



2013-2014 School Nominee Presentation Form

PART I - ELIGIBILITY CERTIFICATION

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 one or more of grades Pre-K-12. (Schools on the same campus with one principal, even a Pre-K-12 school, must apply as an entire school.)
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.
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
GreenRibbonSchools

ED-GRS (2013-2014)

Page 1 of 7

U.S. Department of Education Green Ribbon Schools 2013

Charter Title I Magnet Private Independent

Name of Principal Ms. Deanna Duncan, M Ed
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official School Name The Greene School
(As it should appear on an award)

School
Mailing Address 94 John Potter Rd.
(If address is P.O. Box, also include street address.)

West Greenwich Rhode Island 02892
City State Zip

County Kent State School Code Number* 97601

Telephone (401)-397-8600 Fax (401)-397-8700

Web site/URL tgstri.org E-mail dduncan@thegreeneschool.org

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

Deanna M Duncan Date 1/28/2014
(Principal's Signature)

Name of Superintendent* Ms. Deanna Duncan, M Ed
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

District Name* The Greene School Tel. (401)-397-8600

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate. This is one of the highest performing green schools in my jurisdiction.

Deanna M Duncan Date 1/28/2014
(Superintendent's Signature)

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



PART II – SUMMARY OF ACHIEVEMENTS

Summary

The Greene School (TGS) is a public charter high school and Rhode Island's only Expeditionary Learning School, serving a diverse demographic of students across 19 school districts. Through the context of local and global challenges, TGS meets its mission of developing 21st century systems thinkers by immersion in a culture of environmental stewardship and social responsibility. We believe in directly engaging students with real world academic tasks; students were directly involved in the creation of this Green Ribbon Award application.

Developing environmental literacy is the heart our work at TGS. Teachers deliver the majority of curriculum through critical environmental topics of the 21st century: energy, food, waste, biodiversity, genetics, and sustainable development. Through multidisciplinary units called Learning Expeditions, students delve into understanding the complexity of environmental challenges as they consider solutions from diverse perspectives. Each Expedition is a carefully designed series of student-centered experiences. Students transition from building background knowledge to learning academic and technical skills from experts in the field. For example, during the 9th grade Energy Expedition, students analyze the trade-offs of various energy production methods by visiting a nuclear reactor at URI, a for-profit trash-to-energy facility, and the Aperion Center for Sustainable Living. This Learning Expedition culminates with students conducting an energy audit and making energy conservation plans for the school.

Each of the Expedition topics culminates in a final product for a real and authentic audience. The final product for the Food Expedition is our annual 100 Mile Radius Dinner. During this event, which features a meal created from seasonally appropriate local foods, 9th grade students entertain guests by presenting projects created while learning about food and sustainability. The projects exhibited at the last year's event were life-changing personal food manifestos, scientific reports about the soil health of local farms, and student built solar cookers.

Crew, another aspect of student life at TGS, is an advisory-like structure that promotes wellness and connection to the natural world. At the start of every school year, students participate in an overnight outdoor experience with their Crews called Wilderness. Students hike, prepare meals, and complete service work in local Department of Environmental Management Areas. As students progress through grade levels, the experience gets more challenging. The Wilderness experience is consistently a transformational experience for students inter and intra-personally as well as in developing their connection to the natural world. Throughout the school year students continue to make personal connections during outdoor experiences in Crew, which helps students clear their heads and focus on learning.

GreenRibbonSchools



Throughout the past four years the stakeholders of TGS have worked collaboratively to create rituals and traditions which support the school's environmental mission. One ritual is the annual Earth Week celebration organized by the TGS Board of Directors. During the week, students speak with various environmental leaders and participate in rich off-campus service learning activities. In 2013, students were thrilled to have the opportunity to hear from Jack Groh, director of the National Football League's Environmental Program. TGS also has several clubs, including Envirothon and The Green Team, which promote civic engagement in environmental issues. Perhaps the most powerful tradition implemented is the Senior Project. All senior projects, from authentic research projects to community service and media projects must connect to at least one pillar of the school's environmental mission statement.

