

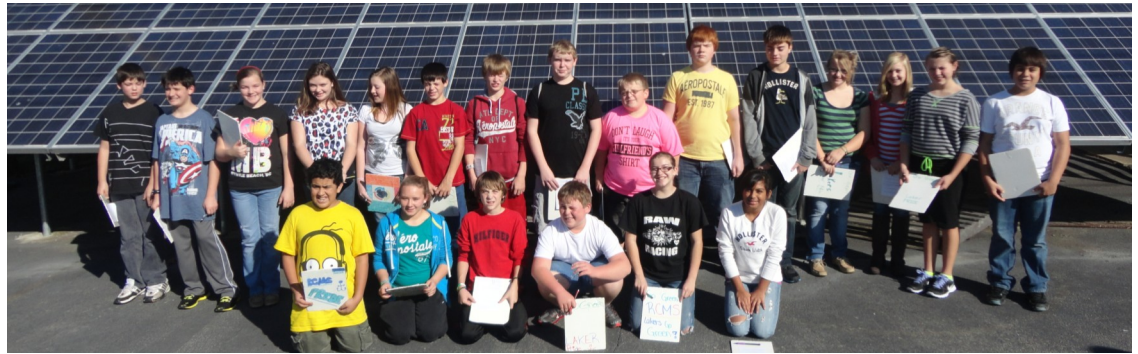


GREEN AND HEALTHY SCHOOLS

KGHS Update

Winter 2013

Russell County Middle School offers lessons for aspiring green schools Students, teacher share advice on successful KGHS strategies



Russell County Middle School students visit the Lake Cumberland Area Technology Center to learn about a functional solar array made from solar panels they built in class.

Featured Stories

- Russell County Middle School offers lessons for aspiring green schools
- First Lady opens Capitol Education Center
- District's energy reduction competition saves more than just electricity
- KGHS coordinator goes back to school after five outstanding years

Announcements & Events

- Upcoming Deadlines
- Summit Information
- Green Strides Webinar Series



KGHS is a joint program of the [Kentucky Department of Education](#) and the [Kentucky Environmental Education Council](#).

Follow **KEEC & KGHS** on Facebook, Twitter and YouTube!

[Facebook.com/KyEECouncil](#)
[Facebook.com/KyGHS](#)

[Twitter.com/KyEECouncil](#)

[Youtube.com/KyEECouncil](#)

RUSSELL SPRINGS, KY – Russell County Middle School (RCMS) 8th grader Claire Feldhaus has advice for anyone planning environmental education projects for Kentucky students. “Hands-on allows better learning than just telling us about it,” she said. “It’s also more fun.”

If Claire’s experiences are shared by others, then RCMS students studying under teacher Jean Clement are learning a lot and having a great time. A KGHS member since 2008, RCMS has worked on four of the nine categories (Green Spaces, Water, Energy, and Solid Waste). Consistent with program design, participation has involved a hands-on, student-centered approach.

Students in Clement’s class utilize a vending misers program that reduces the energy consumption of school vending machines. Installed and periodically reviewed by students like Claire, it clearly illustrates concepts such as energy use and monetary savings.

“I would definitely recommend this project to other teachers,” said Claire. “We learned the cost of a kilowatt hour, and how much energy we saved and how much we could save.”

The fiscal benefits were also clear: “Schools can save money and use it for other projects.”

While the school’s outdoor classroom and energy savings are noteworthy (see article on [page 3](#)), the solid waste reduction efforts of Clement’s team are especially impressive because of how they have led to increased community involvement.

Fellow 8th grader Kaitlyn Coffey recommends that teachers hold an assembly to emphasize how to use a school’s recycling program. She learned an important lesson on how to make the program more effective by observing students’ use of the recycling bins before and after an instructional assembly.

“At first, [students] would put just anything in the bins,” said Kaitlyn. “There are a few students who will never recycle, and the assembly didn’t affect them. But for everybody else, once they knew, they followed the directions.”

Another student, Keith Hughes, emphasized the importance of seeing the complete recycling process. After visiting the center where the school recyclables are sorted, Keith said he

was surprised by the sheer scope of the operation.

“There was more of it than you ever thought possible,” he said. “The visit made me realize how much that is actually recyclable is probably being thrown away instead.” Keith recommended that teachers conduct site visits when possible to help students understand how local school efforts fit into the larger context.



RCMS students participate in the school recycling program.

The students’ work has paid off. Clement said that because of the school’s consistent commitment to recycling and community outreach, the entire county has gradually become more involved in recycling. Eventually, the Russell County

(Continued on next page)

Photos courtesy of Russell County Middle School teacher Jean Clement.

