



## 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: Ms. Margaret Crouch

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

Official School Name: Cape Romain Environmental Education Charter School

(As it should appear on an award)

Official School Name Mailing Address: 1011 Old Cemetery Road, McClellanville, SC 29458

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

County: Chs State School Code Number \*:4701019

Telephone: 8438873323 8438873525

Web site/URL: www.crees.org mcrouch@creecs.org

\*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.

Margaret Crouch

Date: 1/15/2020

(Principal's Signature)

Name of Superintendent: Mr. Elliot Smalley

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



District Name: South Carolina Public Charter School District

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

*Eliot Smalley* Date: 1/15/2020  
(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 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: South Carolina Department of Education

Name of Nominating Authority: Mrs. Molly M. Spearman  
(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.

*Molly M Spearman* Date: 02-06-2020  
(Nominating Authority's Signature)

### 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](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.

# Cape Romain Environmental Education Charter School

South Carolina Nominee to the U.S. Department of Education Green Ribbon Schools



Prepared by the South Carolina Department of Health and Environmental Control

In Partnership with the South Carolina Department of Education

February 2020



## **Documentation of Sustainability Achievement**

### **Summary Narrative: An Overview of Our Work Encompassing All Three Green Ribbon Pillars**

We are an environmentally-themed charter school located in the rural, coastal town of McClellanville, South Carolina, about halfway between Charleston and Georgetown. Our school offers a unique outdoor learning environment that fosters environmental stewardship in our students. Our campus is located on a tidal creek that connects to the intracoastal waterway and provides students the opportunity to get their hands dirty in real life scientific explorations. We also have an organic garden and a myriad of animals on our campus including chickens, goats, pigs, and sheep. The students are excited to come to school and help feed and care for the animals. Along with all the expected subjects, our unique school experience teaches students where their food comes from, life skills like animal husbandry, responsibility, and compassion for all creatures.

As an environmental school we attempt to “walk the walk” by making our school and events as environmentally friendly as possible. CREECS has an active, student-driven recycling program. Students collect and sort recycling every Friday before putting it into the school bin. We also compost to help reduce food waste. Beyond regular recycling, CREECS strives to be a plastic-free campus. We have stopped selling plastic bottles in our concession stands and at our events. We have switched over to entirely compostable silverware, plates, bowls, etc. at all of our fundraising events. All students are encouraged to bring a waste-free lunch and were gifted bamboo cutlery to replace the plastic cutlery in their lunch boxes. CREECS is also a chemical-free campus. We are working to get our completely organic garden certified by the USDA, and we do not use pesticides or fertilizers anywhere on our campus. We have an active honeybee hive to help with pollination in our garden and the surrounding area. As our school continues to grow, we find new ways to help reduce our environmental impacts.

In addition to promoting a healthy planet, we also promote healthy students. As a school, we participated in the South Carolina Department of Health and Environmental Control’s (SCDHEC) Breathe Better (B2) program to reduce vehicle idling on campus and make sure our ambient air is clean. Students are outside for at least one hour a day. To promote mental health, CREECS has an electronic-free recess through middle school to allow students time to move around and interact with each other. Students also spend time working with the animals outside during environmental education and playing sports during physical education. In the mornings, we encourage students to walk before the bell rings to jumpstart their metabolism and promote a healthy lifestyle. Furthermore, one of the benefits of being in a small community is that many students have the opportunity to bike or walk to school. Along with exercise, we try to teach



students the value of healthy eating. Through our vegetable garden and farm, we provide fresh, organic produce and eggs for our students and their families to take home. Our environmental education curriculum offers project-based science lessons for every grade two to three times each week. Along with general lessons on the local flora and fauna, each grade level has a specialized issue or job that they focus on for the year. Third-grade students focus on animals. They learn about basic husbandry and animal lifecycles. Fourth-grade students tend to our organic garden, planning what they want to grow and learning when to plant, transplant, and harvest. Fifth-grade students study the community structure of fouling communities in the nearby “clean” marsh and compares it to the more polluted marsh of Charleston harbor. The sixth-grade students run our recycling and waste-free lunch programs. Seventh-grade students work on sustainability with a final project which requires them to create a sustainable product and sell it in a “Shark Tank”-style symposium. Eighth-grade students conduct a marine debris project in the community focused on eliminating plastic pollution from McClellanville.