Currently TGS is housed in leased buildings; therefore only certain facility changes can be made to reduce overall environmental impact. Last year we upgraded to 18 watt LED bulbs, which greatly decreased energy consumption by approximately 6.3 %. This year we have reduced energy consumption by shifting away from desktop computers. Students now use a mix of ultra-low-power and Energy Star certified laptops. The Greene School is also using fewer appliances. A policy change has diminished the need for microwave ovens by 50% in one year, greatly reducing energy consumption.

Although facilities are our most challenging obstacle, we remain focused on a goal of building a green campus at the University of Rhode Island's W. Alton Jones campus in West Greenwich. In 2013, we partnered with RGB Architects to develop a Master Plan for the first phase of construction, the Sustainable Learning Center. The integration of sustainable design, building operations, and curriculum will complement the established tradition and culture of the Greene School. NECHPS standards will be used as a baseline for construction, and other standards will be met as feasible. Having a campus integrated as a teaching tool is the goal. Our schematic design highlights rainwater harvesting for use, storage, and analysis. Inclusion of photovoltaic and other green technology in a flexible plan is intended. Our objective is to include hands on teaching opportunities wherever possible throughout the campus. This Center will allow students to learn real world science skills and prepare them to be environmentally literate citizens for the 21st century.



PART III – DOCUMENTATION OF STATE EVALUATION OF NOMINEE

Instructions to Nominating Authority

The Nominating Authority must document schools' high achievement in each of the three ED-GRS Pillars and nine Elements. For each school nominated, please attach documentation in each Pillar and Element. This may be the Authority's application based on the Framework and sample application or a committee's written evaluation of a school in each Pillar and Element.

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 one or more of grades Pre-K-12. (Schools on the same campus with one principal, even a Pre-K-12 school, must apply as an entire school.)
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 _____ Rhode Island Department of Education _____

Name of Nominating Authority _____ Deborah A. Gist, Commissioner _____
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

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

(Nominating Authority's Signature) _____ Date _____

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.

School Contact Information

School Name: **The Greene School**

Street Address: **94 John Potter Rd.**

City: **West Greenwich** State: **RI** Zip: **02892**

Website: www.tgsri.org

Facebook page: https://www.facebook.com/pages/The-Greene-School/108670207086?ref=br_tf

Principal Name: **Deanna Duncan**

Principal Email Address: dduncan@tgsri.org Phone Number: **401-397-8700**

Lead Applicant Name (if different): **Brendan Haggerty**

Lead Applicant Email: bhaggerty@tgsri.org Phone Number: **401-397-8700**

<p>Level <input type="checkbox"/> Early Learning Center <input type="checkbox"/> Elementary (PK - 5 or 6) <input type="checkbox"/> K - 8 <input type="checkbox"/> Middle (6 - 8 or 9) <input checked="" type="checkbox"/> High (9 or 10 - 12)</p>	<p>School Type <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private/Independent <input checked="" type="checkbox"/> Charter <input type="checkbox"/> Magnet</p>	<p>How would you describe your school? <input checked="" type="checkbox"/> Urban <input checked="" type="checkbox"/> Suburban <input type="checkbox"/> Rural</p>	<p>District Name <hr/> Is your school in one of the largest 50 districts in the nation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <hr/> <p>Total Enrolled: <u>163</u></p>
<p>Does your school serve 40% or more students from disadvantaged households? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>% receiving FRPL: <u>18%</u> % limited English proficient: <u>0%</u> Other measures: <u>21% special education</u></p>		<p>Graduation rate: <u>95%</u> Attendance rate: <u>94%</u></p>

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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?

Yes No Program(s) and level(s) achieved:

2. Has your school, staff or student body received any awards for facilities, health or environment?

Yes No Award(s) and year(s)

The Greene School Third Place at the 2013 Rhode Island and Flower Show Non-Profit Category

The Greene School Second Place Overall in the 2013 RI Envirothon Competition

Deanna Duncan First cohort of teachers certified as NC Environmental Educator

NC Governor's Award 1999

ZENECA/NACD Conservation Education Award, 2000
Southeastern Section of the National Association of Geoscience Teachers, 1998
NC Outstanding Earth Science Teacher Award, 1997
Southeastern Section of the National Association of Geoscience Teachers, 1997
NC Outstanding Earth Science Teacher Award 1st Runner up
UNITE – Uganda and North Carolina International Teaching of the Environment
Recipient
NC Science Teacher Association – District 6 Outstanding Science Teacher Award 2000

