2015-2016 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 2015-2016

☐ Public  ☐ Charter  ☐ Title I X Magnet  ☐ Private  ☐ Independent  ☐ Rural

Name of Principal: Mr. Robert McCain

Official School Name: CREC Two Rivers Magnet High School
Official School Name Mailing Address: 15 Van Dyke Ave. Hartford, CT 06106

County: Hartford  State School Code Number: 070279
Telephone: 860 422-7095  E-mail: rmccain@crec.org
Web site/URL: http://www.crecschools.org/our-schools/two-rivers-magnet-high-school/

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

______________________________ Date: 1/19/16
(Principal’s Signature)

Name of Superintendent: Ms. Dina Crowl
District Name: Capitol Region Education Council
I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

______________________________ Date: 1/19/16
(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: Connecticut State Department of Education

Name of Nominating Authority: Dr. Dianna R. Wentzell
I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.

______________________________ Date: 1/20/16
(Nominating Authority’s Signature)
SUMMARY AND DOCUMENTATION OF NOMINEE’S ACHIEVEMENTS

Two Rivers Magnet High School (TRMHS) is an urban environmental science magnet school overseen by the Capitol Region Education Council (CREC) in Hartford, Connecticut. We currently serve over 395 students in grades 9-12 from the greater Hartford area. More than 50% of our students are eligible for free and reduced lunch. We have a high English Language Learner (ELL) population and more than 80% of our students are minority. Our magnet theme is environmental science and sustainability. As a 4 year old school, we have utilized the CT Green LEAF guidelines and resources as a “green road map” for the development of our theme programing. For example, students at our school have participated in courses that teach sustainable green building design, techniques in water quality testing, aquaponics food production, drone and robotic conservation efforts. By utilizing the CT Green LEAF self-assessment tool, we added to our School Improvement Plan (SIP) action steps to include: environmental STEM pathways, cross disciplinary environmental science curricula, theme-specific professional development, green school initiatives such as recycling and composting, and a theme-specific senior Capstone project. In 2015, we received the Magnet Schools of America Award as a School of Distinction due to our efforts in promoting our magnet theme of environmental sustainability. As a center of innovation and academic excellence, we connect, motivate, and empower students in environmental science, technology, and engineering.

TRMHS is a dynamic and diverse science and technology-based urban learning community with an environmental science focus. Our vision is to serve as a center of excellence for engaging students in innovative science and engineering through the use of nationally recognized curriculum and state-of-the-art technology.

Pillar 1: Environmental and Sustainability Education- At TRMHS, we integrate our magnet school theme of environmental science and engineering throughout all core, elective, and co-curricular classes in a multitude of ways, through science courses, enhanced core curriculum, and professional development. We offer four exciting theme-specific pathways for students to choose from: Aquatic Studies, Environmental Studies, Environmental Science and Engineering, and Plant Genomics/Biotechnology. Upon graduation, students receive an environmental pathway designation on their diplomas for their specific focus.
The creation of thematic pathways is also enhanced by teacher collaboration on interdisciplinary learning experiences. Examples of environmental science integration in core classes include: a study of alternative energy in physical science class which culminates in a social studies debate on the merits of Tesla’s vs. Edison’s work; an aquaponics project incorporating the engineering design process; an exploration on energy transformations relating to human nutrition and sustainability; an upcycling project in music using old computer parts to make maracas and ecological field and aquatic studies in the confluence of the Connecticut and Hockanum Rivers.

![The Two Rivers Magnet High School VEX robotics team will compete in a regional competition in March and in the U.S. Open Robotics Championship in April 2015 (Photo Credit afalcone3)](image)

**Pillar 2: Improved Health, Nutrition and Wellness** – TRMHS pursues health and wellness, both in our academics and in other activities. We have diverse curriculum that includes courses such as Environmental Justice and Food Science, as well as maintaining an active student team that assesses the indoor environmental quality of the school using the Tools for Schools and Project Learning Tree’s GreenSchools materials. A Wellness Committee has also been created to address staff wellness education and also includes quarterly “health competitions” for staff members. Staff members also participated in a CSA to bring farm-fresh produce to the school, a program that will be expanded to include our students’ families in the spring of 2016. Our
cafeteria offers vegetarian and vegan choices, as well as culturally inspired meals. As an urban school located on a former brownfield site, we use local parks for recreation, and walk to many of our fieldtrip sites. Our school also follows green cleaning procedures per CT state law.