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

CREECS continually strives to find new ways to reduce our environmental impacts. As an environmentally-focused school, we attempt to set a positive example for our surrounding community by demonstrating to others how they can engage in environmental stewardship. To limit our energy consumption, we have installed LED lighting in our new buildings, and we are working on getting LED bulbs in our older buildings as well. To further address our grid dependence, we are also getting quotes for the addition of solar panels. We have a solar-powered weather station and a solar-powered fan in our outdoor classroom. Another way we work to reduce our greenhouse gas emissions is through encouraging environmentally-friendly methods of transportation to and from school. We encourage local students, teachers, and staff to bike or walk, if possible. The student council created a bike path from one of the local neighborhoods to make biking safer for students. We also work to setup carpools for students coming from nearby areas and help to subsidize a bus to minimize the number of cars making the 50-mile round trip drive from Mt. Pleasant each day. In addition to trying to reduce our carbon footprint, we work hard to conserve water. We installed a drip irrigation system in our garden to help reduce water usage, and we use rain barrels to water our gardens in the front of the school.

At CREECS, we focus a great deal of energy on eliminating all waste, but specifically single-use plastics. We have always had an active recycling program but decided that was not enough. Six years ago, we started a waste-free lunch program which rewards students for bringing all reusable containers and compostable items in their lunch boxes. We teach the students about alternatives to single-use items and hold competitions to see which class can show the greatest improvement in trash-reduction in their lunches over the course of the year. We worked with TerraCycle to upcycle some of the most common trash items in our lunches. For example, we



showed students how they can upcycle their empty Capri Sun pouches into coin purses and wallets.

In addition to reducing waste during lunch, we have created numerous initiatives to eliminate single-use plastics from our campus over the past two years. We started by eliminating plastic grocery bags and now utilize reusable bags to sell school uniforms and send things home with students. Next, the eighth-grade students work with the younger grades to make sure they all have access to and utilize reusable water bottles. The eighth graders give out punch cards to younger students. Once a week during homeroom, they check with the younger students to see if they have their reusable water bottle (and do not have any single-use plastic drink containers such as Gatorade or Capri Suns). If the students are complying, they get a punch in their punch cards. Students can redeem the full punch cards for rewards like uniform-free passes. In the 2019–2020 school year, we saw a 27% decline in the use of single-use plastic bottles at CREECS. Also, in the 2018–2019 school year we received a grant to give each student a set of reusable bamboo cutlery to use at lunch to eliminate the use of plastic cutlery. If anyone forgets to bring their bamboo cutlery, we have a couple of extra sets that students can wash and return, instead of using disposable plastic cutlery.

Our ban on single-use plastics extends to our concessions/snack stand and fundraising event as well. We have replaced all our bottled drinks with canned drinks, including aluminum water bottles and paper cups of pre-mixed Gatorade. At our major fundraiser each year, the Lowcountry Shrimp Festival, we have moved to 100% compostable materials, using potato-based spoons, forks, and compostable corn cups. This past year we also had students sell reusable sporks to help inspire others to use less single-use plastics every day.

Around campus, we have a myriad of environmentally-friendly gardens that help our students learn how they can preserve our local ecosystems. We have an officially-registered monarch butterfly waystation and pollinator garden. Students plant and care for milkweed along with other plants that attract butterflies. We also have a rain garden that students installed with the help of Clemson Extension's Carolina Clear Program. The rain garden was built in an area on campus prone to flooding and uses native plants and a natural drainage system to control storm water run-off. Finally, we have a large organic vegetable garden with an active honeybee hive and drip irrigation to help conserve water.



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

At CREECS we believe that students need to be happy and healthy in order to learn, and that being happy and healthy starts with spending time outdoors. We are committed to having at least one hour of “outdoor and active” time each day. Along with at least thirty minutes of recess each day, students participate in either physical education or environmental education for 55 minutes. This allows students time to be active and outside either playing sports, working in our garden, or helping with animal husbandry. In middle school, we have weekly field trips where students ride their bikes on the bike paths into town to do litter sweeps. Once a month, middle school students can go kayaking to help with our marine debris clean-up program. We believe that students need to be exposed to all sorts of outdoor activities so that they are more likely to develop their interests and passions as they get older. Furthermore, before our morning meeting, students are encouraged to walk laps in the gym to get their metabolism going before they head to their classrooms. Our gym teacher started this program to encourage an active lifestyle and instill a lifelong love of walking. Once a year we participate in the American Heart Association’s Jump Rope for Heart program to teach students about the importance of heart health. To maintain students' health, our school nurse has been working on setting up proactive wellness services such as free dental cleanings, flu shots, and wellness lessons at our school.

