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 Pre-K-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 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 2015-2018

Name of Principal: Mr. Matt Harris
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)
Official School Name: Gilbert Elementary
(As it should appear on an award)
Official School Name Mailing Address: <u>87 South Burnt Mill RD., LaFayette, GA 30728</u> (If address is P.O. Box, also include street address.)
County: Walker State School Code Number *: 0195
Telephone: <u>706-638-2432</u> Fax: <u>706-638-0122</u>
Web site/URL: http://ges.walkerschools.org/ E-mail: mattharris@walkerschools.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.
I have reviewed the information in this application
(Principal's Signature) Date: 1/10/17
(Principal's Signature)

ED-GRS (2015-2018) Page 1 of 14



Name of Superintendent: Mr. Damon Raines

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

District Name: Walker County Schools

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

District Name: Walker Courty Sch I have reviewed the information in thi (Superintendent's Signature)

Date: 1/10/17

(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: Georgia Department of Education

Name of Nominating Authority: Mr. Richard Woods

(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.

I have reviewed the information in this approvisions above.

(Nominating Authority's Signature) Date: <u>1-26-17</u>

(Nominating Authority's Signature)

SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

Provide a coherent summary that describes how your school is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments in all three Pillars. Then, include concrete examples for work in every Pillar and Element. Only schools that document progress in every Pillar and Element can be considered for this award.

SUBMISSION

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509 Expiration Date: March 31, 2018 **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.

ED-GRS (2015-2018) Page 2 of 14

Gilbert Elementary (GES) has been recognized as a leader in elementary STEM in the southeast. We have served as the Public Education Foundation's Model STEM Elementary, STEM Certified in Georgia, and we've participated in various conferences and panels for STEM and outdoor/environmental education. Our strength is in pillar 3. At Gilbert, each student participates in a year-long environmental research project. The research project covers the bulk of the standards for the grade level. Because of the level of curriculum integration, our students are able to spend more time exploring nature, participating in problem solving and developing innovative solutions to real-world problems. We believe in practical application. Our students hammer, dig, saw and measure. They use real tools to solve real problems.

GES is fortunate to offer a school based health center. We partnered with Primary Healthcare to write a grant, and we were awarded \$650,000 yearly in ongoing funding for the clinic. Because of the grant, we are able to offer a wide variety of services to our students and families. In addition to medical care, our clinic offers services in dental, mental health, nutrition and wellness, and assistance with social services. A little over 83% of our students qualify for free and reduced lunch. Prior to our clinic the nearest pediatrician was 35 minutes away.

In addition to our clinic, GES also promotes wellness through our gardens, SPLASH lab, and trail system. We provide produce to the Care Mission, a food pantry used by many of our students. In addition to lesson on growing plants, our students participate in tastings and even develop recipes. Gilbert Elementary students are place-and project-based STEM learners and researchers. At each grade level, students are involved in ongoing authentic STEM research. The research takes place throughout the school year rather than an isolated event. Students are getting real-world experiences using problem solving and critical thinking skills. They work collaboratively on various projects and learn to communicate their findings. At Gilbert, students create real solutions to real problems, learning all they can along the way. One product of our students' work is our student blazed trails. We currently have 2 miles of trails, and they are open to the public outside of school hours. Many of our families take advantage of this opportunity as well as each class is targeted to spend 1 hour per day in the forest and with Forest Kindergarten classes spend 3 hours per day outdoors, rain or shine. Forest Kindergarten students have self-initiated playtime in the woods. Students are learning to use their imaginations, to be creative, to discover, and to explore while developing a love and empathy for the natural world.

Gilbert opened in 1993, with very little change to the facility. Initially, we felt like this would be our greatest challenge to U.S. Department of Education Green Ribbon Schools Award, and it was a bit of a challenge. However, one of our greatest successes was shown through energy reduction. We've implemented several policies to reduce energy consumption. We also added a control system, and this summer we added an updated boiler and cooling tower. All of these changes seemed small. We don't have solar panels or a green roof, and our school will never be LEED certified. However, we found that our natural gas consumption went from over 65,000 therms in 2000 to 6,115 in 2016. That didn't seem possible, so we looked at our energy data from 2001. We used over 72,000 therms that year! We also had a significant drop in electricity. Clearly, simple policies and upgrades in technology have made a significant difference. We are proud that a 23 year old school has been able to reduce energy consumption by that amount.

