



KENTUCKY ENVIRONMENTAL
EDUCATION COUNCIL

KEEC Legacy

Summer 2013

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Kentucky Board of Education formally adopts Next Generation Science Standards

Standards Kentucky helped shape must now be approved by legislature



Kentucky Board of Education Chairman David Karem during the June KBE meeting in Frankfort. Photo Credit: Amy Wallot, KDE.

FRANKFORT, Ky. - By a vote of 10-0, the [Kentucky Board of Education](#) (KBE) unanimously approved adoption of the [Next Generation Science Standards](#) (NGSS*) during its June 5 meeting.

According to KBE, the NGSS include science and engineering practices and content that will better prepare students for college and careers. Developed by a coalition of 26 states including Kentucky, the standards are based on the National Research Council's [Framework for K-12 Science Education: Practices, Crosscutting Concepts and Core Ideas](#).

Lifelong environmental educator Roberta Burnes lauded the board's action; she was one of several citizens who spoke in favor of the NGSS adoption at the June meeting.

"The NGSS offer an experiential, inquiry-driven approach to science education that will make science more accessible and more relevant to all kinds of learners," Burnes said. "Addressing global challenges

will require citizens who can see the big picture, understand how science works, and utilize multifaceted approaches to find real-world solutions."

The standards must now go through a public comment period and then be approved by the Kentucky legislature. According to KBE, the NGSS, which have been in development for more than two years, meet the requirements for new standards mandated by [Senate Bill 1 \(2009\)](#) and reflect significant levels of public input and revision. The standards are internationally benchmarked, rigorous and research-based, and provide a deeper understanding of content and application.

At the June 10 [Interim Joint Committee on Education](#) meeting, former University of Kentucky President Lee Todd spoke in favor of the standards, saying their implementation will "encourage innovation through flexible, hands-on education." Todd testified that the inclusion of engineering within

(Continued on next page)

Next Steps for the NGSS in Kentucky

Although the Board of Education has formally adopted the NGSS, many steps remain before KDE can lawfully implement the standards. A public comment period is open until July 31, with a public comment hearing scheduled for July 23.

Send written notification of intent to be heard at the public hearing or written comments on the proposed administrative regulation to:

Kevin C. Brown, General Counsel, Kentucky Department of Education, 500 Mero Street, First Floor, Capital Plaza Tower, Frankfort, Kentucky, 40601, phone 502-564-4474, fax 502-564-9321.

After the public comment period has closed, the standards must be reviewed by the legislature's Joint Administrative Regulation Review Subcommittee, and then either the Interim Joint Education Committee or the House and Senate Education Committees. These various committees can approve the standards or find them deficient.

Furthermore, at any time during this part of the process, the Board of Education can defer, withdraw, or reconsider the standards. Meanwhile, the Governor can also decide to move forward with implementation. The standards are not scheduled to be implemented until the 2014-15 academic year.

Source: Kentucky Department of Education

From the Director...



I am excited to welcome you to the first newsletter from the Kentucky Environmental Education Council! I hope this resource will be valuable for all those interested in the field of environmental education (EE). More and more research shows that EE is essential for understanding how intertwined human and environmental systems are, and how the individual choices that we make each day impact these systems. Furthermore, research shows that students have stronger learning gains, improved attendance and behavior, and become more engaged citizens through EE.

In this issue, you will find updates about several of our programs and events, including our revised and renamed Professional Environmental Educator Certification program. Our next newsletter will focus on development of the 2014 Master Plan for Environmental Education, so get ready! We will be seeking input from stakeholders from around the Commonwealth for this important publication.

As we strive to stay at the forefront of best practices in education and increase awareness and appreciation of our environment, please let us know if there is specific news or information you would like to see included in future newsletters.

Sincerely,

Elizabeth Schmitz
KEEC Executive Director



EEinKentucky.org provides a one-stop shop for anyone who wishes to teach or learn more about Kentucky's environment. The website has a searchable database to help you find places, organizations, materials and events that will increase environmental knowledge. Also listed are links to grants and job openings, and a calendar of EE events in Kentucky. This site is user-driven and KEEC offers technical assistance for those wishing to post to the site. EE organizations and K-12 schools are encouraged to sign up and create profiles, post events and promote their programs!

