



## District Sustainability Award Nominee Presentation Form

### CERTIFICATIONS

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#### District's Certifications

The signatures of the district superintendent on the next page certify that each of the statements below concerning the district's eligibility and compliance with the following requirements is true and correct to the best of the superintendent's knowledge.

1. The district has been evaluated and selected from among districts 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.
2. The district is providing 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.
3. OCR has not issued a violation letter of findings to the school district concluding that the nominated school district 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.
4. The U.S. Department of Justice does not have a pending suit alleging that the school district has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
5. 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 school district in question; or if there are such findings, the state or school district has corrected, or agreed to correct, the findings.
6. The district 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 District Sustainability Award 2019-2021

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

District Name: Rappahannock County Public Schools  
(As it should appear on an award)

Address: 6 Schoolhouse Rd, Washington VA 22747

Telephone: 540-227-0023 Fax:

Web site/URL: <http://rappahannockschools.us> E-mail: [sgrimsley@rappahannockschools.us](mailto:sgrimsley@rappahannockschools.us)

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

Date: 02/03/2020

(Superintendent's Signature)

#### Nominating Authority's Certifications



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

1. The district 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 education.
2. The district 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: Virginia Department of Education

Name of Nominating Authority: Dr. Anne Petersen

(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.

A handwritten signature in black ink, appearing to read "Anna M. Petersen".

Date: 02/03/2020

(Nominating Authority's Signature)

## **SUBMISSION**

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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](mailto: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



## Documentation of Sustainability Achievement

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

Rappahannock County Public Schools (RCPS) is a small, rural school division, nestled within the Blue Ridge Mountains and at the headwaters of the Rappahannock River. There are two schools in the district; Rappahannock County Elementary School and Rappahannock County High School, with a total district enrollment of 801 students. RCPS has a free and reduced rate of 37%. RCPS prides itself on the idea of a school family with all students, staff, and community members as part of the family.

Rappahannock County's population of 7,456 residents embraces its scenic environment and strives to preserve the serene nature of the county. RCPS is accurately an extension of the county's values. RCPS LCI is 79.19% resulting in the majority of funding for our school district coming from our local government. Community members of Rappahannock County provide outstanding support for the school, as evidenced by the generous donations of community members and community groups.

RCPS strives to limit the use of natural resources by striving to make our facilities as efficient as possible. Both schools in the past couple of years have had the windows replaced with thermal insulated windows. HVAC control systems have been installed at both schools allowing for lower temperatures to be set at the time classrooms and offices are not occupied. All exterior lighting has been replaced with energy-efficient lighting, which also results in the amount of light pollution the school district produces.

RCPS works with all staff to ensure our schools are safe and clean areas. Pest management is an ongoing process with monthly inspections and treatments to discourage pests in our buildings. Staff are encouraged not to have food in their classrooms, close all doors, and report any issues of pests through RCPS' online ticket system.

A list of all chemicals and cleaners are kept in both schools as well as the School Board Office. Each nurse and custodian are given Safety Data Sheets with the following information: hazard identification, ingredients, first aid measures, firefighting measures, accidental release measure, handling and storage, exposure controls and personal protection, stability, and reactivity, toxicological information, ecological information, and disposal. RCPS works closely with the county landfill to ensure all chemicals and materials are disposed of while meeting all federal and state requirements, as well as being environmentally friendly stewards of our environment.

Recycling in the school district is a part of our culture. Both schools participate in a recycling program led by students. Multi-stream recycling containers are at both schools. RCPS technology department recycles all discarded technology equipment. Rappahannock County High School has rain harvesting cisterns that are used to water plants in the greenhouse and school gardens. All district schools have composting bins for food waste. A food sharing table was implemented in our cafeterias to reduce food waste. Weekly classroom newsletters, Tuesday Folders, and High School Happenings (weekly school communication) have gone digital, resulting in a significant reduction in the use of paper at both schools. These changes have resulted in a reduction of 13.54 tons of waste.

RCPS operates its sewer treatment plants at each site. Self-operation of the treatment plants enable the school district the assurance that the effluent discharged meets all federal and state requirement resulting in clean water being put into our creeks and rivers.

RCPS recognizes the importance of a healthy learning environment for our school family. Dehumidification systems have been installed on all HVAC equipment. All exhaust fans and fresh air intake have been replaced or serviced. All air filters are changed quarterly, and all external air fresheners have been banned from the district to improve air quality.

