

## V. INNOVATION

Describe the school's innovative practice(s) that could be replicated at other schools in Delaware. Please include the data that supports the success of these practice(s).

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### **Science, Technology, Mathematics Focus, Curriculum and Collaboration with Cab**

In 1996, a group of visionary leaders from the Wilmington business community, encouraged by then Governor Thomas R. Carper, joined forces with educational leaders from the Wilmington area and from the Red Clay Consolidated School District to form Delaware's first public charter school -The Charter School of Wilmington. The mission of The Charter School of Wilmington is to prepare students to thrive through world-class mathematics, science, and technology education.

CSW believes that critical thinking, problem solving skills, and collaboration promote innovation. We also strive to develop an ethical learning environment that creates good decision-making, habits, and virtues. To appreciate all the unique differences within an interconnected and multicultural world community, CSW places a high priority on cultural awareness. Although our focus is on Science, Technology, and Mathematics, Charter students in collaboration with Cab Calloway School of the Arts, are enrolled in art, drama, concert band, jazz band, marching band, chorus, and other musical groups.

CSW's organizational structure and climate (culture, atmosphere, standards), support our curriculum. The roles, responsibilities, and expectation of the administration and faculty are clearly defined. Administration, faculty, and support staff are qualified to provide a top quality educational experience. Our instruction focuses most heavily on developing our students' higher order skills: analysis, synthesis, and evaluation. We reach our objectives through a combination of traditional and innovative instructional techniques. Our educational objectives focus on developing students who are technologically literate and able to understand and make use of computers and laboratory instruments. With virtual learning abruptly beginning in March 2020 due to the pandemic, our online learning resources expanded exponentially. Teachers had to diversify their technology and software options using Google Meet Plus, Google Classroom, Pear Deck, Duolingo, Nearpod, NoRedInk, Quizlet, Quizziz, Gimkit, Edpuzzle, Logicly, Flipgrid, Desmos, YouTube, Kahoot!, and Khan Academy.

Our school offers a challenging, college preparatory curriculum. To graduate from The Charter School of Wilmington, students earn a minimum of 24.5 credits, compared to the State of Delaware's requirement of 24 credits.

**Data:** CSW was named a 2019 Blue Ribbon School with a group of 362 other schools. CSW was first recognized as a National Blue Ribbon School in 2013. As an Exemplary High Performing School, CSW is among Delaware's highest performing schools as measured by state assessments and nationally normed tests.

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## **Diversity, Equity, and Inclusion (DEI)**

The Charter School of Wilmington is committed to providing an innovative, rigorous academic program that simultaneously addresses and values student's health and well-being. We believe in providing the supports necessary to ensure successful outcomes for all CSW students.

In July 2019, CSW collaborated with US<sup>2</sup>, a consulting agency focused on social justice and educational equity. Their founder, Megan Fuciarelli, has served as a teacher, building leader, and district leader. US<sup>2</sup> is committed to increasing awareness in the areas of bias and privilege. US<sup>2</sup> encourages the idea of self-reflection to ensure participants walk away with knowledge of themselves as well as knowledge of others with a goal of improving productivity and workplace culture.

Starting in September 2019, all CSW stakeholders participated in community conversations via school assemblies, Town Halls, and Diversity, Equity, and Inclusion (DEI) activities. A committee of stakeholders presented our Board of Directors with a Diversity, Equity, and Inclusion (DEI) Action Plan in February 2020. Based on surveys and feedback from their peers, the DEI Action Plan Committee students selected Sanism as an assembly topic. Sanism is defined as the discrimination against individuals with issues of mental health, both diagnosed and perceived. Included in this discussion, specific to CSW, were issues around depression, anxiety, and trauma.

With the onset of virtual learning due to the pandemic in March 2020, CSW continued scheduling virtual Town Halls focusing on DEI topics with our Social Justice Alliance (SJA), students, faculty, and parents. A diverse group of students supporting social justice formed the SJA in June 2020. The group continues to be included in policy and hiring discussions at CSW.

The CSW administration has also continued its bi-weekly meetings with the leadership of student government. These meetings allow the administration to hear concerns and ideas of all students and fosters a positive working relationship between the student body and the administrative team.

**Data:** Diversity, Equity, and Inclusion (DEI) Action Plan (attached)

## **CSW Faculty/Staff/Administration Professional Development**

The Charter School of Wilmington is committed to creating a welcoming culture and inclusive environment that reflects and supports the diversity of our community. We support a school environment free from discrimination and harassment on the basis of race, color, religion, gender, sexual orientation, gender identity or expression, national origin, age, genetic information, or disability.

CSW focused on these topics during the 2019-2020 school year:

Diversity, Equity, and Inclusion (DEI): Staff Training Sessions, Facilitation Days (with Committee and for Coaching Support), Student Assembly Days. Individual coaching with leadership was also offered as an option.

Adult Culture with Turner Consulting:

- An Alternative Evaluation Committee was formed to create a new educator evaluation system.
- Discussions were held to collect feedback for enhancing the Admissions Interview Process, including the creation of rubrics and a training manual.