Next Generation Science Standards (continued)

the science standards is a critical component to increasing opportunities for Kentucky students.

"Fifty-one businesses, including Microsoft, Chevron and IBM, recently came out in [support](#) of the NGSS," Todd said. "The standards will provide an important foundation for a workforce skilled in math and science."

Kentucky Department of Education Associate Commissioner Felicia Smith also testified before the committee, stating that integration of engineering into the K-12 curriculum is a major shift, and that the standards "emphasize practices of science, not just concepts."

Following the legislative review process, planning for their implementation will occur during the 2013-14 academic year, with implementation and assessment to occur the following year. Because the NGSS is a standards document and not a curriculum, individual districts will make their own decisions on how the standards are implemented in the classroom.

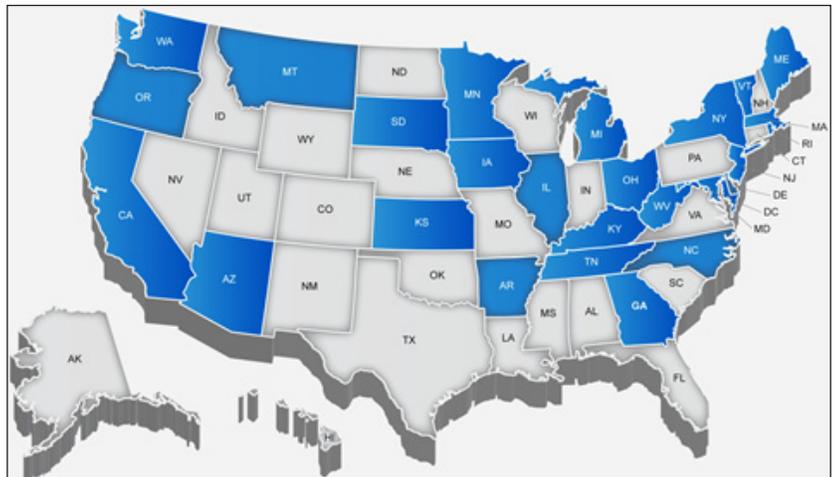
Particularly relevant to environmental educators is the fact that KBE moved to implement the [Kentucky Environmental Literacy Plan](#) (KELP) in conjunction with the NGSS. Developed with grant funding from the Kentucky Environmental Education Council (KEEC), the KELP outlines seven major goals that will ensure Kentucky's high school graduates are environmentally literate.

The KELP Implementation Advisory Team has begun [correlating](#) the NGSS with the [NAAEE Guidelines for Excellence in Environmental Education for K-12 Learners](#). Implementation planning for the KELP and NGSS will also occur later this year through a series of Content Leadership Network meetings offered through the [Regional Education Cooperatives](#). KEEC presented *Engaged Learning: Greening STEM Through Environmental Education* at the Kentucky Association of School Administrators [conference](#) in July. KEEC and KDE have also proposed a session at the Kentucky Association for Environmental Education [conference](#) in September to update interested educators on the NGSS and the KELP.

Kentucky's unique approach to concurrent implementation of the NGSS and KELP will provide K-12 teachers with much needed classroom support. In the coming months and years, it is likely that teachers of all subjects will be turning to the environmental education community for additional professional development tools and resources.

For more information on Kentucky's role in shaping the NGSS, visit <http://education.ky.gov/curriculum/sci/Pages/Next-Generation-Science-Standards.aspx>. View the KELP at <http://keec.ky.gov/publications/>.

**NGSS is a registered trademark of Achieve. Neither Achieve nor the lead states and partners were involved in the production of this newsletter.*



During the NGSS development process, 26 states (highlighted in blue above) provided leadership to the writers and to other states, and addressed common issues related to adoption and implementation. Graphic Credit: www.NextGenScience.org.

