U.S. DEPARTMENT OF EDUCATION

GreenRibbonSchools

Highlights from the 2013 Honorees

U.S. Department of Education - 400 Maryland Ave, SW - Washington, DC 20202
www.ed.gov/green-ribbon-schools - www.ed.gov/green-strides

Introduction

Now in its second year, U.S. Department of Education Green Ribbon Schools (ED-GRS) has expanded, recognizing school districts, in addition to schools, for their work to ensure sustainable, healthy school environments and effective environmental education. We have added a companion outreach initiative, Green Strides, to enable all schools and districts, whether applying for the recognition award or not, to move toward our three Pillars.

"Why is it that the U.S. Department of Education has not always been so involved with school health, facilities, and environmental education programs?," we are sometimes asked. While ED has fairly limited authority from Congress in the areas of school facilities, health, and environment, this award has enabled us to work in unprecedented ways with counterparts at the Environmental Protection Agency; the U.S. Departments of Agriculture, Interior, and Energy; and other natural resource agencies, as well as collaborators across the private sector, to share their many effective programs for schools and, of course, spotlight the best practices across the nation of our selectees.

In the same way that we are working together across federal agencies like never before, in order to select their nominees to ED, state education agencies have also collaborated in exceptional ways with their state health, environment and energy agencies. And private sector, both for- and non-profit, has gotten involved at federal, state, local and school levels, working with schools and governments. Through all of this new collaboration, ED's recognition award has become a tool to get your government working better together to the benefit of kids across the nation! Now that's something we can all get behind, whether red, blue...or green!

The ED-GRS Pillars of reduced environmental impact and costs, improved health and wellness, and effective environmental education remain the same. Increasingly, and particularly among the district awardees, honorees' efforts are the result of new, more coordinated policies at the intersection of environment, health, and education at state and district levels -- precisely what we had hoped this award might encourage! We are pleased to see that the award has prompted schools and administrators nationwide to acknowledge the critical need for students to learn in a manner – and a place -- that will sustain both them and the planet. These green schools have taught us that it's not just *what* students are learning; the *where* matters too.

In less than two years, we've been thrilled with the new collaborations at the federal, state, and local levels as a result of ED's green recognition award. But the

collaborations that inspire us most are those of our school and district honorees that have built alliances to enable their phenomenal work. Apart from progress in all three Pillars – not just one -- you'll notice another common thread among them: All have been tremendously resourceful in partnering with nearby businesses, parks, colleges, farms, museums, nature centers, sporting facilities, religious institutions, townships, and countless other entities.

Our honorees are by no means the wealthiest schools and districts. In fact, for the second year in a row, more than half of our honorees educate underserved student populations, and not because we have a special award category. When it comes to green schools, these high-poverty schools come out on top when everyone plays together! That green schools' practices continue to be used as a tool to improve the built environments, health, and the engagement of students that might seem to have the slimmest chances for success, and that they are once again, with these efforts, excelling and thriving, as evidenced by their graduation rates, college majors, career plans and test scores was exciting to see, but no longer a surprise to us.

This year's selectees were confirmed from a pool of candidates voluntarily nominated and exhaustively reviewed by 32 state education agency implementation teams. While selection processes vary from state to state, selection committees are generally comprised of members from several state agencies as well as outside experts. In the second step of selection, states' nominees to ED were reviewed by our team of several dozen federal reviewers from across four agencies. This year we have selected 64 schools and 14 districts to spotlight their exemplary efforts to make their schools healthier, safer, more cost efficient, and sustainable – for all to emulate.

Across government, we again were awed and inspired by the efforts undertaken by the schools and districts selected. The U.S. Department of Education Green Ribbon Schools and District Sustainability Awardees prove that any school or district can take simple steps to cut costs and improve the health, safety, and educational adequacy of school facilities; ensure good nutrition and fitness practices for a lifetime of wellness, productivity, and achievement; and use the environment as a lens to engage students in hands-on learning in STEM subjects, languages, social studies, arts, and humanities.

Schools can use this sustainability context not only to boost test scores, but to teach students the important civic values and skills that will encourage them to grow into responsible, compassionate, and contributing citizens. Furthermore, this interest in the natural world and engagement in environmental concepts from an early age nurtures precisely the type of thinking that the technology and sustainability careers of the future require, whether these students graduate from green career and technical programs or green college preparatory schools.