RCPS understands the importance of mental health for our students and staff. All staff are trained in Mental Health first aid. RCPS employs guidance counselors, a school psychologist, and a licensed social who all work cooperatively in the Mental Health Innovators Team. OLWEUS has been implemented by RCPS as the anti-bullying program allowing each child the opportunity to develop their social skills and empathy. Teachers are taught mindfulness meditation so they can implement this with their students. RCPS participates in Build a Child through monthly meetings with community organizations to ensure students at risk have the services they need.

Commit to Be Fit is a grant funded program in RCPS, focusing specifically on creating a culture of health and wellness within our cafeterias, classrooms, and community. The nutrition strand of the program focuses on promoting accessibility, education, and experiences. RCPS rural location creates a food desert resulting in a need for fresh healthy, food in our cafeterias. To combat this issue, a salad bar has been instated in both schools, with 14% of the produce coming from local Virginia growers. All students have been given Power of Produce (POP) bucks to purchase foods from our local Farmer's Market. The classroom component of Commit to be Fit located at the elementary school is based on brain research that moving enhances learning for all ages. The Action Based Learning Lab is a series of ten stations of movement designed to assist in filling developmental movement gaps while enhancing learning. The lab is also used to integrate classroom curriculum to enhance kinesthetic learning. A sensory pathway has been installed in the primary wing of Rappahannock County Elementary. At Rappahannock County High School, Commit to be Fit has installed a Neuronasium. Traditional desks are replaced with pedal desks, standing desks, glider desks, balance desk, swivel desks, and wobble stools that promote balance and core strength. Teachers bring their students to this classroom for instruction. A Nutrition and Personal Fitness course have been implemented at the high school.

With the family nature of our school district, it is understood the community is a vital part of our school district. Commit to be Fit understands that teachers, parents, and the community are role models of health for our students. Commit to be Fit offers weekly fitness classes and workshops to all staff, parents, and community members. During the 2018-2019 school year, a total of 439 workshops, classes, and events were held at no charge to the participants.

RCPS values effective environmental and sustainability education by incorporating these into our curriculum. This begins in kindergarten and continues until the 12<sup>th</sup> grade. Kindergarten students learn the importance of recycling, conservation, and reusing products. Third grade students create a solar oven to understand how it works. Community organizations are vital to this success. Culpeper Soil and Water helped our sixth graders build watershed models to explore runoff. RappFLOW and the RCPS STEAM coordinator are co-teaching a unit to explore ground cover and the impact of erosion and soil conservation. Master Naturalists and Master Gardeners work with our students on the importance of pollinators and ways to ensure their survival. "Trout in the Classroom" program is implemented in both schools in the district. Classrooms raise Brook Trout while researching, monitoring water samples, and working to maintain a healthy environment for the fish to grow. These trout are then released into local rivers. Students monitor two local rivers to compare and analyze how environmental impacts such as farm, development, riparian, etc. affect the quality of the water.

This year a courtyard was installed at Rappahannock County Elementary School. This courtyard includes raised beds for classrooms to grow herbs and vegetables, an outdoor classroom with an interactive monitor, a pond with waterfall, composting bins, kiln, a greenhouse, and a labyrinth. A new entrance was installed from the STEAM lab to promote the integration of instruction to allow teachers to bring their students to an outside learning environment.

School gardens are located at all schools in our district. Teachers can use the space to integrate into their curriculum, use the outdoor learning area for their lessons, or a healthy break for students. Civic responsibility is an important aspect of our community. Our students participate in recycling programs. Students participate in an ongoing trash cleanup projects on our county roads. Students are actively involved in "neighbors helping neighbors" sponsored by Habitat for Humanity. Students completed clean outdoor activities and planted flowers and shrubs. RCPS students recognize they are part of the Rappahannock community and that their participation is visible and valuable to this community.

