



2012-2013 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. *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 K-12. (Schools on the same campus with one principal, even a 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.

For Public Schools only: [] Charter [] Title I [] Magnet [] Choice

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

Official School Name Environmental Sciences Magnet School at Mary Hooker
(As it should appear in the official records)

School Mailing Address 440 Bradview Terr.
(If address is P.O. Box, also include street address.)

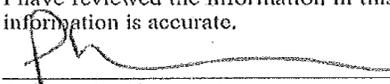
Hartford CT 06106
City State Zip

County Hartford State School Code Number*

Telephone (860) 695-3700 Fax (860) 520-7590

Web site/URL WWW.environmentalsciencesmagnet.org E-mail clartp001@hartfordschools.org

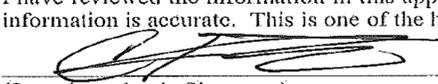
I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

 Date 1/15/2013
(Principal's Signature)

Name of Superintendent* Dr. Christina M. Kishimoto
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

District Name* Hartford Public Schools Tel. (860) 695-8401

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.

 Date Jan 24, 2013
(Superintendent's Signature)

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



PART II – SUMMARY OF ACHIEVEMENTS

Instructions to School Principal

Provide a concise and coherent "snapshot" that describes how your school is representative of your jurisdiction's highest achieving green school efforts in approximately 800 words. Summarize your strengths and accomplishments. Focus on what makes your school worthy of the title U.S. Department of Education Green Ribbon School.

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.

1. The school has some configuration that includes one or more of grades K-12. (Schools on the same campus with one principal, even a 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.

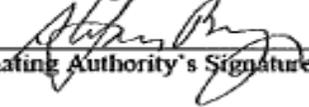
Name of Nominating Agency CT Dept. of Education

Name of Nominating Authority Mr. Stefan Pryor, 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 2/6/13

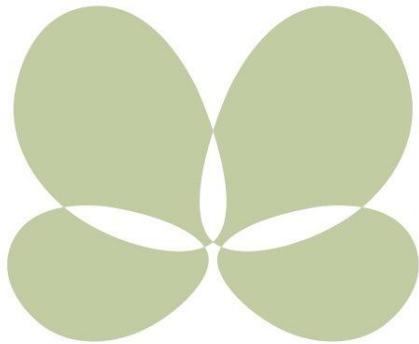
The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509
Expiration Date: February 28, 2015

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.

Part II Green Ribbon Summary of Achievement



ENVIRONMENTAL SCIENCES MAGNET SCHOOL

AT MARY HOOKER

Environmental Sciences Magnet School at Mary Hooker (ESM) is a community of students, staff, parents and partners who are provided with opportunities to acquire a lifelong desire for learning and achievement, acquire the skills and understandings necessary for success at present and future levels of learning and embrace the values of respect, cooperation, and responsible citizenship in their roles as contributing members of a complex society in a fragile environment.

Environmental Sciences Magnet serves students from Pre-Kindergarten (age 3) through Grade 8 in a new 41 million dollar, U.S. Green Building Council LEED Platinum, facility which includes a planetarium, butterfly vivarium, greenhouse, aquatics lab, organic community garden and educational technologies in each classroom. ESM serves a population that is 70% minority and currently participates in the Provision 2 meal program for breakfast and lunch through Hartford Public Schools. As of 2011, 75.97% of ESM students are eligible for free or reduced meals.

The environmental sciences theme is integrated into our standards-based curriculum and is assessed by the Connecticut Mastery Test. Students receive a comprehensive education that includes rigorous instruction in language arts, reading, mathematics, social studies, and science. Students also take electives in art, physical education, music, consumer sciences, and environmental sciences. Our maximum enrollment is projected to be 600 students, 3 classrooms per grade level. Current class size is approximately 20 students per class. Students come from all over the state, but most of our students are from the Greater Metropolitan area of Hartford, CT.