Department Work with Curriculum Consultants: (World Language, Math, Science, Social Studies, English, Physical Education/Driver Education/Health, Computer Science)

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Ongoing Book Study: Department Chair/Administration Meetings and Staff Meetings  
“Mindset: The New Psychology of Success” by Carol Dweck

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### **CSW Re-Entry Planning**

In May 2020, CSW formed a COVID Working Group to address the impact of the COVID-19 pandemic on our plans for a safe 2020-2021 school year. The sub-working groups, which included teachers, school staff, and medical health care professionals, along with members of Instruction Partners, an education nonprofit, focused on six key topics: distance learning and professional learning; technology needs; mental health and wellness; maintaining the culture of CSW; and facilities, equipment, and health guidelines.

The larger working group was divided into four sub-working groups of 90 members (21 students, 48 parents/guardians, and 21 staff). Team members brainstormed about logistics lists for teaching and learning, collected current online learning plans that were used by other states, developed different semester schedule scenarios, and created surveys for students regarding their online learning experience from March 2020-May 2020. This research was warehoused in a COVID Google shared drive. The working group made presentations at the May and June board meetings prior to the release of the Re-Entry plan in Fall 2020.

**Data:** The Charter School of Wilmington was the first school up and running online when the pandemic forced us to close our physical building on March 13, 2020.

### **Freshmen Mentoring Program**

Freshmen students are introduced to CSW at a two day orientation in August, which includes building tours, assemblies, and workshops. They are paired with a senior mentor who meets with them throughout the school year. Freshmen also participate in seminars/assemblies focusing on study skills, healthy habits and stress management.

### **Junior Research Program and Science Fair**

The Junior Research program at The Charter School of Wilmington gives high school students with an interest in math and science an authentic, in-depth experience in scientific research. Introduction to Science Research class is a sophomore class requirement that teaches basic research and laboratory skills. The class fully prepares students for topic selection, background research, experimental design, data collection, and data analysis. Upon completion of the class, students will be ready to conduct the experiment for their topic, collect and analyze data, and draw conclusions. The experimentation and data collection will take place over the summer. Data analysis, paper writing, and poster and oral presentation will take place in the Fall of the student's junior year. Students are often matched with mentors and in some cases, practicing science professionals, as they research and actively investigate a specific scientific topic. The project can give every student at The Charter School of Wilmington the opportunity to experience long-term learning practices that build self-reliance and confidence.

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The addition of the Junior Research Science project as a high school requirement by CSW has been hailed and embraced by the local science community (i.e., Christiana Care, Astra Zeneca, Verizon, Delmarva Power, Ashland Inc., DuPont. etc.) All students are also required to participate in the Science Fair during their 11<sup>th</sup> grade year.

**Data:** The U.S. Department of Education visited the Junior Science Fair in January 2020 and created a video to highlight the event and our Junior Research program. CSW was one of only five high schools in the nation to receive this additional honor.

### **Nanotechnology Lab**

CSW created a Nanotechnology Lab to support a Nanotechnology class thanks to the generosity of the Longwood Foundation and Christiana Care Health Systems. Students have access to a scanning tunneling microscope, a scanning electron microscope, an atomic force microscope, a manual sputter coater with pump, and a benchtop vibration isolator platform. A magnetic Resonance Imaging (MRI) and NMR (Nuclear Magnetic Resonance) Teaching System was also purchased. Sophomores and juniors participating in our Junior Research program are able to use this equipment as well.

### **Community Outreach - Signature Programs**

CSW students have engaged with the community over the past decade in several outreach programs that are having a positive and continuing impact:

1. *Science Ambassadors:* Bringing positive enthusiasm to elementary students about science, with regular after-school activities at Shortlidge, Harlan, Elbert Palmer, Baltz, Lewis and Highlands as well as Eastside Charter and Edison Charter. (established 2005)
2. *Science Expo:* Originally hosted at the CSW campus, this event is now hosted at The Delaware Children's Museum's (DCM) in order to facilitate access for students in city communities. CSW students encourage an interest in science through the use of science kits and participation. (established 2005)
3. *The Jefferson Council:* CSW's Jefferson Council teamed up with The Andrew McDonough B+ Foundation once again for the 8th Annual Charterthon in 2019. All funds raised for Charterthon support families that have children with cancer and to funding cutting-edge research. Due to the pandemic, Charterthon was cancelled. Team members continued to raise funds for the organization with an online car raffle.

### **Community Partnerships**

New partnerships are being formed and the collaboration is extraordinary, ensuring The Charter School of Wilmington remains on a steady course and remains an innovative educational force in Delaware, and a national leader in Science, Technology, and Mathematics initiatives. CSW continued to be involved with Delaware's SPARC initiative. The program is designed to help students, youth and adults connect with local employers, gain first-hand knowledge of the workplace and develop career and college readiness skills. Opportunities with local colleges and museums are also being explored.