The Green Ribbon process has been an interesting experience for us. The greatest benefit we've seen is the change at the district level. They've seen the benefits of upgrading software and tracking progress. They've also been willing to begin offering recycling services for our school. At the school level, the process has been a confirmation of our work, and it has given direction for improvement.

ED-GRS (2015-2018) Page 3 of 14



School Contact Information

School Name: Gilbert Elementary

Street Address: 87 South Burnt Mill Rd

City: La Fayette State: GA Zip: 30728

Website: http://ges.walkerschools.org Facebook page: https://www.facebook.com/GilbertElementary/

Principal Name: Matthew Harris

Principal Email Address: mattharris@walkerschools.org Phone Number: 706-638-2432

Lead Applicant Name (if different):

Lead Applicant Email: mattharris@walkerschools.org Phone Number: 706-638-2432

Level [] Early Learning Center [X] Elementary (PK - 5 or 6) [] K - 8 [] Middle (6 - 8 or 9) [] High (9 or 10 - 12)	School Type (X) Public () Private/Independent () Charter () Magnet	How would you describe your school? () Urban () Suburban (X) Rural	District Name Walker County Schools Is your school in one of the largest 50 districts in the nation? () Yes (X) No Total Enrolled: 471 Students
Does your school serve 40% or more students from disadvantaged households? (X) Yes () No	% receiving FRPL: 83.82% % limited English proficient 3% Other measures		Graduation rate: <u>N/A</u> Attendance rate: <u>92%</u>

- 1. Is your school participating in a local, state or national school program, such as EPA ENERGY STAR Portfolio Manager, EcoSchools, Project Learning Tree, or others, which asks you to benchmark progress in some fashion in any or all of the Pillars?
- (X) Yes Program(s) and level(s) achieved: Our district awards credits for Energy Management
- 2. Has your school, staff or student body received any awards for facilities, health or environment?
 - (X) Yes Award(s) and year(s)

We received a grant for a school-based clinic in April 2015 for \$650,000 ongoing funding.

Model STEM Elementary School for the Public Education Foundation 2015-2016

ED-GRS (2015-2018) Page 4 of 14

Georgia STEM Certification 2015

<u>First Forest Kindergarten ever in a US Public School with training done by Dr. Jean Lomino, a certified Forest Kindergarten trainer.</u>

Pillar I: Reduced Environmental Impact and Costs

Percentage reduction in domestic water use: 23%

District Report taken from our management software.

Percentage reduction in irrigation water use: No Irrigation on campus

Time period measured (mm/yyyy - mm/yyyy): <u>08/2000 - 08/2016</u>

Energy

ED-GRS (2015-2018) Page 5 of 14

How did you document this reduction (ie. ENERGY STAR Portfolio Manager, utility bills, school district reports)?:



- 8. What percentage or your landscaping is considered water-efficient and/or regionally appropriate?: We do not irrigate landscaping plants. We have added native gardens and plan to expand the native plants to the landscaping Types of plants used and location: Holly, Viburnum, Magnolia, and Nandina.
- 9. Describe alternate water sources used for irrigation. <u>The only irrigation on campus is in our garden. The garden has a water catchment system from the roof.</u>
- 10. Describe any efforts to reduce stormwater runoff and/or reduce impermeable surfaces.

 Gilbert Elementary was built prior to Walker County Government becoming a Phase II Stormwater Regulated

 Community in 2006; however, Walker County Schools makes every effort to reduce the amount of impermeable surfaces whenever possible. Any additions or modifications to the property will comply with the NPDES regulations as required.
- 11. Our school's drinking water comes from: (X) Municipal water source: The Walker County Water Treatment Plant is located in The City of Chickamauga, Georgia. Our water is pumped from three deep wells located at the plant near the Crawfish Spring.
- 12. Describe how the water source is protected from potential contaminants. The Water Treatment Plant has its own laboratory. Drinking water is tested in the lab repeatedly for water quality assurance and to make sure your drinking water meets the Safe Drinking Water Regulations established by The Environmental Protection Agency (US. EPA) and the Georgia Department of Environmental Protection Division (GA. EPD). Several Lab tests are performed on a daily basis.