Along with making sure our students are active, we strive to provide the healthiest environment possible for them. We put up “Do Not Spray” signs around our campus to encourage synthetic pesticide reduction and have introduced bat boxes as a natural remedy for mosquito control. In addition, our goats, sheep, and chickens help with weed and insect control. Maintaining clean and healthy buildings are a top priority at CREECS, but we strive to achieve that goal without the use of harmful cleaning chemicals. We purchase our cleaning supplies from Melaleuca, The Wellness Company, to limit the potential of students being exposed to harmful substances.

We have worked with SCDHEC’s Breathe Better (B2) Anti-Idling program. We stopped our bus from idling and saw a decline of 72% in the number of cars idling during afternoon dismissal in 2018. We also carefully follow our air quality rating on Weather Underground, but find it is usually good, probably in part due to our rural, coastal location. To improve indoor air quality, we have a hallway aeroponic garden and terrariums to help filter the indoor air. We have two water bottle refill stations in the school to ensure that our students stay hydrated and have access to healthy, safe drinking water.

We encourage students to eat a healthy diet as well. We have twice received the Whole Foods’ Whole Kids Garden Grant to help us start and maintain a year-round garden. We teach students how to grow their own fruits and vegetables through this garden, as well as how to prepare them. We do not have a cafeteria, so all students pack their own lunches every day. We attempt to offer a vegetable side dish for students to try at lunch at least once a month. We are hoping to establish



a community-sustained agriculture program where families can order boxes of vegetables and eggs from our school to help students and their families eat healthier diets. To further our nutrition education, we teach the Whole Kids curriculum which focuses on gardening, biology, and nutrition in conjunction with the school garden.

### **Pillar 3: Efforts to Ensure Effective Environmental and Sustainability Education**

As an environmental charter school, all CREECS students K4 through 8th grade attend environmental education class at least twice per week. Each grade has their own standards-based curriculum designed to be hands-on and inquiry-driven. Each year we generally have one school-wide project. In 2016, we were awarded the SCDHEC's Champions of the Environment Grant for our living shoreline restoration project. Students learn about the importance of habitat and biodiversity while rebuilding valuable salt marsh habitat. Younger grades go out in the fall to harvest *Sporobolus* (previously *Spartina*) marsh grass seeds. While there, they conduct a survey of all the animals that utilize the salt marsh. Students store the seeds through the winter and plant them in our greenhouse in January. When the sprouts are grown (usually around May), students go out to an area where the marsh is sparse and transplant their plants to help cultivate a new ecosystem. Years later, we can go back to the same marsh and see the progress. Older grades work to recycle, bag, and deploy oyster shell in front of the marsh grass to complete the living shoreline and provide habitat to hundreds of ecologically- and commercially-important species.

Along with a school-wide project, students in the younger grades (K4 through second) are introduced to the wonders of the natural world through hands-on explorations of our local ecosystems. Students in grades three through five start to get more specialized in what they study and in their environmental education class jobs. These are specific responsibilities the students take on in the classroom. Third-grade students focus on animals. They start the year learning basic husbandry and are placed in charge of caring for our farm animals. They hatch fertilized chicken eggs and care for the hatchlings all year until they mature and start laying eggs themselves. After some research, they design a chicken coop based on the needs of the chickens. In the second semester, they focus on the different vertebrates and invertebrates.

Fourth-grade students learn valuable gardening skills. They study the plant life cycle, monocots versus dicots, and the impact of weather on organisms through taking care of our organic garden. They research which types of plants grow best in which seasons, test our soil, decided what to plant and which types of organic fertilizer to use, and tend to the garden throughout the year. They learn how to track growth in a science journal, and how to use spreadsheets to keep up with the sales of our vegetables. They also work to develop and type recipes in English and Language Arts (ELA) class to go with each vegetable.



Fifth-grade students explore the South Carolina watersheds from the mountains to the coast. They look for evidence of the impacts that activities throughout the state (e.g. construction, farms, dams, leaking septic systems, etc.) have on our water quality along the coast. They compare water quality parameters locally with those from around the state and decide if our local waterways are safe for swimming. They compare fouling communities in the relatively clean water of our local National Wildlife Refuge with the communities in Charleston Harbor. They also research ways to help improve water quality. They each write a paper explaining how their machine either physically or chemically cleans the water in their area. Finally, they explore the quality of our local groundwater (McClellanville has no public water or sewer system) and compare it to city water to decide which they think is better based on price, safety/quality, and taste. They also study the scientific method by conducting growth experiments on the marsh grass plants. Students pick a variable to see what factors help the marsh grass grow. Experiments include (but are not limited to) salt water versus fresh water, city water versus well water, potting soil versus pluff mud, and daily watering vs. sitting in a container full of water.