The mission and vision at the Environmental Sciences Magnet School at Mary Hooker (ESM) is to ensure that all students attain high academic achievement through theme-based instruction in a safe, responsive learning community. Our vision is that all students will develop a sense of wonderment, ownership, and stewardship about the local and global environment.

Environmental science is the topical theme of our school. Yet, it is through the development of our over-arching magnet goals that we also embrace the notion that process (i.e. how students learn) and service (i.e. what they do with this learning) are an important endeavor to successfully implementing our theme. "Use sustainable practices and apply them to real-world situations" and "Participate in environmentally-based service learning and collaborate with community partnerships," taken from our over-arching magnet goals, is driving our current work on two new goals: To develop and implement (1.) project based learning and (2.) service learning projects. Both of these goals are

supported through a collaborative effort of our science magnet coach, resident scientists, Central Connecticut State University, and the Connecticut Science Center. For example, fifth grade teachers wrote a unit on energy consumption and have designed a PBL project that allows students to audit energy use and develop a project to reduce consumption.

Service learning, our second goal, started last year with teachers being trained on the framework. Our objectives for service learning were to ensure that they were aligned with our theme, our over-arching magnet goals and our building/campus resources. As an example, first grade teachers, using the butterfly vivarium and our resident scientist who is an entomologist, reared butterflies and released them after tagging them through an organization called Monarch Watch. Later this year students will continue to track the migration and land-use issues in Mexico. As a service project, first graders will grow flower in the greenhouse that they can sell in the spring as a "butterfly garden." Students will also construct nectar feeders, write information brochures, and donate money to help protect the forested areas in Central America where the insects winter.

The past three years' data on the Connecticut Mastery Test (CMT) for grades 3-8 reveals that the school is closing the achievement gap. For the second year in a row, ESM has made Safe Harbor as defined by NCLB. Environmental Sciences Magnet is also committed to the challenge of removing any racial, ethnic, and or SES barrier that exists within our region for our students and families. We have 50% Hartford (urban) and 50% non-Hartford (suburban) students and serve 43 towns in Connecticut. We have 9 different languages and many different cultures, ethnicities, religions, and traditions represented within our student body. Our recruitment and marketing has allowed us to increase our non-minority student population to nearly 30%, an approximate 5% increase from the previous year.

With such a diverse school community, health and nutrition has also been becoming a focus within our curriculum. ESM's greenhouse and school-community garden provide year-round opportunities to students and their families, staff, other schools in the district, and community partners, such as Community Farms of Simsbury, to plant and grow vegetables. ESM practices organic methods of gardening, integrated pest management, and composting; these methods are incorporated into the curriculum at all grade levels and into parent/staff garden workshops. Greenhouse produce is made available to student families and staff.

Step 1: Green and Healthy Outlook

Overview & Mission:

Our mission at the Environmental Sciences Magnet School at Mary M. Hooker ("ESM") is to ensure that all students attain high academic achievement through theme-based instruction in a safe, responsive learning community. This mission is monitored and evaluated through various assessments, surveys and artifacts by the faculty and School Governance Council. We are committed to providing an enriching, comprehensive curriculum, which integrates the environmental sciences to meet the needs of our 21st century learners. Our school is a living laboratory that allows students, faculty, and visitors to explore, engage, and learn about sustainability, green technology, and biodiversity.

Green Team & Partnerships:

In order to implement the school's theme of the environmental sciences, our "Theme Team" meets on a monthly basis to evaluate the incorporation of the environmental sciences and sustainable practices into the curriculum and daily routines. New ideas, partnerships and opportunities are also discussed in this forum.

The members of this team include:

- School Principal
- Science Coach
- Math Coach
- Student Support Coach
- Family Support Provider
- Resident Scientists
- Technology Teacher
- Operations Manager

Our resident scientists and science coach are all members of the CT Outdoor Environmental Education Association and attend conferences regularly. Our science coach is also involved with Connecticut Science Teachers Association. The resident scientists are both members of associations in their related fields. (For example- National Marine Educators Association.)