### **Pillar 1: Efforts to Reduce Environmental Impact and Costs**

Rappahannock County Public Schools continually looks for ways to conserve energy as well as be good stewards of our environment. Energy efficiency has been a leading factor in many of our budgetary decisions with a focus on our Capital Improvement Plan. Our Capital Improvement Plan focuses on ways to reduce our energy consumption while still meeting the needs of our school community. Electric use is tracked through the Rappahannock Electric Cooperative website, which allows the school district to monitor our current and past electric use. Windows in both schools were replaced within the last three years with thermal energy-efficient windows. The installation of these windows resulted in a comfortable learning environment for our students and teachers, as well as reducing our heating and air conditioning costs. Rappahannock County Public Schools teamed with the Rappahannock League for Environmental Protection to replace all outside pole and wall mount lighting to conserve energy and reduce light

pollution through the use of devices which are dark sky compliant. These outside lights are dusk to dawn lights that dim when not in use. Balancing the need for security, while conserving energy and reducing light pollution is a difficult balance, but one we have been able to achieve. The data from installing these low energy lighting and windows demonstrated a reduction of 64,772 KWH use in seven months.

New cool roofing was installed on our elementary gym, cafeteria, and hallway, decreasing the district's heat island effect.

Both schools have had managed HVAC control system installed to manage the temperature control, allowing the district to reduce the usage when school is not in session. This controlled HVAC system has reduced the number of facilities maintenance requests by 23.53%, suggesting a more comfortable regulated learning environment for students and staff. This control system also reduced our heating oil consumption by 15%, therefore, reducing our greenhouse gas emissions.

RCPS manages, in cooperation with Rappahannock County Sewer and Water Authority, its own sewer and water treatment plants. A lagoon system services Rappahannock County Elementary School. Primary treatment begins in the septic tank and then is discharged to the lagoon. The lagoon is a lemna system, with different zones to break down wastewater and is accomplished by the duckweed mat growing on the surface of the lagoon. The lagoon is designed to remove 90% of BOD. The lagoon discharges to an unnamed tributary of the Rush River in the Rappahannock River Basin with effluent results of Biochemical Oxygen Demand 3 mg/l, Total Suspended Solids 1.31 mg/l, and Ammonia as N .14 mg/l

The High School primary treatment occurs in the septic tank, and the final treatment of the wastewater is accomplished in the sand filter beds by bacteria. The HS discharges to an unnamed tributary to the Covington River in the Rappahannock River with effluent results of Biochemical Oxygen Demand 20mg/l, Total Suspended Solids 6.51 mg/l, and Ammonia as N 4.74 mg/l.

RCPS also operates its water treatment. Drilled groundwater wells provide the drinking water for both schools. The High School system is treated with three chemical feels. Chlorine for disinfection, soda ash is added to raise the ph levels, and orthor-polyphosphate (a corrosion inhibitor). By keeping the ph level of the water low, it decreases corrosion of our pipes, therefore, reducing the possibility of lead in our water system. The elementary school is treated with chlorine to disinfect, and the water is filtered through two greensand filters for the removal of iron and manganese. RCPS strives to use as little chemicals as necessary to meet the state and federal guidelines for drinking water as well as protect our water sources from potential contaminants, including lead. As an added protection, filtered bottle filling water stations have been installed in both schools to ensure clean, fresh drinking water for our staff and students. Every potable water source has been tested for lead with only one sink in the district showing unacceptable amounts of lead. The facet was changed, and the sink retested, resulting in no lead at that location. Auto shut faucets have been installed in our student restrooms to aid in the conservation of water.

RCPS has partnered with Rappahannock Friends and Lovers of Our Watershed (RappFLOW). This partnership has resulted in an outdoor courtyard at Rappahannock County Elementary School. This courtyard has raised beds, a classroom, composting, and rain barrels. These rain barrel collection sites give access to water used in the raised beds. RappFLOW is also involved in plant selections for both schools. Rappahannock County High School has two water cisterns, and each holds 1500 gallons of water. This water is used in the greenhouse and the courtyard raised beds to irrigate the plants.

RCPS values our natural resources and strives to limit the amount of waste we produce. Rappahannock County Elementary School and Rappahannock County High School have both established a recycling program. Multi-Stream recycling containers are placed at both schools. Students lead each school's recycling program. Rappahannock County Public Schools Technology Department recycles all discarded technology equipment through a certified recycler. Students help to maintain compost and worm bins at both schools, which allows first hand learning about soil science and using food waste to make a usable product that improves the garden soil. Rappahannock County Public Schools have implemented Google Classroom for all students and staff. This change has allowed teachers and students to share

documents digitally, greatly reducing the need for paper. Parent communications, Tuesday Folders, and RCPS Happenings have gone digital. Reusable plates are used in both of the RCPS schools, replacing Styrofoam plates. Rappahannock County Elementary School has implemented a Share Table where students can place unwanted, unopened food items for other students to have. All paper towel dispensers at the high school have been replaced with air dryers — our elementary school in the process of installing these also. RCPS has kept 13.54 tons of waste out of our landfills in the last year alone.