Middle-school students focus on current environmental issues and develop real world solutions to these problems. Environmental education in middle school is the classic problem-based learning model: students come up with problems, research the details, create solutions, and act to fix the problems. Sixth graders spend the second semester evaluating environmental issues in their community and then come up with real solutions to those problems. Students present their projects to the class, and their peers vote on the projects that they think are realistic and that they would like to participate in. Examples of student-created projects that we have done in the past include:

- using construction-grade oil booms to clean up oil and gas in the water near the local shrimp dock,
- developing covers to protect local honeybee hives from mosquito spraying,
- designing signs to educate beach goers about strategies to protect threatened shorebird populations on their local beaches, and
- printing door hangers to educate the local community about the air pollution created from burning trash.

Seventh-grade students focus on climate change and sustainability. During the first semester, seventh graders investigate sustainability, calculate their carbon footprint, and work in groups to build a prototype of a sustainable product to replace a non-sustainable product. They create a social media advertisement for the product and decide which product they are most likely to invest in (in a “Shark Tank”-style presentation). During the second semester, students learn about climate change and perform a school energy audit.



Eighth-grade students focus on marine biology. In class, we learn about the ocean zones, currents and waves, and human impacts. Each year, the eighth grade is charged with expanding our marine debris program. In 2016, the eighth grade started the waste-free lunch program at our school to help reduce the amount of trash students bring to school. In 2017, after investigating where we thought most of the marine debris was coming from, the eighth-grade students expanded the project by purchasing trashcans with a SCDHEC grant. The students met with the town council and got permission to install trashcans at the public boat landing and commercial shrimp dock to encourage boaters and shrimpers to dispose of their trash responsibly. Each Friday since then the eighth grade students ride their bikes down to the docks, empty the trash cans, and do a quick litter sweep. Their hypothesis was that by showing up weekly to clean up the mess, shrimpers would work harder to keep their area clean. The students calculated that in the first year they saw a 75% decrease in the amount of trash they collected at the dock.

In 2018, eighth-grade students developed a plan to educate the local town about the problem. They saved all the trash collected from our weekly litter sweeps. They worked with the younger students to make an art installation that was displayed at the annual Lowcountry Shrimp Festival. Younger students strung all the trash up on fishing line and the eighth grade used the strands to make their "Plastic Gyre" out of a shrimp net. It hung in the tree with an explanation of where all the trash had come from. In 2018, this project was also selected for the Algalita POPs Youth Summit in Dana Beach, California. Four eighth-grade students went to the conference with 96 other students from around the world to discuss real solutions to the plastic problem. The video that the 2018 eighth graders made for that event can be found [here on YouTube](#). In 2019, our eighth grade focused once again on our school. They developed a program to eliminate single-use plastic drink containers from our campus and were awarded the SCDHEC Champions of the Environment Grant to pay for the project. Students met with the administration to eliminate plastic bottles from our concession and snack bar. They found an alternative water bottle made of aluminum for us to sell and made Gatorade in paper cups to sell at sporting events. They also developed a positive reward system to encourage students to bring their reusable water bottle and have no single-use plastic drink containers (ex. Capri Suns, Gatorades). This project was once again accepted into the Algalita POPs youth summit. The 2020 eighth-grade class is currently in the research phase of this project and is trying to determine what they think the best next step will be to eliminate plastic pollution from our town.



### **Accolades:**

- Dominion Energy Environmental Education Grant, 2019.
- Algalita International Youth Summit on Plastic Pollution Representatives - Dana Point, California, 2018.
- Whole Foods Whole Kids School Garden Grant, 2018: Used to maintain the school's organic garden.
- SCDHEC Champions of the Environment, 2018-2019: Used to support the school's community marine debris program.
- Project Learning Tree Greenworks Grant, 2017: Used to build a beehive.
- Algalita International Youth Summit on Plastic Pollution Representatives - Dana Point, California, 2017.
- Berkeley Electric Coop Bright Ideas Grant, 2017 – Used to build a community butterfly barn.
- Whole Foods Whole Kids School Garden Grant, 2016: Used to start the school's organic garden.
- SCDHEC Champions of the Environment, 2015-2016: Used to support the school's "Seeds to Shoreline" project.