Alex Edelman Fulbright Japan-U.S. Exchange Program for Education for Sustainable Development, 2012

Lara Haggerty Save the Bay Teacher Academy Grant 2011

Save the Bay Institute Scholarship Award, 2012-13

<http://www.youtube.com/watch?v=GDWV15vDLk>

Pillar I: Reduced Environmental Impact and Costs

Energy

1. Can your school demonstrate a reduction in Greenhouse Gas emissions?

(X) Yes () No Percentage reduction: 15% Over (9/2/13 - 1/10/14): 2 years (2012-2013) and (2013-2014) school year

Initial GHG emissions rate (MT eCO₂/person): .20

Final GHG emissions rate (MT eCO₂/person): .16

Offsets: (our biodiesel reduces our carbon footprint while promoting general awareness of alternative fuels)

How did you calculate the reduction?

Currently the only historical energy data we have available is our heating oil and the data we have been manually collecting starting in November, 2013. In order to estimate our energy use for last year we monitored our electricity manually and calculated an average use per day. We combined this estimated calculation with the actual historic data to create a figure for our initial, 2012-13 school year energy consumption. The most significant improvement that was made to building for the 2013-14 year was updating all of our primary buildings light bulbs to LEDs. We calculated the amount of kilowatt hours that would save us over the year and compared that data to the previous year. The major source of error in this method of calculation is that it does not take into consideration the electricity we use to cool the building in the warmer months, which is substantial.

2. Do you track resource use in EPA ENERGY STAR Portfolio Manager? () Yes (X) No

3. Has your school reduced its total non-transportation energy use from an initial baseline? () Yes (X) No

Current energy usage (kBtu/student/year): 3862764

Current energy usage (kBtu/sq. ft./year): 437

Percentage reduction: 6.3% decrease

over (m/yy - mm/yy): 5/13-1/10/14

How did you document this reduction?

As previously stated, our baseline is a proxy because it had to be calculated using current data. Students completed an energy audit to determine the average monthly kwatt/hr usage of electric before and after we installed all new LED light bulbs.

4. What percentage of your school's energy is obtained from:

On-site renewable energy generation: none Type: NA

Purchased renewable energy: none Type: NA

Participation in USDA Fuel for Schools, DOE Wind for Schools or other federal or state school energy program: No

5. In what year was your school originally constructed? 1985

What is the total building area of your school? 8834 SQ FT

6. Has your school constructed or renovated building(s) in the past ten years? (X) Yes () No

For new building(s): Percentage building area that meets green building standards: N/A

Certification and year received: N/A Total constructed area: N/A

For renovated building(s): Percentage of the building area that meets green building standards: NA Certification and year: N/A Total renovated area: N/A

Water and Grounds

7. Can you demonstrate a reduction in your school's total water consumption from an initial baseline? NO

Average Baseline water use (gallons per occupant): 303 gallons

Current water use (gallons per occupant): 303

Percentage reduction in domestic water use: established baseline, will measure for reduction next year

Percentage reduction in irrigation water use: no water is used for irrigation and rain barrels are used for gardens

Time period measured (mm/yyyy - mm/yyyy) in progress

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

N/A

8. What percentage of your landscaping is considered water-efficient and/or regionally appropriate?

All of the schools ground consists of consist of native and naturalized species of plants, therefore we have no need for an irrigation system. Virtually 100% of your landscaping is considered water-efficient and/or regionally appropriate.

9. Describe alternate water sources used for irrigation. (50 words max)

Approximately one-third of the roof surface at TGS collects rainwater that is used to water the gardens and the chickens. This reduces the amount of water we take from our well reducing electricity consumption.

10. Describe any efforts to reduce stormwater runoff and/or reduce impermeable surfaces. (50 words max)

The Greene Schools parking lots consist of 11,000 sq/ft feet of semi-permeable ground which allows rainwater to go through the pavement and help to prevent erosion and to restore water to the watershed.

11. Our school's drinking water comes from: () Municipal water source (X) Well on school property () Other:

12. Describe how the water source is protected from potential contaminants. (50 words max)

TGS is located on 70 acres of rural land in West Greenwich. Additionally, no pesticides or fertilizers are used on the campus.

