



School Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS

School and District's Certifications

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of their knowledge. *In no case is a private school required to make any certification with regard to the public school district in which it is located.*

1. The school has some configuration that includes grades early learning to 12.
2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review. The Department of Defense Education Activity (DoDEA) is not subject to the jurisdiction of OCR. The nominated DoDEA schools, however, are subject to and in compliance with statutory and regulatory requirements to comply with Federal civil rights laws.
4. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
5. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
6. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
7. The school meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

U.S. Department of Education Green Ribbon Schools

Public Charter Title I Magnet Private Independent Rural

Name of Principal: Mrs. Samantha Johnson

(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official School Name: Commonwealth Charter Academy Charter School

(As it should appear on an award)

Official School Name Mailing Address: 1 Innovation Way, Harrisburg, PA 17110

(If address is P.O. Box, also include street address.)

County: Dauphin State School Code Number *: PA-115220002

Telephone: 717-710-3300 Fax:

Web site/URL: <https://ccaeducate.me/> E-mail: sjohnson@ccaeducate.me

**Private Schools: If the information requested is not applicable, write N/A in the space*

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

(Principal's Signature)

Date: January 6, 2021

Name of Superintendent: Mr. Thomas Longenecker

(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in official records)



District Name: Commonwealth Charter Academy Charter School

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

(Superintendent's Signature) Date: January 6, 2021

Nominating Authority's Certifications

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

1. The school has some configuration that includes grades Pre-K-12.
2. The school is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. The school meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: Pennsylvania Department of Education

Name of Nominating Authority: Ms. Tamara E. Peffer
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.

(Nominating Authority's Signature) Date: February 25, 2021

SUBMISSION

The nomination package, including the signed certifications, narrative summary, documentation of evaluation in the three Pillars, and photos should be submitted online according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509

Expiration Date: March 31, 2021

Public Burden Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email ICDocketMgr@ed.gov and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.



Summary Narrative: An Overview of Your Work Encompassing All Three Pillars

Commonwealth Charter Academy (CCA) is a public, cyber charter school serving K-12 students across the state of Pennsylvania. Our students do not report to a physical location, accessing their work at home, but our building is maintained to provide a resource for hands-on experiences that would not be accessible in a home setting. We reach our students through virtual instruction and provide face to face opportunities at each of our eleven Family Service Centers. Five of these facilities include Drop In Centers or areas where students can choose to report daily or weekly for assistance with their courses, tutoring, field trips and other programming. If a student is unable to report to a building they can participate in field trip opportunities in their area. CCA invested in three mobile classrooms to enhance these regional field trips. Each mobile lab specializes in certain activities, with one specifically catering to sustainable learning through aquaponics.

CCA's mission is to deliver personalized learning experiences that engage the entire family and prepares learners to succeed in school and in life. Success in life includes practices that make learners fiscally and environmentally responsible. As a cyber-school, our structure innately provides opportunities surrounding sustainability. For example, there is no daily bus commute for students. When a student requests to attend a Drop In Center, they encouraged to take mass transportation, with CCA offering to provide bus passes free of charge. Students will pack their lunches if they plan to stay for the day.

CCA strives to not only educate students on how to make sound decisions, but we invite their family to join. This is why we named our physical locations Family Service Centers. We routinely ask families to join their student in activities. We also invite outside schools to visit our centers, as we strongly feel that our centers are a community resource. In December, 2018, we launched our strategic CCA Works Initiative. The purpose of the Works Program is to introduce and guide students through the career planning process under the umbrella of the largest employers in the state of Pennsylvania. We opened AgWorks at our Capital Campus building, launched TechWorks in Pittsburgh and are in the processes of building MedWorks outside of Philadelphia. These centers provide both face to face and virtual learning opportunities for students. Though the first build, AgWorks at CCA, we are expanding our family's views on sustainability under the umbrella of agriculture.