The theme team/ green team oversees the sharing of our best practices with other organizations and schools. Our best practices have been shared on both national and local stages. Members of our theme team have presented our best practices at the annual Magnet Schools of America Conference, Connecticut STEM Conference, and the COEEA Best Practices in Sustainability Education Workshop.

Our school and theme team recently hosted a faculty group from Dutch Fork Elementary School in South Carolina as they are beginning their journey designing an Environmental Studies Magnet School. Dutch Fork Elementary viewed ESM as a model for them to strive towards. We shared best practices in both environmental curriculum design and green building design. Environmentally minded groups, educators and architects contracting and engineering groups, have toured our green building design and unique instructional labs and spaces.

We consistently open our facilities for meetings and conferences, such as the 2011 COEEA Best Practices in Sustainability Education Workshop. ESM staff host other schools for lessons in our Sci-Dome Interactive Science Theater. Our school's best practices are often submitted to and shared by Hartford Public School's weekly publication "Spotlight on Excellence."

ESM has an excellent reputation for combining high-level instruction with the environmental sciences, which attracts environmentally minded students, families, and faculty. ESM is also sought after by many organizations for collaborative partnerships. Members of the Theme Team also oversee and maintain these partnerships that help to enrich and implement our curriculum and mission:

- Boys & Girls Club- Hartford, CT: Provides services for our enrichment cluster program such as the "Student Leadership Team"

- Project Oceanology- Groton, CT: Uses our school to execute their “Saturday Ocean Sciences Academy” program, for students in grades 4-6. This program is available to our students in addition to surrounding districts.
- Trinity College- Hartford, CT: Twice a year our students participate in a bird banding research program with Dr. Joan Morrison. Students collect data about the birds on our school property.
- Goodwin College/ CT River Academy- East Hartford, CT: One higher education pathway for our students is provided through the CT River Academy, at which they reserve spots in their incoming freshman class for students graduating from ESM. One graduate student at Goodwin College is helping oversee and implement our composting program in hopes to use our school as a model to be used by other schools and organizations. We have also hosted members of Goodwin College faculty, as they are further designing and developing the CT River Academy.
- Knox Parks- Hartford, CT: Knox is a Hartford-based non-profit dedicated to urban community gardening and beautification. ESM has collaborated with and received resources from Knox, including garden compost, seeds, trees for the school property, and ongoing encouragement.
- Community Farm of Simsbury- Simsbury, CT: CFoS provides valuable organic gardening curriculum, field opportunities and resources to ESM; a 4th grade cold-crop garden project was started in 2011. ESM students have attended the Summer Gardening Camp in Simsbury. Annually, ESM greenhouse bench space is shared with CF of S for vegetable garden starts.
- CT DEEP Inland Fisheries Division- Burlington, CT: Provides support of our trout raise- and-release program for 6th grade through school visits, a field trip to a state hatchery facility, and the provision of trout, trout eggs, and support during a planned annual release.
- Discovery Camp- Woodstock CT: Our students participate in Discovery Camp programs in grades 4-7. Each grade spends up to five days at the Discovery Camp’s outdoor facility, where they participate in programs focused on team building and outdoor education.
- Central CT State University- Newington, CT: Members of CCSU faculty consult on ESM’s curriculum design and help incorporate the environmental sciences theme into all disciplines. ESM also benefits from teaching interns provided by this partnership.
- Pathways to Technology HS- Hartford, CT: Student interns help with technological support in the building. The interns also work with our students, which can also provide career pathway support.
- A.I. Prince Technical High School: Students and faculty from Prince Tech helped design and build our community garden plots. The “Prince Tech” Culinary program has dedicated garden space for herb cultivation at ESM. Students from Prince Tech also visit ESM once a month to participate in a mentorship program with our 7th & 8th grade students. Their woodshops also provide us with sawdust for our composting bins.
- CT Science Center: The Science Center provides professional development to our staff. Each grade level experiences programming from the CT Science Center each year, including field trips and outreach programs. The CT Science Center also provides a majority of the content during our annual “Science Night” for our school community and prospective families.
- Organized Parents Make a Difference (OPMAD): Through state funding OPMAD provides a before and afterschool care and tutoring service for a nominal fee. They also build their programming to compliment our green building and theme. OPMAD participates in the community garden, involving students, parents and surrounding community.
- University of Connecticut Master Gardener Program and the Connecticut Master Gardener Association (CMGA): ESM received donated soil for our school-community garden from UConn’s