13. Describe the program you have in place to control lead in drinking water. (50 words max)

The schools water is monitored every year by RI DEM

14. What percentage of the school grounds are devoted to ecologically beneficial uses?

Due to the unique setting of The Greene School, 100% of the grounds is ecologically beneficial, providing edge habitat, intact wetland and beaver habitat, with both native and naturalized plant species.

15. What percentage of solid waste is diverted from landfilling or incinerating due to reduction, recycling and/or composting?

Complete all the calculations below to receive points.

A - Monthly garbage service in cubic yards (**4-8 yard** x **4** x 90%): 115.2

B - Monthly recycling volume in cubic yards (**90 gallons** x **2** x 80%): 144

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): collecting data during 2013-14 school year.

Recycling Rate = $((B + C) \div (A + B + C) \times 100)$: .55.6%

Monthly waste generated per person = $(A/183)$: .6295 cubic yard per person

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?

The Greene School uses only Boise Aspen 30 Premium Recycled Paper, meaning that 30% of the paper used is post-consumer fiber. The paper is certified by the Sustainable Forestry Initiative and Buyers Laboratory Performance.

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

Flammable liquids less than 400mL of kerosene and ethylene	Corrosive liquids less than 500 mL of Sulfuric Acid per year	Toxics	Mercury	Other:
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How is this measured? The amount of chemicals used during labs is documented in laboratory procedures. Total amounts can be calculated because lab group sizes and the number of chemistry students each year remains relatively constant.

How is hazardous waste disposal tracked? The only hazardous waste used is tracked by the chemistry teacher

Describe other measures taken to reduce solid waste and eliminate hazardous waste. (100 word max)

TGS uses only reusable dishes for school lunches. Teachers collect work digitally reducing paper waste. All of the printer ink at the school is non-toxic and the printer uses solid block cartridge free ink which eliminates return packing and shipping of empty cartridges.

18. Which green cleaning custodial standard is used? We only buy products that are third party certified, but we do not have any one specific standard that we use.

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

The most common standard of the cleaning products that we purchase is the EPA's DfE (Design for the Environment)

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) 10% carpool 85% take the bus

How is this data calculated? (50 word max) N/A

20. Has your school implemented?

designated carpool parking stalls.

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

Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows.

Safe Pedestrian Routes to school or Safe Routes to School

Describe activities in your safe routes program: N/A (50 word max)

21. Describe how your school transportation use is efficient and has reduced its environmental impact.

(50 word max)

TGS has two biodiesel buses that transport 112 students to the school while making only 12 stops. Many students take public transportation to these satellite stops, saving tremendous amount of energy. These buses reduce our carbon footprint, and promote awareness of alternative fuels within the community.

22. Describe any other efforts toward reducing environmental impact, focusing on innovative or unique practices and partnerships. (100 word max)

Each year our students work with the Nature Conservancy to create oyster reef balls that are installed in salt ponds. The development of oyster habitat removes nitrogen from sensitive estuaries. Our students also work with the Westerly Land Trust each year to help restore critical riparian habitat within our local watershed. This coming year we will be working with an Environmental Science students at Brown University to organize an industrial level compost drive within our community. We have also conducted EWaste Recycling events, with Goodwill Industries of RI, and we intend to make that an annual event.

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

1. Describe your school's Integrated Pest Management efforts, including IPM/green certifications earned, routine inspections, pest identification, monitoring, record-keeping, etc.:

The Greene School's IPM is successful due to cooperation of faculty, staff and parents. We have a district-wide IPM coordinator that ensures that we follow the IMP and carefully consider materials used in the process. In the event that we do need to take action, we will follow the IMP and carefully consider materials used in the process. A staff member also coordinates the IPM program and monitors the pest records. A no-pesticide control follows the integrated procedure to prevent pests on TGS campus. In the event that we do need to use a chemical we wil notify families before taking action. To date this has not happened at TGS. When our landlord sprays for ticks we ensure that they do not spray near our buildings.

2. What is the volume of your annual pesticide use (gal/student/year)? Describe efforts to reduce use:

The Greene School does not use pesticides.

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.

Our school prohibits smoking on campus and in public school buses.

