU:Cr1.7.1, MU:Pr4.7.2, MU:Pr6.7.2, MU:Re7.7.2

## Music: 8th Grade

Strand	Anchor	Standard
Creating: Conceiving and developing new artistic ideas and work.	1. Generate and conceptualize artistic ideas and work.	MU: Cr1.8.1 Generate rhythmic, melodic and harmonic phrases and harmonic accompaniments within expanded forms (including introductions, transitions, and codas) that convey expressive intent.
	2. Organize and develop artistic ideas and work.	<p>MU: Cr2.8.2 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 expressive intent.</p> <p>MU: Cr2.8.3 Use standard and/or iconic notation and/or audio/video recording to document personal rhythmic phrases, melodic phrases and harmonic sequences.</p>
	<p>3. Refine and complete artistic work.</p> <p>3. Culminating presentation of completed work.</p>	<p>MU: Cr3.8.1 Evaluate their own work by selecting and applying criteria including appropriate application of compositional techniques, style, form, and use of sound sources.</p> <p>MU: Cr3.8.2 Describe the rationale for refining works by explaining the choices, based on evaluation criteria.</p> <p>MU: Cr3.8.3 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 convey expressive intent.</p>
Performing: Realizing artistic work through interpretation and presentation.	4. Select, analyze, and interpret artistic work for presentation	<p>MU:Pr4.8.1 With guidance, sing and play instruments to age-appropriate literature.</p> <p>MU:Pr4.8.2 Apply personally-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>MU:Pr4.8.3 Compare the structure of contrasting pieces of music selected for performance, explaining how the elements of music are used in each.</p> <p>MU:Pr4.8.4 When analyzing selected music, sight-read in treble or bass clef simple rhythmic,</p>

		melodic,
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Strand	Anchor	Standard
		<p>and/or harmonic notation.</p> <p>MU:Pr4.8.5 Identity how cultural and historical context inform performances and result in different musical effects.</p> <p>MU:Pr4.8.6 Perform contrasting pieces of music, demonstrating 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>
	5. Develop and refine artistic techniques and work for presentation.	MU:Pr5.8.1 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.
	6. Convey meaning through the presentation of artistic work.	<p>MU:Pr6.8.1 Perform the music with technical accuracy, stylistic expression, and culturally authentic practices in music to convey the creator's intent.</p> <p>MU:Pr6.8.2 Demonstrate performance decorum (such as stage presence, attire, and behavior) and audience etiquette appropriate for venue, purpose, context, and style.</p>
Responding: Understanding and evaluating how the arts convey meaning.	7. Perceive and analyze work.	<p>MU:Re7.8.1 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:Re7.8.2 Compare how the elements of music and expressive qualities relate to the structure within programs of music.</p> <p>MU:Re7.8.3 Identify and compare the context of programs of music from a variety of genres, cultures, and historical periods.</p>
	8. Interpret intent and meaning in artistic work	MU:Re8.8.1 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.
	9. Apply criteria to evaluate artistic work.	MU:Re9.8.1 Apply appropriate personally developed criteria to evaluate musical works or

		performances
<b>Strand</b>	<b>Anchor</b>	<b>Standard</b>
Connecting: Relating artistic ideas and work with personal meaning and external context.	10. Apply and relate knowledge and personal experiences to make art.	Cn10.8.1 Describe how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. Embedded within MU:Cr2.8.1, MU:Cr3.8.2, MU: Pr4.8.1, MU: Pr4.8.3, MU: Re7.8.1
	11. Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding.	MU: Cn11.8.1 Demonstrate understanding of Classify & Explain relationships between music and the other arts, other disciplines, varied contexts, and daily life. Embedded within: MU:Cr1.8.1, MU:Pr4.8.5, MU:Pr6.8.2, MU: Re9.8.1

## Curriculum Alignment

**CSAC:** A description of how high school standards will be aligned within middle school and how they will vertically articulate to the high school program and onward to the college course availability.

### **ECHS Response:**

The planning phase of opening the Early College Middle School includes a team of individuals who will be a part of the Curriculum team. One of the responsibilities of this team will be to complete a vertical alignment of curriculum (grade 7 through college). Early College recognizes the importance of organizing curriculum from grade level or content area to the next to ensure that teachers are adequately prepared to introduce concepts with some sort of familiarity for the students and that teachers will teach the full extent of the standards. This process will be completed using the steps below to create a vertical alignment matrix.

Step 1: Identify individuals to serve on the curriculum alignment team (middle, secondary, and post-secondary) from the core content areas (ELA, Mathematics, Science, and Social Studies).

Step 2: Review external resources for vertical alignment in core content areas.

Step 3: Review current course scope and sequence guides at each level.

Step 4: Conduct a gap analysis to assess the alignment of current essential knowledge, skills, and dispositions with relevant standards (CCSS, NGSX, College & Career Readiness Standards, etc.) to identify where standards are being addressed, where there are gaps, and where they should be addressed.

Step 4: Develop new curriculum maps that accommodates those standards that have been identified for inclusion, but may not be addressed in the current curriculum map.

Step 6: Align prerequisite knowledge and skills and identify, develop, and/or adapt assessments that produce valid and reliable results for all students. This step involves reviewing assessments (formative and summative) to ensure that instruction, assessments, and curriculum are aligned.

Step 7: Create a vertical alignment matrix for each content area that spans from grade 7 through post-secondary.

Step 8: Evaluate curriculum alignment as part of the continuous improvement process during department and grade-level PLCs.

# Provide Data Related to the Interest in a Middle School Program at ECHS

## 2016

- After the school leader returned from a trip in January 2016 to Ohio to visit two early college high schools and two early college middle schools, the ECHS staff was surveyed on their thoughts of having a middle school. They were absolutely thrilled with the idea.
- The School Leader approached the Board President about the idea, and she formed an ECHS Expansion Task Force. From March through July 2016, the task force met to discuss the pros and cons (see below), create a timeline to open, and visit potential sites (see below).
  - The Community EB Building in Wilmington had an open floor for school placement. Dr. Harry Williams, then DSU President and the ECHS School Leader, Dr. Evelyn Edney toured it with The're DuPont of the Longwood Foundation.
  - The Family Foundations Building in New Castle was being sold, so that building was toured by the ECHS Administrative Team.

### ECHS Expansion Pros and Cons

Pros (Foreseen Benefits)	Cons (Foreseen Disadvantages)
1. College Readiness Expectations are instilled before entering the high school.	1. Location (Where?). It may discourage students from different counties if it is not in Kent.
2. School culture and climate expectations are laid before entrance into high school.	2. Increased pressure for younger students.
3. If following the same schedule, they can adapt to the new system easier.	3. Additional expenses would burden a school (ECHS) in its early stages of development.
4. Cuts down on students who are not prepared as freshmen.	4. Staffing- Finding middle school teachers that are PBL trained.
5. Less enrollment loss as freshmen.	5. Encourage active recruitment outside of the New Castle County area, thus requiring a recruitment coordinator.
6. More controlled feeder school (though does not limit acceptance into ECHS).	6. Cost of the Innovative and EdWorks collaboration.
7. Direct RTI preparation for success at ECHS and increase freshmen enrollment into English and Math courses at DSU (More specific writing and basic math skills).	7. Need Additional staff.
8. Predictability.	8. Will we have buses for all the students?
9. Introduces the PBL Model earlier.	9. Could be a hard sell to skeptical university staff.
10. Targeted guidance for children's future progression (more individualized learning plans).	10. ANOTHER Charter school
11. Special Education students can receive specified instruction on skills that will allow them to be more successful at ECHS @ DSU.	11. Scheduling Specials
12. Computer usage skills can be enhanced to fit the needs of writing, research and technology integration.	