AgWorks is the largest, educationally-based aquaponic facility in the country. It is centrally located across the street from the Pennsylvania Farm Show and next to the Pennsylvania Department of Agriculture. Aquaponics easily relates to food system security, cultivating environmentally sound farming techniques, and how to ensure that these ventures are economically viable through business planning.

What is aquaponics? Aquaponics allows the operator to grow fresh, organic produce as well as a protein source (fish). At CCA, this produce is provided to local restaurants, but the majority is either given to students learning and working in the lab, visiting our Drop In Centers, attending field trips at our facility, or donated to the Central Pennsylvania Food Bank. We host a variety of activities at Capital Campus, including programs where students learn how to compost, field trips analyzing how solar energy reduces the overall operating cost of our facility, workshops learning about healthy eating habits by creating their own salads and salad dressings, embryology and animal husbandry where students hatch their own chickens and follow them to their life on a farm and more. Most of our activities surround healthy sourcing and growing of food.

As a cyber-charter school, we recognize that not every student can attend a face to face activity, even if it is offered in their region. Therefore, we duplicate programming through live streams and pre-recorded videos. Our teachers, K-12, will reach out either individually, as a grade span or subject area to request content. AgWorks staff will craft lessons, videos (pre-recorded or livestreamed), photos, time-lapse videos and more for our staff. Virtually, we conducted a Down on the Farm series where we visited local farms, highlighting the work those farmers are doing during COVID. Over the summer, we partnered with Harrisburg University to have students analyze and report their water usage and carbon footprint, using that information as a key discussion point on how they can reduce their overall environmental impact as a family.

Our Harrisburg Family Service Center was able to reduce our energy usage by leveraging a grant to install solar panels on our roof. We were not only able to reduce our overall costs by a third within the first year of the installation, we were able to provide a dashboard for students to learn about kilowatt hours. We included small, solar panels on our mobile aquaponic classroom which can pull up this dashboard for live, interactive lessons with students.

Aquaponics is a blossoming career field. Capital Campus strives to reduce our water usage and provide additional tie-ins with our grow lab. Our facilities department installed water filling stations to reduce the use of plastic and encourages healthy lifestyle choices. Our lab uses 90 to 95 percent less water than a soil-based agricultural systems. We expand on ways to improve your footprint by providing training on proper food safety and HazCom protocols, ways to mitigate food waste, and provide unique educational and sustainability-based learning opportunities. Unlike food found in grocery stores, the produce we harvest can survive in our refrigeration system for four weeks. Any unused food or dead leaves are donated to two staff members who run family farms. They use this to feed for their chickens. Our facility does not use pesticides; in its place, we developed and implemented an integrated pest management approach that uses “good bugs” and traps to eliminate “bad bugs.” We invite outside groups to attend our facility for field trips, trainings and other opportunities free of charge. During these sessions, we offer to provide salads to continue to spread the word to the community. This offering is especially crucial during COVID. Although we are not able to provide a salad

bar, we are able to virtually stream field trips to traditional public schools, private schools and other institutions upon request. By conducting these activities virtually, we reduce the carbon footprint as those schools do not need to secure buses.

A healthy school environment positively impacts not just students but their families and our staff. To that end, we were purposeful in our approach to encouraging and promoting a healthy work environment. For staff, in addition to water filling stations, we have a robust wellness program that inspires them to live a healthier lifestyle for both body and mind by providing reimbursements for gym memberships and continuing education. All K through 12 students receive a physical education kit with a variety of items, such as exercise balls, jump ropes, and more to encourage them to stay healthy.

CCA strives to include environmental and sustainability practices across all grade levels and subjects. Students are provided with synchronous and asynchronous instruction both from their classroom teachers and AgWorks staff. AgWorks will attend live classroom sessions and elaborate on a variety of topics, ranging from statistical analysis between grow beds, mathematical calculations connected to our fish tanks, readings for students in primary grades that are focused on healthy eating habits, the difference between living and non-living things, and more. We seek to provide an opportunity for students to apply their knowledge using the lab. Once we ignite their passion on a particular topic, we can take it a step further by promoting programs, like field trips, summer camps, job shadows, internships, independent studies and so much more.