Our school has rules against smoking on campus and on school buses.

Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school.

Our school uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO)

Our school does not have any fuel burning combustion appliances

The Greene School's building is rented, therefore we do not have any control over our heating appliances. The Greene School uses oil heat.

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 school has identified any wood playground or other structures that contain chromite copper arsenate and has taken steps to eliminate exposure.

4. Describe how your school manages and controls student and staff exposure to chemicals (including pesticides) routinely used in the school. (100 word max)

The Greene School does not use pesticides. Additionally our chemistry program emphasizes green chemistry techniques and micro-chemistry labs which minimize the use of harmful chemicals.

5. Describe actions your school takes to prevent exposure to asthma triggers in and around the school. (100 word max)

In addition to the precautions implied in our schools IPM, we do not allow smoking and the cleaning chemicals used are third party certified.

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. (100 word max)

All staff members are expected to take an active role in promoting and maintaining safe and healthy facilities. Any unsafe or unhealthy condition are reported to supervisors, a member of the maintenance staff, a member of the Safety Committee, or the Head of School. We notify our landlord when there are leaks, condensation, or other problems listed above.

7. Our school has installed local exhaust systems for major airborne contaminant sources. (X)Yes ()No
We have filters in place.

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. (100 word max)
Our landlord checks and maintains the ventilation systems regularly.

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. (100 word max)

Our school building is not a traditionally structured school building. The residential style of the building allows teachers and students to open windows in classrooms as needed. Every classroom has a minimum of 4 large windows. When weather permits teachers and students often open them.

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. (200 word max)

We plan on incorporating a yearly indoor air quality audit in a science course.

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)

TGS promotes improved nutrition by having Sodexo provide healthy lunches. Vending machines offer healthy snacks such as fruit and granola bars. 9th grade students participate in the Food Expedition with its life changing student written food manifesto. Students report improved awareness of food and nutrition after the Food Expedition. The 100 mile Radius Dinner is a unique and demanding Intensive where students plan, prepare, and serve a meal for 50 people using only local foods. They experience a great sense of accomplishment while learning real life cooking, planning, and execution skills.

Physical activity and generally improving school health is accomplished through our Wellness course which includes health and physical education. Most of PE is held outdoors. The school property has a beautiful .6 mile hiking trail loop that can be completed during a crew period. The Green Team created and distributed a trail map guide and initiated a competition among crews. Other activities include Wilderness Experience, Insanity Workout Club, Appalachian Trail hike week long intensive, and many outdoor activities with community service elements such as clearing and building trails for The Nature Conservancy and Audubon Society of RI.

[] Our school participates in the USDA's Healthier US School Challenge. Level and year:

[X] Our school participates in a Farm to School program to use local, fresh food.

[X] Our school has an on-site food garden.

[X] Our school garden supplies food for our students in the cafeteria, a cooking or garden class or to the community.

[X] Our students spent at least 120 minutes per week over the past year in school supervised physical education.

[X] At least 50% of our students' annual physical education takes place outdoors.

Health measures are integrated into assessments.

At least 50% of our students have participated in the EPA's Sunwise (or equivalent program).

Food purchased by our school is certified as "environmentally preferable"

12. Describe the type of outdoor education, exercise and recreation available. (100 word max)

TGS has a wellness curriculum which utilizes outdoor activities preferably. Additionally there are many yearly events that involve hiking, service, and outdoor recreation. Each year students take part in the multi-day wilderness experience and Earth Week. Students also have the opportunity to participate in clubs emphasizing physical fitness including the Frisbee Club and the Insanity Club (a popular intensive physical workout). Science classes participate in a variety of outdoor learning experiences such as water quality monitoring, soil testing, biological classification activities, and other project-based research activities.

13. Describe any other efforts to improve nutrition and fitness, highlighting innovative or unique practices and partnerships. (100 word max)

As an Expeditionary Learning School, we offer five day elective classes called Intensives twice yearly. Some intensives offered have been a five day hike on the Appalachian Trail and the 100 Mile Radius Dinner food Intensive. As stated previously, the entire school participates each fall in Wilderness Experience, which includes camping, hiking, biking, and kayaking. Students have also worked with the East Bay Food Bank learning the critical food needs of the community.