This is a Diatomaceous Earth (D.E.) Filtration plant, the only plant of its kind located in the State of Georgia.13.

Describe the program you have in place to control lead in drinking water. **Daily in-house testing and a yearly outside report of water quality.**

14. What percentage of the school grounds are devoted to ecologically beneficial uses? 50% We have gardens and a pond and our school is a certified wildlife habitat. Half of our 21 acres is forested. We have additional access to the 320 acres of forest surrounding our school.

Waste

- 15. What percentage of solid waste is diverted from landfilling or incinerating due to reduction, recycling and/or composting?
- A Monthly garbage service in cubic yards (garbage dumpster size(s) x number of collections per month x percentage full when emptied or collected): **800 Yards per month**
- B Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected): <u>Gilbert techno gators team presented a proposal to the Walker County School board about the damages of Styrofoam on the environment. To this day our school uses NO Styrofoam cups and our Forest Kindergarten recycles plastics.</u>
- C Monthly compostable materials volume(s) in cubic yards (food scrap/food soiled paper dumpster size(s) x number of collections per month x percentage full when emptied or collected): Gilbert third graders are the resident organic gardeners. They are responsible for the maintenance of Gilbert's composting program and worm farm. The third graders collect food from the cafeteria each day after the lunch period to use in the composting bins. They compost on average between 1-2 yards a month.

ED-GRS (2015-2018) Page 6 of 14



16. What percentage of your school's total office/classroom paper content is post-consumer material, fiber from forests certified as responsibly managed and/or chlorine-free? 100% of our copy paper is from responsibly managed forests. We've gone paperless in 3-5. Assignments are given through Google Classroom. K-2 has 14 iPads per class. In those grade levels many assignments are administered through Seesaw. Notebook paper is all post-consumer material.

17. List the types and amounts of hazardous waste generated at your school:

Flammable liquids	Corrosive liquids	Toxics	Mercury	Other:
N/A	N/A	N/A	Only 7 classes have LED lights so mercury is possible in the other bulbs.	

How is this measured? <u>We fall under the designation of a small quantity generator by the Georgia Rules for Hazardous Waste Management</u>

Describe other measures taken to reduce solid waste and eliminate hazardous waste. We have a school recycling program and a food waste program. Paper is collected in bins at the end of the hallways. Food waste is collected by the third grade and composted. Our school is transitioning to LED classroom lighting to reduce light bulb disposal. 7 classrooms are currently LED. We estimate a maximum of 5 years before we are 100% LED in classrooms. We follow 262.34 and 273.13 in disposing of bulbs.

18. Which green cleaning custodial standard is used? LEED Cleaning program (We are not LEED certified, but our county follows LEED best practices in all schools)

What percentage of all products is certified? 100%

What specific third party certified green cleaning product standard does your school use?

Bright Solutions Environmentally safe green solutions.

EPA Safer Product Certified and Ecologo

Alternative Transportation

19. What percentage of your students walk, bike, bus, or carpool (2 + student in the car) to/from school? (Note if your school does not use school buses) Gilbert Elementary is a rural school sitting on 320 acres of land. There aren't any homes close enough to safely walk. On our bus rosters we have 387 students of the 470 students (shown in Powerschool) at Gilbert Elementary on our bus rosters. This does not mean that they ride on a daily basis, however, it means that at some time, they have been a bus rider. We would not have any way of noting the number of walkers (hopefully none), nor the number that carpool.

How is this data calculated? <u>We calculated our numbers from actually counting the GES students on the bus rosters that we maintain at the transportation office.</u>

ED-GRS (2015-2018) Page 7 of 14



20. Has your school implemented?

[X] a well-publicized no idling policy that applies to all vehicles (including school buses).

