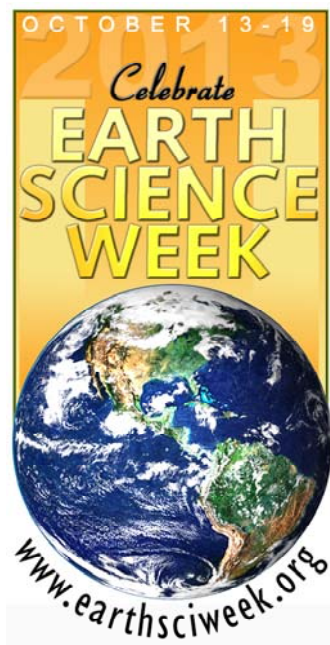

Earth Science Week 2013

“Mapping Our World”

Highlights and News Clips



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Announcements and News Clips www.earthsciweek.org/highlights

Because of the large and increasing number of news clippings citing Earth Science Week activities and resources, the print edition of the print report no longer includes clippings. To view the hundreds of press releases and news items promoting awareness of Earth Science Week each year, please go online to www.earthsciweek.org/highlights. Thank you for helping us in our efforts to conserve resources and protect the environment.

Highlights and News Clips from Earth Science Week 2013

Introduction

Held October 13-19, 2013, the 16th annual **Earth Science Week** celebrated the theme of **“Mapping Our World.”** The 2013 event, like past celebrations, promoted public and professional awareness of Earth science in education and society.

“With this theme, Earth Science Week highlights the ways that Earth scientists use maps to understand our planet and how humans use the land,” said AGI Outreach Manager Geoff Camphire, in announcing the theme of the celebration. Earth Science Week 2013 provided educators, students, and interested citizens with information, resources, and activities that boosted awareness of the geosciences and the many exciting uses of maps.

Each year, AGI organizes Earth Science Week as a service to member societies, with generous help from partner organizations that provide funding, donate materials, organize events, and publicize the celebration. Major funding partners in 2013 included the United States Geological Survey (USGS); the American Association of Petroleum Geologists (AAPG) Foundation; the National Park Service; the National Aeronautics and Space Administration (NASA); the American Geophysical Union (AGU); National Geographic; the Geological Society of America (GSA); the Association of American State Geologists (AASG); the Society for Mining, Metallurgy and Exploration (SME); and Esri.

Earth Science Week **participation remained strong.** People in all 50 states and in more than six countries participated in events and activities. Over 197,000 people visited the Earth Science Week web site in 2013. In addition, hundreds of people nationwide actively participated in the program’s visual arts, essay, and photography contests.

Earth Science Week events ranged from educators teaching Earth science activities in their classrooms to open houses held at major USGS field stations. A detailed list of events can be found in Part 1. This list represents only events reported directly to AGI, so please notify Earth Science Week staff if your participation is not listed.

Additional events are highlighted in Part 2, a compilation of news releases and other items by members of the geoscience community. Each year, web, print, and broadcast media coverage of Earth Science Week reaches some **50 million people.** Part 2 contains examples of print and electronic media promoting Earth Science Week activities, resources, and materials. In addition, television news programs covered Earth Science Week on local stations in three states.

This report is designed to give an overview of the activities organized by AGI and other groups for Earth Science Week. We hope this information on 2013 events and publicity inspires you to develop your own activities next year. Please visit www.earthsciweek.org for event planning, materials, resources, and support. Contact Earth Science Week staff at info@earthsciweek.org for assistance in planning for Earth Science Week.

Earth Science Week 2013 Summary of Activities

Overview

Some 50 million people gained a new awareness of the geosciences through the 16th annual Earth Science Week. People worldwide learned about Earth science through program promotions, education efforts, news media, and Internet coverage. The event celebrated the theme “Mapping Our World” by promoting awareness of the geosciences and the many exciting uses of maps in Earth science.