13. Alignment of curriculum progression between the middle school and the high school.
14. Early access to High School classes.
15. Great opportunity for vertical teaming among staff members.
16. At-risk students will thrive with a more stable school environment grades 7-12.
17. Brand development.

### **CEB Building vs. Family Foundations Academy Building**

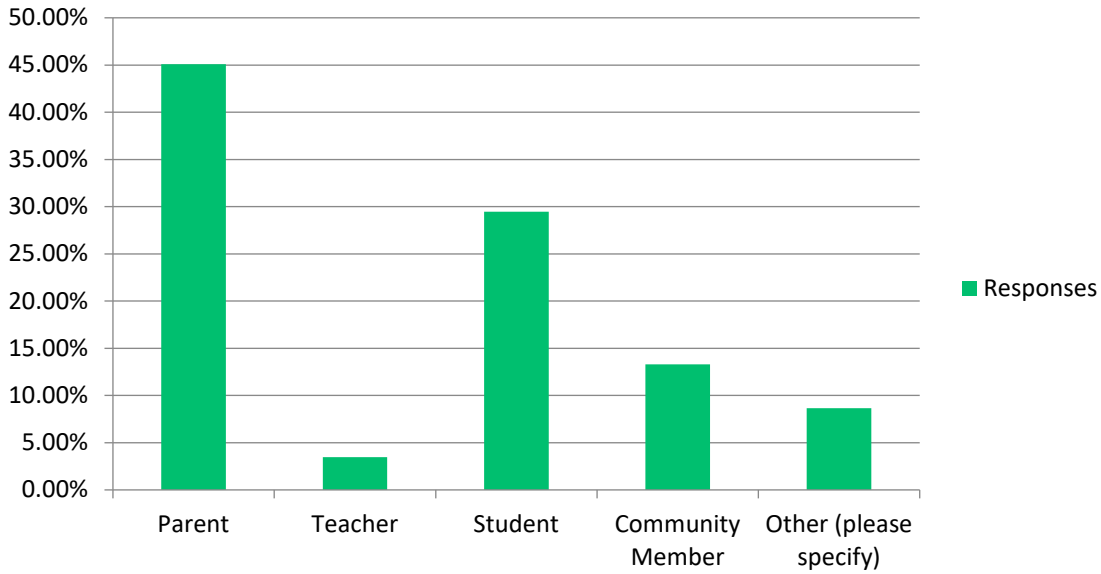
<b>Community Education Building</b>	<b>Family Foundations Academy Building</b>
<ul style="list-style-type: none"> <li>• Wilmington location will provide access to student up north</li> <li>• Location is on 6<sup>th</sup> floor</li> <li>• Lease with benefits (maintenance, security, SRO, cleaning, etc.)</li> <li>• Limited access</li> <li>• Elevator</li> </ul>	<ul style="list-style-type: none"> <li>• New Castle free standing building</li> <li>• Location is easily accessed from the highway exit</li> <li>• Grades 6, 7, 8 can be in separate locations of building</li> <li>• More congruent with traditional space for middle school children</li> <li>• Parents may be more comfortable with the free standing building</li> </ul>

- After a few months, the ECHS Expansion Task Force decided that it was not feasible, mainly due to finances at the time.
- As the ECHS school officials attended recruitment events, prospective parents have asked about adding middle level grades.
- All plans were kept for a moment in the future.

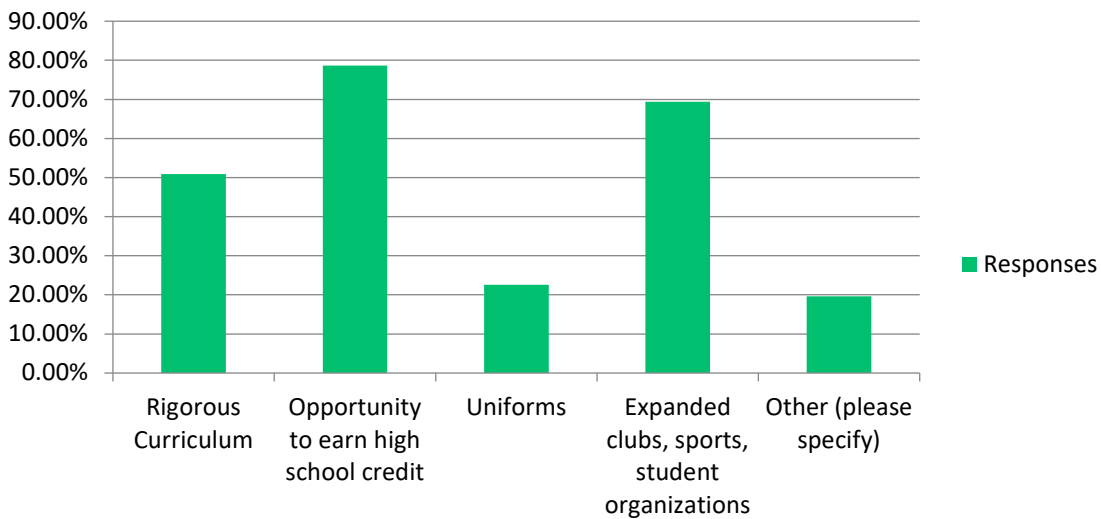
### **Current Feedback for Expansion 2020-2021 School Year**

- Prospective parents, students at recruiting events always ask about the potential of a middle school
- Below are the results of the survey sent out to parents, students, and the public.

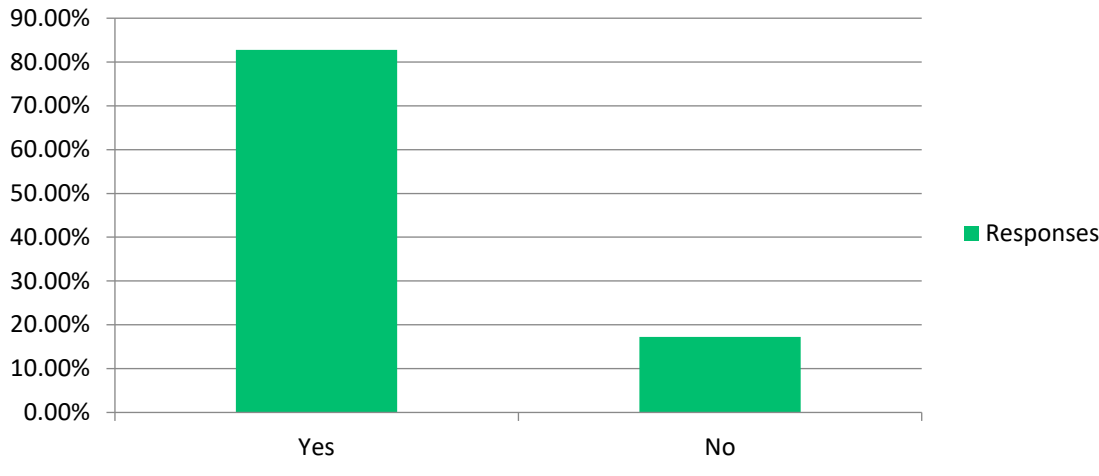
## Q. 1 Affiliation



## Q. 2 What would you like to see at the middle school?



### Q. 3 Would you support the Early College @DSU expanding to include Grades 7 and 8?



Q. 4 Explain your answer from Question #3. (These are answers from the poll and all sentiments, spelling, grammar, and wording was not changed)