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:

- Our schools health plan sets guidelines about what types of food we allow in the building and the amount of outdoor activity that students are able to participate in
- During National Drug Facts Week each year we have a member of MADD speak to our entire school
- We host an annual Blood Drive
- Each student has a crew leader that acts as the caring adult looking after the progress and acting as an advocate for each child. Students also "circle up" and check in with their crew at least once each week
- Older students mentor younger ones in our "buddy crew" structure. This helps students feel physically and emotionally safe

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

If yes, describe these partnerships:

- MADD (previously explained)
- Each year during Peace Week, TGS hosts speakers from URI Center for nonviolence and Peace Studies
- During their senior project students have collaborated with organizations such as Eat Healthy RI and DARE

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.):

Members of the Student Leadership Team are committed to our school's mission in exploring their roles in promoting moral and social responsibility in their local and global communities as well as here at TGS. SLT members work together to promote a positive school culture that embraces a vision of community, equity and peace. Eight Students and two teachers were able to attend the speech given by the Dalai Lama hosted by Brown University. Students participate in Peace Jam activities, including working on a year-long initiative, receive training from the Center for Nonviolence and Peace Studies at URI in nonviolence, and promote unity at the school through events such-as Spirit Week. Each year speakers from the URI Center for Nonviolence and Peace Studies work with the entire

school community. This tradition reduces bullying in the school community. We have a Gay Straight Alliance that is currently in development and forming a calendar of activities and curriculum. TGS also has a Nurse, Social Worker, and Psychologist. Our schools common classroom management system and student Habits of Work promotes a safe learning environment, and sets a tone of mutual respect between teachers and students.

The Wilderness Experience is transformative to the schools culture and climate. Students from diverse backgrounds leave as individuals and return as a community. It has been a pleasure to watch groups of students breaking down the walls of traditional cliques so they can work as a team.

Pillar 3: Effective Environmental and Sustainability Education

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? (200 word max)

TGS delivers curriculum through sustainability and environmental subjects. Essential skills and state standards are met through thematic interdisciplinary units called learning expeditions which include projects and final products for authentic audiences. Expedition examples are: Energy of a Revolution, Nature and Society, Food: Local versus Industrial Farming, Water: The Flood of 2010 and its Impact on Families in Rhode Island, Talking Trash: Why is it Waste in the First Place, Sustainable Development in Narragansett Bay. One example of an annual 9th grade final product is the Energy Action Plans. This project emerges from building energy consumption data that is manually collected and graphed in algebra class.

This year seniors are participating in a curriculum on RI and Southern New England coastal history and future, highlighting whales and whaling. The curriculum introduces students to GIS/GPS science and mapping. The final product will be model of the Atlantic coast, with overlays of historical whaling and fishing communities, and of the migration routes of marine mammals and other animals of Southern New England waters. This model will be available to loan to educational institutions in Rhode Island. It will provide a working model of the complex natural history of southern New England's coastal environment.

4. How does your school use sustainability and the environment as a context for learning green technologies and career pathways? (200 word max)

Every learning expedition includes direct Fieldwork with experts. Most of these projects expose students to careers opportunities in environmental fields. TGS incorporates scientists and professionals into the curriculum, modeling real-world career options for students. Through Fieldwork, in which students grapple with real issues, students engage the help of professionals. TGS is often praised by these professionals on the level of rigor exhibited by the curriculum. Examples are:

- 9th grade visited Wheelabrator trash-to-energy facility and learn about the generating station
- 9th grade researched agriculture of the 18th century at Coggeshall Farm Museum and then had a private tour of Swiss Village Foundation to learn about cryopreservation of rare and ancient farm animal breeds
- 10th grade visited Narragansett Bay Commission learning the role Biologists and Chemists play in monitoring the proper function of the waste water treatment facility
- 11th graders participate in three field research field trips with Save the Bay
- 12th grade visited the URI Bay Campus to learning about RI Sea Grant, as well as research being conducted at the College of Life Sciences at URI and the GSO Inner Space Center
- 12th grade participated in an interactive lecture on Right Whales and GIS at the New England Aquarium

5. Describe students' civic/community engagement projects integrating environment and sustainability topics. (200 word max)

- All culminating projects each semester have an authentic audience, therefore involving engagement of the community. Projects include: energy action plans, soil data analyses for local farms, environmental improvement grants, organizing environmental events, and creating educational multimedia.
- Community service is incorporated in Fieldwork experiences as frequently as possible. When students visit NYC for several days studying race, they volunteer at a community food bank.
- Environmental Biology students conduct water quality testing for The Nature Conservancy at Tillinghast Management Area.