Earth Science Week events ranged from individual teachers and classes conducting playground science projects to activities at locations such as USGS field stations, NASA facilities, and national parks. Many activities were organized around the days of Earth Science Week that routinely are set aside times for areas of special focus:

- Geocachers worldwide used GPS devices to find and learn about sites of geoscientific significance on **International EarthCache Day**, October 13.
- AGI’s “Big Ideas of Earth Science” videos and activities allowed students to explore core concepts on **Earth Science Literacy Day**, October 14.
- Schools nationwide held activities for **No Child Left Inside Day** on October 15, encouraging students to explore geoscience topics firsthand outdoors.
- The fourth annual **National Fossil Day**, October 16, invited young people to learn about paleontology at parks and other locations across the country.
- **Women in the Geosciences Day**, October 17, provided a chance for professional geoscientists to share the excitement of their careers with young women.
- Finally, the second annual **Geologic Map Day**, October 18, offered resources to help young people explore the study, uses, and importance of geologic maps.

Internationally, students and others in the Australia, Canada, the Dominican Republic, Germany, New Zealand, and the United Kingdom participated in events, explorations, and activities during Earth Science Week. Hundreds of essayists, artists, and shutterbugs once again entered the annual Earth Science Week contests.

Key Partnerships and Efforts

Earth Science Week’s success depends on the collaboration of key partners. In 2013, AGI forged partnerships with several organizations and pursued signature initiatives:

AGI also expanded eligibility for its annual Earth Science Week photography contest to allow members of **AGI International Affiliates** and international members of all AGI Member Societies to participate for the first time. Previously open only to residents of the United States, the photo contest has always been a major part of Earth Science Week. By celebrating the theme of “Discovering Careers in the Earth Sciences,” Earth Science Week 2012 provided an excellent opportunity to invite our colleagues and friends around the world to join the celebration.

Teachers seeking education resources and other support were directed by AGI to the **American Association of Petroleum Geologists (AAPG)** and the AAPG Foundation. In addition, Earth Science Week promoted awareness of AAPG's Visiting Geoscientist program and Distinguished Lecturer program. AAPG Student Chapters received kits. Earth Science Week's 2013 activity calendar featured a classroom activity by AAPG.

By donating posters and other educational materials, AGI supported the **Austin Earth Science Week Consortium's** celebration in Texas in 2013. Over 300 middle-school students attended a career fair and participated in activities.

The **American Geophysical Union (AGU)** continued its role as a supporting program partner in 2013 with the contribution of funds as well as expertise. Earth Science Week's 2013 activity calendar featured an AGU classroom activity. AGU's annual meetings, professional development workshops, programs for college students, print and electronic resources, and new "LEARN With AGU" video series were promoted through the Earth Science Week e-newsletter, web site, and activity calendar.

Earth Science Week 2013 promoted awareness of the **American Institute of Professional Geologists (AIPG)**, an AGI member society that advocates for geologists and certifies their credentials. AIPG offers several PowerPoint presentations online for free download, presenting career information for young, newly graduated geoscientists.

The **American Meteorological Society**, a new Earth Science Week partner, provided a classroom activity for the program's 2013 activity calendar.

Earth Science Week directed participants' attention to the **Association of American Geographers (AAG)**, an AGI member society, which offers an array of web resources for K-12 and college-level instruction. Reinforcing the theme of "Mapping Our World," these materials support geographic approaches to Earth science education. For example, Geographic Advantage, an educational companion for the National Research Council's "Understanding the Changing Planet," outlines teaching strategies and geographic investigations that show students how geographers explore environmental change. Earth Science Week's 2013 activity calendar featured a classroom activity by AAG.

Young women were specially invited to celebrate the fifth annual Women in the Geosciences Day during Earth Science Week 2013. The **Association for Women Geoscientists (AWG)**, an AGI member society and longtime program partner, developed a set of worksheets and made copies available for download from the AWG web site.

The **Association of American State Geologists** partnered with AGI and the USGS to support the second annual Geologic Map Day during Earth Science Week 2013. By focusing attention on geologic mapping, this successful event laid a foundation for the theme of Earth Science Week 2013: "Mapping Our World."

Encouraging educators to make use of the resources offered by the **Association of Environmental and Engineering Geologists (AEG)** to its members, Earth Science

Week 2013 turned a spotlight on AEG's technical publications, section and chapter meetings, and special educator sessions at the AEG annual meeting.

Unveiled as part of Earth Science Week 2013, a new report and new web site on Earth science education from AGI's **Center for Geoscience Education and Public Understanding** provided powerful resources for the advancement of the discipline. The landmark report, featured on the site, describes significant gaps between identified priorities and lagging practice in Earth science education. The web site is the world's most comprehensive and up-to-date online clearinghouse for Earth and space science information and educational resources, ranging from high school curricula and classroom activities to video collections, career resources, and national research reports.