Master Gardener Program as well as a dedicated Master Gardener Intern volunteer for the initial 2012 season. This garden will remain an approved site for MG volunteer training and for implementation of the Junior Master Gardener curriculum. A start-up grant from the CMGA for supplies /hardware was awarded to the garden project, also in 2012.

Recognitions:

Our mission and focus on the environmental sciences in addition to utilizing our green building as a teaching tool has earned us recognition at the district, state and national levels:

- Magnet Schools of America: 2012 Magnet School of Distinction
- U.S. Green Building Council:
 - Award of Excellence
 - LEED Platinum Rating
- Commercial and Institutional Award of Honor
- CT Department of Energy and Environmental Protection: DEEP Green Circle Award 2011- For Designing and developing a building project that demonstrates leadership in LEED design.
- Knox Parks: Hartford Blooms Award
- Hartford Public Schools District Science Fair: Placements across several grade levels for 2011-12 school year.
- Connecticut Outdoor & Environmental Education Association: 2012 Excellence in Sustainability Education Award

Parent & Community Involvement:

Our families and parents are a huge part of our outreach programming. ESM has a very active PTA that meets monthly and provides multiple opportunities for students and families to gather. Using our planetarium, they host a monthly movie night. They plan dinners and picnics for families. They also host workshops and guest speakers that reflect our environmental sciences theme. Our most popular open forums is when the resident scientist share about their work with students in our labs and campus. When they do raise money, it is always through a sustainable/green lens. For example, they sell flowers raised in our greenhouse for Mother's Day. These families and partners also largely support our organic community garden.

Step 2: Environmental and Sustainability Literacy

Curriculum & Instructional Practices:

Our school's curriculum is aligned with state and national standards, and approached through the lens of environmental science. In order to help incorporate the theme into the entire school's curriculum we created the following overarching goals:

- Use scientific process/inquiry skills to solve environmental problems and to effectively communicate results
- Infer, interpret, and draw conclusions to support arguments with evidence from conflicting views on environmental issues
- Use sustainable practices and apply them to real-world situations
- Participate in environmentally-based service learning and collaborate with community partnerships
- Apply science literacy to new learning's and observations
- Identify environmental factors which effect living organisms
- Interpret the local landscape by identifying key features including: flora, fauna, topography, and human impact.

To help achieve these overarching goals, each grade level accomplishes six hours of theme- based instruction on a weekly basis. This often means that science needs to be incorporated into other disciplines, such as math and literacy. Our magnet coaches and resident scientists facilitate opportunities to further incorporate the environmental sciences theme, outdoor opportunities and the building's unique facilities into all disciplines and into daily routines.

ESM has two resident scientists are part of our staff to provide learning experiences in science and our theme, environmental sciences. They serve as a valuable resource for students and faculty alike as well as maintain and coordinate classes in our state-of-the-art aquatics lab, butterfly vivarium, greenhouse, and science interactive theater. These spaces bring the outside, indoors. Through our unique staff and spaces, students have access to experts and their facilities in the school. Students also have an environmental science class as part of their unified arts program where they get formal instruction directly from our scientists.

Another innovative way to engage students in our environmental sciences theme is by participating in school-wide theme based activities. One highlighted activity includes daily composting in the cafeteria. Students sort their garbage and minimize waste as part of a school wide recycling effort. Students then used the compost to support the growth of plants for the vivarium and raised bed gardens. The entire school community partakes in a weekly enrichment cluster that is theme based. During this 90-minute block, students join an activity of their choice such as cleaning up our nature trails, environmental problem solving or apple harvesting. By living and breathing the theme through various activities, events and learning experiences, the student body has a common cause to promote environmental stewardship and has developed a strong sense of community surrounding this cause.