Safety Data Sheets are placed in key locations within the school district. These sheets contain all cleaning products used within the district. Key stakeholders, such as the custodians, facilities, and nurses, keep this on hand in case of accidental exposure and for the correct usage of these products. All custodians on trained are the correct handling and disposal of all cleaning agents.

Hazard material is treated with care. The RCPS technology department takes all products containing mercury to the county waster, who contract with a vendor for safe disposal. Oil from the RCPS transportation department is picked up by a recycling vendor to be repurposed. Our science classes manage their hazard by preserving fluid from specimens retained in buckets and turned over to a certified company for disposal. Waste solutions of metal ions (iron, copper, and aluminum) are collected and evaporated, and the dry chemicals are disposed of by the county waste management. Organic chemicals are disposed of by evaporation. RCPS has a biohazard plan in place to handle emergency spills.

Yearly monitoring of our transportation department to ensure we are utilizing the most cost and environmentally effective methods has led to changes in the general practices. It was determined that some bus routes could be merged into one route. Rappahannock County Public Schools' transportation department reduced the number of bus routes by 11.11%. District policy was also implemented to have buses turn their engines off while waiting for students to load at drop off and pick up times at the schools. This decrease in routes decreased the total emissions as well as fuel used. The transportation department also replaced 27.77% of our oldest buses, some as old as 15 years. This combined reduction in bus routes, the purchase of more fuel-efficient buses, and a decrease in idle running time led to a decrease of 59,376 gallons of fuel.

Rappahannock County Public Schools is located in a pristine part of Virginia. As good citizens of our community, RCPS continually try to limit our impact on our environment.

## **Pillar 2: Efforts to Improve the Health and Wellness of Students and Staff**

RCPS recognizes the significance of a healthy learning environment for our students and staff. Rappahannock County Elementary School has installed dehumidification systems on all HVAC. All exhaust fans and fresh air intake systems in the school district have been serviced or replaced, filters are changed quarterly, and all external air freshener have been banned to improve air quality. Air quality tests are performed annually to determine if the air quality meets industry standards. Teachers and staff have been given the ability to regulate the temperature in their workspace to ensure optimal comfort for each individual.

RCPS has an integrated pest management system in place which employs appropriate procedures to deter the development of pest populations and to keep pesticides and other methods of deterrence from risks to humans and the environment. Pest inspections are done monthly. If employees notice the presence of pests, an inspection of the area is completed and appropriate measures are taken. Records of the inspections and methods used are kept to ensure the least impactful methods are used to keep the environment free from pests and to limit human exposure to chemicals.

Weekly inspections are conducted at each school by the principals and the Director of Facilities to control moisture and the growth of mold. If a leak is found, immediate action is taken to alleviate the issue. If mold is found, custodians immediately eradicate the issue. A mold test is performed to ensure the issue is resolved.

RCPS follows the Virginia Department of Education's guideline in the Safety in Science Teaching policy which covers: the need for safety, chemical inventory, hazard recognition, planning for safety, chemical hazard control, biological and environmental hazard control, other hazards procedures, eye, face and respiratory protection, documentation, and designing for safety. These safety standards are taught in all RCPS science classes.

RCPS recognizes the importance of school nurses. A full time nurse is located at each school. RCPS recognizes the importance of school nurses as an expert in the prevention and control of communicable diseases. As noted by the

National Association of School Nurses, the presence of a school nurse cuts about half the student illness early dismissals as compared to schools where there is no nurse present. RCPS nurses give input on related medical policy, ensure our schools are meeting federal and state guidelines, and administer specialized services such as medications, ventilators, and tube feedings.

RCPS takes into consideration the mental health wellness of all students and teachers. Programs are implemented to ensure that students are functioning at their highest capacity to ensure learning and social emotional wellness is effectively being met. These programs occur at both the elementary and high school levels. These programs are addressed through individual services, family services, group services, and school wide program implementation as well as collaboration with community resources.

The Mental Health Innovators Team, comprised of the school psychologist, school guidance counselors, school social worker, and the therapeutic day treatment counselor, meet regularly to work on the development and implementation of a Social Emotional Learning Curriculum for the 2020-2021 academic year. Other issues addressed are: working toward becoming Trauma Informed, suicide prevention, and bullying prevention. Unity Day and Pride Day are school-wide events that all staff and students participate in to raise awareness for anti-bullying efforts.