AgWorks at CCA is the largest, educationally-based aquaponic facility in the country. Aquaponics allows the operator to grow fresh, organic produce as well as a protein source (fish). At CCA, this produce is provided to local restaurants, but the majority is either given to students learning and working in the lab or donated to the Central Pennsylvania Food Bank. The system itself is 100 percent powered by solar panels, uses 90 to 95 percent less water than a soil-based system, leverages proper food safety and HazCom protocols, and provides unique educational and sustainability-based learning opportunities. AgWorks does not use pesticides; in its place, we developed and implemented an integrated pest management approach that uses “good bugs” and traps to eliminate “bad bugs.”

A healthy school environment positively impacts not just students but their families and our staff. To that end, we were purposeful in our approach to encouraging and promoting a healthy work environment. For staff, we have a robust wellness program that inspires them to live a healthier lifestyle for both body and mind by providing reimbursements for gym memberships and continuing education. All K through 12 students receive a physical education kit with a variety of items, such as exercise balls, jump ropes, and more to encourage them to stay healthy. The AgWorks at CCA facility hosts students routinely for programs that include a healthy meal, like make your own salad dressing and salad. We also send them home with seeds to start their own mini-garden at home. In addition, we also provide with produce to take home at no charge.

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Narrative for Pillar 1: Your Efforts to Reduce Environmental Impact and Costs

Commonwealth Charter Academy (CCA) started the year with approximately 10,000 students and we now have over 19,000. This is because CCA is a public cyber-charter school and our enrollment increased due to COVID. All of our students can complete 100% of their work online, so we do not have the need for bus transportation. They submit their work via attachment through our online learning management system, reducing paper waste. Many of their science experiments include items that are typically found in the home, reducing shipping costs for curriculum kits.

Although many students may prefer to complete their work at home, we have found that this model does not fit every students. To address the needs of our diverse learner population, specifically those that engage best when working face to face, we maintain buildings across the state as resources for learners and their families. The community also has access to these buildings, free of charge, to conduct activities and learn alongside CCA students. Overall, CCA maintains 11 buildings (referred to as Family Service Centers), Drop In Centers (hybrid learning environments for students), hosts face to face field trips in their region and we deploy three mobile classrooms throughout the state. Each Family Service Center is unique, and students have an option to visit any center, field trip, activity, etc. that they choose.

CCA's Capital Campus location is our largest physical building. Capital Campus, located in Harrisburg, Pa., is a 180,000 square foot facility that was renovated between 2016 and 2018 in accordance with the U.S. Department of Environmental Protection's guidelines as well as local and state water quality standards and building code efficiencies. This building includes our AgWorks at CCA Program, which is a hands-on agricultural center. Not all students are within a commutable distance to Capital Campus and AgWorks, so we constructed this system so educators can instruct programming online directly from the lab. In this application, we are highlighting our Capital Campus Center, which includes AgWorks at CCA.

Our Drop In Center at Capital Campus is designed around multiple student needs. In many ways, the center is aptly named, as students can choose to "drop in" anytime between 8am and 4pm. They may choose to

attend this center at any time and for any reason. Some students attend regularly, making friends and completing their school work while on campus, with face to face support from staff. Other students may only attend for an hour to receive assistance with a single lesson. We have students that sign up for clubs, like our Community Service Club and prefer to sign into these clubs as a collective group. Whatever their reason, we want to encourage this interaction. We offer all students interested in attending this center a free bus pass. This encourages them to attend and also helps to reduce our carbon footprint by encouraging students to take mass transportation. Our teachers also report to Capital Campus. If they are commuting from a distance, we encourage them to carpool. When teachers are attending school events off-site, we encourage them to meet at Capital Campus and carpool to the event.