The **Critical Zone Observatories** provided a flyer on LiDAR for the Earth Science Week Toolkit and a learning activity for the Earth Science Activity Calendar in 2013.

The **Center for Ocean Sciences Education Excellence (COSEE)**, a longtime program partner, directed participants to three online videos depicting dramatic changes in Alaska's marine ecosystems through interviews with scientists. The videos were produced by COSEE Alaska in cooperation with other geoscience organizations. In addition, Earth Science Week's 2013 activity calendar featured a classroom activity courtesy of the affiliated Consortium for Ocean Leadership.

AGI promoted awareness of **Earth Learning Idea (ELI)**, a leading web site for Earth science education, which has published more than 100 activities online. Every two weeks, ELI publishes a new Earth-related teaching activity, designed to be a practical resource for teachers and teacher trainers.

Earth Science Week drew attention to the 2013-2014 **EarthScope** Speaker Series, which presented scientific results of EarthScope research to faculty and students at colleges and universities. EarthScope explored the structure and evolution of the North American continent and the processes that cause earthquakes and volcanic eruptions.

Presented by the **Society of Petroleum Engineers (SPE)**, Energy4Me offers education resources on energy sources. The program provided material on energy science included in the Earth Science Week 2013 Toolkit. Earth Science Week's 2013 activity calendar also featured a classroom activity by SPE.

Earth Science Week promoted GIS Day, November 20, to raise awareness of geographic information systems. GIS Day 2013 events, held across the country and around the world, allowed users of geographic information systems to demonstrate real-world applications that make a difference in society. **Esri**, a GIS Day sponsor and longtime Earth Science Week partner, offered a wealth of related educational resources for participants and others, including a poster in the Earth Science Week 2013 Toolkit. Earth Science Week's 2013 activity calendar featured a classroom activity from Esri. Leading the charge to incorporate GIS technology and mapping software in Earth science education, Esri

blogged to provide educators with resources and information throughout the week. Esri also became a partner in the Geologic Map Day initiative in 2013.

ExxonMobil, a longtime Earth Science Week partner, provided its “Outlook for Energy: A View to 2040” brochure for the Earth Science Week 2013 Toolkit. The brochure features projections for changes in energy production and usage for decades to come.

Through Earth Science Week, participants learned about educational resources and programs of the **Geological Society of America** (GSA), a longtime program partner. Featured education and outreach programs included the Teacher Advocate Program, Teacher GeoVenture trips, the Distinguished Earth Science Teacher in Residence program, and GSA’s GeoCorps America program. GSA also organized International EarthCache Day at the start of Earth Science Week 2013, provided a learning activity for the calendar, and became an active partner in the Geologic Map Day initiative.

The **Geological Society of London** (GSL), an AGI member society, provided two new online resources for learning about key geoscience topics. Reinforcing the “Mapping Our World” theme of Earth Science Week 2013, electronic map-based resources were the focus of GSL’s “Plate Tectonics” page. In addition, a new site was launched to accompany GSL’s “Rock Cycle” online module.

The **Houston Geological Society** (HGS) played a leadership role in partnering with AGI to promote the first-ever Earth Science Week Houston, including educational activities citywide that encouraged learning about the geosciences. Earth Science Week’s 2013 activity calendar featured a classroom activity courtesy of HGS.

The **Incorporated Research Institutions for Seismology** (IRIS) provided a four-page flyer on EarthScope for the 2013 educator kit. To help teachers and students delve into the science behind current events, Earth Science Week directed them to “Recent Earthquake Teachable Moments,” a web site of IRIS. These resources — including PowerPoint presentations, animations, and visualizations, as well as links to Spanish-language materials and USGS data — dealt, for example, the magnitude-5.1 earthquake that struck North Korea in 2013.

Earth Science Week collaborated extensively with the **Institute for Global Environmental Strategies** (IGES) in 2013. Major areas of focus were NASA education efforts and IGES’s Thatcher Environmental Research Contest, which challenged students to conduct research on the changing planet using the latest geospatial tools and data.

The **National Association of Geoscience Teachers** (NAGT) provided a bookmark featuring information about maps for the 2013 educator kit. Program participants were made aware that NAGT prepared for Earth Science Week’s 2013 theme of “Mapping Our World” with more than 100 free classroom activities using maps. Teachers found lessons online for kindergarten through grade 12. Activities included contemporary mapping tools like Google Earth and GeoMapApp as well as topics such as GIS and Mars geology.