We are also thrilled to be a partner with The LYTE program (Leading Youth Through Empowerment). Adult and teen volunteers mentor and tutor talented students and organize school visits, field trips, and

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summer programs. The directors search for advanced curriculums for their programs and are familiar with Delaware's high school landscape because they are constantly building relationships. The LYTE program helps scholars apply to area public and charter high schools through SchoolChoice.org and assists with the independent and parochial school's admissions process as well. LYTE scholars visit CSW for Nanotechnology tours and summer camps.

### **Block Schedule, Study Halls, Homework Help, and Activity Periods**

With block scheduling, CSW is continuing to provide study halls and activity periods, helping to reduce student stress, and allow student participation in over 100 clubs and activities. We also continued with our after school Homework Help program.

### **Fluid Mechanics Course**

Charter offers a Fluid Mechanics course with a PumpLab™ Centrifugal Pump and Process Control System modeled from a 3rd year University of Delaware class. Created as an independent study course in 2012, the class evolved into a semester class in 2013 due to its popularity.

### **Advanced Placement Offerings, Advanced Courses, and Electives**

The Charter School of Wilmington uses an Integrated Math curriculum. Students may enroll in seventeen AP classes.

Post Advanced Placement courses include Optics, Fluid Mechanics, Modern Physics, Embedded Systems, Calculus 3, and Differential Equations, typical college level courses.

We offer a dual enrollment Anatomy & Physiology class with Delaware Technical Community College.

Students may opt to take electives such as Math and Art, International Relations, Criminology, Nanotechnology, Bioethics, Biochemistry, Neuroscience, Genetics, Epidemiology & Public Health, Organic Chemistry, Microbiology, Biotechnology, Robotics, Computer 3D Modeling, Mobile Applications, Data Structures, Computer Software Engineering, AI Theory and Practice, Video Game Design, and Data Science.

### **Academic Competitions**

CSW students have been successful in inter-scholastic and academic competitions placing at the top in state, national, and international competitions. These events are inclusive of varied disciplines; Science Olympiad, Delaware BioGENEius, Brain Bee, Math League, Odyssey of the Mind, Regeneron Science Talent Search, Envirothon, U.S. Physics Team, Mock Trial, Youth in Government, Boys State, Girls State, Delaware Young Playwrights Festival, and Model United Nations. CSW writing and reading performances regularly receive state and national recognition.

### **Athletic Success**

Our athletic program is an extension of our school. Its purpose is to teach and reinforce values and principles of our school's philosophy. We expect respect, honesty, punctuality, self-discipline, hard work, positive effort and an attitude marked for success. CSW enjoys the highest rate of student

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participation in interscholastic athletics in Delaware. CSW teams have earned several conference and state championships in a variety of sports.

**Data:** CSW received the 2019 DIAA State Sportsmanship Award. The Boys Cross Country Team won the 2019 State Championship and the Girls Team finished as the State Runner-up.

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# Summary of Recommendations

In order to summarize the findings above, please see truncated version below to serve as a reference guide. Note that this is merely recommendations based on committee feedback and analysis of the findings from our team specializing in supporting schools toward a more inclusive environment – they are not necessarily in chronological order and actions should not be seen as more impactful than others listed.

- Importance of a Vision
  - Board requests the formation of a committee of stakeholders and initiates the process of crafting a strategic plan (that includes mission, vision, goals, objectives, and tactics)
  - Stakeholders are engaged in a 3-6 month process of crafting a strategic plan (while taking into account input from their representative groups)
- Impact of Presence and Relationships
  - As a part of the strategic plan, craft a roles and responsibilities matrix
  - Board participates in Board training to solidify structure of the Board
  - Stakeholders (including Board and leadership, specifically) are present and engaged in activities throughout CSW
  - Board members hold President accountable for items included in the strategic plan (while this is being created, the Board sets goals for the President)
  - Leadership hold staff and each other accountable for expectations set within the strategic plan
  - Stakeholders focus on building relationships with one another (incorporating more social events, informal events, and dedicated time for discussions around diversity, equity, and inclusion)
  - Create plan of action to recruit more support, both financially and socially, from the community
- Understanding Equity Issues
  - Training/Professional Development Topics
    - Board: Impact of Privilege and Bias on Decision Making; Listening to Conversations without Judgment
    - Leadership: Individual In-Depth Leadership Coaching around Perception; Macroaggressions and Privilege

- Staff: Effects of Implicit Bias and Microaggressions; Transitioning from Sympathy to Empathy
  - Parents: Power of Positivity; Intersectionality
  - Scholars: Pride within Identity; Crucial Conversations
  - Community Members: Power of Community; Advocacy and Allyship
- Create a group of stakeholders that serve as DEI liaisons to continue guiding this work – when created, provide in depth training on facilitation skills in addition to content covered above
- Continue the conversation on a regular basis through dedicated time committed to this work
- Inclusive Policies and Curriculum
  - Conduct audit of current policies, curriculum, and pedagogical practices to assess levels of equity and inclusion
  - Create and utilize rubric that assesses from a lens of DEI for adopting new policies
  - Adopt curriculum that is required for all scholars around social justice, global citizenship, or combination thereof
  - Incorporate aspects of culturally responsive pedagogy into the staff evaluation system, providing training and support before expecting staff to be fully inclusive