Lastly, this sustainable education doesn't begin in high school -- or end there. This year's announcement site, Mundo Verde Public Charter School in Washington, D.C., reminds us that healthy, safe, educationally adequate school environments, wellness practices and environmental education are for every student, every year, from the earliest learners -- and that all of them deserve that strong foundation. And, just as our pre-K to 12 school and district honorees use resource efficiencies, particularly energy, but also waste and water, to cut millions of dollars in utility costs, the colleges and universities where students continue their studies can very well use the same practices to reduce costs -- and pass these savings onto attendees!

It is with tremendous pleasure and great pride that we present the second annual U.S. Department of Education Green Ribbon Schools and the first-ever District Sustainability Awardees. These schools and districts are ensuring that their students learn to live, work, and play with sustainability and health in mind, not as an afterthought, but as an integral part of everything they undertake, from cradle to career.

The 2013 Green Ribbons are finally here. Prepare to be amazed! We were. When you recover, go to our www.ed.gov/green-strides page and get started using some of the very same tools these schools and districts employ.

Andrea Suarez Falken
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Honorees at a Glance

- 78 honorees
- 64 school honorees
- 14 district honorees
- 54 public schools
- 10 private schools
- Seven charter schools
- Five magnet schools
- Four career and technical schools
- 40 elementary, 23 middle and 19 high schools (several with various K-12 configurations)
- 29 states and the District of Columbia represented
- 51 percent underserved populations
- 1 EPA School Flag participant
- 425 EPA Sunwise participants
- 250+ USDA Farm to School programs
- 150+ USDA HealthierUS Schools Challenge participants
- 215 EPA ENERGY STAR certified schools
- 3 Collaborative for High Performance Schools
- 29 LEED certified schools
- 300+ Integrated Pest Management programs
- 300+ Coordinated School Health programs
- 18+ USFS Project Learning Tree participants
- 3 USFS/ Smithsonian Tree Banding Project participants
- 11 Keep America Beautiful Recycle Bowl participants
- 80+ Fuel Up to Play 60 participants
- 300+ school gardens
- 16 certified wildlife habitats
- 3 certified monarch waystations
- 3 ED Carol M. White Physical Education Program grantees
- 1 DOE Better Buildings Challenge Participant
- 2 DOE Wind for Schools Participants
- 1 ED 21st Century Community Learning Center grantee
- 1 ED Investing In Innovation grantee
- 2 NSF INSIGHT Fellows
- 1 EPA Presidential Innovation Award for Environmental Educators
- 1 EPA Presidential Environmental Youth Award
- 3 NASA/ NOAA/ NSF GLOBE participants
- 1 bilingual school, 1 Waldorf school, 1 Montessori school
- Millions saved annually

2013 U.S. Department of Education Green Ribbon Schools

Rhode Island

Providence Career and Technical Academy, Providence, RI

From brownfield to green school

Providence Career and Technical Academy (PCTA) works not only to educate students about sustainability and the environment, but also to share these unique opportunities and building systems to spread awareness and education into the community. As PCTA was built on a renovated brownfield site, environmental impact and health has become a part of the school's curriculum. PCTA teaches students about how to choose a building site, and what goes into cleaning up a brownfield.

Through each of the school's five construction-based career and technical education programs, students engage in outdoor experiences learning to complete skills on a job site, focusing on green building technology. In core science classes, students are given the tools to calculate their personal carbon footprint and determine ways that they can reduce their impact. Students measure energy, collect data, and perform experiments with the energy from solar and wind power monitors that are directly connected to the panels and turbines on the roof of the building. In biology, students collect food products, analyze food packaging, research farming practices, and research the transportation used to produce and deliver these items. Students in mathematics go outdoors to analyze the geometry of the world such as the height of our building through the use of clinometers.

In PCTA's electrical program, students learn about different light bulbs and their energy efficiency. They use this information to calculate how much energy and pollution could be eliminated by switching bulbs at a home, versus a school, versus an entire neighborhood, versus a city. The plumbing program teaches students about the impact of waterless water heater tanks compared to traditional water tanks. They use large and small-scale examples to show how much this change can affect the environment and utility costs. The school produces 15 percent of its energy on-site and is a *Collaborative for High Performance Schools* Northeast verified in 2009.

As a technical school, PCTA has unconventional opportunities for recycling in the school, recycling as much as possible from career programs, including all motor oil from the automotive program, cooking oil from the culinary program, and the sawdust from carpentry classes. In the cosmetology program, students learn how to properly dispose of products, through labels describing which products are okay to

wash down the sink, while everything else is disposed of separately. Outdoor education programs include soil and biodiversity studies. The construction program recently built an outdoor general construction lab with recycled materials. Many classroom excursions located within the city limits take place on foot, encouraging our students to walk throughout the city.