NASA, a founding partner of Earth Science Week, used the 2013 theme to get the word out about many of its mapping-related education initiatives and resources. For example, the Earth Science Week 2013 Toolkit featured the NASA Mapping Our World poster, which uses data from over a dozen NASA Earth science missions to show a unique mosaic-like pattern of our world. Also included were a 16-page NASA Earth Science Images and Data booklet, an education sampler on NASA mapping-related resources, and a NOVA postcard highlighting Earth science resources and videos from PBS. Earth Science Week's 2013 activity calendar also featured a classroom activity from NASA.

The **National Earth Science Teachers Association** (NESTA), a longtime Earth Science Week partner, continued its vital role in helping AGI promote excellence in geoscience education. At the National Science Teachers Association Annual Conference, the NESTA Reception included a ceremony during which a teacher was given the Edward C. Roy, Jr. Award for Excellence in K-8 Earth Science Teaching. In addition, NESTA members received copies of the Earth Science Week 2013 poster in their association newsletter.

Earth Science Week raised awareness of **National Environmental Education Week** (EE Week), the nation's largest environmental education event. Focusing on "Greening STEM: Taking Technology Outdoors," EE Week connected educators with resources to promote K-12 students' understanding of the environment and STEM education.

National Geographic provided a Geography Awareness Week 2013 flyer for the 2013 educator kit, highlighting educational resources for understanding of maps and related technologies. In addition, Earth Science Week's 2013 activity calendar featured a classroom activity from National Geographic Education.

Earth Science Week promoted the **National Ground Water Association's** (NGWA) Ground Water Awareness Week in March 2013 as well as NGWA's new Protect Your Groundwater Day program in September 2013, advocating water conservation and contamination. The AGI member society offers Ground Water Adventures, a web site providing educational activities for young people.

The **National Oceanic and Atmospheric Administration** (NOAA) provided a poster on "How GPS Works" for the Earth Science Week Toolkit. Earth Science Week's 2013 activity calendar featured a classroom activity by NOAA. In addition, Earth Science Week 2013 directed participants to NOAA's online education resources, including lesson plans, instructional games, videos, and more.

A longtime Earth Science Week partner, the **National Park Service** (NPS) continued for the fourth year a major component to its involvement in Earth Science Week. National Fossil Day, established as a celebration to take place annually on the Wednesday of Earth Science Week, once again reached millions of people. The "Geologic Maps of the National Parks" poster, appearing in the Earth Science Week 2013 Toolkit, successfully continued the series of park posters produced collaboratively by the agency and AGI. The agency also became a partner in the Geologic Map Day initiative in 2013. Earth Science Week's 2013 activity calendar also featured a classroom activity from the agency.

Earth Science Week participants learned about soil education resources offered online by the **National Resource Conservation Service (NRCS)**. Resources for the elementary level include lesson plans, links to soil education web sites, and even soil songs.

For Earth science teachers and students searching for the most up-to-date information on climate change, Earth Science Week 2013 highlighted a new **National Science Foundation (NSF)** web site. The site features an NSF report summarizing the current state of knowledge about climate change, as well as resources dealing with related news, discoveries, statistics, and publications.

Earth Science Week partnered with the **National Science Teachers Association (NSTA)** again in 2013, reaching science educators nationwide. The program promoted NSTA's New Science Teacher Academy, which offers professional development and mentoring to second- and third-year secondary science teachers. In addition, Earth Science Week exhibited once again at the NSTA Annual National Conference.

The NEED Project provided a classroom activity for the Earth Science Week 2013-14 Activity Calendar, promoting understanding of the links between energy and population.

Earth Science Week raised awareness of Houston's **Offshore Energy Center (OEC)**, which offered educational resources for Earth science teachers. OEC's Education Outreach program provided, for instance, an online Career Interest Profile that students could fill out to learn which energy careers dovetail with what they enjoy doing.

As detailed in the Earth Science Week newsletter, the **Oklahoma Energy Resources Board (OERB)** provides materials and services to improve the lives of Oklahomans and others through education and restoration. OERB educational resources such as the "Career Paths" web page provide information on careers in the Earth sciences.