Russell County Middle School (continued)

Division of Solid Waste had to hire more workers and expand the Recycling Center in order to process the increase in recycled materials from the community. This highlights one economic benefit of recycling – recycling programs can create good jobs for people in the community.

A veteran teacher of 34 years, Clement has simple advice for others hoping to build an effective environmental education program.

“Forming partnerships is major,” she said. “You can find funding and also specialists who can provide educational resources and in-depth information.”

During the last 14 years, Clement has secured over \$25,000 in grants from Eastern Kentucky PRIDE and the National Energy Education Development (NEED) Project. Clement’s environmental education clubs have been supported by the 21st Century After-school Program. She has also partnered with the U.S. Forestry Service, the Natural Resources Conservation Service, the Green School Project, the Funding Factory, the South Kentucky Rural Electric Cooperative Corporation, the Lake Cumberland Area Technology Center, the Russell County Division of Solid Waste, and the Russell County Homemakers Association.

Clement emphasizes the importance of sharing ideas with the local school board at the begin-

ning of a program to increase participation and effectiveness. “If you inform all levels (of decision-making) in the district first and get support, your program is likely to reach more people and be successful.”

Community participation alongside her students is the real benchmark of success in Clement’s eyes. She tells a story of a printer cartridge recycling program at the school that was so successful, another teacher who was at the drive-thru for his morning coffee also received an empty cartridge with instructions to recycle it. “It shows how invested the community is,” she said. “It shows the real difference our students are making, right now, in their community.”

Kentucky First Lady opens Capitol Education Center

FRANKFORT, KY - Picture a nondescript building adjacent to the Kentucky Capitol building and Governor’s Mansion, its façade unobtrusive. Creatively covered by landscaping, the building once served as a store-house for heating and cooling units on the Capitol Campus. Known as “the Old Chiller building,” the structure had all but been abandoned for the last 10 years. That is, until somebody had a vision of renaissance for the space. At the head of this revitalization is a former teacher - First Lady Jane Beshear.



Gov. and First Lady Beshear announced the opening of the Capitol Education Center with students from Richardsville Elementary, the first ‘net-zero’ school in the country, on Feb. 8, 2013. To schedule a visit, call the Capitol Tour Desk at (502) 564-3449.

Flash-forward to present day. The Capitol Education Center (CEC), which had its grand opening on Feb. 8, 2013, is now a testament to civic engagement and advancements in sustainability in the Commonwealth.

The building has been recycled, as the First Lady likes to explain, and retrofitted with a plethora of green features. Guests can pause to appreciate the tile floors, crafted from recycled plastic bottles, or the Truth Wall, which highlights the recycled denim used as insulation. If that’s not enough to spark interest, visitors can tour the roof, which houses photovoltaic (solar) panels, a solar/thermal system, a wind turbine, and a rooftop garden.

“More than 60,000 people visit the Capitol Campus every year,” said Mrs. Beshear. “The CEC provides an environment conducive to

resting and eating, as well as learning about civics, history, geography, and sustainability.”

The primary purpose of the CEC is to serve as a classroom full of educational resources for teachers and students alike. Kentucky Environmental Education Council Executive Director Elizabeth Schmitz headed development of the CEC’s educational components.

“We wanted to create a space that is engaging and experiential for students, one that helps them understand the connections between civic engagement and sustainability,” Ms. Schmitz said. “Next, teachers have requested that we connect the elements of the CEC to a curriculum that teachers can use before, during, and after their visits to the Capitol.”

The center offers an abundance of interactive kinetic energy exhibits that teach students about energy efficiency and renewable energy, all built by the University of Kentucky and University of Louisville’s engineering departments. Eco-screens on the walls allow students to see in real time how much energy is generated by the building’s solar panels and wind turbine, and how much collected rainwater from the roof is available for non-potable water needs. Touchscreen kiosks feature standards-based videos and interactive content provided by Kentucky Educational Television.

The CEC also features a Governor’s Garden that serves

as a community garden model. The fresh produce yielded can be prepared at the facility’s kitchen for Kentucky Proud demonstrations, but much of the produce is donated to Frankfort’s Access Food Shelter. General Electric donated the kitchen appliances. The CEC also features edible and native plant landscaping.

