



THE AEG INSIDER

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Courtesy: American Geosciences Institute

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Independent Study Details Earth Science Week Success

Earth Science Week participation grew again in 2012, not only in sheer numbers - over 50 million people, more than ever before, gained awareness through activities, media coverage, and the Internet - but also in the quality of engagement, according to an independent evaluation recently completed by PS International.

Comparing participation last year and plans for next year, 90 percent of survey respondents said they plan to increase or maintain level participation. This figure is up from 88 percent the previous year, despite the prevalence of respondent comments indicating that they are "getting too busy" and that Earth science is not prioritized in schools' curricula.

A large majority of participants – 86 percent – said Earth Science Week offers opportunities for teaching and promoting Earth science that they wouldn't have otherwise. "ESW allows me to expand into some areas that are not regularly covered by the scope of my class," said one participant.

Similarly, 87 percent said program resources and activities are very or somewhat important to educating students and others about Earth science. "I use items from the website weekly," a respondent remarked.

Most respondents find Earth Science Week and related resources highly useful, with 75 percent rating the program's overall usefulness as excellent or good. AGI uses evaluation findings to improve the program. To learn more, see Earth Science Week 2012 Highlights, coming soon [here](#).

Earth Science Teaching Award Winner Announced

Nathan Shotwell, a teacher at Holman Middle School in Glen Allen, Va., has been named the 2013 recipient of the Edward C. Roy, Jr. Award for Excellence in K-8 Earth Science Teaching. Shotwell, who earned his master's degree in education from Virginia Commonwealth University, has spent his career challenging middle and junior high school students with what he calls "authentic problems" and inquiry-based learning in the Earth sciences.

"Mr. Shotwell's use of project work with his students allows them to develop and test hypotheses in the Earth sciences using actual data and modern information technologies," said AGI Education Director Ann Benbow on recognizing Shotwell with the award. "This type of instruction not only builds student understanding, but also fosters the workplace skills of working in teams, solving problems, and communicating results."

Shotwell will be presented with the award at the NESTA Friends of Earth Science Reception during the National Science Teachers Association 2013 National Conference in San Antonio, Texas, in April. Finalists for the award were Laura Finney of Chamberlin Hill Intermediate School in Findlay, Ohio, and John Russell of Columbia Secondary School for Math, Science, and Engineering in New York City.

Given annually, AGI's Edward C. Roy, Jr. Award recognizes one classroom teacher from kindergarten to eighth grade for leadership and innovation in Earth science education. This award is named in honor of Dr. Edward C. Roy, Jr., who was a strong and dedicated supporter of Earth science education. Click [here](#) to learn more.

Dig Into Earth Science Education With USGS

The U.S. Geological Survey, a longtime Earth Science Week partner, offers a wealth of information on virtually every Earth science topic, from natural resources and hazards to geospatial data.

The [USGS education website](#) includes lesson plans and other resources for K-12 students, educators, and others. Just in time for the Earth Science Week 2013 theme of "Mapping Our World," for example, GIS Lab focuses on using Geographic Information Systems to teach spatial analysis, and GPS Class provides lessons on Global Positioning Systems in education.

USGS has thousands of free images and over 69,000 searchable publications such as maps, books, and charts online. If what you're looking for still proves elusive, just "[ask a geologist](#)." Also, don't forget to check out the [USGS podcast series](#), CoreCast, featuring stories and insights on climate change, satellite monitoring, human health, wildlife disease, and more.

Esri Helps Teachers Map Out Education

Looking for cutting-edge resources focusing on the Earth Science Week 2013 theme of "Mapping Our World"? Leading the charge to incorporate GIS (geographic information system) technology and mapping software in Earth science education, Esri is one of the many corporate partners of Earth Science Week.

GIS technology –which can illuminate features such as local geology, watersheds, and roads – can require some training before it can be used effectively. That's why Esri offers instructor-led training classes as well as "virtual campus" web-based training courses.