AgWorks is the largest, educationally-based aquaponic facility in the country. Aquaponics is a sustainable form of agriculture, where the grower uses fish and fish waste to grow produce. As such, we practice what we teach to students, as modeling sustainability as a school building serves our students, their families, staff and the community. We routinely invite a student's family to join them in their learning, as the concepts we cover revolve around sustainable practices, many of which they can put to use in their own home.

The facility itself includes fish tanks, grow beds, clarifiers, LED lights, and technology to bring learning alive to students who complete their work at home. AgWorks is 100 percent powered by 1,050 solar panels, located on the roof of the building. We have produced more than 422 MWH in 2020. This 100% powers AgWorks and the remaining energy is used to supplement power to rest of Capital Campus, outside of the grow lab. Our students use our online dashboard to learn about energy production and how to reduce energy usage and costs. These lessons and many others conducted from this facility are applicable to multiple grades.

Our facilities team uses energy consultants to get CCA the best natural gas and electric rates. Our facility follows building code for efficiency. CCA contracts with licensed pest control companies, which are regulated by the state. Each company must be licensed and follow DEP guidelines.

Our aquaponic lab is an indoor, closed-loop, soilless 6,100 square foot growing system that uses 90 to 95 percent less water than a traditional, outdoor farm. In addition to aquaponics, we also leverage aeroponic tower gardens and ebb and flow hydroponic beds as an additional source of learning and growing. In our facility, we have grown and harvested more than 2,800 pounds of produce. These beds use a significantly less amount of water compared to traditional methods, as there is no loss of water due to soil, pests or weeds. Water constantly runs throughout the closed loop and the only water added by our operators is to replace what is lost due to evaporation, use by our plants or transpiration. Since our facility is indoors, we regulate the temperature and humidity, which continues to reduce water consumption by the grow system.

Water reduction is not just a focus within AgWorks. We host numerous events at our building and, when hosting these events, we may order food for our students and their families. As a non-traditional school, we do

not have a cafeteria. Students pack their lunches if they choose to attend our centers. In both cases, we observed that staff would purchase cases of water and students, when packing their lunch, would bring in plastic water bottles and cans of soda. To mitigate this, we installed water filling stations throughout our building. This was to encourage staff, students and families to bring reusable water bottles. When a student routinely attends a center, we provide them with a reusable water bottle with their name.

One of our students, prior to graduation, proposed the installation of a composting center after observing how we collect brown plants for donation to staff for chicken feed. Her proposal is being considered for installation once students and staff return to our centers in a routine capacity. Due to COVID, many of our teachers and students are choosing to complete their work from home. That being said, her proposal of using 10,000 red wiggler worms to process 10 pounds of compost within 24 hours is an ideal way to reduce waste overall in our building. We would place compost bins in each break room, Drop In Center and within AgWorks. Student interns would collect these bins daily and move them to the main compost station. With vermicomposting, we have the option of keeping the bin outside or inside. We want our students who attend the physical center to create a plan on where to place either a vertical bin with multiple compartments or a traditional, 3-drawer storage bin. Part of this proposal includes the use of worm tea in our aquaponic grow beds to enhance plant growth or use it in our landscaping outside. We are excited to start this initiative and hope to have students back this summer to move out of the research phase and into the installation phase.

Our HVAAC system is an energy efficient system. One common misconception of visitors is that, as growers, we have the autonomy to set the temperature and humidity to any setting. This would be inaccurate. Our HVAAC system is capable of heating and cooling our entire building to a comfortable and reasonable setting. However, we are not able to set the system to very cold temperatures in the middle of summer or very hot temperatures in the middle of winter. This means that in winter, when the air is very cold outside, we cannot set our HVACC system to 90 degrees to accommodate our tropical plants. The system will read our request and produce an error, as the amount of energy needed to reach 90 degrees in winter is outside of the capabilities of the settings of the system. As growers, we keep this in mind when selecting plants at AgWorks.