Some unique curriculum and instructional practices include:

- Environmentally based service-learning projects at each grade level. Each has the potential to involve the entire school community (students, faculty, families & friends) in civic engagement while complimenting interdisciplinary curriculum requirements. Service learning projects designated to each grade level are:
 - Pre-K & K- Recycling/Sorting
 - Grade 1- Butterfly rear and release
 - Grade 2- Raising plants to donate
 - Grade 3- Bird Diversity
 - Grade 4- Composting
 - Grade 5- Energy Audits of classrooms, homes
 - Grade 6- Trout Rearing & Release
 - Grades 7 & 8- Environmentally-Minded Independent Service Projects
- Environmental Science Course taught by resident scientists incorporated into Unified Arts schedule for grades 3-8.
- Daily phenology data recorded and tracked at each grade level
- Entire school participation in a school-wide science fair
- Grades 7 & 8 take a yearlong social studies course that focuses on career pathways and environmental issues.
- Science units at each grade level that include projects and lessons taught by the resident scientists and/or in one of the building's unique learning spaces:
 - Nature Trail & Stream

- Butterfly Vivarium
- Greenhouse
- Community Garden
- Interactive Science Theater
- Aquatics Lab

Measuring Outcomes & Student Assessment:

We have developed “Magnet Standards” which outline a scope and sequence for how our environmental science theme is incorporated throughout the school year in each grade. Many of these magnet standards rely on the combination of inquiry-based instruction, project-based learning and service-learning. The magnet standards were shaped to match and exceed state and national science standards. They were also designed and written to match and assess the environmental science focus of our curriculum. In future years we will be comparing our magnet standards to the North American Association for Environmental Education Guidelines for Excellence. Our magnet theme assessments have been written and will be administered at the end of this school year to grades 2, 4 and 8. They are written to address our magnet standards. The following are some examples of our magnet standards for 4th & 8th grade:

By fourth grade our students are assessed for the following goals:

- 4.1 THE STUDENT WILL DEMONSTRATE HIS OR HER KNOWLEDGE OF the sustainable practice such as recycling, composting and energy conservation BY evaluating the pros and cons of the processes and identifying key components of the processes.
- 4.2 THE STUDENT WILL DEMONSTRATE HIS OR HER KNOWLEDGE OF renewable resources BY explaining what makes a resource non-renewable.
- 4.3 THE STUDENT WILL DEMONSTRATE HIS OR HER KNOWLEDGE OF local ecosystems BY comparing populations of macroinvertebrates.
- 4.4 THE STUDENT WILL DEMONSTRATE HIS OR HER KNOWLEDGE OF abiotic and biotic factors BY providing examples of how they interact in a specific local ecosystem.
- 4.5 THE STUDENT WILL DEMONSTRATE HIS OR HER KNOWLEDGE OF the local flora and fauna BY identifying at least three species of birds in a CT forest ecosystem.

By 8th grade students will be assessed for the following goals:

- 8.1 THE STUDENT WILL DEMONSTRATE HIS OR HER KNOWLEDGE OF sustainable practices BY defending certain food production practices.
- 8.2 THE STUDENT WILL DEMONSTRATE HIS OR HER KNOWLEDGE OF climate change BY evaluating data of human impact on our climate.
- 8.3 THE STUDENT WILL DEMONSTRATE HIS OR HER KNOWLEDGE OF human impact on the environment BY evaluating a scenario in which a specific species is affected.
- 8.4 THE STUDENT WILL DEMONSTRATE HIS OR HER KNOWLEDGE OF service learning BY writing a personal reflection on a service-learning project.
- 8.5 THE STUDENT WILL DEMONSTRATE HIS OR HER KNOWLEDGE OF the local flora and fauna BY evaluating the local environmental impact of an invasive species

Professional Development

Our faculty has participated in professional development workshops given by the CT Science Center and Central CT State University. Both partnerships have helped increase the baseline science content knowledge and resulted in increased incorporation of quality science instruction.