2013-14 EE certification application now available

FRANKFORT, Ky. - The Environmental Education (EE) Certification Advisory Committee (CAC) has held a series of meetings in 2013 and will continue to meet through the fall. The CAC is working on a comprehensive review and revision of Kentucky's EE certification program. The revised course will launch Nov. 5, 2013. Many of the changes will prepare the course to meet the standards required by national accreditation, now available through the North American Association for Environmental Education.

Name of course officially changed

Formerly known as the Non-formal Environmental Education Certification program, the course is now called the Professional Environmental Educator Certification program, per recommendation of the CAC. The CAC has also approved additional changes that will streamline the application process and shorten the time required to complete the course. Historically, the class took a year to complete; now course work will be completed within six months. The committee has recommended oversight committees to enforce the program's Code of Ethics and Continuing Education Requirements as well.

Continuing Education Requirements

Beginning Jan. 1, 2014, certified environmental educators will be required to recertify by submitting continuing education reports to KEEC. If you have not submitted this paperwork in the past, the deadline to submit backlogged reports is Jan. 1, 2014. Those who have submitted six years of continuing education documentation will be recognized as Master Environmental Educators by KEEC and the Certification Advisory Committee.

Apply now for the 2013-14 Certification Course

Dates and locations for the 2013-14 EE certification course are listed to the right. The course consists of four required workshops, each lasting three days. Each workshop begins at noon on Thursday and ends by 1 p.m. on Saturday. An additional 30-60 hours of independent study is also required. The 2013-14 Application, Self-Assessment, and Code of Ethics can be downloaded at keec.ky.gov/certification.htm. The deadline to apply for the course is Sept. 20.



2012 EE certification students participate in the activity "To Dam or Not to Dam." Photo Credit: Merin Roseman, KEEC.

2013-14 EE Certification Workshop Dates & Locations

Workshop One:

Nov. 14 - 16, 2013
General Butler State Park
1608 Hwy. 227, Carrollton, KY 41008

Workshop Two:

Dec. 5 - 7, 2013
Natural Bridge State Park
2135 Natural Bridge Road, Slade, KY 40376

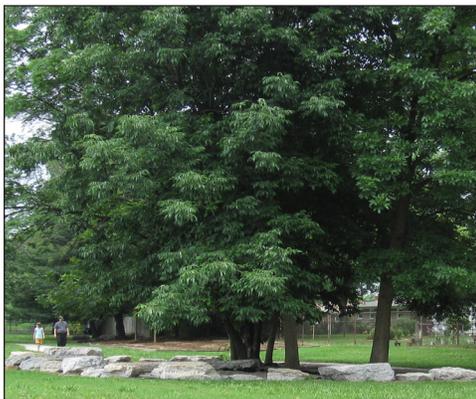
Workshop Three:

Feb. 27 - March 1, 2014
Galt House
140 N. 4th St., Louisville, KY 40202

Workshop Four:

March 27 - 29, 2014
Barren River Lake State Resort Park
1149 State Park Road, Lucas, KY 42156

Interagency Subcommittee on Environmental Education (ISEE) tours Cane Run Elementary's outdoor classroom, school garden



Cane Run offers several outdoor instructional areas, including an amphitheater, a wi-fi accessible pavilion, and a "pizza garden" (right). Above are "reading trees," surrounded by sitting stones. Photo Credits: Michelle Shane, KEEC.

LOUISVILLE, Ky. - Members of the Interagency Subcommittee on Environmental Education (ISEE) met in June, touring [Cane Run Elementary's](#) school garden and outdoor classroom. Led by fourth-grade teacher Deborah Glover and two students, the tour highlighted the outdoor classroom of the environmental magnet school within the Jefferson County Public School district.

According to Glover, she came to the school with no formal environmental education training, only a willingness to learn about how to integrate EE into her teaching. Glover said she is enthusiastic about the environment as a theme for learning; she uses EE to teach all aspects of fourth-grade standards, including

English and language arts, math, social studies, history and science. Almost the entire campus of the school is an outdoor classroom with multiple stations.