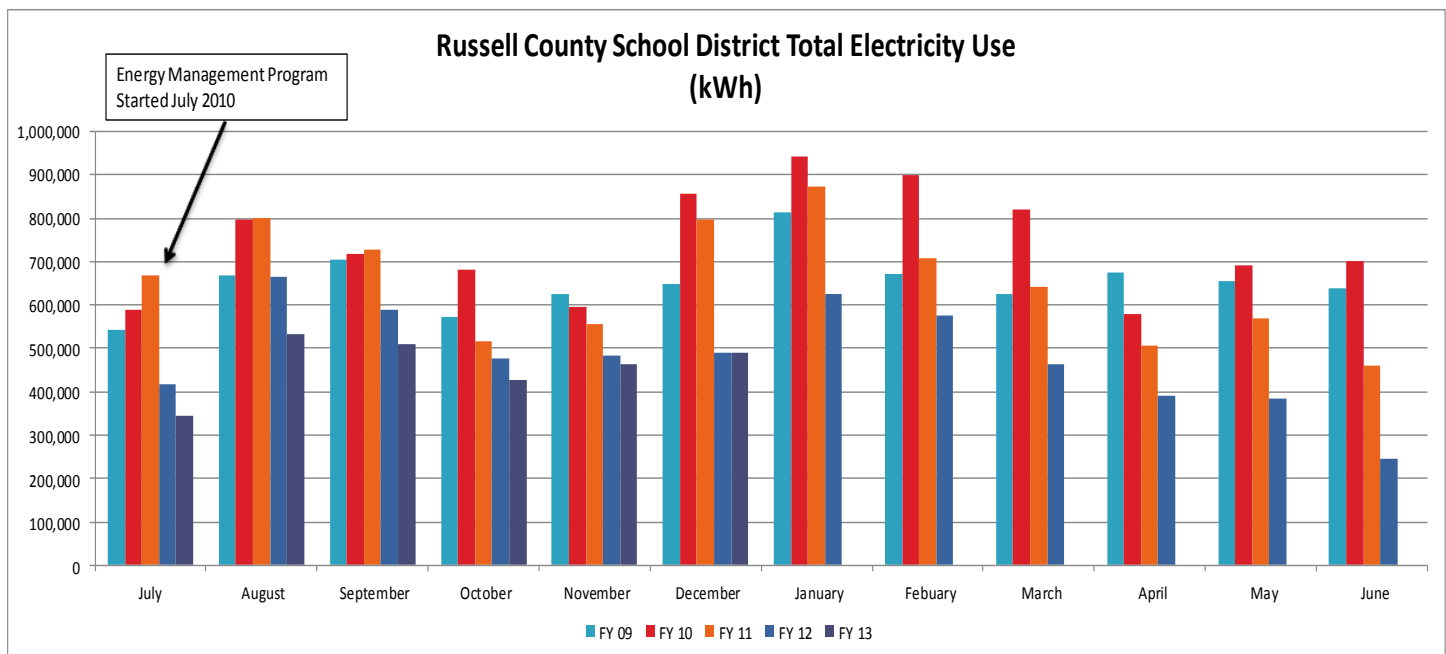
The refurbishments began in 2011 at an estimated cost of \$1 million. The educational portions of the project were supported by donations from Duke Energy and the Duke Energy Foundation. The center received a \$45,000 grant for the solar panels from the Energy and Environment Cabinet.

District's energy-reduction competition saves more than just electricity

Winning school is refunded its total monetary savings each month

RUSSELL COUNTY, KY – The Russell County School District has instituted a monthly energy-saving competition among its schools. Every school strives to lower its energy consumption by the most percentage points from Fiscal Year 2010, the base year prior to the Energy Management program's launch. Each month, the most successful school receives 100 percent of those savings to spend without special restrictions. The competition was started in January 2012 by Superintendent Ken Pickett and Energy Manager Scott Caslow to create energy-use

accountability with a substantial monetary reward. Caslow says the program has been an outstanding success beyond his expectations. "Schools are saving over 50 percent of their energy in a month," he said. "With the superintendent's overwhelming support and all the individual efforts by school staff members and students, the district is on track to save over \$250,000 for the second year in a row." Caslow, who serves as energy manager for several south-central Kentucky school districts, helped Russell County schools save over \$340,000 during his first two years.



This graph shows the monthly energy use of the entire Russell County School District. The district saved over \$340,000 during the first two years of its Energy Management Program, and is projected to save another \$250,000 by the end of the current fiscal year. Graphic Credit: Scott Caslow

KGHS coordinator goes back to school after five outstanding years

FRANKFORT, KY—On Feb. 28, KEEC said goodbye to a treasured employee. Merin Roseman, who has been the KGHS coordinator since 2009, is pursuing her graduate studies in education full-time.

Darleen Horton, a teacher at Cane Run Elementary Environmental Magnet, said, "One of my favorite experiences involving Merin was at the 2012 KAEE Conference when she did an amazing presentation to a packed crowd on bees! She was dynamite and everyone there came away with a great environmental lesson and a great experience. She shows her connection to the earth through her passion for preserving the environment. Merin is generous with her time and her talent and the world is a better place because of her."

KEEC Executive Director Elizabeth Schmitz agreed, saying that both the agency and the KGHS program benefitted from Ms. Roseman's management.