- 21. Describe how your school transportation use is efficient and has reduced its environmental impact.
 transportation department maximizes efficiency by constantly evaluating routes and carrying the largest number of riders available while still maintaining the applicable distance to be covered and available time. We attempt to keep our routes as safe as possible by also attempting to have a large number of door side pickup and drop-off stops within our routes.
- 22. Describe any innovative programs/technologies, unique practices/policies and impactful partnerships related to this Pillar. Please be sure to highlight any metrics listed above to help describe your school's creative approach. <u>Our biggest innovation in this pillar is our focus on technology. We have state of the art control systems in place, and we high efficiency units. We are in the process of upgrading all classrooms to LED lighting. We have 7 rooms currently, and we have added additional rooms each year. At our current rate we will be 100% LED in classrooms within 5 years.</u>

Pillar 2: Improve the health and wellness of students and staff

Environmental Health

- 1. Describe your school's Integrated Pest Management efforts, including IPM/green certifications earned, routine inspections, pest identification, monitoring, record-keeping, etc.: We have a contract with Lookout Pest Control. They monitor the school monthly and spray areas as needed. We have a log book at the front office that is available to the pest control company after school hours. The school staff logs any pest issues throughout the building in the log book. He will only spray or address areas that are listed in the log book. He signs the log book and leaves an inspection report with the school after inspection. They are also on call as needed to address any unusual or unforeseen circumstances.
- 2. What is the volume of your annual pesticide use (gal/student/year)? Describe efforts to reduce use:

 <u>Less than 1 gallon. We only spot spray. We use organic gardening methods outdoors. Neem oil and natural soap based products for insect control. Indoors, we use glue traps and very minimal spraying.</u>
- 3. Which of the following practices does your school employ to minimize exposure to hazardous contaminants? Provide specific examples of actions taken for each checked practice.
 - [X] Our school prohibits smoking on campus and in public school buses.
 - [X] Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school. Thermometers and eliminating mercury lamps
 - [X] Our school uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO)
 - [] Our school has tested all frequently occupied rooms at or below ground level for radon gas and has fixed and retested all rooms with levels that tested at or above 4 pCi/L OR our school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L.

Our district does not test for Radon after completion of construction. All buildings are built with radon resistant construction features and tested prior to occupancy. Our school has purchased a radon detector.

ED-GRS (2015-2018) Page 8 of 14



[X] Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure.

We have one piece of equipment on our playground that is made of pressure treated wood. We are in the process of raising funds to replace it. We also have raised beds with pressure treated lumber. Both structures were treated with Alkaline copper quaternary a more sustainable preservative.

- 4. Describe how your school controls and manages chemicals routinely used in the school to minimize student and staff exposure. We are only allowed to use cleaning products provided by our vendor. All products are certified. Pest control can only spot spray after hours. In some cases, they can only spray Friday after students and staff leave.
- 5. Describe actions your school takes to prevent exposure to asthma triggers in and around the school. **Monthly filter changes**.
- 6. Describe actions your school takes to control moisture from leaks, condensation, and excess humidity and promptly cleanup mold or removes moldy materials when it is found. A new roof was installed three years ago as well as a new control unit and boiler. Those were our major moisture issues.
- 7. Our school has installed local exhaust systems for major airborne contaminant sources. (**X**)Yes <u>In Kitchens and bathrooms.</u>
- 8. Describe your school's practices for inspecting and maintaining the building's ventilation system and all unit ventilators to ensure they are clean and operating properly. **Monthly filter changes and coil cleaning.**
- 9. Describe actions your school takes to ensure that all classrooms and other spaces are adequately ventilated with outside air, consistent with state or local codes, or national ventilation standards. **HVAC Fresh air intake.**
- 10. Describe other steps your school takes to protect indoor environmental quality such as implementing EPA IAQ Tools for Schools and/or conducting other periodic, comprehensive inspections of the school facility to identify environmental health and safety issues and take corrective action. Monthly safety audits. Follow up meetings and corrective actions. The audits monitor everything from locked doors to filter changes. Each month a team of staff members reviews the audits and addresses any needs identified by school staff. They then propose corrective actions and monitor implementation of those actions.