All staff are trained in Mental Health First Aide, and specific staff are trained in REVIVE (Narcan administration). Students are offered the opportunity to have individual sessions with guidance counselors and the school social worker (LCSW), which may result in referrals to community resources. In addition, social skills, coping skills, and substance abuse (including vaping) activities are held for students. The school social worker provides crisis management services in real time during the school day to any student in crisis as well as oversees the crisis hotline, which students and families utilize for support and safety.

OLWEUS is the adopted anti-bullying program that RCPS has implemented. Each child, through classroom presentations, is afforded the opportunity to increase their social skills and empathy through this program. The school social worker is conducting home visits with at risk students and families and making community resource referrals as needed. The school social worker is also completing suicide risk assessments, working collaboratively with Child Protective Services, and Rappahannock's Foster Care Program through the Department of Social Services.

Mindfulness meditation is being taught to teachers so that they may implement this in classroom settings. Teachers and mental health staff in the school are working together to identify appropriate interventions for the students who present with maladaptive behaviors. Mental health staff is also working closely with parents to provide support and interventions. Build a Child is a monthly meeting that occurs with the Department of Social Services and the Rappahannock-Rapidan Community Service Board. Build a Child to ensure at risk students have access to all resources available, and all departments problem solve the best way to meet the student/family's needs. In November, the school social worker chaperoned select students to the Community Dialogue for Youth Voices to address mental health issues that youth are faced within the community and school settings. Many community resources are utilized in helping to keep our students safe and healthy. They include but are not limited to the following: RRCSB, Rappahannock County Department of Social Services, Rappahannock County Health Department, Rappahannock County Food Pantry, local churches, Juvenile Probation and Court Services, The LINK Project, and the Rappahannock County Sheriff's Department.

Commit to Be Fit (C2BF) is a grant-funded program within Rappahannock County Public Schools committed to creating a culture of health and wellness within our cafeterias, classrooms, and community. The C2BF program was presented an award by Governor McAuliffe as the recipient of the 2017 Virginia School Board Association's Food for Thought Competition for wellness/physical activity.

The nutrition prong of the Commit to Be Fit program focuses on promoting accessibility, education, and experiences for our students and staff. The rural nature of our county creates a food desert, which strengthens the school division's responsibility to provide access to fresh, healthy foods in the cafeterias. We added a daily salad bar to Rappahannock County High School and added different themed salad bar days to Rappahannock County Elementary School. Fresh produce availability has increased, 14% of which was procured from local Virginia sources during the 2018-2019 school year. In 2018, The Institute for Healthy Living conducted an evaluation of fruit and vegetable consumption with our students using their VEGGIE METER® scores. The VEGGIE METER® is a tool based on reflectance spectroscopy that assesses carotenoid levels in the skin. The results indicated that students consumed more

fruits and vegetables during the school year compared to the summer, perhaps in part due to participation in the school lunch program. All students receive POP (Power of Produce) bucks to be able to purchase fresh fruits, vegetables, proteins, and more at the Rappahannock County or Warrenton Farmers' Market. Redemption rates of POP Bucks from Rappahannock students increased between summer 2018 to summer 2019. Aside from food, the importance of water consumption is also taught and demonstrated on Rev your Bev Day. To further encourage water consumption, an additional water bottle refilling station was added to RCHS. All students have opportunities throughout the year to provide input on new menu ideas that they would like to see in the cafeterias. Commit to Be Fit also provides hands-on learning experiences through Farmer Friday taste tests, Farmer's Market field trips, after-school cooking clubs, and healthy eating workshops for parents/community members. Additionally, Commit to Be Fit teaches an elective, Nutrition and Personal Fitness, at RCHS, which utilizes peer health education methods to further promote a culture of health within our school community.