"Her leadership has resulted in a significant increase in program enrollment. She has devised technological solutions that have led to a more organized, efficient database system. Her dedication to the program and enthusiasm for the field of environmental education will be missed at the agency, but will be a great benefit in the classroom."

Under Ms. Roseman's supervision, the KGHS program blossomed from 74 schools in 2009 to over 260 enrollees at present. Additionally, between 2010 and 2012, Ms. Roseman coordinated the release of over \$33,000 in

American Reinvestment and Recovery Act grants to K-12 KGHS schools. The grants funded 58 improvement projects at 48 schools in 25 counties.

Tresine Logsdon, Energy and Sustainability Curriculum Coordinator for Fayette County, said that Ms. Roseman's efforts will "be felt by Kentucky's next generation for years to come."

West Carter Middle School Teacher Beverly McDavid agreed. "She came to visit our school and made our students feel like superstars. Even though we will miss her greatly, I know that her future students will be the lucky ones."

Announcements & Events

Wednesday, March 20: Applications due for the National Institute for Standards and Technology (NIST) Summer Institute for Middle School Science.

www.nist.gov/iaao/teachlearn

Thursday, March 28: Submissions due for KGHS final projects at 4:30 p.m. EDT. For more information, see Announcements section at www.greenschools.ky.gov.

Sunday, March 31: Submissions due for the North American Association on Environmental Education (NAAEE) solicitation for presentations for their October annual conference. www.naaee.net/conference/cfp

Sunday, March 31: Submissions due for the WetlandsLive! video contest and a chance to win \$1,000 in field trip support or media equipment. <http://wetlandslive.pwnet.org/pdf/YouthVideo.pdf>

April 14 - 20: Environmental Education Week, themed "Taking Technology Outdoors." Register at www.eeweek.org.

Friday, April 19: KGHS Summit Registration deadline, 5 p.m. EDT. www.greenschools.ky.gov/NR/rdonlyres/18047501-1F3D-4904-853B-219D7E077911/0/KGHS_KYNEED_RegistrationPacket_2213.pdf

Monday, April 22: Earth Day! To list your Earth Day event or to search for events hosted by others, go to www.EEinKentucky.org.

Wednesday, April 24: Applications due for the USDA Farm-to-School grants. www.fns.usda.gov/cnd/f2s/f2_2013_grant_program.htm

Friday, April 26: Summit Sponsorship deadline at 4:30 p.m. EDT. www.greenschools.ky.gov/summit

Tuesday, April 30: Entries due for the KET "Our Environment: Local Solutions" School Video Project. www.ket.org/education/svp/environment.php

Wednesday, May 8: KGHS and KY NEED Youth Summit and Awards Luncheon. www.greenschools.ky.gov/summit

U.S. Department of Education Green Ribbon Schools: Green Strides Webinar Series

The Green Strides Webinar Series is designed to help administrators and teachers move toward excellence in the three pillars of the Green Ribbon Schools Program. Below are dates, times and topics for upcoming webinars. Webinars are free and open to all. For more information about Green Ribbon Schools and the webinar series, [click here](#).

- March 20, 2013, 4-5 p.m. EDT: Radiation Exposure on Earth (NASA)
- March 27, 2013, 4-5 p.m. EDT: Pathways to Green Jobs and Careers in Natural Resources (USDA)
- April 3, 2013, 2-3 p.m. EDT: Reducing Lead in Drinking Water in Schools (EPA)
- April 10, 2013, 2-3 p.m. EDT: Chemical Safety in Schools (EPA)
- April 17, 2013, 4-5 p.m. EDT: Water, Exploration and the Future (NASA)



KENTUCKY ENVIRONMENTAL
EDUCATION COUNCIL



KENTUCKY
GREEN AND HEALTHY
SCHOOLS

Kentucky Green & Healthy Schools (KGHS) is a project-based and student-centered program that empowers students and staff to move their school toward becoming safer, healthier and more environmentally sustainable. This inquiry-based program uses the entire school building and grounds as a learning laboratory for students. All grade levels of all existing schools (and even schools in the process of being built) are invited to join KGHS! To participate, [click here](#).

KGHS Program Coordinator
KGHS@ky.gov

Elizabeth Schmitz, KEEC Executive Director
Elizabeth.Schmitz@ky.gov

500 Mero St., Room 2107
Frankfort, KY 40601
Phone: (502) 564-5937
Fax: (502) 564-6784
www.greenschools.ky.gov
www.keec.ky.gov

KGHS is a joint program of the [Kentucky Department of Education](#) and the [Kentucky Environmental Education Council](#).

[Click here](#) to sign up for this seasonal newsletter.

Would you like to see your school featured in the KGHS Update? Contact the KGHS coordinator by [clicking here](#).