Instructor-led classes are held in small groups at Esri's training facilities worldwide, where attendees have access to knowledgeable staff and ample time to practice GIS skills. Virtual campus web-based training courses include software exercises, conceptual material, and instructional resources. Click [here](#) for more information about training. Click [here](#) to learn more about GIS and Esri.

Energy Department Programs Empowering Teachers

The U.S. Department of Energy, an Earth Science Week partner, provides learning opportunities for teachers and students at all levels. For example, DOE's Energy Education & Workforce Development web site offers hundreds of K-12 lesson plans.

For standards-based activities covering topics from energy basics to biofuels, hydropower, and wind energy, check out [DOE lesson plans](#). The annual [National Science Bowl](#) tests middle and high school students' science knowledge.

With laboratories across the country, DOE scientists and instruments offer valuable resources for geoscience education. DOE programs for educators include the Albert Einstein Distinguished Educator Fellowship, in which teachers work for a year in a congressional office or federal agency to improve science education. Click [here](#) for more on DOE programs for teachers.

OERB Provides Info on Energy 'Career Paths'

Formed by industry leaders working in cooperation with state legislators, the Oklahoma Energy Resources Board provides materials and services to improve the lives of Oklahomans and others through education and restoration.

Since its inception some 20 years ago, OERB has shared its exciting energy curricula and safety messages with more than one million Oklahoma students. OERB educational resources such as the "Career Paths" web page provide information on careers in the Earth sciences.

As in many other parts of the country, Oklahoma oil and natural gas producers are aggressively seeking qualified professionals - geologists, geophysicists, environmental specialists and more. Learn more about the many professional careers in the petroleum industry nationwide [here](#).

Help NGWA Promote Ground Water Awareness

Ground Water Awareness Week (March 10-16, 2013) will shed light on one of the world's most important resources – ground water. Ground water is essential to the health and well-being of humanity and the environment, according to the National Ground Water Association, an AGI member society.

To learn more about Ground Water Awareness Week, visit the [Virtual Museum of Ground Water History](#), or watch a "[water well show](#)." Click [here](#) for additional educational activities and resources.

SSSA Offers Riches Of Soil Science Education

Six thousand members strong, the Soil Science Society of America is a scientific organization that aims to support geoscience teaching and learning about soils. This AGI member society provides an [educational resources web](#) page that includes lessons, activities, fun facts, sites of interest organized by soil topic and grade level, and soil definitions for the novice soil scientist.

And you can visit the online version of “Dig It,” an SSSA-sponsored exhibition on soil from the Smithsonian Institution’s National Museum of Natural History. The exhibit includes interactive displays, hands-on-models, videos, and monoliths representing soils from each state, territory, and the District of Columbia. Check online for viewing times [here](#).

NSTA Provides Links to Free Science Resources

Looking for teaching resources? Check out a page called “Freebies for Science Teachers” on the National Science Teachers Association web site.

Updated periodically, this searchable “array of free resources for you and your classroom” frequently features online links to publications, CD-ROMs, DVDs, videos, kits, and other materials for Earth science education. Click [here](#) for more information.

Internship Offers Undergrad Research Opportunity

Targeting young people with an interest in conducting research in the Earth or ocean sciences, Columbia University’s Lamont-Doherty Summer Intern Program offers students the opportunity to experience scientific research as an undergraduate. The program is open to U.S. citizens or permanent residents who have completed their junior or sophomore year in college with majors in Earth science, environmental science, chemistry, biology, physics, mathematics, or engineering.

Students receive free housing, public transportation and a stipend of \$5,000 for this 10-week program. The application form must be submitted by March 15. Click [here](#) for the online application form. For more information, click [here](#).

The American Geosciences Institute is a nonprofit federation of 50 geoscientific and professional associations that represents more than 250,000 geologists, geophysicists and other earth scientists. Founded in 1948, AGI provides information services to geoscientists, serves as a voice of shared interests in the profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society’s use of resources, resiliency to natural hazards, and interaction with the environment. For contact information, please visit this [site](#).