**Pillar 3: Reducing Environmental Impact**-Currently our school is located in the renovated historic Colt Armory in downtown Hartford. This factory was a former brownfield site that has been rehabbed and revitalized to serve as the campus for three CREC schools, including ours. Over the four years we have been here, our students have had the opportunity to observe this brownfield restoration daily. Our school strongly adheres to CREC’s Ethical and Sustainable Spending policy for schools and programs that requests that staff make considerable effort to reduce consumption, waste and transportation emissions when purchasing supplies and equipment. Many of our students travel to school by city bus, or walk/ride their bikes. We also have a no idling rule at our school which helps to reduce the environmental impact of our buses.

Next year we begin construction on our brand new school which will be located on the Farmington River and is projected to include a solar array that will provide at least 50% of our electricity needs. We are also investigating whether geothermal heating and cooling is a good fit for our school. In an after school club and in the Green Building Design course we are planning to have our students design low impact landscape for the new site, which will include vegetable and pollinator gardens, an educational wetland and trail system, an outdoor aquaponics farm, a nature center for the local community and a bird sanctuary.

**PART IV – DOCUMENTATION OF SCHOOL’S ACHIEVEMENT IN THE 7 STEPS**

**Step 1: Green and Healthy Outlook**

Our partnerships with parents, local organizations, and the local community are important components of our environmental education program. Strength Through Parents and Partners is a parent-led partnership with our school that works to promote a positive school culture and climate, support staff in providing rigor in the classroom, and develop environmental literacy experiences for our students. We also have developed our Green LEAF committee which is comprised of students, staff and administration. The Green LEAF committee invites parent input on school programing, field trips and student explorations. We also have the Green LEAF club
that is student-led and works on school projects like streamlining and overhauling our cafeteria recycling program and organizing the Earth Day Eco-Fair. Through STP and Green LEAF, we work with families to provide information to better assist students academically and holistically at home. Workshop topics have included communication skills, college readiness information, and healthy lifestyle choices. Parents and students are also active, vocal members of our school community and share membership in our Positive Behavior Intervention Supports committee and Parent Advisory Council, as well as the Student Advisory Council.

Community partners are integral to our theme integration. The theme coach and administration work with community partners and local institutions who help advance student immersion in the magnet school theme through field trips, classroom presentations, outreach programs, monthly guest speakers, mentorships with Capstone students, and semester-long field studies. We consistently seek and maintain relationships with organizations that enrich our program and enhance the thematic experiences of our students, staff and families. Partnerships include the University of Connecticut Engineering Department, Project Oceanology, the Connecticut Science Center, Connecticut Green LEAF, Common Ground High School, Connecticut Outdoor and Environmental Education Association, Mystic Aquarium, the Mark Twain House, the Connecticut Forum, and the CT Audubon Society.

Teachers at our school regularly participate in Project Learning Tree (PLT) and Connecticut’s eeSmarts workshops and utilize PLT curricula, such as GreenSchools!, and energy efficiency lessons in their courses. We also work with Mystic Aquarium and CT SeaGrant to incorporate JASON Learning modules and marine science field experiences. Our classes work with the CT Science Center to assist them in developing and piloting new STEM modules. Students also participate in Project Oceanology seal studies. In October 2015, our school participated in Turning Green’s Project Green Challenge to raise awareness about environmental issues, sustainable living, informed consumption, and the impact of individual actions on the environment. Each day, for 30 days, students received Green Challenges via email or text message that they could participate in to earn points. The challenges ranged from healthy eating to transportation alternatives, to personal grooming and fair trade. Students shared their experiences with the challenges in mini journal entries. Those who earned the most “points” for the challenges were acknowledged as Green, Greener and Greenest among their peers. About a
third of our students participated in the daily challenges and we are hoping to expand the program for next year.