The classroom prong of the Commit to be Fit (C2BF) program is based on brain research that movement enhances learning for all ages. C2BF is dedicated to promoting an educational culture that encourages more movement opportunities for students to build healthier bodies and enhance learning in the classrooms. The Action Based Learning (ABL) lab is a series of ten stations of purposeful movement designed to help fill developmental movement gaps with the intention of enhancing learning while giving the framework associated with learning. The stations in the ABL lab focus on the following movement foundations: cross lateralization, balance, visual tracking, proprioception, vestibular development, fine motor skills, gross motor skills, rhythm and beat, muscular strength and endurance, and cardiovascular endurance. All students (PreK-5) visit the lab on a regular exploratory rotation, with additional opportunities available for grades 6-7th. In surveying the students, 64% of students loved the ABL lab and 26% of students liked the ABL lab. In addition to filling movement gaps, the lab is used to integrate classroom curriculum to enhance kinesthetic learning. Moreover, C2BF has created an online database of short classroom activities or brain breaks, listed by each movement foundation. Activity breaks in the classroom have been shown to refocus attention and increase on-task behavior. In addition to working with the students in the ABL lab, C2BF's wellness integration specialists push into teacher's classrooms to lead a variety of movement activities to complement lessons and conduct brain breaks. In the Fall of 2019, C2BF debuted a sensory pathway in the primary wing of the elementary school. The pathway, which spans the length of two hallways, encourages students to engage in a variety of movement patterns: hopping, marching, heel-to-toe balance walk, hopscotch, crab walking, and more. Teachers are encouraged to take students to the pathway during bathroom breaks or on their way to lunch or recess. At the high school, C2BF debuted the Neuronasium, an alternative seating classroom. Seventy-eight percent of high school students used the neuronasium. Rather than using traditional desks, the room is outfitted with a variety of alternative desk options: pedal desks, standing desks, glider desks, balance desks, swivel desks, and wobble stools that promote balance and core strength. We think best on our feet, not in our seats. Furthermore, purposeful movement helps to increase attention and alertness. In surveying the students: 96% of students reported enjoying the class in the neuronasium, 86% of students reported they feel more focused and are able to concentrate on the lesson better in the neuronasium, 85% students reported they feel they are able to memorize or understand the class materials better in the neuronasium. In a survey a student said, *"I enjoy this room. You learn better with movement and your brain works faster."* Furthermore, 87% of the teachers who have tried the neuronasium have continued to use the classroom. In the October 2019 edition of Virginia Living Magazine, RCHS was recognized as one of the Virginia Living Top Schools 2019 for the Neuronasium. Finally, C2BF teaches a Nutrition and Personal Fitness elective course at the high school. This semester course is designed to prepare students with the knowledge and skills to lead a healthy lifestyle.

Staff and community wellness is an integral part of the Commit to Be Fit's three-pronged approach. Realizing that healthy teachers and staff, parents, and community members serve as important role models for the students, C2BF offers a variety of weekly fitness classes and workshops that are offered to the community free of charge. During the school year 2018-2019, C2BF offered a total of 439 workshops, events, and classes, such as cardio strength training, yoga, low impact aerobics, step, meal prep, and more! In addition, C2BF offers monthly challenges for staff and community, designed to promote healthy behaviors. A few of the monthly topics have included increased hydration, increased sleep, increased physical activity, and eating a variety of colorful vegetables. All participants that compete in

the monthly challenge are entered into a monthly prize drawing. Also, one-on-one health coaching sessions are available, free of charge, for any staff or community member that would like more individualized assistance in achieving their wellness goals. With so many wellness-related activities occurring, the C2BF team publishes a weekly newsletter that showcases upcoming classes and events, wellness tips, and a featured recipe of the week. The newsletter is emailed to all participants, published on the Commit to Be Fit website, and shared on social media sites. In a survey conducted in 2019, 72.5% of staff agreed that the C2BF program has helped them achieve their wellness goals.

Interestingly, since the Commit to Be Fit program debuted in 2016, the school division has not experienced a single increase in the cost of health insurance. In conclusion, as one RCPS teacher wrote in the 2019 survey, this wellness program has been impactful in a variety of ways. *“The Commit to Be Fit program has changed my life by providing me with innovative approaches for improving my health through teamwork, simple record-keeping regarding my intake of healthy food and daily exercise, and encouragement and guidance from compassionate trainers/instructors. Thank you!”*

C2BF leads the Wellness Review committee comprised of parents, community members, and staff to ensure that our division’s policies provide the opportunity for students to reach their maximum educational potential and pursue a lifetime of good health.