Prior to COVID-19, this produce was provided to students who assisted in the lab, local restaurants as a part of the business portion of our high school internship program and donated to the Central Pennsylvania Food Bank. Once the COVID-19 pandemic hit, our students agreed that this produce should go to the food bank to help fight hunger. In total, we have donated 1,444 pounds of produce to the food bank. This equates to 16,837 side salads or 10,786 main salads. In addition, our students organized their first, annual food drive for the Central Pennsylvania Food Bank, in addition to the food donated and grow by students in our AgWorks facility. The food drive resulted in 364 items donated.

As with any working farm, we do encounter pests. We have contracted with Bug Lady Consulting to ensure that we are implementing best practices in terms of integrated pest management. An aquaponic facility is unable to use pesticides as those chemicals will leach into the grow beds and harm the fish. In place of harmful pesticides, we work with Bug Lady Consulting and Penn State Extension to identify insects. Once identified, we implement a protocol to reduce the negative impact of the identified insect. This may be as simple as placing sticky blue or yellow cards near an infestation or washing the bugs away with water. In some cases, we may need to purchase insects the invasive bug's natural enemy through Beneficial Insectary. These "good bugs" are the predators of the insects that we seek to eliminate from the lab. These pest populations are controlled in this manner, in place of harmful chemicals.

Link to video of solar panels on building roof:

<https://drive.google.com/file/d/16YgUi805aF3OhhHcQZCxcIPerhNVxlDU/view?usp=sharing>

Link to video of aquaponics lab: <https://drive.google.com/file/d/1GqB6DAs1iSV0GL-IJPIQoedykLKKyn0n/view>

Narrative for Pillar 2: Your Efforts to Improve the Health and Wellness of Students and Staff

AgWorks at CCA is located at Commonwealth Charter Academy's (CCA) in Harrisburg, Pa. This 180,000 square foot facility is kept impeccable, clean, and safe, not just for food safety, but for our faculty and students. We follow and adhere to all safety conditions and standards. Our dedicated facilities team ensures that conditions are in full functioning order and that we maintain the highest standard of safety and cleanliness, especially during COVID-19. In addition, as an organization, we are committed to providing our staff with access to and opportunities for blending wellness at work. We have wellness programs, a wellness committee, and do many fun activities throughout the year to encourage and reward healthy behaviors. We receive wellness dollars through our partnership with our insurance provider that rewards our current and continuing commitment to wellness throughout CCA and with our staff.

CCA provides safe and ergonomically sound workspaces that foster professional, friendly, and collaborative exchanges. Our buildings provide a diverse offering of workspaces to ensure that staff can appropriately perform the duties of their positions, work collaboratively and with teams as needed, allow for space to be creative and brainstorming, provide privacy as needed, and allow for ample opportunities for a break from work. Beautiful breakroom spaces have been provided throughout the facility to allow for a respite from work and their workspace with access to snacks, lunch space, coffee/water, or simply some downtime (perhaps even some reading next to the fireplace). We have water filling stations located throughout the office for staff convenience. Each station notes the number of water bottles saved by filling at these stations. Nursing mothers are provided their own dedicated room for pumping in a quiet, private, and locked area.

An engaged staff is a more effective, efficient, and productive staff. As such, we provide access to a variety of providers that encourage overall wellness. Employees have access to an excellent Employee Assistance Program, which provides support and counseling in all aspects of their daily and personal lives. We provide reimbursement programs for continuing education and gym memberships. CCA provides activities, lunch and learns, and contests to promote increased or sustaining physical and general wellness activities. We believe in providing access to financial resources because financial concerns can often lead to great distraction at work and home. We have a diversity and inclusion committee that also provides resources to ensure that all employees feel supported in every aspect of their life and that they know they are respected, treated fairly and professionally, and that we provide a safe and welcoming work environment to all.