#### Explanations for Not Supporting an Expansion

- In my opinion, the maturity level of 7th and 8th graders is not on par with high schoolers.
- Maturity concerns and environment.
- I would only support it if the students have above average grades. The reason I feel this way is because ECHS should have a focal point on 9th thru 12th graders. Having 7th and 8th graders attending ECHS does not distinguish high school students from middle school students. Our students are already dealing with alternative learning practices through remote learning due to COVID-19 Pandemic, including 7th thru 8th graders will make the Schoology Notifications and Emails increase and confuse students and parents even more. As a parent I am already overwhelmed with all the notifications I receive for all the grade levels. I have had the experience of sharing with other parents about Hornets in Action, Business Partners of America because I know those parents don't even try to keep up with the enormous amount of emails we currently receive for all grades 9th thru 12th it would be even more emails to try to filter through just so that we can get our kids involved. It wouldn't be so bad if parents of 9th graders received 9th grade specific notifications, however this is not the case. Also, if and when students are able to return to school through Hybrid or full time, will ECHS be able to accommodate two more grade levels. I'm sure leadership has thought about all my thoughts. However, if they haven't I hope my feedback is taken into consideration. Thank you.
- I would not support because maintaining the high school now seems challenging for you. Instead of focusing on new things, maybe we should pay more attention to the conflicts we have now. Bringing new grades to the high school would not benefit the school. Also, these children are entirely too young to be roaming campus with adults.



You guys can barely fit the 9th grade in the academy alone, where are you going to place these extra children.

- As a sophomore going to this high school, my first year here as a 9th grader was extremely tough and most of the students towards the end of the semester were on the verge of killing themselves due to the school work and stress. If we as 9th graders couldn't handle it, then I have no clue how 7th and 8th graders would be able to adapt to this lifestyle. When you get to 7th grade, you're still transitioning into a teenager and you're experiencing bodily changes too. With the stress from this school added to those changes, those kids will not make it. I truly think we should stick with the high school program we have instead because it costs less, it's been working for years now, and those new students won't be able to adequately handle all the stress of constantly having the nuance that they'll be taking college classes shoved down their throats.
- You have to think about the maturity levels, middle schoolers are not thinking about a college, their minds are prepared for high school, and the maturity needed for college classes just aren't there. Also, there's barely any high schoolers taking college classes what do you expect from middle schoolers? it'll be way too stressful for them.
- This is unnecessary and you will have intelligent students in school with middle schoolers??
- I don't think that at the ages of 12-13 or 14 are ready for college classes plus our school can barely handle what we have right now. A lot of 11th graders aren't taking college classes so imagine how bad that could get if we add more students but they are behind too
- Students will lose the opportunity of having a middle school experience because parents are going to force them to go. Also an early college high school is a very smart idea but early college middle school is very unnecessary and lowers the value of the school.
- I think middle school & high school should be separated because these are 2 different type of students. Some are immature. I just think it's going to be a mess.
- Don't think it is appropriate to allow Middle school kids to mix with high school kids. Don't think they can handle it
- I don't think it is a good idea, I don't want you guys to lose your real focus of where you started, with the high schoolers. Middle Schoolers keep a lot of trouble going and they are going through their little changes. High Schoolers are more mature and are trying to focus on their career pathway and future. ECHS is perfect just the way it is.
- I love the idea, but I do not think we are there just yet. Our school should focus on the HS for a little more and improve our system before opening a middle school. For example, use the money to fund sports, clubs, organizations, school events, improve our school's look, etc. Personally, I think there are still some aspects of the high school we can fix before opening a new school.
- to much and i think we are fine with just the high school.
- I would support if this expansion would lead to two things, 1) the building getting bigger, 2) the school supporting K-12
- I already be annoyed of the people now I don't think yall should I be ready to leave already this I don't think so. And its barely a school now where yall gone to put them.
- Because I go to this school and it's not going to mess my education up .
- No need, I like that's it's just a high school.
- I feel like we can barley handle high school students let alone both !
- It's a good idea but I feel as though we should try and get the high school straightened out before adding on to the grade levels

- The school doesn't give you the full experience of high school, so I'd feel bad for middle schoolers who won't experience middle school.
- I feel as if the school should work on its expansion of the high school and organize that program before adding anything. It's a great school however it lacks a lot of potential needed to support students success. I would say wait at least two years get the high school teachers together gain better communication between staff and students do a bit more training and find more qualified people for certain areas if not the middle school would be the same as high school. We all around lack the high school experience it's nothing there so I don't agree I say wait.
- ECHS already doesn't have enough space for the high school they currently have. Throughout my 4 years attending ECHS, my senior year is the first year multiple teachers haven't left in the middle of the year.
- Stop trying to make these kids grow up faster than they are supposed to. Let them just be kids.
- Kids should not be worrying that early about college and enjoying their time as a kid before they experience the real world. Too much pressure and working too hard can knock someone's dreams and make them not want to do them anymore. It also shouldn't be portrayed as good looking in and once you're in it's everything looking exactly what you expected it not to be. Personally, I knew what I signed up for but this new generation is totally different. They like everything easier and quicker. High school is supposed to be a once in a lifetime experience full off fun while learning and while not learning. For me it has not been fun because other than academics I do not do sports neither can I sing or do I want to be in band. There should be more opportunities that will make students enjoy going to school not dreading it (I don't but others do). I have yet to come around to one kid that has said they have genuinely enjoyed school. I've heard "9th grade" was the best year and I agree because we had more space to do things and it was the beginning of something new. In general, high school should be a little more enjoying.
- I don't think the expansion is a good idea, being that middle schoolers are still young. With that being said I wouldn't want them to have a rushed experience. This a early college high school so the transition was difficult already with the work load and expectations set high. I'd like the idea if the contract signing to stay for a year was gone. I just worry they'll have a difficult time learning and the school does not have anything in place where they can get tutoring or extra help. Besides after school help which is not possible due to the schools location and where others may live.
- I am a senior who will be gone by the time it is put together. There is nothing I could do to support it.
- "The current school needs a lot of work. The students do not receive a pleasurable high school experience (sports with real coaches, proms, real pep rallies, high school clubs, travel, etc).
- Work needs to be done to improve current enrollment selection and processes. Accepting everyone for funding purposes needs to also improve.
- Additionally teachers and staff selection needs improvement. Teachers that smoke marijuana during class as well as students smoking on campus and being allowed to come back with no real consequences needs real improvement "
- I believe muddle schoolers lack that maturity to be on a campus with high schoolers. If this are students that are in honors or academic challenge students, it may be feasible. Or if is a total different campus with clearly identifying uniforms separating the middle schoolers from the high school students then I would be in favor.