### **Pillar 3: Providing Effective Environmental Education**

Rappahannock County Elementary School ensures effective environmental and sustainability education throughout the curriculum in several ways. In kindergarten, our students learn that materials can be reused, recycled, and conserved. Not only do the students learn that materials and objects can be used over and over again, but they also what items can be recycled and how. A great deal of time is spent teaching students about the importance of water and energy conservation. Students learn ways in which they can help conserve these resources at home and school. They are also cognizant of the different strategies we use here at school to conserve energy. For example, even our youngest students know that their classroom lights have motion detectors so that they automatically shut off when the classroom is empty. As our students mature, they deepen their knowledge of the environment and sustainability. For example, our third graders explore alternative energy sources and create solar ovens from reusable items to bake s’mores. Our seventh graders often chose to focus on these topics for their science fair, as well.

In the STEAM Lab, students explore these topics in a variety of ways. Recently, the fourth grade students created maps showcasing Virginia’s Natural Resources by region. Then, they coded an Ozobot to travel through each region. An emphasis is placed on reusing materials in the lab, as well. Students are encouraged to bring items like empty water bottles and paper towel tubes utilize for engineering projects. They are then challenged to use their critical thinking skills to determine how to use those materials to accomplish their goals. In the outdoor portion of our STEAM Lab, the students have access to a solar panel and battery. Not only do they learn how the solar panel works, but they can then use the battery to supply energy for a variety of items like their Chromebooks.

To give our students a variety of experiences with environmental and sustainability education, Rappahannock Elementary fully utilizes our community partners. Recently, Culpeper Soil and Water came to work with a group of sixth graders to build watershed models to explore the impact of runoff. Some of our teachers and members from RappFlow are currently co-teaching a unit using rain simulators so that students can investigate how different ground coverings or lack thereof impact erosion and soil conservation. Master Naturalists and Master Gardeners from throughout our area also regularly work with our students. Just recently, our students learned about the importance of pollinators and what we can do to ensure their survival; thus, ensuring ours. Students learned how to identify different pollinators, and they took a count of the pollinators present on our school grounds.

Additionally, they sang and signed songs about pollinators. The Goodlife Theater from Boston, Virginia, visits our school yearly to perform for the students. Students learn about the “Four Rs” (recycle, reduce, reuse, and repair) through songs, short skits, and puppet shows. The Headwaters Foundation also funds a yearly assembly about pollution, the environment, and how our students can ensure that our waterways remain clean and healthy. Our county’s conservation police officer also visits the school various times throughout the year to educate our students about

Virginia's wildlife and inland fishery resources and how they personally can help conserve and protect those resources.

Each summer, designees from our school division participate in multiple professional development opportunities funded by the Chesapeake Bay Trust, Culpeper Soil and Water, which focused on topics like watersheds, water pollution, and ecosystems. For example, one professional development focused on the Chesapeake Bay, whereas another took place locally at Graves Mountain Lodge. Our teachers also have the opportunity to participate in Project WET (Watershed Education for Teachers), Project Learning Tree (forests, biomes, forestry careers), and Project WILD (wildlife, habitat, and ecosystems). These curriculums are correlated with national and Virginia Science standards of learning, which allows our teachers to bring these experiences and knowledge back to our division to benefit our students.

This year a courtyard was installed at Rappahannock County Elementary School. A glass door leads out of the new RCES STEAM Lab to a large wooden pavilion located in the center of the Courtyard. The pavilion is equipped with an all-weather monitor, benches that convert to picnic tables, and lightweight stools that provide flexible outdoor seating. To the left of the pavilion is the ADA accessible Farm to Table area, featuring a small greenhouse and eight large cedar raised garden beds, 2 of which are waist high. To the right is the Rappahannock Watershed area, featuring a large walking labyrinth dubbed the "Mindful Maze" crafted of local stones, and a waterfall that tumbles into a fish pond. Gardens of native pollinator plants surround the area.

Meaningful Watershed Education Experiences are implemented in multiple classes and grade levels through hands-on classroom experiences (in the RCES STEAM lab or outdoor classroom) and field trips to local rivers or Blandy the State Arboretum. Our school divisions' meaningful watershed education experiences are intended to not only support the curriculum but to be fun, hands-on experiences through which students learn valuable lessons. These memorable experiences inspire our students to be good stewards of the environment and have a better understanding of the importance and value of natural resources.

The Courtyard Renovation project was spearheaded by RappFLOW (Rappahannock Friends and Lovers of our Watersheds). The Headwaters Foundation provided additional financial support, The Piedmont Environmental Council-Krebsler Fund for Rappahannock County Conservation, The PATH Foundation, The Northern Piedmont Community Foundation-Lykes Fund, and Commit To Be Fit. Local chapters of the Virginia Master Gardeners and Master Naturalists provide ongoing volunteer support, including assistance with outdoor educational programming and maintenance of the perennial gardens. The creation of the courtyard and the full implementation of it is a shining example of what can be achieved when students, communities, and schools work together.