Each and every student who attends CCA deserves a personalized, unique, and tailored experience that meets their specific educational and personal needs. It is with this in mind, that we aspire to do the same with our staff. They also deserve to be known and heard. This allows for greater peace of mind, balance, and thus the ability to be more present at work. We try to provide a diverse offering of programs, providers, and partnerships to meet the variety of needs represented by our staff. And we continue to add to this list. Our staff of nearly 1,000 has easy access to their supervisors, Human Resources, and the president and CEO to address concerns, and we host a CEO Advisory Panel to uncover issues that need to be addressed throughout our organization. We are in perpetual improvement mode and work hard to provide the very best working conditions and support to our staff as well as students and families. This has never been truer as we were faced with the ever-changing needs of our staff through COVID-19 and, thus, created many different accommodations along the way.

That connection between administration and staff extends to students and families. Their overall health, both mental and physical, is the foundation that we can grow upon with educational standards. Without a healthy mind, body, and family structure, we struggle.

Students have access to our Student Assistance Program (SAP), which provides support and guidance to students and families. This is in addition to their assigned school counselor. Our counseling team offers monthly lessons surrounding a variety of mental health awareness topics, like December's lesson on seasonal depression. We seek to provide students and their families with strategies to implement at home or with their teacher when they see early warning signs.

We approach each student as a team. They are assigned a homeroom teacher who checks in biweekly with the student and their parent/guardian. They provide updates ranging from diagnostic testing results, classroom support, modification to lessons (as needed), supports and encouragement toward goals and to check in on how the family is doing overall. This consistent communication allows us to know the entire family and any stressors that may impact them as students as they work toward their individual goals. This teacher will work with subject teachers, special education teachers, guidance, family services, AgWorks, and other

departments to ensure that a child is reaching their potential. If they need assistance or encouragement, a teacher may offer tutoring, after-hours support, lesson modifications, guidance department intervention, SAP support, enrollment in clubs, attendance at field trips (socialization), job shadows, internships, use of our community class reimbursement (\$200 stipend per student that can be used for educational supplies and activities), and more.

Physical education is one way to promote student health. While Pennsylvania standards cover mostly health concepts, CCA encourages students to be physically active by promoting movement at the end of each lesson. We send students health and physical education kits that include items, like playground balls, jump ropes, and resistance bands, so they can exercise at home.

CCA offers Community Class Reimbursement to all students who meet eligibility requirements by maintaining adequate attendance and passing grades. The Community Class Reimbursement helps to offset the cost of extracurricular community classes including, but not limited to, community sports leagues, karate lessons, swimming lessons, and fitness classes.

CCA also offers social field trips and Adventure Club that focus on outdoor physical activity. Twenty-five percent of all field trips are social events. Some examples include archery, canoeing, white water rafting, zip-lining, hiking, snow tubing, ice skating, horseback riding, outdoor rope courses, orienteering, kayaking, stand-up paddleboarding, golfing, fishing, and paintball. Other components include health education, health services, counseling, psychological and social services, sun safety, staff health promotion, and family and community involvement.

Family involvement activities are designed to promote increased parent and family involvement. Needs assessments and family surveys inform event planning and include activities such as financial literacy, resume writing and interview skills, cooking and meal planning, healthy kids and families, etc. We offer Learning Coach Outreach Sessions (LCOS), which are full-day, family involvement sessions designed to provide families with tools and resources to be successful inside and outside of school. Topics vary and are determined by parent surveys. Topics include test-taking strategies, student assistance program, school counseling, note-taking strategies, motivating students, financial literacy, and technology training. Over the summer, we hold events designed to engage families and provide free, summer reading material to students.

Each new family receives a family mentor who assists them with regular, year-long support with non-academic issues, such as setting up a classroom, effective scheduling, managing multiple students, technology needs, staying on track and/or catching up, information on community resources based on situation and need, strategies for success. Fifty-one percent of CCA families currently have a family mentor. To date, mentors have made more than 30,000 contacts to newly enrolled families.