### Explanations for Supporting an Expansion

- The more options families have the better.
- Interested in enrolling our granddaughter, volunteering, etc
- Expansion of available education
- I believe it is vital that children of color receive a quality education and the opportunity to receive college credit based upon academic achievement.
- I thought that would be of good benefit for the kids
- I do scholarships for the DCF and think this is a great idea.
- I think this is a great idea! My son is in the 4th grade and I am excited about the opportunity.
- Transitioning from Middle School to High School can be very stressful for any student. I believe exposing students to high school early on will help them become familiar with school culture and expectations which, I believe can help students substantially improve their academics and prepare them for postsecondary success. Prime example, before moving to Delaware, my daughter was accepted to George Washington Carver High School for Engineering & Science in Philadelphia. She did a full year there and she was advance in her studies. My nieces attend there and they are doing extremely well. The school is a testament to the benefits of adding 7th and 8th grade helped improved students academic success.
- Preparation is key
- I agree with the mission of introducing middle school students to a college mindset and building a pipeline to higher education.
- With the addition of 7th and 8th grade students, they could get a head start on taking high school classes during 2nd semester of 7th grade or during 8th grade year, which would allow students to more easily and effectively take college classes during their high school years, which is the whole point of ECHS.
- I think that the middle schoolers will take ot seriously and it will be easier for the kids to go to college. Also I think that the curriculum will give them information that they need instead of extra stuff.
- I think that's a great age to inspire college in a young person.
- It could be a good experience for the younger generation.
- I think that it would be great to extend the quality services to the younger kids.
- Exposing children to college prep courses early can only be a positive.
- I am the State Director of Green Beret Project and we have kids from our program that already attend ECHS, and would encourage our other kids to go there at an earlier age.
- Yes, so they can have a chance learning new things and to get to college. They can earn credits and pass there grade and learn college faster so they can know already what they are going to learn in college and graduate too.
- It gives better opportunities to a younger audience. Plus this gives the kids more structure that's not really present in the current middle schools.
- I feel like this is a good thing for the school as a whole.
- I think it's a great idea so that more students can be ready for college instead of getting to high school trying to get ready. They will already know the expectation.
- If a student is academically ready to apply themselves in the classes why not let them take classes towards their major. I think this would allow for less time spent on getting their degree.
- For minorities there are often educational gaps. Those gap can be narrowed by starting in middle school. Also those student that are diagnosed with ASD that are high

functioning that are college bound can have adjust and become familiar with that type of instruction. Most kids with ASD are excellent student but need access and tool early on to succeed.

- I believe in the vision of giving opportunity for education equality that are given in private schools.
- Students need as much exposure to college and a positive campus such as DSU.
- As a current educator in MD and a proud alumnus of Delaware State University, I am proud to give my input. I believe in a college-going culture and exposure as early as possible. This will ensure that more students are given the opportunity to explore post secondary options at an earlier age.
- Doing so will give middle school students an additional options. For students who are mature and know they would like to attend college, this places them in an atmosphere where attending college is the expectation of everyone around.
- The sooner students are introduced to the process, the better prepared they will be.
- I have a 6th grader who wants to take hs classes while in ms.
- Yes, provided that the proper supports are in place.
- I think it would be something great to start our middle schoolers with the opportunity to take high school classes.
- Some children are more advanced. Rather than holding those children back they could be challenged by some advanced high school level courses.
- I would like to do what it takes to help incorporate what I can. I have a middle schooler and this would be great!
- Provide middle school students with the opportunity to receive a higher level of education.
- By 9th grade most underrepresented minorities lose interest in STEM and lose interest in college. The earlier we teach them, the better.
- To allow children the opportunity to begin the collegiate trajectory earlier will increase overall success of students. Additionally, a high quality middle school is needed in the area.
- If we start early we can get them more engaged with their learning and continuing their education with college
- Technically, in 8th grade I took an AP course. If I can do that, I'm sure having middle schoolers come in with a mindset to learn could benefit them when taking high school classes early. If I am being honest, the only really difficult classes I even have right now is Drivers Ed (which isn't that bad) and DSU Psych (the textbook, oh my gosh). I believe that other students would be able to excel. I suppose it depends on the person on what type of rigor they want, but I know that I would only be able to take one AP course for that 8th grade year with five other middle school courses.
- Prayerfully my senior will be graduating this year so there would be no affect on him however I think it's a good idea as long as the high schoolers are in a separate location. Let the high schoolers shine without being with middle schoolers
- I applauded and support the ECHS vision for starting the college-going culture. This will better help and build students who are more prepared, stronger to take college courses at a younger age. I support their belief that 7th graders will work hard and earn the right to take high school classes in the 8th grade. As a parent, I am fully onboard with the intent on expanding ECHS to include an ECMS in the Fall of 2022.
- Would help in whatever capacity needed.

- I think it could be a good opportunity for middle school students to get a glance at a how high schoolers like us deal with college classes. They can get a head start and motivation to go to college.
- I support this expansion because foundation is key in academic development and achievement. Scientific evidence explains that the brain doesn't stop expanding until approx age 22 therefore the earlier children are exposed to an elite way of learning, the more prepared they are when obtaining a higher level education and life successes.
- The school is a great opportunity
- It would give students that are ready, the opportunity to take college classes sooner than 9th grade
- I support the expansion of this school because it gives more students a chance at succeeding in this school and later in college.
- Fantastic opportunity for 7th and 8th graders to acclimate to a different learning environment that focuses on school excellence.
- Students that are afforded opportunities and exposure to collegiate courses and experiences earlier often make better academic choices which have better outcomes for their future.
- Very pleased with the positive results by students in grades 9-12 as teachers
- I think this is a great idea and providing a structured approach to preparing for higher learning can only benefit our youth !!
- I think it would be a good for students who are really set on college and are serious about it. They could have opportunities they can't get at other schools to reach their goals being that our school is so close with DSU.
- Students need options, and I believe that choice can be a huge help to families.
- The Early College model is amazing and offering it to younger groups of students will be awesome!
- Excellent to start early so the transition to high school isn't such a shock.
- I would support it because its a good opportunity for the younger kids.
- I would support this because there are many children that are really smart and could use an advantage like this and this is such a great opportunity for those kids.
- Good for students to start early for their college pursuits.
- I believe that children who start preparing for college and the harder, fast pace curriculum of college classes earlier will do better in college and be more successful.
- Its a nice thing and it focuses Middle school students on their careers.
- It would be great! But, will there be sports? Where would they practice? Where would games be played?
- Sounds great!
- There are IB programs for 7th and 8th grade but not very many. Having one more option to expose students to the rigor of obtaining a secondary education via a 7th and 8th grade at ECHS is worthwhile.
- It's a excellent opportunity for students
- I say yes because one it would expand our community in our school, and two it would just be nice to have some younger people around. That makes me sound old... lol
- It gives and allows students minds to expand on what high school they want to go to.
- I believe that building a foundation as early as possible to the wonderful opportunities afforded will instill a stronger work ethic in the students as they rise up grade by grade.
- Expanding ECHS to lower grades will spread the schools opportunities farther and allow students to be better prepared.