For a complete summary and [slideshow](#) of the tour and other ISEE presentations, visit <http://keec.ky.gov/openrecords.htm>.



Announcements & Events

July 1-31: Public Comment Period, Next Generation Science Standards.

July 23: Public Hearing, Next Generation Science Standards, Capital Plaza Tower, 500 Mero Street, Frankfort, Ky.

July 23 – 24: KEEC Board Meeting and Retreat, Shaker Village of Pleasant Hill.

July 31: Kentucky Science Teachers Association Conference exhibitor registration deadline.

Aug. 1: Kentucky Association for Environmental Education (KAEE) Conference exhibitor registration deadline (for acknowledgement in the conference program and on KAEE website).

Aug. 12: Room block for the KAEE Conference at Lake Barkley expires. Call 1-800-325-1708 to make your room reservation. The campground will also be open.

Aug. 15: Deadline for early bird registration at the KAEE conference.

Aug. 30: Deadline for early bird registration at North American Association for Environmental Education (NAAEE) Conference, Baltimore, Md.

Sept. 4: KEEC's Interagency Subcommittee on Environmental Education meeting, location TBA.

Sept. 13 – 14: KAEE's 37th Annual Conference, Lake Barkley State Resort Park. Visit the KEEC booth and attend our presentations to learn more

about the Next Generation Science Standards, Environmental Literacy Plan, 2014 Environmental Education Master Plan, and more!

Sept. 20: Deadline to apply for KEEC's Professional Environmental Educator Certification course: keec.ky.gov/certification.

Sept. 24 – 25: Kentucky Association of School Councils Conference, Downtown Marriott, Louisville, Ky. – Visit the KEEC booth!

Oct. 9 – 12: NAAEE Conference, Baltimore, Md.

Oct. 12: Professional Environmental Educator Certification Course - Deadline to reserve a room for Certification Workshop #1. Contact General Butler State

Park at 502.732.4384, use room block code KY Environmental Education Council.

Oct. 23: KEEC Board Meeting, Berry Hill Mansion, Frankfort, KY (10 a.m. – 2 p.m.).

Oct. 31 – Nov. 2: Kentucky Science Teachers Association Conference, Lexington Convention Center/Rupp Arena. Visit the KEEC booth and attend one or more of our presentations!

Nov. 3: Deadline to reserve a room for Certification Workshop #2. Contact Natural Bridge State Park, 606.663.2214, use room block code KY Environmental Education Council.



**KENTUCKY ENVIRONMENTAL
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KGHS Update

Summer 2013

Students recognized at KGHS/KY NEED Youth Summit and Awards Luncheon

Event honored students for improving school health, environmental sustainability

Featured Content

- Youth Summit and Awards Luncheon
- Teacher of the Year: Kelly Scott, Pikeville Independent School District

FRANKFORT, Ky. – Students and teachers from across the Commonwealth gathered June 5 to showcase their project-based learning efforts during the [Kentucky Green & Healthy Schools](#) (KGHS) and [Kentucky National Energy Education Development](#) (KY NEED) Youth Summit and Awards Luncheon.

All award recipients completed a rigorous program of research and school improvement in at least one of nine topics in health and environmental sustainability. Additional students and schools were honored for their efforts in the NEED Project. Ten student teams attending the event showcased their projects to others.

This year, 17 schools received 22 KGHS awards for leading efforts to save money, reduce harmful environmental impacts, reduce energy consumption and improve student health.



Students from The Chance School (an independent school in Jefferson County) display their School In Progress plaque, an award in the KGHS program. The Chance School was one of only seven schools across the Commonwealth to achieve this award level in 2013. Photo Credit: Tim Thornberry, KDE.

West Hardin Middle School in Hardin County achieved Model Kentucky Green and Healthy School status, the highest level in the program. It is only the third school in the Commonwealth to receive this honor. Model schools serve as mentors to other KGHS schools, and continue

their school improvement projects above and beyond the required nine categories.