Our science theme coach meets with each grade level-team bi-weekly, opposite the math coach, to develop and evaluate science units and instruction. The science coach provides resource materials and helps integrate the resident scientists into each grade level. The resident scientists also provide both formal and informal professional development through collaborative unit planning and co-teaching with classroom teachers. This interaction with specialists also helps increase the baseline knowledge of all of our classroom teachers. A goal for our faculty is to further increase their knowledge of environmental science and sustainability. Increasing their comfort level of teaching outdoors and better utilizing our school property are among the desired results of more specific professional development geared toward environmental and sustainability education.

The resident scientists and magnet coaches also provide content during PTO meetings and other parent workshops given at ESM to help reinforce environmental and sustainability concepts at home.

Step 3: Healthy School Environment

Although our district does not participate in the Indoor Air Quality Tools for Schools Program, our building's LEED Platinum status places us in a very good position for implementing and maintaining this program. Our building complies with and exceeds environmental health laws. We have made contact with the CT Department of Health to explore the next steps needed to get this program started back in Hartford. We have identified another school as a prospective partner to join us in this movement. We are hoping this will encourage other Hartford Public Schools to participate in maintaining and improving the health of their schools. We will train a small group of staff members who

will oversee the implementation of the Tools for Schools Program through students clubs and service-learning projects.

Our LEED certification does comply with some requirements of the Tools for Schools Program:

- Outdoor Air Deliver Monitoring: Ventilation system monitoring keeps school occupants more comfortable. This includes CO2 sensors in rooms linked to air system & master computer controlled temperature system.
- Low-Emitting- paints, coatings, carpets adhesives, composite woods & sealants: The quantity of these items that are irritating and/or harmful to the comfort and well being of installers and occupants are reduced.
- Indoor Chemical & Pollutant Source Control: Exposure of building occupants to potentially hazardous particulates and chemical pollutants is minimized.
- Green Cleaning Products: Janitorial service contract only allows the use of Green Seal cleaning products.

Step 4: Healthy Nutrition

Healthy Nutrition

Hartford Public Schools' Food Services consistently exceeds the National School Breakfast and Lunch Program standards. Connecticut has a Farm to School program in place run jointly by the Departments of Agriculture and Education; HPS participates and is enthusiastic about expanding their network of local growers. ESM is in the process of applying for the Healthier U.S. School Challenge. We believe that ESM already fulfills much of the criteria required for the challenge.

At ESM there is a vegetarian entrée available in each day's lunch menu as well as healthy alternatives to hot lunch- salads, sandwiches and carrot snack packs. Beverage offerings include 1% milk, pure fruit juice and water. No sweetened beverages are available in the building. Students are encouraged to eat healthy in a number of ways: informal reminders from our Food Services Director and serving staff during mealtimes, ESM staff that progress through the "lunch line" and join students their tables reinforce healthy eating habits, and through prominently displayed USDA "My Plate" posters near the cafeteria and gymnasium. ESM has also been used to test new healthy food options for the district; most recently in December 2012 when we tried falafel wraps. Parents are encouraged to participate in these taste tests.

ESM's greenhouse and school-community garden provide year-round opportunities to students and their families, staff, other schools in the district, and community partners, such as Community Farms of Simsbury, to plant and grow vegetables. ESM practices organic methods of gardening, integrated pest management, and composting; these methods are incorporated into the curriculum at all grade levels and into parent/staff garden workshops. Greenhouse produce is made available to student families and staff. Throughout the summer the school-community garden is maintained by staff (including our Food Services Director) students, and families who tend their adopted beds and harvest their produce. ESM's garden potluck picnic, featuring dishes made from growers' own harvest (kids were encouraged to participate in the making), was very popular last season and will become an annual September

celebration. Master Gardener volunteers work in the garden throughout the summer to provide support to growers.