As an urban school, the majority of students live within walking distance. Students living farther away are provided with free public bus transportation. Energy data, usage and cost are monitored through *EPA ENERGY STAR Portfolio Manager* and data from the National Grid. Recent PCTA renovations included installation of energy recovery HVAC units, state of the art PDC controls with user interface and solar water heating. Waterless urinals were installed in the boy's rooms. The water used for heating and cooling is tested weekly and chemical treatment is provided to balance pH levels and control germs to comply with Narragansett Water Shed requirements. The controls for the dual temperature system operate pumps, chillers and boilers to optimize efficiency and eliminate waste.

PCTA seeks out partners like Expanding *Minds* and the Apeiron Institute for Sustainable Living, which help to get students interested and excited about a future in environmental studies, and what that future can mean for them. PCTA recently created an Adopt a Farm partnership with Pezza Farm, where 10 acres and almost 30,000 pounds of local fruits and vegetables were harvested from Pezza Farm and served throughout Providence schools. In addition, AP Environmental Science classes travel to the Buckland Point wastewater treatment facility to learn about the effect of human water consumption.

During their senior year, students are required to complete 30 hours of community service, which is directly related to their career and technical education program. Among these projects, every year in the spring, PCTA takes a group of student volunteers to clean up a local river/park/greenway, which runs through the backyard of many students. Members of the school's faculty attend a weeklong sustainability focused professional development course provided by the Narragansett Bay Commission. Faculty members bring back resources to the classroom, and have the opportunity to get students involved with the Narragansett Bay Commission.

The Compass School, Kingston, RI

Year-round sustainability punctuated by spring ecofair and fall local foods fest

The Compass campus comprises 20 acres of historic farmland, with 5 acres of wooded wetlands, a stream, vernal pools, and a variety of local plants and animals. The entire property is used extensively as an outdoor classroom and as an area to take walks and enjoy nature. Students engage in nature journaling and study vernal pools, tree growth, soils, stream habitats, and how farms produce food. Seventh and eighth grade students go on an annual camping trip to a location where they can study the local environment. As a community, Compass recognizes that having frequent opportunities to bond with the natural world nurtures children's physical, cognitive, and emotional health and development

Students in grades K-8 are taught through a project based approach, researching various topics and presenting their learning to others at project shares, or conducting stewardship projects. Classroom studies involve such topics as a study of waste, energy sources, robotics, solar car construction, biomimicry, aquaponics and aquaculture. The school participates in the *USFS/ Smithsonian Institution Global Tree Banding Project* and is *a* N*ASA/ NOAA/ NSF GLOBE* school. In 2012 Compass students scored in the top two percent of Rhode Island students in science classes. Annually, the school holds an EcoFair for the surrounding communities. The day features student presentations on environmental projects and vendors sharing information on environmental issues.

The Compass School building is a model of sustainable design. The main building has extensive windows in every room providing natural light. An extensive array of solar panels on the roof provides a partial source of electricity for the building and a computer program allows students to monitor output. Updating computers, use of CFL light bulbs, adjustable thermostats in every room, attention to heat loss, and use of windows in warm weather allowed Compass to reduce energy consumption by 30 percent in two years.

Sustainability practices include packing no-waste lunches, regular silverware, and reusable water bottles. Documents are printed on both sides of paper and scrap paper is used for math and art, and shredded for use as bedding in worm compost bins and the chicken coop. Students constructed a bin for Compass families to use for recycling supermarket plastic bags, and another bin is used to collect and send recyclable materials to *Terracycle*. In art and music students make instruments and sculptures from natural and recycled materials. According to parents, this concern for good sustainability practices has carried over into home practices.

The school participates in *Fuel Up to Play 60* and the *USDA HealthierUS Schools Challenge* and hosts a "Celebration of Local Foods" fundraiser event every fall, involving 14 local farmers, restaurants, and wineries that use local foods. The physical education program meets outside all year and includes winter activities such as sledding.

All students tend the school garden, to learn about sustainable agriculture and to connect to the community and natural world. As part of the gardening program, Compass produces and maintains its own compost under the supervision of a teacher who has been trained as a Master Composter. Much of the produce is donated to a local food bank.

Older students from Compass perform volunteer work after school and during the summer for *Rhody Native*. Students participate in planting, weeding, and invasive species removal. The school's proximity to Narragansett Bay also enables Compass students and faculty to work with Save the Bay on projects such as salt marsh restoration and eelgrass restoration, and with the *Audubon Society* of Rhode Island on beach cleanups.