Nutrition and Fitness

- 11. Which practices does your school employ to promote nutrition, physical activity and overall school health? Provide specific examples of actions taken for each checked practice, focusing on innovative or unique practices and partnerships. (100 word max each or whatever you choose to make them!)
 - [X] Our school participates in the USDA's HeathierUS School Challenge. Level and year: applying 2016-2017
 - [X] Our school participates in a Farm to School program to use local, fresh food.
 - [X] Our school has an on-site food garden. We have a large raised garden. We also have an indoor aquaponics lab, and we were just awarded a grant from Lowes for a greenhouse.
 - [X] Our school garden supplies food for our students in the cafeteria, a cooking or garden class or to the community. We are able to provide several tastings per year. We don't grow enough to provide a steady supply. We donate produce to our community year round with our aquaponics lab and garden.

ED-GRS (2015-2018) Page 9 of 14



- [X] Our students spent at least 120 minutes per week over the past year in school supervised physical education. We spend an hour per day outside. Our students spend Fridays in their connections class outside on our trails.
- [] At least 50% of our students' annual physical education takes place outdoors. As weather allows we spend one day per week in PE outside. We spend one hour per day and 30 minutes of recess per grade level.
- [X] Health measures are integrated into assessments. We had 100% participation in Fitnessgram.
- [X] Food purchased by our school is certified as "environmentally preferable" Percentage: 100%

All foods served at school will be provided by the School Food Authority and will comply with federal, state, and local regulations.

Access to the food services operations will be limited to Child Nutrition staff and authorized personnel.

<u>Food providers are given access to foods that meet federal, state, and local laws and guidelines.</u>

Nutrition education will be incorporated in science and health classes.

All snacks made available to Gilbert students follow nutrition guidelines and have to be submitting to confirm they meet the guidelines

Gilbert follows the WALKER COUNTY WELLNESS GOALS for GES established yearly by the school's wellness committee

<u>Vegetables from our garden are used in the classrooms, sent home with needy students, and given to care missions.</u>

Gilbert also grows specific vegetables for a high school teacher with a rare type of cancer to help fight the disease.

- 12. Describe the type of outdoor education, exercise and recreation available. We have 320 acres of forest that surround our campus. We have 2 miles of trails that our students hike regularly. We are designing a low ropes course. We have an orienteering course.
- 13. Describe any other efforts to improve nutrition and fitness, highlighting innovative or unique practices and partnerships. We work with LaFayette Physical Therapy. They bring their staff into the school and host special days like our October Olympics. We also have had the Creative Discovery Museum host nutrition night for our families. Many of our students receive weekend packs of food. We have a nutritionist that conducts lessons through our partnership with Primary Healthcare.

Coordinated School Health, Mental Health, School Climate, and Safety

14. Does your school use a Coordinated School Health approach or other health-related initiatives to address overall school health issues? (X) Yes () No

If yes, describe the health-related initiatives or approaches used by the school: We have a school-based clinic ran by Primary Healthcare. The clinic has medical, dental, social workers and nutritionists available to our staff and students. Primary offers a variety of opportunities through their nutritionist and providers. They will do classroom lessons, set up tables for students and parents, or do home visits.

ED-GRS (2015-2018) Page 10 of 14



15. Does your school partner with any postsecondary institutions, businesses, nonprofit organizations, or community groups to support student health and/or safety? (X) Yes () No

If yes, describe these partnerships: <u>We have a deep partnership with Primary Healthcare</u>. They provide a nurse in our school daily in addition to our on-site clinic. Their social worker is available for our families, and they conduct a health fair for our community.