Our partnership with the Community Farms of Simsbury also reinforces healthy nutrition and gardening methods into the 4th grade curriculum. We have recently hired a health instructor, who will be designing a new curriculum to reinforce healthy nutrition and eating habits. Our 7th grade social studies course also devotes a unit and project to food politics. They will be hosting a Food Health & Wellness Festival with a focus on how to make Hartford, CT a healthier place.

Step 5: Physical Well-Being

Fitness & Health

In addition to the unified arts offering of physical education, which all students receive at least 30 hours of per school year, there are other opportunities offered to students to encourage their physical well being. Many of those opportunities are presented through our enrichment clusters (in-school clubs). Some enrichment clusters that encourage physical well-being that have been offered in the past year are:

- Trailblazing
- EnviRUNmental
- Hiking and survival skills
- First Aid
- Martial Arts
- Organic Gardening
- Frank-N-Foods

Afterschool fitness classes are also offered to students, parents and faculty. Classes that have been offered in the past include yoga and Zumba. One of the favorite activities of both students and faculty is our “Friday Dance.” Every Friday after each lunch wave, there is a ten-minute dance party. This is an opportunity where students, parents, teachers, custodians, cafeteria workers and school police officers all “let-go” and dance.

Outdoor Classrooms

All ESM students get to experience the outdoors on our school property. Grades Prek-5 all have thirty minutes of mandatory outdoor recess, weather permitting. Many lessons also take place outdoors on our nature trail and in the community garden. Some examples of outdoor lesson topics include:

- Stream ecology
- GLOBE Protocols
- Macroinvertebrate diversity survey in our stream
- Plant and insect identification
- Bird banding surveys
- Seasonal changes
- Gardening:
 - Companion planting

- Bio-control & Integrated Pest Management
- Square-foot gardening

ESM students also have many opportunities to explore the outdoors all over the State of Connecticut. Grades 4-7 each spend up to five consecutive days at the Discovery Camp in Woodstock, CT. At the Discovery Camp, a majority of their time is spent outdoors participating in team building activities, various environmental education topics, and enjoying nature in general. This provides an experience that many of our students would normally not have access to in the urban setting they are used to. In addition to the overnight trips to the Discovery Camp ESM students have many field excursion opportunities throughout their school career that further enrich the science curriculum. Some examples of outdoor field opportunities include:

- Grade 4: Community Farm of Simsbury: Over ten experiences at a farm and in gardens
- Grade 4 & 6: Field Experience to Hammonasset State Park/ Beach
- Grade 6 & 8: Envrio-Lab Ecology Cruise in Long Island Sound with Project Oceanology
- Grade 6: Field Experience to Burlington State Fish Hatchery
- Grade 6: Field Experience to local waterway for trout release in Spring

All field experiences that include time outdoors involve lessons preparing for them for the trip. Those lessons not only prepare them for the content and procedures they will be executing, but also for safety hazards. All of our students are well prepared for their field experiences by dressing appropriately and wearing sunscreen.

Step 6: Energy Efficiency and Water Conservation

ESM's building has been fortunate to receive a LEED Platinum Rating by the U.S. Green Building Council. Some of the features of our building that earned us this designation are:

- Alternative Transportation: Our school has preferred parking spaces for carpools and low emitting vehicles, plus bike racks and a special bike path. There are showers and changing areas for faculty and staff bike riders.
- Storm-Water Design: Instead of letting our rainwater wash into the streets and cause flooding, we have a special detention basin and water treatment system that cleans the debris from rainwater as it is fed back into the grounds for natural irrigation.
- Heat Island Effect Roof: The white roof on our school reflects sunlight, which keeps the building cooler and more comfortable than a dark colored roof. A cooler building lets us save money on energy by using less air conditioning.
- Light Pollution Reduction: We have full cutoff exterior lighting, so that no added light is sent up into the sky. This is better for our nocturnal animals in the area, and we can see more stars at night, too.
- Joint Use of Facilities: Our playing fields, gymnasium and classrooms can be used by other groups for non-school events and functions. Our school is an important part of our community because we can share it with others.