- I believe in the program ECHS already has and making this type of learning available at an earlier age would be a BIG PLUS!!
- Awesome opportunity for younger learners to become college-minded earlier
- I would enroll my daughter, who would be in 8th grade by Fall of 2022
- It would be a great foundation for students to build upon if they choose to attend ECHS.
- I think it would give more preparation time for the students.
- It will be a great opportunity for kids to graduate early with a high school diploma and some college credits. And for some children I feel like 7/8 grade classes are not challenging for them
- It would be a great expansion because the schools name would get out there more. It was also be great because it gives the teachers more to for the students to become college ready.
- It would provide a great learning opportunity for younger kids.
- Because they will have the experience in being in middle and high school at the same time
- I would love for my current 4th grader to go there
- I have worked under the Leadership of Dr. Edney and she has the skill to get this task accomplished.
- I think it helps our kids visually to see the ECHS model lived out, that you can go to college, take college courses and encourages them to strive for greatness. They can see it when they arrive on a college campus. What a great opportunity.
- Yes, preparation for college should start early regardless if you intend to go to college or not. It exposes scholars to possibilities and be prepared for making choices.
- Students need to be better prepared going to higher education. This will provide them with the tools and achieve their career goals in life. It takes a village for students to be successful and this program will be valuable to students who take advantage of it.
- Prepare students earlier for HS classes and then onto college classes. Curriculum would be aligned from 7th to College.
- I think this is an excellent idea. We have a current sixth grader that we would love to be able to sign up for this.
- Early academic preparation is valuable for students, parents, and the community. Exposing students to future academic goals is important.
- Expanding the vision to include 7th and 8th graders enables students to prepare for the early college experience, both academically and culturally. It also benefits the school through committed enrollment and a stronger student body.
- I think is going to be even better to start preparing our kids at a younger age for school challenges. This is going to make them strong thinkers.
- I feel it is vital to start our students thinking about college as early as possible.
- I think this sets a culture for Delaware students that we are preparing them for college.
- I understand because children need to prepare for high school in 7th and 8th grade to start on a formative college readiness plan
- I believe children need to be kids as long as possible. 7 & 8th graders have enough to worry about. College prep in Middle school may work for some children but not all.
- I will support
- Some students are not ready for the "early college" experience in 9th grade. Starting earlier gives them more opportunity to wrap their heads around the concept of college

being an option for them and that they could actually start taking college classes in high school.

- I believe early access and exposure are key to students in certain demographics to enable them to have the additional help and nurturing needed to realize college as an option. They need to be in school with like minded focused students in their most pivotal years to influence, mature, and begin the process of harvesting the potential inside students so that he/she can take advantage and maximize the untapped greatness that is already inside them but is often thwarted because of their environment (home and school), peer group, focus, exposure, etc. I wish that ECHS had a campus in every county so that even more students can gain access to the world of possibilities that exist both in this school and post graduation.
- This is a great idea that provides more choice for our students.
- Promote and support echs in community and to local/state politicians
- Middle school can be a tough transition, gives those that are serious an opportunity to get a head start on preparing for college
- My youngest is in Kinder so it would be a while before she needs to attend. However, I can not say enough great things about my 11th grader's experience with ECHS. This school has been amazing to and for her. This is a community that truly cares and is invested in the success of minority/all students. At her previous high school it felt like she was just a number. I support this expansion initiative wholeheartedly.
- I would because there are a lot of students that would love this chance to get these courses and have a head start with getting credits and graduating early and it can also help the school with getting more exposure and welcoming in more students.
- I currently have a 4th grader and would welcome the opportunity for him to begin his future educational journey with ECHS earlier.
- It would be a great opportunity for younger kids to be prepared for college. It would also fill a need for students seeking a faster paced education.
- I would definitely support this transition. My only concern would be the bus/transportation system. It was not convenient for a bus to not be local or close to home. I would also think that there would need to be more after school programs that area consistent throughout the week.
- My daughter is a current ECHS student and the program and curriculum is great.
- ECHS is a such a wonderful model and it only makes sense to get the process and mindset started sooner.
- I have 2 boys in middle school
- I agree that students would benefit from being in a college focused environment earlier. There is a need in the State for a variety of learning environments and ECHM would help support that.
- I feel it would a great opportunity for middle schoolers. Admissions should be for serious students .
- Yes I would definitely support it but in my opinion I think it should only be for kids who are going to take it seriously and work hard to be a high student and so far.
- This is an amazing opportunity that will allow students to be better prepared once they enter the high school years. This will allow those students the ability to take more college courses during that time moving them closer to the 60 college credits. This is great for the student and their family. This will increase the students likelihood to finish their college degree and offset the growing financial burden of attending college.
- Excellent opportunity to expose students early to be college ready.

- Even though it's a big change, I believe it would benefit and help these kids at a young grade or age
- Opportunity for all...
- I feel like if echs starts teaching at an earlier age, student's mindset will be prepared for college earlier.
- I fully support Early College @DSU expanding to include Grades 7 and 8 because there are children who are passionate about their education and want to achieve bigger and better things.
- I believe that it would help prepare a lot more students if they have longer to prepare for the classes. I also have a sister who is in 3rd grade right now and I think it would be something she would like to do when she reaches 7th grade.
- As a parent that had to fight for her daughter to continue to take high school courses in middle school. This is a great opportunity for 7 and 8 th graders to be able to expand their minds and not be limited to work they are bored with.
- It would be wonderful to allow children a greater opportunity in life and start at an earlier age so the child can become more focused on a higher education
- I feel like it will help kids of that age in the long run and also help them for high school as well.
- I believe that ECHS expanding to grades 7 & 8 would allow many students to have an easier transition into the pace and rigor of the program, without also having to deal with the shock of an entirely new school.
- I love the idea of starting even earlier to help students get ahead in the game. If they start high school in middle school, they can get in even more college in high school.
- it sounds nice
- I have a sixth grader as we speak who will benefit from this program. I love how well it is working for my ninth grader he's so well diverse since attending ECHS and I am very proud of your services provided
- Getting kids ready for the real world is a good thing
- I am in full support of the expansion. I have 2 younger children and 2 high schoolers already attending ECHS. My older two are doing very well at the school and I would love for my younger ones to have a head start on the opportunity.
- I agree to early intervention and exposure to promote college readiness. I believe this program will increase success rates of students completing degree programs post graduation.
- I would support ECHS, because I think it is a wonderful and excellent for students to get the assist and access for college courses.
- Although this is Hannah's first year (and an unconventional year at that!) I'm very impressed with the quality of the education at ECHS. I feel this would have been an excellent opportunity for her at the middle school level.
- Great head start
- I already have a high school student that attends I think it would be great for my middle school child as well
- This will offer another alternative for families.
- This would put a lot of children in place to succeed early and understand the importance of education
- I feel that it would give them the experience in knowing how high school is and college it will motivate them.