- Community service with local land trusts (previously explained)
- We require that senior project meet the mission statement of TGS. Past projects include: a TGS fair trade uniform proposal, plan recruitment monitoring at Tillinghast Pond Management Area, a book of interviews about the sustainability of Block Island, and more.
- Each year the Envirothon team creates proposals for various local environmental topics including rangeland management, aquaculture and sustainable agriculture
- Finally, Crews at each grade level are responsible for different stewardship duties:
 - 9th graders care for the chicken and garden beds
 - 10th graders collect data about and monitor the schools composting systems
 - 11th graders collect data about and monitor the schools recycling systems.
 - 12th graders design and implement a school improvement project

6. Describe students' meaningful outdoor learning experiences at every grade level. (200 word max).

All students participate in an educational multi-day orientation trip, called Wilderness Experience. It is an adventurous and challenging opportunity for each student to begin forming a relationship with his or her Crew and Crew Leader. Although this Wilderness Experience includes a broad range of curricular activity, communication skills and environmental studies are two of the standout themes.

9th grade

- two day hiking wilderness trip in Arcadia Management Area: students learn to interpret and make inferences about landscapes
- during the spring students are involved with community service and soil sampling at a variety of local farms

10th grade

- two day overnight hiking wilderness trip in Arcadia Management Area: students learn about natural history
- Students travel to Concord to study the history of Transcendentalism and complete reflective journaling at Thoreau's cabin on Walden Pond

11th grade

- ten mile, three day hiking wilderness trip on the Walkabout Trail
- three days of research on Narragansett Bay in conjunction with Save the Bay

12th grade

- three day wilderness trip to Block Island. Students take the ferry to the island, camp at Scotch Beach, and tour the island on bike while researching local environmental history
- collecting water quality data during Environmental Science Class

7. Describe how outdoor learning is used to teach an array of subjects in contexts, engage the broader community, and develop civic skills. (200 word max)

- All of our science courses are environmentally-oriented classes. This means that whenever possible, the content of the course is explored through the lens of an environmental topic.
- Through fieldwork we have had the joy of seeing urban students make profound leaps in their personal environmental awareness. Examples range from students with no previous coastal experience identifying their exact location on Narragansett Bay, to students losing 40 pounds and becoming healthier with improved awareness of food and agriculture.
- Our math teachers periodically teach using the theme of sustainability and offer students the opportunity to use practice their math skills within the context of real world problems. Examples include the consumption of personal electronics and their ecological footprint of pollution. Even when the content of the learning is not environmentally specific, teachers often try to utilize outdoor spaces. For example when graphing functions students sometimes will use sidewalk chalk on the parking lot.
- As previously mentioned fieldwork, as well as our five day intensives classes, allow for extensive opportunity for outdoor learning within our community.
- Wellness class happens outdoors so students can get fresh air while practicing and learning about fitness.

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. (Maximum 200 words)

Pillar I: *Reduce environmental impact and costs.*

TGS students and staff participated in school wide design workshops to assist the Master Plan for our future green campus . The brainstorming in these sessions was centered around green design and sustainability for all students. Although aimed at helping TGS, the effort is to have reproducible design. TGS students worked with professionals from RIDE, URI, and Audubon in these workshops.