Most recently we are working with the CT Audubon Society to incorporate environmental science eUnits into our Geographic Information Systems course. Approximately, 40 students in grades 11 and 12 are participating in a virtual online interactive simulation called Land Science. In this module, students work in small groups in “internships” as urban developers to revitalize the city of Lowell, MA. At the end of the unit are planning to take a field trip, with members of the Massachusetts Audubon Society, to the city to learn about how its urban development has evolved over time with changing demographics and changing needs.

We have also worked very closely with Common Ground High School, a Green Ribbon honoree, to share our experiences in designing our environmental education programming. Each year we meet to discuss what each school is doing with regard to environmental literacy, student achievement and sustainability practices. Teachers at Common Ground are helping us grow and we find our relationship with their school to be mutually beneficial. We look forward to these learning exchanges because they help us to reflect on how far we have come and to acknowledge how much growing is still needed.

Our staff members have also participated in environmental literacy workshops through our membership in the Connecticut Outdoor and Environmental Education Association. Through participation in these robust environmental education and sustainability workshops we have become familiarized with the CT Environmental Literacy Plan. TRMHS has worked hard to develop and implement interdisciplinary curriculum, field studies, afterschool activities, authentic experiences and explorations, community service projects, and teacher professional development to improve the environmental literacy of our staff, students, and families.

Step 2: Environmental and Sustainability Literacy

Since the school’s inception four years ago, we have worked to adhere to principles outlined by the US Department of Education’s Green Ribbon Schools Initiative: reduce environmental impact and costs; improve the health and wellness of our school, students, and staff; and provide environmental education, which teaches many disciplines, and effectively incorporating STEM, civic skills, and green career pathways. We have also utilized the CT
Green LEAF guidelines to create a “green road map” for developing the programming of our school. To that end, we have created goals within our School Improvement Plan (SIP) to address these standards.

The creation of a school wide data team has provided us with the opportunity to examine our environmental education (EE) alignment and current instructional practices to define a clear mission, vision, and goals. The SIP outlines specific action plans and strategies for EE connection. Teachers in all disciplines are responsible for creating exemplar environmental STEM lessons aligned with North American Association for Environmental Education Standards.

Our students are required to take two semesters of Environmental Science, in addition to their core Physical Science course, within the first two years at Two Rivers. After that they can take a combination of other elective science courses that include: AP Environmental Science, AP Biology, AP Human Geography, Environmental Engineering, Meteorology, Hydroponics, Marine Biology, Biotechnology, Environmental Justice, Environmental Law, Geographic Information Systems, Nutritional Science, Sustainable Food Production, Robotics and the Environment, Freshwater Ecology, Unmanned Aerial Systems (Drones) and the Environment, Environmental Forensics, Green Building Design, Renewable Energy Systems, and Environmental Documentary Making. Participation in these elective courses provides each student with a strong foundation in environmental science, technology, and engineering through the implementation of the Engineering Design Process, NGSS Engineering practices, and the 5 E Model of Inquiry. As juniors and seniors, all students choose an environmental science or engineering pathway, research college and career options, and create a Capstone plan for a community service project for environmental sustainability education.

In 2015 we revised our theme-specific pathways to reflect student interest in STEM and environmental science careers. For example, Biotechnology students work one-on-one with a cancer researcher to study human genes and susceptibility to environmental factors such as air pollution. In our robotics and drones courses, students are learning about how environmental engineers and researchers utilize robots, GIS and remote sensing to map, study, and better understand the natural world.

Our school assesses the effectiveness of environmental and sustainability education programs through the development of formative and quarterly summative assessments aligned to NGSS and NAAEE standards. We regularly administer EE pre and post tests and require
teachers to analyze student data in instructional data teams. Environmental literacy is also tied to teacher evaluation as teachers are expected to design and implement theme specific lessons into their subject specific curriculum.

Our teachers collaborate in Professional Learning Communities (PLC) to support and encourage each other in finding effective teaching strategies that focus on student learning outcomes and differentiated learning styles. Our student-centered philosophy prepares students for conscientious participation in a global community as they develop effective skills in critical thinking, problem solving, communication, creativity, and innovation. Teachers create flipped-classroom videos and collaborate with colleagues to co-teach interdisciplinary EE units.