- Because I think it will set them up better. I mean I love sms but it's so big and it doesn't have you guys.
- I currently have a son that would be going to 7th grade next year. And I would love for him to this school
- Yes, I will support I just wish you would have thought of this early on.
- I believe the children should have the best education possible and it is my firm belief that they will get that at ECHS
- I feel as though it would be a great opportunity for younger kids.

**Q5. Is there anything else you would like to tell us about your feelings for expanding the Early College@DSU? (No answers were altered)**

- I support the expansion of adding 7th and 8th grade to Early College@ DSU. As a soon to be alumni of the school, I believed my daughter would have had greater success if she was able to attend in 8th grade.
- Anything that helps kids excel in Delaware is ok with me! Especially in connection with a great university like DSU.
- "Dante Jones the Football coach also coaches for Green Beret Project and I would love to sit down with someone and discuss how the Green Beret Project could assist ECHS in other areas.
- Adam.kramer@Greenberetproject.org"
- Do you have a idea what year would this take place? Thank you
- Dr. Ed net and staff have done an excellent job here, and I have heard nothing but positive comments from parents and students as well.
- Excellent idea, I wish you much success.
- Excellent opportunity for students and community
- Expanding the Early College Program is an excellent decision, and I hope that it will be a model for other Early College Programs in our state.
- Go get 'EM!!!!
- Good work and I'm pulling for you.
- Great idea. Praying for much success. Kids need options and this is a great one, esp. To prep them for college.
- Great opportunity to soo many young scholars.
- Hope the funding is annual.
- "Hopefully you can keep the 7th graders away from the college kids.
- "
- I am so excited about this possibility for our community!
- I believe it will be an amazing opportunity for students
- I believe this would be a wonderful opportunity!!
- I can't wait!
- I do feel a little scared because these will be younger kids who will mix with older kids but it's a decent decision.
- I do not have anything specific other than that I would support this idea.
- I don't think it is a good idea coming from a class of 2022 student. The kids aren't going to be able to handle the workload and expectations as we high schoolers are made to do. I feel as if middle school is for kids. Our school can't help the kids who try and reach out.
- "I feel high school gives students a new identity, different and distinct from all other years spent in school. It is their time to branch out and grow. Being in school with middle schoolers diminishes that.

- "
- I feel like this would be a good opportunity for them overall. Prepares them for things to come. I really think it's a great idea.
- I have a granddaughter how is interested in attending. She will be go into the 8th grade in sept. 2022.
- I hope everything goes the way you guys plan it as it's a very good idea that will help a lot of people.
- I just don't think it's going to work out
- I just will be a great opportunity for these kids
- I love and believe what this school stands for and think it is a wonderful opportunity for our children
- I love ECHS 😊
- I love when kids can learn in a way that helps them in life
- I personally feel that the school is still in a phase of finding and securing its own identity. Making an addition to add more doesn't seem like the best idea to me because we don't yet have a secure foundation.
- I think it's a great idea and hope that your plans come to fruition. Keep up the great work!
- I think this is an amazing step towards making the program the best that it can be!
- I wonder if there is any advantage for a student to attend for middle school only. If so, is this an option?
- I would like to ask if email notifications specific to a student's grade level go to that parent. Receiving emails for all grade levels is overwhelming.
- I would like to see one on one help if a child struggles with a certain topic
- I would love to see this happen. Students deserve the right to top notch education!
- I'm excited to see this opportunity be available to students in the state of Delaware.
- If enrolling in middle school will allow the college-ready students to begin earning college credits as freshman, it will be well worth it.
- If you expand to 4th, you can take my child next year 😊
- I'm excited about this! Congratulations!
- I'm happy the door has been opened for this opportunity
- "I'm really looking forward to this as my 5th grader is so close to joining.
- We want our Delaware students to be prepared for the college load. "
- I'm so excited to see this happen and I am fully supportive of Dr. Edney
- It is very exciting to see how much ECHS is growing and changing and I am proud to be part of the early beginnings of this school.
- It shouldn't happen .
- It will be a great opportunity for those who attend. I can't wait to support the school in the future.
- It would be great
- It's a great idea
- Keep doing the great job that you are doing with our young folk
- Keep on doing an excellent job it is serving Delaware well
- Look into more student clubs and organizations be fair to all students. Add more after school bus stops better lunch cleaner buildings
- May want to consider if there is a need to re-brand ECHS. This is an excellent opportunity to appeal to more of the most gifted students in DE.
- More sports and after school things.

- My daughter attends the high school and I absolutely love the school and the school curriculum.
- My only question is how would those with an IEP receive their tools needed for success?
- My son Blake Robinson has received a great learning opportunity at ECHS, and I would love for his brother who is currently in 6th grade to have the same experience. Again, my 2 concerns are: After school consistent activities and bus/transportation. Otherwise, he would attend CR high school.
- Need to take into consideration new staff

A Structure of What the Mentoring Program Will Look Like, Including a Description of How New Teachers Will Be Paired

ECHS has had a mentoring program since Year 2 of its existence. Currently, the mentoring is represented below:

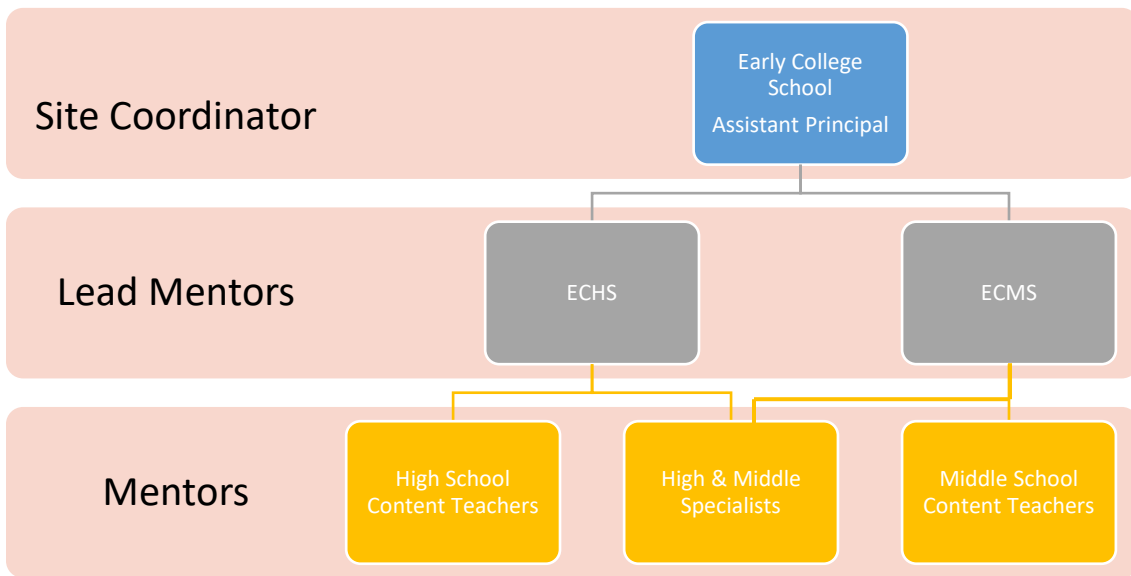
Dara Savage Lead Teacher Mentor	Social Studies Teacher, Year #1
	Social Studies Teacher, Year #1
	Math Teacher, Year #1
Nyia McCants, Ed.D., Assistant Principal	Phys Ed Teacher, Year #3
	School Counselor, Year #3
Evelyn A. Edney, Ed.D., Principal	School Nurse, Year #2
	Science Teacher, Year #2