In addition to the numerous opportunities our students get within the school, they also frequently travel to various locations around our county to learn about conservation and sustainability. Each year, our fourth grade students visit Blandy Experimental Farm in Boyce, Virginia. There, students participate in various hands-on lessons, including games and writing activities that center around Virginia resources. One activity that the students particularly enjoy is a game that clearly illustrates how invasive plant species can quickly overtake native plants, which in turn harms our native animal species, especially pollinators. Additionally, our fifth graders take a yearly trip to Shenandoah National Park to learn more about the environment.

In Rappahannock, we do not limit environmental and sustainability education to our science classrooms. These topics are often explored cross-circularly. Our students read and write about these topics periodically in their Language Arts classes. In Social Studies, our students learn how it is their civic duty to obey conservation laws, educate themselves on the issues, and eventually exercise their right to vote. Students also learn how their votes as adults can impact environmental laws, policies, and ventures. Of course, our science classes do focus on these topics greatly, with units and assessments geared toward environmental and sustainability education in every grade level.

Rappahannock County Public Schools teach environmental literacy throughout our K-12 grades with a variety of topics which include, but are not limited to; the Hydrologic Cycle, Virginia (VA) geographic provinces, water quality and resources in VA, local watersheds, water conservation, ecosystems, food systems, and soil science. Our curriculum

is supported by visits from local experts, classroom projects, activities in our school gardens, and field trips to various destinations.

Culpeper Soil and Water Authority, Master Naturalists, Master Gardeners, 4-H, Rappahannock Friends and Lovers of Our Watershed, and Friends of the Rappahannock visit our classrooms. These experts lead discussions and hands-on activities that support the environmental curriculum of each grade. Both of our schools participate in the “Trout in the Classroom” program, where classes raise Brooke Trout, an indicator species and the VA state fish. The students are able to research, monitor (water sampling of numerous parameters), watch and work to maintain the environment, so the fish stay healthy until they are released into local rivers. Some of the field trip destinations are the VA state Arboretum, Smithsonian Conservation Biological Institute, local rivers (for macroinvertebrate and chemical testing), local farms and orchards, local wastewater treatment plants, and our county park (invasive species study). Our students visit and collect water quality measurements from two rivers to compare and analyze how each environment differs (farms, development, and riparian buffer zones).

Through support from our community, school gardens were installed at both schools where teachers can use the outdoor spaces to integrate into their curriculum, to use as an outdoor classroom for their subject lessons, or for a healthy walk to get the students up and moving. Our art teachers use the space for a natural setting, the building trades and welding classes help to maintain aspects of the space through projects in their respective classes, Horticulture and Farm-to-Table classes use the space to grow vegetables, and science classes use these spaces for hands-on activities. These gardens enable students to learn how to grow food organically and instills the importance of eating fresh vegetables. Other aspects of the gardens include herb gardens, pollinator gardens to attract pollinators, compost areas, greenhouses for starting seeds prior to spring, and growing tropical plants (succulents, aloe, and orchids), walking paths, and a hoop house to extend the growing season. This year several teachers at the Elementary School raised Monarch Butterflies in the classroom while growing Milkweed in the school gardens. Students loved seeing the Monarch caterpillar change into a chrysalis and then into a beautiful Monarch! Students learned about an important migrating pollinator’s life cycle and the symbiotic relationship between it and its host plant.

Finally, our school climate promotes environmental responsibility through recycling and community service. Both schools have recycling programs managed by our students. Last month, our LEO club completed a trash cleanup project on the well-traveled road that leads to our county dump. Trash cleanup is an ongoing project that the students feel is very important. Another recent community service project that our students participated in was the habitat for humanity project “neighbors helping neighbors,” where they completed outdoor clean-up tasks and plantings. Our students are part of a small community where their actions have a visible and lasting impact.

At the end of each unit, our teachers assess student learning. The activities being taught in collaboration with our community partners directly support our content standards. Hands-on activities like creating watershed models and conducting erosion experiments are increasing our students’ understanding and thus helping to improve their environmental literacy. Students are performing well on assessments in addition to improving their communication and collaboration skills, which contributes to their personal growth.