- 16. Does your school have a school nurse and/or a school-based health center? (X) Yes () No
- 17. Describe your school's efforts to support student mental health and school climate (e.g. anti-bullying programs, peer counseling, etc.): Our counselor hosts Community Carpet in classes monthly. We have a specific protocol for bullying and we are PBIS, Positive Behavior Interventions and Supports, certified in Georgia. A team of teachers work together to provide students with various incentives for good behavior and being a good friend.
- 18. Describe any innovative programs/technologies, unique practices/policies and impactful partnerships related to this Pillar. Please be sure to highlight any metrics listed above to help describe your school's creative approach. We are proud of our school-based clinic. We receive \$650,000 per year in on going funding to staff the clinic. This allows us to provide a wide range of services that go beyond what is typically offered. In addition to a nurse practitioner daily, we are able to fund a school nurse that wouldn't otherwise be available. We have a pediatrician weekly. Our dental office is open two days per week, and we are looking for a second dentist. Our school has access to social workers to help families with insurance and medicare and nutritionists are available to teach lessons or work with families.

Our outdoor education program is a model for schools in Georgia and Tennessee. We have 320 acres with two miles of trails that were built by students. We have 320 acres available to students, and we offer two classes of forest kindergarten. We are the first public school in the United States to offer this program.

All of our classes are asked to spend 1 hour per day outdoors in our forest. It is an important aspect of our school, and we've seen a reduction in student absences and discipline issues.

Pillar 3: Effective Environmental and Sustainability Education

- 1. Which practices does your school employ to help ensure effective environmental and sustainability education? Provide specific examples of actions taken for each checked practice, highlighting innovative or unique practices and partnerships.
 - [X] Our school has an environmental or sustainability literacy requirement.

Every 5th grader attends an environmental education camp (Camp River Ridge) for three days. The camp trip has been in place since the school opened. We have built our curriculum to align with that experience in 5th grade. Each grade level conducts an environmental or sustainability education research projects. We also focus on water conservation in our gifted program through a water catchment design challenge and our aquaponics lab.

[X] Environmental and sustainability concepts are integrated throughout the curriculum.

<u>Kindergarten's research project is on chickens.</u> They focus on life cycle and expanding a threatened heritage breed, the Dominique.

First Grade studies pollinators through monarch tagging, habitat creation and a bee hive

Second grade studies native plants and works with schools around the state.

ED-GRS (2015-2018) Page 11 of 14

Third grade are our organic gardeners.

4th grade focus on forest management in our 320 acres of forest that surrounds the school

5th grade is reducing your carbon footprint.

[X] Environmental and sustainability concepts are integrated into assessments.

We spent a year developing our grade level projects to cover as many standards as possible. Each project covers the bulk of the grade level standards. Assessments are performance based. The focus is on practical application and performance. Our students don't just study the concepts. They complete practical tasks that require a deep understanding of the concept.

[X] Students evidence high levels of proficiency in these assessments.

We've seen a high level of growth as evidenced by our CCRPI growth data. More importantly, we've seen our students become good stewards, problem solvers and innovators.

- [X] Professional development in environmental and sustainability education are provided to all teachers. We spent two years working with Dr. Jean Lomino. She is the former director of the Chattanooga Nature Center and current founder of the Wahatchie school. It is a private outdoor preschool. Dr. Jean led our staff on a variety of environmental and sustainability trainings. We also work closely with Southern Adventist University's outdoor eduction faculty and we've sent several teachers through Project Wet and Project Wild.
- 3. How does your school use sustainability and the environment as a context for learning science, technology, engineering and mathematics thinking skills and content knowledge?

Again, our STEM program is based on environmental education. We have schools each week visit our school for tours and training. Every aspect of our school has an environmental focus. Art and PE both focus on outdoor education. Our Forest Kindergarten program is based on free play and allowing the students to connect with nature. This program is the foundation for the rest of our curriculum. Students learn to love the outdoors. We then begin to teach them to be good stewards and conduct research in nature.

4. How does your school use sustainability and the environment as a context for learning green technologies and career pathways?

Our 5th grade builds passive solar panels used in classrooms. We've built a hydroelectric generator with a washing machine. We grow plants for biofuels. In each grade we work with experts in a field related to their project. We work with arborists, farmers, biologists, engineers, foresters, professors and horticulturists.