Pikeville Junior and High School in Pike County completed all nine categories of the program
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KENTUCKY ENVIRONMENTAL EDUCATION COUNCIL

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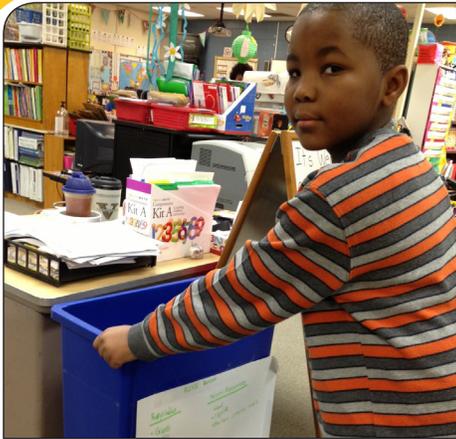
KGHS is a joint program of the [Kentucky Department of Education](#) and the [Kentucky Environmental Education Council](#).



Teacher Kelly Scott (left) and principal Michael Rowe (right), both from Pikeville Junior High and High School, display their Kentucky Green and Healthy School flags with KEEC Executive Director Elizabeth Schmitz. The flag signifies completion of all nine categories in the KGHS program. Scott was also announced as the 2013 KGHS Teacher of the Year. Photo Credit: Michelle Shane, KEEC.

Kelly Scott Named KGHS Teacher of the Year

Teacher Kelly Scott (pictured far left) of Pikeville Junior High and High School was named the KGHS 2013 Teacher of the Year. During the 2012-2013 school year, Scott coordinated the formation of multiple student-led Green Teams. Under Scott's tutelage, the groups earned several KGHS awards for and became only the sixth school in the Commonwealth to earn the Kentucky Green and Healthy School Award. Scott will be presented with her award in Pikeville during the 2013-14 school year.



Left: A student from Dixie Magnet Elementary School (Fayette County) places a new recycling bin inside a classroom. The school's Green Team completed their first category this year, making Dixie Elementary a Candidate School in the KGHS program. Photo Credit: Dixie Magnet Elementary School.



Right: A student distributes flyers to drivers waiting outside Farnsley Middle School (Jefferson County) as part of the school's "Be Idle Free" campaign. Farnsley received a School Under Development award for the 2012-2013 academic year, having successfully completed a total of six project categories. Photo Credit: Farnsley Middle School.

KGHS Youth Summit (continued)

to achieve Kentucky Green and Healthy School status, the sixth school in Kentucky to do so. Both of these schools were recognized by Kentucky First Lady Jane Beshear at the Earth Day at the Capitol celebration in April.

Keynote Speaker Joe Chavez, STEM Consultant for the Kenton County School District, praised the students for their work and encouraged them to continue their efforts.

"Each of you has a voice that can make a difference in the lives and actions of many," Mr. Chavez said. "Be sure you are heard."

KGHS Coordinator Michelle Shane said more than 260 schools in more than 75 counties are currently enrolled in the program.

"The KGHS program is an exciting opportunity for teachers to provide experiential learning," said Shane. "Not only do the projects tie into the curricula, they also address real-world issues that impact



From left, Kentucky First Lady Jane Beshear, West Hardin Middle School (WHMS) teacher Leslie Meredith, Hardin County superintendent Nannette Johnston, WHMS principal John Thomas and WHMS teacher Joe Pike. WHMS was honored with the Model KGHS award for their completion of all nine category projects plus additional projects. Photo Credit: Creative Services, Commonwealth of Kentucky.

local communities. This type of learning has been shown to increase retention and more fully engage students."

[Kentucky Environmental Education Council](#) (KEEC) Executive Director Elizabeth Schmitz said, "It is always inspiring to see the student work showcased during this event. Students

are gaining 21st century skills through applied learning, including communication, problem-solving and teamwork. Solving real-world problems at school also translates into stronger math, science and language arts abilities." The program is co-administered by KEEC and the Kentucky Department of Education.



Students from Tichenor Middle School (Erlanger/Elsmere) display their 2012-13 Energy Patrol project. Photo Credit: Michelle Shane, KEEC.