Pillar II: *Improve the health and wellness of students and staff.*

See number 17

Pillar III: *Provide effective environmental and sustainability education, incorporating STEM, civic skills and green career pathways.*

Some partnerships include:

- Audubon Society of RI is our nonprofit sponsor. TGS collaborates with projects and curriculum.
- The Nature Conservancy collaborates for studies to determine pond ecology and invasive species control.
- Ayers Foundation, a farm nonprofit, partners with TGS students to promote, practice and teach sustainable agriculture, holistic nutrition, and healthy living
- Trout in the Classroom Partnership: TGS partners with RI DEM, Paul Cuffee Middle School and Blackstone Academy High School
- Compass School: Envirothon mentorship
- Save the Bay: entire school participates in Field work annually, Lara Haggerty is working with STB to improve curriculum.
- RI Sustainable Schools Summit: Brendan Haggerty presented “Sustainable Education at TGS” and “Sustainable Education: Real Projects and the CCSS”
- EL National Conference 2013: Brendan Haggerty “Using Geospatial Tools to Enhance Place-Based
- 2014 National Green Schools Conference: HOS Deanna Duncan will be a facilitator

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. (Maximum 200 words)

Improving environmental literacy across all demographics is central to the mission of TGS which states:

“ a culture of personal, community, and global stewardship using a curriculum centered on direct experiences with environmental science, and the technology that affects the natural world... Students are prepared to be informed, skilled, active and innovative community leaders who will become the environmental stewards of the future.”

Examples include:

- During their Senior year students investigate how history and economics have impacted the environment in different Rhode Island coastal communities. The link below contains excerpts of some student work about coastal development <http://narragansettbayresearch.wikispaces.com/Wickford>
- Our Senior curriculum also has a unique emphasis on sustainable development and how it applies to their own backyard. This study explores historical examples of sustainable development issues including whaling, fishing, the mill industry and tourism.
- In the Robotics course students are challenged to understand the programming skills scientists use to create the tools that provide essential data about the world. Additionally, students are challenged to use creative and analytical thinking skills to solve mechanical problems.
- ArcGIS has granted our school a full ArcDesktop site license because we are working towards integrating GIS skills and media literacy into our curriculum

MASTER PLAN

The Greene School (TGS) opened in 2010 utilizing a leased space in West Greenwich. The temporary site sufficed for the initial student body, but the space is insufficient in overall square footage, the classrooms are too small, and the layout is not well-suited for a high school campus. TGS has had to freeze enrollment due to space limitations and is therefore unable to fill all state approved slots for students. The goal since inception has been to build a green/zero impact campus for TGS on the 2,300 acre W. Alton Jones Campus (WAJ) of the University of Rhode Island in West Greenwich. In 2012, TGS conducted an open competition to select an architect to prepare a Master Plan (MP) to address all aspects of building this campus at WAJ. The MP, which was completed and briefed for URI in 2013, is a key reference for a capital campaign to generate the funding for this WAJ campus. Through the master planning process, in which NECHP's (New England Collaborative for High Performing Schools) standards were used as a baseline, TGS realized that a phased approach to campus development would make it more feasible. TGS decided that the first phase would be a Sustainable Learning Center (SLC), which will serve as a 6,000 square foot flexible use site. This building will allow for a daily rotation of grade level groups to utilize the center as a field learning station and to model skills needed for careers. The SLC will also provide space for researchers and faculty from URI, promoting its use as a research campus. Ultimately TGS seeks to create a campus that is an educational model and a laboratory for innovation. Sustainable materials and systems are fundamental components in the plan developed for the first phase of construction. The initial schematic design includes rain water harvesting system, a 21st century vegetated leaching field, and roof mounted photovoltaic panels. These features will provide a multitude of opportunities to enhance STEM (Science, Technology, Engineering and Math) education. Students will actively monitor and collect data from the components of the building as they explore the fundamental scientific and economic principles that are the foundations of sustainable development. Future phases of the master plan will incorporate additional cutting edge sustainable technologies as part of a comprehensive environmentally friendly campus.





Figure 1: Two students serving hors devours at our annual 100 Mile Radius Dinner.



Figure 2: A freshman student braves the ropes course during New Student Orientation.



Figure 3: The 10th grade class removing invasive species, bagging roadside trash, and working on a new hiking trail during Earth Week at Tillinghast Pond (a local Nature Conservancy Management Area).



Figure 4: Students creating new hiking trails during a week-long intensive class.



Figure 5: A groups of students working to construct the school's garden exhibit.



Figure 6: The Greene School's garden came in third place in the non-profit category at the 2013 Rhode Island Flower and Garden Show.



Figure 7: Students in The Green Team, taking care of the schools compost.



Figure 8: Student in the Landscape Architecture class begin renovating the schools chicken coup.