- Mrs. Savage runs the New Teacher Academy each month to provide professional development, mentoring requirements, and school-level logistical info.
- The ECHS Administration attends the New Teacher Academy monthly and presents professional development, mentoring requirements, and school-level logistical info as needed.
- The Lead Mentor and the School Leader complete the DOE requirements in DEEDS

When Grades 7 and 8 are added, the following system will be in place for mentoring:

- Site Coordinator
  - Oversee the entire mentoring program
  - Attend all DOE required trainings, meetings
  - Be responsible for all reporting to DOE
  - Work with Business Director to ensure compensation
  - Work with Lead Mentors to develop training sessions
  - Ensure all training is completed
- Lead Mentor
  - There will be one high school lead and one middle school lead for all content area teachers. The two will work together to mentor the specialists
  - Oversee all mentors
  - Attend all DOE required trainings, meetings
  - Develop New Teacher/Specialist Advisory sessions
  - Develop DOE required training sessions
  - Ensure all training is completed
- Mentor:
  - Will provide one-to-one , day-to-day mentoring for new teachers and specialists
  - Will work with Lead Mentor to deliver training
  - Will work with Lead Mentor to ensure attendance at all meetings, trainings
  - Assist with lesson planning, classroom organization, etc.

See organizational structure below:



**School's Response to CSAC Initial Report - February 22, 2021 :: Social Studies Coalition of Delaware Membership Documentation**

## **MEMORANDUM OF UNDERSTANDING THE SOCIAL STUDIES COALITION OF DELAWARE**

### **PURPOSE OF THIS MEMO**

This memorandum of understanding will define the roles and responsibilities of each party in the Social Studies Coalition of Delaware (SSCD). This Coalition is a partnership with the purpose to improve the teaching and learning of K-12 social studies in Delaware public schools and to help all Delaware public school students reach the Delaware Social Studies Standards.

The partnership includes the Department of Education, public school districts throughout the state, charter schools, and other agencies involved in standards-based instruction and assessment (Center for Economic Education and Entrepreneurship, Delaware Center for Geographic Education, Professional Development Center for Educators, Democracy Project and the Delaware Public Archives). The partnership is open to all public school entities, including vocational/technology schools and charter schools, that agree to collaborate in the systemic improvement of their K-12 social studies programs as outlined in this memorandum.

This Memorandum of Understanding (MoU) defines the conditions under which the Coalition will be financed, principles for operation and the collaborative processes as established by the Coalition. The MoU can be modified at any time by majority agreement of voting members of the Steering Committee.

### **MISSION**

The Coalition exists to support the creation of the highest quality social studies instruction for the K-12 students in Delaware. The goals of the SSCD are to:

- Continue the development of assessments to guide social studies curriculum development and instruction at the district level.
- Continue the development and alignment of social studies curriculum and instructional materials by designing model lessons and units for each benchmark to be distributed to members of the Coalition.
- Provide staff development for curriculum development, instructional delivery and assessment creation.
- Provide leadership and an organizational structure to facilitate planning, assist with the development of instructional materials and coordinate the delivery of the items listed above.

### **GUIDING PRINCIPLES**

- The purpose of the partnership is to support continuous standards-based reform of social studies education in Delaware schools.
- Adoption and implementation of curricula is the responsibility of individual school systems. The Coalition is established to assist them in this endeavor and to provide cost effective standards-based education programs.
- Costs will be shared in a way that all parties benefit as equally as possible. Every effort will be made to provide services in support of the program at cost. Member districts and charter schools will pay **\$2000** by Sept. 30, 2020 to support Coalition actions beginning July 1, 2020 through June 30, 2021 for professional development, development of products and other activities. Thereafter, annual fees will be determined by the Board.
- Professional development will be provided by the Coalition. Individual districts/charter schools will provide additional support for the participants.



- The Coalition will seek to coordinate financial support from foundations, affiliates, the Delaware Department of Education and others for implementation of standards-based social studies education for Delaware students.

**GOVERNANCE OF THE COALITION**

The Coalition will be directed by the Board that includes voting and non-voting members. Voting members shall include a representative from each member school district and charter school that has paid its annual fee. Non-voting members shall include two representatives from the Department of Education, affiliate members including the Center for Economic Education and Entrepreneurship, the Delaware Geographic Alliance, the Professional Development Center for Educators, and the Delaware Public Archives.

The purpose of the Board is to:

- Establish and approve operating policies and practices for the Coalition.
- Set and approve the annual budget for the Coalition and monitor expenditures. The Milford School District has agreed to act as the fiscal agent at no cost, and for this will receive a reduced membership fee for the 2020-2021 school year.
- Establish and implement an effective communications program.
- Promote partnerships among the K-12 public schools, higher education and the business community.

**Coalition Leadership –**

SSCD leadership shall be administered by an Executive Committee and directed by the Board. The Executive Committee shall consist of two chairpersons, an Executive Secretary, a Financial Liaison and the Education Associate for Social Studies from the Delaware Department of Education. Two chairpersons shall be elected by the voting members of the Board to a two year, staggered term without remuneration and will coordinate the Coalition’s activities and chair meetings. The Executive Secretary and Financial Liaison shall be appointed yearly by the chairs.

Regular meetings of the Coalition’s Executive Committee and Board will be held on a monthly basis during the school year. The Board will establish sub-committees to manage specific aspects of the Coalition as needed.

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**Signatures of Agreement – 2020-2021 School Year**

<i>Benjamin Bean</i>	2/19/2021
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Designated District/Charter Representative to SSCD	Date
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<i>Evelyn A. Adney</i>	2/19/2021
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Superintendent/Curriculum Leader of District/Charter	Date
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School District/Charter School name Early College HS at DSU

**School's Response to CSAC Initial Report - February 22, 2021 ::  
SpringBoard Mathematics**

SpringBoard Mathematics from the CollegeBoard  
*Courses 1-3 for Grades 6-8*  
Publisher Response to Ed Reports Common Core Program Review

### **Program and Pedagogy**

SpringBoard Mathematics Courses 1-3 is a comprehensive and flexible curriculum that supports schools and districts making the transition to the rigorous Common Core State Standards.