Learning occurs in multiple environments, including nearby parks, rivers, coastal and mountain regions, and nature preserves. Social studies classes visit historic sites and analyze how the environment shapes our culture and history. World Language classes create eco-tourism postcards and apply vocabulary related to environmental preservation. In art classes, students create original and expressive pieces by repurposing recycled materials and using multiple media to increase environmental awareness. Music students make and play recycled instruments as they study environmental and cultural issues through world music.

Figure 2 Students can learn about the science of flight and work toward their pilot's license in Flight Academy

Two Rivers students also participate in a variety of enriching STEM-related after school programs such as VEX Robotics, Flight Academy, Electrathon Electric Vehicle Race, Recycled Drum Corps, CT Envirothon, and Green LEAF Club. Students are encouraged to assume leadership roles within the community by participating in community service projects, environmental cleanup initiatives, and civic-minded activities.
Staff development for theme integration is interwoven into weekly team meetings, and teachers are provided with dedicated common planning time to design interdisciplinary theme-specific lessons. The science and technology departments meet in monthly PLCs to discuss instructional best practices, participate in training on NGSS and NAAEE standards, and share ideas on EE explorations. Teachers are encouraged to participate in and present at conferences and workshops in environmental science education, institutes, field studies, and learning exchanges. We have presented at the NSTA STEM Conference (2013), NSTA National Science Conference (2014) and the North East ARC Users Conference (2015). In addition to these professional growth opportunities, our school has added a “resident scientist” from a local university who co-teaches with the AP Biology/Biotechnology teacher to provide our students with an authentic understanding of scientific inquiry. Dr. Henry is also able to assist teachers in connecting their sciences to professional careers, making science real for students. He is also supporting our some of our inaugural Capstone seniors as they complete their senior projects.

**Step 3: Healthy School Environment**

TRMHS students have taken courses such as Sustainable Food Production and Nutritional Science, and participated in walk-throughs to monitor the school’s indoor air quality using IAQ Tools for Schools kits. Our school meets or exceeds all CT school based environmental health laws. In our Environmental Tech course students use Project Learning Tree (PLT) Green Schools! investigations to examine and assess aspects of our school’s outdoor spaces such as pervious and impervious areas, tree cover, grounds maintenance, and outdoor space. In our Health classes, students use the PLT Environmental Quality investigations to examine and assess indoor air quality within our building: they record temperature readings and relative humidity inside classrooms, check for hazardous materials in the science labs, utilize a
checklist while doing school walkthroughs for factors like location of air input and output fans, and collect data on how students get to school by administering a student surveys. We have a school safety committee made up of administrators, staff and parents that has been trained in the IAQ Tools for Schools program, and has done walk-throughs to monitor the building and to assess indoor air quality. As a result of these walkthroughs, improvement to the indoor air quality was achieved by increasing the amount of air purifying plants we have in the school.

Our Advisory Committee is looking at ways to teach students more about healthy lifestyle choices. We are currently investigating the idea of incorporating mindfulness and meditation into the school day through a program called Quiet Time which is part of the David Lynch Foundation. Research links meditation to a decrease in teens’ stress and an increase in academic achievement. This pilot starts in the spring of 2016.

In accordance with CREC’s Integrated Pest Management policy, no pesticides, herbicides, or fertilizers are used in the maintenance of our school site. Per CREC’s Green Cleaning polices we use only environmentally friendly cleaning products. Also, in Health classes students learn about asthma and allergies and the dangers of poor indoor air quality. Being an urban school, we have a disproportionately high number of students and staff who have asthma so it is important that we educate the community about the dangers of exposure to triggers indoors. We teach how to identify and reduce asthma triggers and the importance of eliminating aerosol deodorants, perfumes, chemical cleaners and sprays at home and at school. Our school adheres to Connecticut’s School Bus Emissions law and encourages students to walk, ride their bike or take public transportation when appropriate. We have a Chemical Hygiene Officer who maintains our chemical database, educates staff on proper storage and use of potentially hazardous chemicals, and ensures all chemicals are properly stored.