- Water Efficient Landscaping: We don't waste valuable drinking water to keep our school grounds looking green. Instead, our grounds are planted with grasses and wildflowers that grow on their own with nothing more than the rain that falls from the sky.
- Optimized Energy Performance: We save energy by using a 450kw generator and distributed generation throughout the school.
- On-Site Renewable Energy: We make our own electricity from sunlight with photovoltaic solar panels.
- Enhanced Refrigerant Management: Our Tecogen system runs on natural gas to create electricity. The "extra" energy from the system is used to make "free" energy to power 20% of our cooling needs.
- Storage & Collection of Recyclables: We have special containers to recycle paper, cardboard, glass, plastics & metals.
- Earth Tubs: Our leftover food waste is put into special containers that make compost, a nutritious chemical-free fertilizer for our plants.
- Building Reuse: Instead of knocking down our old school, the construction team reused the walls, floors and roof structures that we already had. By doing this, we had less to throw away, and we needed fewer materials to make our new school.
- Materials Reuse: The large wood pillars you see in our lobby and gymnasium entrance were taken from an old building in Hartford that was torn down and re-used at our school.
- Lighting System Design and Controllability: The lights in our rooms are controlled by occupancy sensors and daylight sensors. When a room is filled with sunlight or is empty, the lights go off.
- Daylight & Views: Daylighting: Almost all of the rooms in our school have natural daylight, so we don't have to rely on artificial lights as often, and lets us enjoy the outdoors even when we're indoors.
- Low Impact Cleaning & Maintenance Equipment: We only use environmentally friendly cleaning supplies and grounds-keeping equipment to keep our air clean and fresh. We even have an electric lawnmower to cut our grass.
- Water Conservation: Our toilets and sinks are all designed to conserve water.

ESM takes pride in not only having a very green building, but in using the building itself as a teaching tool. The 5th grade team's service learning project is based around energy audits. In addition to taking on the future tools for schools program, the 5th grade has been designated the task of interpreting the school's "Green Features" into educational posters to be placed around the school to help educate

other students and visitors about the our unique and efficient building. Parts of the 3rd, 4th, 6th and 8th grade curriculum focus on water conservation.

Even though our building is built to conserve resources, we know we can do better. Part of the 5th grade service-learning project is identifying where those opportunities are. The requirement of independent 7th and 8th grade service learning projects also provides an outlet for students to identify and solve problems with regards to better conservation of resources, both at the school and our families' homes. Our faculty tries to set a good example for students by drawing attention to and participating in CT Rides Week. Our bus drivers do not idle while waiting for our students at the end of the day. We hope that these trends will soon trickle to the families of our students.

Projects that are being currently being planned are:

- Hydroponic and aquaponic gardening- to conserve water
- Interdistrict carpooling/commuting board- to encourage carpooling amongst out interdistrict families
- "Try the bus" campaign- to encourage more students to ride the bus instead of getting dropped off
- "Idling is Fuel-ish" campaign- to encourage our "pick-up" parents not to idle while waiting for their students

Step 7: Green Purchasing and Waste Management

ESM already has a good practice of purchasing green cleaning and maintenance products as a result of our LEED Platinum certification. We would like to extend this practice into more of the products regularly purchased. We will be taking steps, ideally involving students, to change the purchasing policies of the school, and if possible, the district. This will also involve a public awareness campaign that should involve all faculty and also be presented to our PTO and School Governance Council.

We take steps to minimize waste at our school on a daily basis. Our school actively composts in the cafeteria and uses the compost in our school gardens. Our building has a recycling program in place, which will be maintained and tracked by our Kindergarten team. Waste management and recycling is incorporated into the science curriculum in grades PreK, K, 4 & 6.

ESM also participates in the "Funding Factory Program," in which electronic devices and ink cartridges are sent out to be recycled and the school receives money. Students bring in used cell phones and ink cartridges from home and their family's workplaces and our school gets money for recycling them. This spring we will also be holding our first "Recycled Fashion Show." This fashion show will encourage students to design outfits and garments out of non-conventional products.