In developing our new Common Core edition of SpringBoard Courses 1-3, we aimed to design a scope & sequence and materials that covered the broad range of the Common Core Standards at each level, while also providing opportunities for differentiation, building foundations, and enrichment. Our Understanding by Design approach, gives teachers an instructional model to build sufficient connections between the strands and foster student accountability for conceptual understanding. For example, each Unit contains approximately 2-3 Embedded Assessments, which are performance based tasks. Using the Understanding by Design model, students and teachers collaboratively preview and unpack each Embedded Assessment prior to beginning that Unit chunk. During this process, classes are able to identify and connect previous topics to upcoming concepts. The unpacking exercise is further enhanced with student created visual representations showing these concepts and connections to topics within the Unit and from previous grades or units. The unpacked Embedded Assessment allows students to focus on the major work of the grade as well as see applications to the major work in Units aligned to non-major work clusters. Support for students and teachers in making these connections is provided in the Unit Overview, Unit Teacher Support Videos on Springboard Digital, Professional Learning opportunities, and online modules. Students work through the process of unpacking their embedded assessments to make these connections between and among both supporting and major content. See the Planning the Unit pages in the Teacher Edition and the Unit Overview pages in the Student Edition and Teacher Edition for all Units-- and connect these to the Assessment Focus noted on the Embedded Assessments.

### **Focus and Coherence**

We provide a Pacing Guide chart in the Teacher Edition Planning the Unit pages as a suggested pacing calendar with enough allowable days ( there are approximately 120-140 instructional days per level and most districts have 180 instructional days) to support teacher flexibility in supporting differentiation, use of our instructional resources like Bell Ringer Activities, Mini Lessons, Teacher to Teacher tips, point of use Differentiating Instruction strategies, custom assignments in the Teacher Assessment Builder, Getting Ready Practice, Additional Unit Practice, Khan Academy video correlations with easy access hyperlinks and SpringBoard Digital tools to reinforce and enrich as necessary. Through this differentiation, additional days of instruction are added allowing for more instructional content and days focused on the major work of the grade. Our SpringBoard Digital platform allows for easy student assignment for these resources. Teachers can easily adjust pacing with the added lessons or accelerate pacing if mastery is achieved quicker than the suggestion pacing guide chart.

In addition, the Getting Ready Practice exercises at the beginning of each Unit provide teachers with a metric for determining prerequisite mastery or deficiency to make instructional modifications; these could include omitting content if mastery is shown as well as supporting foundational lessons and material if needed from an earlier course. At the beginning of each Unit there is also reference in the Teacher's Edition to the Getting Started Practice available on SpringBoard Digital. These resources offer a worked out example and instructional practice to build proficiency of the foundational concepts and further support the grade level content progressions. These can be used throughout the instructional unit for more emphasis on major work. The content progressions for these prior grades are clearly identified in the title of the Getting Ready Practice assignment to support the prerequisite standards identified in the Getting Ready Exercises that begin each instructional Unit (prior to unpacking the Embedded Assessment).

There are some places in the Courses 1-3 Materials in Course 1, Unit 2, for example, where prerequisite and foundational standards are included to build a solid understanding of the standard and that specific concept. There is flexibility in the pacing to accelerate instruction if students show mastery and proficiency of these standards. SpringBoard has a newly updated suite of virtual tools to support a variety of problem types that are categorized by domain: Algebra, Geometry, Number Concepts, and Probability & Statistics. These can be accessed at point of use in each problem in SpringBoard Digital. Click/Tap on the + sign icon and then the "toolbox" icon to see the array of virtual tools to support procedural skill and fluency. (i.e. Algebra Tiles, Number Line, Protractor, Graphing Calculator, GeoGebra Dynamic Software). The focused topical units in SpringBoard were built to align with the CCSS. The SpringBoard activities are based in real world problem scenarios and the supporting content provides applications to connect to major content in meaningful ways. Our scenario based content makes connections to real world applications and does not intentionally use gratuitous labeling for teachers or students, so as not to interrupt the flow of instruction.

Materials connect supporting and major cluster content through meaningful problem scenarios and applications so coherence is enhanced throughout the year. This also provides ample time and opportunities to focus on the Major Work of the grade. See Example Course 2, Unit 4- Geometry- and shows the relationship of Ratio & Proportion and Equations & Expressions in the context of Geometry. The Getting Ready Exercises for each Unit provides a view into these domain connections. See the Prerequisite standards in the TE on the Getting Ready Exercises at the opening of each Unit. See also the Teacher Support Videos on SpringBoard Digital under Teacher Resources and Videos.

### Rigor and Mathematical Practices

The mathematics instruction in SpringBoard follows a balanced approach in which concepts are presented based on the most effective methods: **Directed** for basic mathematics principles, including examples and practice; **Guided** for concepts that need a combination of direct instruction and investigatory learning; and **Investigative** activities that allow students to explore and discover mathematics concepts through a contextual setting. You will see a balance of these activity types throughout the instruction.

The Standards for Mathematical Practice are truly embedded within the SpringBoard instructional design. They are evident in the Problem Solving, Collaborative, Reading, and Writing Strategies that are called out in the Student and Teacher Editions for each Activity as well as at point of use in the problem sets, practice, Embedded Assessments, and Checks for Understanding. In any given chunk of instruction and practice problems, students are provided with diverse questions that include open ended opportunities to write, explain, reason, construct arguments, and justify in each of our Guided, Directed, and Investigative Activities. There is support in the Teacher Edition wrap on implementation and support of these strategies that are in close alignment with the mathematical practices. In addition, our Professional Learning opportunities provide guidance for teachers in effective implementation of the Practices. Our writers were very mindful in integrating and labeling the Mathematical Practices so that they could provide focused opportunities for students and teachers to place emphasis on them. As a general rule, we only highlight (in boldface type) a few (no more than 4 problems or questions during the full lesson instruction) throughout the lesson. We typically only highlight 1 in each lesson practice and 1 or 2 in each Activity Practice. SpringBoard uses a pedagogically intrinsic model with the Mathematical Practices; they should not be looked at in isolation, but as a standard for building positive habits of mind within the instructional content. Most of our embedded Learning Strategies embody the Mathematical Practices such as Construct an Argument, Critique Reasoning, Create Representations, Visualization, and Predict and Confirm, just to call out a few. In addition, the questioning strategies and other Teacher support elements that the reviewer points out that are missing are really elements that we cover and support in our professional learning.

We feel that tools, representations, and manipulatives greatly improve a student's conceptual understanding of the standards and supports building proficiency of the Standards for Mathematical Practice. SpringBoard offers suite of virtual tools accessible via SpringBoard Digital to students and teachers at point of use for every problem to support a variety of problem types that are categorized by domain: Algebra, Geometry, Number Concepts, and Probability & Statistics. These can be accessed at point of use in each problem in SpringBoard Digital. Click/Tap on the + sign icon and then the "toolbox" icon to see the array of virtual tools to support procedural skill and fluency. (i.e. Algebra Tiles, Number Line, Protractor, Graphing Calculator powered by Desmos, GeoGebra Dynamic Software, Probability instruments, and an array of data displays).

In Summary, SpringBoard Courses 1-3 was developed to meet the rigors of the Common Core State Standards with a focus on developing conceptual understanding through rich problem solving opportunities and embedded student-centered learning strategies.