Figure 4 Two Rivers students learning CPR
**Step 4: Healthy Nutrition**

Our school promotes nutritious food choices consistent with the current Dietary Guidelines for Americans and My Plate. In an effort to promote student health and reduce childhood obesity, CREC prohibits the sale of foods of minimal nutritional value and requires that all foods sold to students separately from school meals meet the Connecticut Nutrition Standards. We do not have snack and beverage vending machines, serve only healthy snack options in our school store and do not participate in candy fundraisers or bake sales.

Per the District Nutritional Standards, we offer breakfast through the USDA School Breakfast Program. Students have input on local, cultural, and ethnic favorites with regard to the lunch menu and we do a Multicultural Luncheon twice a year to introduce students to culturally significant healthy food options. District lunch options include a fruit, salad, vegetarian and gluten free options and accommodate students with special dietary needs. The district provides professional development in the area of food and nutrition to all food service managers and staff and shares information about the nutritional content of meals with students and parents on its website.

Our school has a greenhouse that students utilize in our AP Environmental Science courses and several students are designing ways to grow food for their Capstone projects. One student is trying to grow enough food to incorporate into our school lunches. She is working with the theme coach to create a plan to incorporate fresh produce into the cafe for Spring 2016. In February we take advantage of the University of Rhode Island’s Free Seeds Program. To date we have received over 900 packets of seeds to use in our school greenhouse, hydroponics systems and to distribute to school families. For Mother’s Day 2015 our Green LEAF club organized a sale of plants grown in our school. This sale highlighted our hydroponics and aquaponics systems and helped to educate students on the advantages of starting a home garden. In our Hydroponics course students learn how to design and create a hydroponic garden that grows tomatoes, lettuce, herbs and other vegetables. In our Fresh Water Ecology course students designed mini aquaponics systems that incorporated “pet” fish, various herbs and lettuces. They studied aquaculture and aquaponics through an interdistrict grant where TRMHS students worked with students from suburban schools to learn about the farming of fish and had the opportunity to visit fish farms in Alabama and Cape Cod National Sea Shore. Last year one of
our students spent a week at Auburn University in Alabama learning about the role of aquaculture our country’s food system.

For the first two years our school had a food science program where students learned about healthy eating and cooking techniques; farm-to-table programs; healthy lifestyle choices and the US food system. We plan to restart this program in the Fall of 2016. We are currently writing new curriculum for an expanded Food Science pathway to be introduced in our new school in 2017-2018.

In 2015, our staff participated in a Community Supported Agriculture CSA Farm Share with a local farm. Each week participating staff members received boxes of organic, locally grown and sustainably harvested fruits and vegetables. For 2016, we will be expanding this program to school families and are confident that there will be a great deal of interest.

**Step 5: Physical Well-Being**

Because our school is located in an industrial complex in downtown Hartford there is little room for a full sized gymnasium and athletic fields. This has helped us to get creative with our physical education program. To ensure that all students have sufficient opportunities for exercise we have installed a large work-out room that students use during Physical Education classes. Students participate in yoga, Zumba, dance, and karate classes. Teachers and other staff members utilize the work-out room before and after school and many of our sports teams such as basketball, track and field, and volleyball use the space to improve athletic performance. TRMHS offers Football, Basketball, Volleyball, Track and Field, Soccer, Baseball, Softball, and Cross Country.

When students are not using the work-out room they are outside, in all weather, at a local park that has soccer fields, basketball courts and a baseball field.

![Students collecting trash during a clean-up of the River Walk during our Earth Day Celebration](image)

Figure 5 Students collecting trash during a clean-up of the River Walk during our Earth Day Celebration
diamond. Our after-school Walking Club and the cross country team utilize Hartford’s extensive River Walk as well. Year round, we walk to local venues such as the CT Science Center or the Riverfront Boathouse and Park along the Connecticut River.

In the spring the 10th grade class participates in the yearly class trip to Maine where they spend a week at an overnight camp near Acadia National Park. Students engage in archery, hiking, biking, swimming, boating, and cooking. In 2016 we are adding wilderness survival, Geocaching, orienteering, and mapping with GPS to the list of activities students can participate.