Narrative for Pillar 3: Your Efforts to Ensure Effective Environmental and Sustainability Education

CCA is proud to have built the majority of our online courses internally. As we build our courses, we tag each lesson with PA Environment and Ecology Standards as well as PA Reading and Writing Standards. This allows our curriculum designers and writers to confirm that all standards are thoroughly covered and scaffolded throughout each grade level. If a student is struggling with a particular standard, a teacher can refer to these tags to source additional material to help with understanding. All of our science courses are written using the 5E model – engage, explore, explain, elaborate, and evaluate. This progression of content development and instruction moves students into application and assessment. Each science course includes a kit to facilitate safe labs at home for the study of life, earth, and physical science. Virtual labs and demonstrations are included in the course through Gizmos and Padlet.

To further enhance K-12 lessons, teachers have access to incorporate AgWorks at CCA. AgWorks touches upon each grade level and subject area. If we are instructing photosynthesis, AgWorks can demonstrate how light frequency impacts the chloroplasts by modifying red and blue LED lights in the lab, which results in physiological changes in the plants. If we are instructing on seed dispersal, we can leverage our Boston Dynamics animatronic dog to showcase how animals move seeds without the fear of allergies. If we are instructing math, we can have students calculate the size of our tanks based on their measurements. Social studies is brought to life by discussing how food deserts can lead to war between communities and even nations.

We have conducted integrated experiments where students play fun music, say kind words, create beautiful drawings for one set of plants, while another set is played sad music, told unkind words, and surrounded by dark drawings. They compare the differences in the morphology and growth of these plants, while learning about mental health and the impact of your environment on your growth. Another experiment that highlights the need for us to work together is our Sister Garden. We planted corn, squash, and beans in the same bed to highlight how plants have a symbiotic relationship. For example, as the corn grows tall, the beans use the height to wind around and grow tall. The squash defends both plants' base by spreading their leaves wide and warding off predators. Just like these plants, students can lean on one another and together grow stronger.

This year, we deliver these lessons as guest speakers in each teacher's zoom class. When multiple classes want us to present, we leverage YouTube live stream, which teachers stream in their individual Zoom classrooms. In total, we have had nearly 12,600 students participate in our live stream instruction and an additional 1,591 students have attended field trips presented from AgWorks.

With respect to civic knowledge, students are challenged to consider alternative viewpoints, appreciate diversity, analyze the role of citizens in the political process, and monitoring and understanding. Students achieve this goal through discourse, which is incorporated into their guided and live classroom experiences with

their classmates and teacher. In these settings, students learn to interact with other classmates, express opinions, ask questions, and show respect.

In all courses, students participate in asynchronous activities to promote critical thinking and respectful dialogue through discussion boards and Padlet posts. All K through 12 Social Studies programs are in line with digital citizenship, which uses common sense media content. These lesson topics include news and media literacy, relationships and communication, privacy and security, and understanding digital footprints.

CCA students are encouraged to participate in field trips and activities outside of the home. These field trips are curriculum and standards-aligned; extracurricular events are open to all CCA students across Pennsylvania. During the 2020-21 school year, we will offer more than 700 educational and social field trips for students. Each of the 221 field trips we've hosted to date has been conducted in a virtual setting at no cost to families. Free, virtual field trips ensure accessibility for all CCA families. Below is our data for field trip attendance at CCA. While most of the field trips held during the 2019-20 school year were offered face-to-face, for student safety, the 2020-21 school year field trips are being held virtually.

In 2020, despite the COVID pandemic, 48 field experiences - 22 percent of the total learning excursions – focused on environmental and/or sustainability education. Some examples include:

- Green Acres! Down on the Farm live Zoom sessions held at farms across the area, ranging from hobby farms to show horses. Students learn and hear from farmers about what it takes to raise a variety of plants and animals.
- Students heard directly from the CEO of Grow Computer about how to start their own business. He walked them through the needs assessment, brainstorming, staffing, financial and marketing piece of starting a sustainable grow sensor company used to support farms.
- Hands-on lake ecology experience! Students will examine the physical zones of a lake to learn how those zones affect the biotic communities that can live there.
- Allegheny County Sanitary Authority (ALCOSAN) provides wastewater treatment services to 83 communities, including the City of Pittsburgh. ALCOSAN's 59-acre treatment plant is one of the largest wastewater treatment facilities in the Ohio River Valley, processing up to 250 million gallons of wastewater daily. Its mission is to provide cost-effective, customer-oriented, and environmentally conscious wastewater treatment that protects public health and enhances the use of our natural resources.
- K-6th Grade-Exploring Ecosystems: Students will examine two different types of ecosystems: wetlands and streams. Through guided instruction and exploration students will compare and gather observational data to illustrate the diverse interactions of living and nonliving things in each ecosystem. Students will also investigate invasive species and analyze their impact on these ecosystems.



- 7th-12th Grade-Coal and Abandoned Mine Drainage Investigations: Students explore the history of an abandoned coal mine site and the passive treatment system designed to lessen the environmental impact of the past practices. Students will design and investigate, determining the pollution type, and effectiveness of the treatment (using chemical and biological parameters).
- Ever wonder what happens to all the food that gets thrown in the trash? Well in this case one man's trash is another man's ENERGY source! Join us as CCA gets their very own tour of the wastewater reclamation facility where they are taking pre-consumer food waste and converting it to energy that generates POWER! In the early 2000s, the city of Hermitage decided to better utilize the methane gas produced at its upgraded wastewater reclamation facility. They soon discovered a way to use food waste biomass to increase the methane gas and allow the city to recapture energy and convert it to electricity, which is then sold back to the grid!
- We're very familiar with recycling but what about one of the other three "r's?" Students will learn about putting all of that "stuff" to good use! We will begin the first part of our adventure at Construction Junction where we will go on a behind-the-scenes tour and learn more about material reuse, training, and recycling partners. Next up, it's onto a guided behind the scenes tour of Pittsburgh Center for Creative Reuse located right next door! During this portion of our trip, we will learn about the history and mission of reuse, importance of reuse in daily life, and take a tour of the workshop and warehouse! Finally, it's time to give our participants the tools to create a masterpiece using everyday objects during a remake class!
- Northeast PA's very own Tricky Triangle at Pocono Raceway has become one of the most environmentally conscious tracks in NASCAR and the entire sports world. During this event we will explore the track named "The Tricky Triangle", learn about the sustainability efforts including using solar power, recycling, and planting programs. These steps will benefit the local environment, keeping it cleaner and making it more attractive for the year-round community and the thousands of fans who come together for our events every year
- Believe it or not, one of the nation's largest solar plants exists close by in Nesquehoning. Join CCA teacher Mr. Chehovich as we discover what is so special about solar panels, alternative energy, and use google earth to guide us through hands-on activities.
 - EDU Energy NOW! @ Silver Lake Nature Center. Students will learn about the basic forms and principles of energy, where energy comes from, why we need it, and how to practice energy conservation. We'll fly a solar balloon, measure the wind, and do some fun experiments at the silver lake sound stations! We work to discover what can pollute the air we breathe and the water we drink. Once we know what makes those things "dirty" we can use everyday items to help filter out the toxins. The



Educational Specialist, at the park, will lead us through several hands-on experiments to do just that, will YOU find the way that works the best?

- High school students with an avid interest in STEM are encouraged to sign up for career-readiness opportunities. Students complete fall 2020 internships relating to environmental and sustainability education at the following locations:
 - Water tank Restoration @ IGF Specialties LLC
 - Marketing @ Longacre's Modern Dairy
 - Communications @ Elmwood Park Zoo
 - Student educating guests about animals and conservation
 - Ag Equipment @ Double L Farms
 - Fixing and repairing agriculture equipment
- Spring 2021 internships relate to environmental and sustainability education include:
 - Animal rescue/barn management @ Liberty Acres Equine rescue and sanctuary
 - Pennoni – Civil Engineering, specialty Wastewater Management