- 5. Describe students' civic/community engagement projects integrating environment and sustainability topics. <u>Our garden is the Giving Garden</u>. The food produced from our garden goes to a different cause each year. We've given our produce to the Care Mission, a food bank many of our students use. This year, we grew plants for a teacher undergoing cancer treatment. Students studied the benefits of different plants and grew vegetables to meet her vitamin and antioxidant requirements.
- 6. Describe students' meaningful outdoor learning experiences at every grade level. We ask teachers to allow each student an hour per day outdoors. Forest Kindergarten spends 3 hours per day outside. The outdoor time is class time. They are covering standards in our forest or gardens. First grade has planted milkweed and they explore the forest tagging plants that will attract pollinators. Second grade has rescued native plants. They have also explored the forest to find rare plants with a biologist. Third built a vermiculture garden. They counted the worms in a square foot of their garden and estimated that they have 2,000 worms. They also collect food waste and use it in their compost. Fourth grade built over two miles of trails. They have mapped

ED-GRS (2015-2018) Page 12 of 14



and measured the trails. 5th grade solved an erosion problem on a hillside. They had dirt brought in and they planted the hill with shrubs. They also build steps leading to our forest to stop erosion.

7. Describe how outdoor learning is used to teach an array of subjects in context, engage the broader community, and develop civic skills.

Kindergarten learned about life cycles and living and non-living by hatching and raising chickens

First grade helped us become a certified wildlife habitat. They studied the needs of animals and found examples on our campus

Second grade measures the growth of our native plants. They track the weather and soil quality. They collaborate with schools around the state to compare that data.

Third grade completed a rock and mineral project by analyzing rocks from their homes and comparing them to the rock found at Rock Town a tourist destination. They also constructed a Rock Town and wrote fictional stories about it.

<u>Fourth grade uses trail cams to track animals.</u> They add food, water and shelter to areas and try to increase the population.

Fifth grade created a grid in the forest to learn coordinate plane and take a population count of trees.

8. Describe your partnerships to help your school and other schools achieve in the 3 Pillars. Include both the scope and impact of these partnerships.

We work with Roper Engineers on our water catchment system. Their Co-op program came weekly. They helped us lay out our garden in 2D and 3D. They helped students calculate the height needed to take water around the garden without a pump. They helped students calculate the number of gallons collected per hour from our roof and test various types of hose.

The Tennessee Aquarium biologists have an ongoing relationship with our first grade for our pollinator program. They meet with teachers and work with students to design habitat, butterfly tagging and tracking and recording data.

<u>Southern Adventist University sends education majors to work with our students and learn from our teachers.</u>
They participate at each grade level.

We have an arborist that works with students monthly. He works with Fourth grade on forest and tree management.

9. Describe any other ways that your school integrates core environment, sustainability, STEM, green technology and civics into curricula to provide effective environmental and sustainability education, highlighting on innovative or unique practices and partnerships.

We have an indoor aquaponics lab. The SPLASH Lab has 1,200 gallons of water and we raise tilapia and catfish. Our students have built aquaponics systems for other schools in the area.

Our Forest Kindergarten program is a model for several districts. We have trained teachers from Tennessee and Georgia. Students are outside rain or shine. We partnered with Cabelas for cold weather gear because of our high free and reduced lunch population.

We are a presenter at the Chattanooga Green Schools Summit. We've also presented at the Scholarship of STEM Teaching and Learning Conference at Georgia Southern, Georgia STEM forum, West Georgia STEM Conference, and STEM Teachers' Academy.

ED-GRS (2015-2018) Page 13 of 14



We were the first school outside of Tennessee to participate in the Tennessee Innovative Leaders Institute.

- 10. Submit video content: https://spark.adobe.com/page/GW3NexxJVFtJL/
- 11. Describe any innovative programs/technologies, unique practices/policies and impactful partnerships related to this Pillar. Please be sure to highlight any metrics listed above to help describe your school's creative approach.

Every student spends 1 hour per day in nature. All classes align to our school vision and have an environmental/outdoor focus. We are currently designing a digital badge system that will allow us to award badges when a student shows competence in a specific area of study. Many of the badges will be awarded by one of our partners.

ED-GRS (2015-2018) Page 14 of 14