**Step 6: Energy Efficiency and Water Conservation**

CREC has partnered with a local Engineering Consulting company called DBS Energy Services Inc. to expand its schools’ and offices’ energy efficiency by focusing on renewable energy solutions. The program features active energy management, peak load reduction solutions, and renewable technology. These components provide building-wide energy cost-saving opportunities. Our teachers participate in the eeSmarts energy efficiency education workshops and receive training, curriculum, and materials to implement energy lessons with their students.

Our school believes in modeling effective sustainability practices for our students including promoting energy efficiency and water conservation within our school building. Water and Energy conservation curriculum modules from Project Learning Tree are used in our environmental science courses as well as in our Renewable Energy and Green Building Design courses. Students in these classes have used the PLT energy audits to evaluate the energy efficiency of our building, making recommendations to administration and custodial staff as to way to improve the energy efficiency of our school.

All faucets in the building have sensors to reduce water waste, all classrooms have automatic lighting shut offs when not in use. Students wear uniforms that include sweaters so thermostats are kept at a conservative temperature to reduce energy overconsumption. We are actively planning for our new school, to be open in 2018. Along with LEED criteria, students are investigating photovoltaic solar panels which will help cut down on the need for fossil fuels as an energy source, geothermal heating and cooling, and incorporating rain barrels to collect rainwater for our gardens, and other technologies to reduce building emissions.
Step 7: Green Purchasing and Waste Management

Our school utilizes paperless technology that reduces our carbon footprint while simultaneously teaching ecological responsibility to students. We provide Google Chrome books for each student and use SMART boards and an online educational platform call Schoology for assignments, homework, tests and quizzes and projects. All of our texts are accessed online and we monitor the amount of paper used in the copying machine on a monthly basis. We ask staff to think twice before printing large copy jobs and encourage staff to ask themselves before copying “Could you post this on Schoology or send it in an email?”

With input from the Green LEAF committee, theme coach, and administration, most building purchasing decisions are made with conservation and waste reduction in mind. We limit all unnecessary purchases, require teachers to prioritize their orders into “tiers”, enlist the school Chemical Hygiene Officer to examine all chemical orders, and encourage staff to purchase locally as much as possible to cut down on transportation emissions.

TRMHS is compliant with all CT Recycling laws. The student-led Green LEAF club runs our recycling program. In 2015 we kicked off the year with a 30 day Recycling Challenge. Students researched Connecticut’s recycling laws, Hartford’s recycling policies, the differences in types of recycling (we utilize single stream), and spoke with the custodial staff about how waste is recycled in our building. The Green LEAF club presented to each advisory (comprised of 10 students) on the importance of recycling, educated staff and students on the differences between single stream and other types of recycling, researched the path of recyclables from the classroom’s “blue bin” to the recycling plant, and provided students the Recycling Challenge guidelines. Green LEAF students collected recycling from each classroom each day for 30 days, collecting data such as mass, type and amount of recyclables. Some advisory groups felt that less trash was better and challenged each other to reuse materials instead of putting them into the trash can or recycling bins. Some
students brought in recyclables from home because their families didn’t recycle (these students later educated their families on the importance of recycling). The challenge was very successful at motivating and educating the whole school on the importance of recycling. Students have also worked in their Environmental Tech classes to engineer custom recycling bins for the cafeteria and hallways. We have continued with the successful recycling program and will start composting of cafeteria waste in the spring of 2016.

In our Renewable Energy course we utilize the Project Learning Tree Municipal Solid Waste module to teach students about where their garbage goes, the waste stream, source reduction, waste to energy, recycling, and reuse. We also take the 9th graders in our Environmental Technology course to the CT Trash Museum and the local trash-to-energy plant to learn about our state’s waste-to-energy initiatives. In our other engineering and technology courses students utilize technology such as simulators, AutoCAD and 3D printers to create sustainable schoolyard landscape designs, and design and construct alternative-energy vehicles for the CT Alternative Energy Race. Both Two Rivers Magnet High School and Middle School staff have led their district in initiating the creation of a website that will document the schools’ compliance with the Connecticut school environmental laws.