Gearing up for National Fossil Day, Earth Science Week directed program partners' attention to the **Paleontological Research Institution (PRI)**, an AGI member society providing education materials and opportunities for science teachers and students at all grade levels. The online Teacher Friendly Guide, for example, gives brief geologic histories of every region of the United States.

Partners in Resource Education (PRE), a longtime program partner, provides activities focusing on the geoscience of conservation. The consortium of seven federal agencies educates thousands of young people, introduces them to natural resource careers, and cultivates the next generation of land and water stewards. In 2013, PRE collaborated to promote awareness of Earth Science Week, and vice versa.

Rite in the Rain, which makes notebooks for fieldwork by professional geoscientists, created a miniature field notebook — with "all-weather writing paper" and charts on types of clouds, soils, and geological map symbols — for inclusion in the Earth Science Week 2013 Toolkit. The company supported the program in 2013 by donating a portion of the notebooks.

Schlumberger Excellence in Educational Development (SEED) is a nonprofit education program that empowers Schlumberger employee volunteers and educators to share their passion for learning and science with students. AGI has partnered with the program to launch a joint initiative, the SEED Earth Science Week Online Toolkit, to provide geoscience education resources in both Spanish and English. With new resources added periodically since 2010, visitors now can view, download, and print over 70 lessons, posters, fact sheets and other items, each offered in both Spanish and English. In addition, Earth Science Week's 2013 activity calendar featured a SEED activity.

For teachers aiming to “shake up” education, Earth Science Week shone a spotlight on the **Seismological Society of America (SSA)**. SSA's web site provided seismic eruption models, wave animations, plate tectonics simulations, information on tsunamis, and more. SSA also offered publications, information on seismology careers, a distinguished lecturer series, and an electronic encyclopedia of earthquakes.

Earth Science Week participants were encouraged to take advantage of offerings of the **Society of Exploration Geophysicists (SEG)**, which provides programs for educators and students. For example, the distinguished lecturer series and honorary lecturer series both enabled students to meet professional geophysicists, learn about groundbreaking research in the field of seismic research, and obtain valuable career information.

The **Society of Mining, Metallurgy, and Exploration (SME)** became a funding partner of Earth Science Week in 2013. SME provided a flyer, including instructional material on minerals, for the 2013 educator kit. Also, Earth Science Week's 2013 activity calendar featured a classroom activity from SME.

The **Soil Science Society of America (SSSA)**, a longtime program partner, provided a “Mapping Our World of Soils” poster for the 2013 educator kit. SSSA provides lessons, activities, fun facts, sites of interest, and soil definitions for the novice soil scientist online. These resources were promoted by the October event, along with the soil science careers poster included in the Earth Science Week 2013 Toolkit. Earth Science Week's 2013 activity calendar featured a classroom activity courtesy of SSSA.

The Earth Science Week 2013 Toolkit featured a DVD of the award-winning film *Switch*. The 98-minute documentary focuses on the transition, currently taking place worldwide, from coal and oil to “the energies of tomorrow.” Since its inception, the film has expanded into the **Switch Energy Project**, a multi-platform program based online. The project's web site features over five hours of edited video.

AGI donated posters and other educational materials to help **Texas Woman's University** celebrate Earth Science Week 2013 with a Science Fair. The event was widely attended by the College of Arts and Sciences' over 5,000 students.

UNAVCO provided a classroom activity for Earth Science Week's 2013 activity calendar, promoting awareness of uses of GPS in measuring movement in Earth's crust.

The **U.S. Bureau of Land Management**, a new Earth Science Week partner, provided a flyer including a dinosaurs activity sheet for the 2013 educator kit.

Educators were invited to participate in the **U.S. Department of Energy's** Laboratory Equipment Donation Program. The department, an Earth Science Week partner, operates the program, which enables colleges and universities to acquire hundreds of millions of dollars in free high-quality surplus laboratory equipment from National Laboratories. In addition, participants learned of DOE's Energy Education & Workforce Development web site, which offers hundreds of K-12 lesson plans.

Earth Science Week also promoted awareness of the **U.S. Environmental Protection Agency's** collection of free resources to enhance middle school students' understanding of climate change impacts on the United States' wildlife and ecosystems. The online toolkit includes case studies, activities, and videos based on climate science, environmental education, and stewardship information.

Overlapping Earth Science Week 2013, National Wildlife Refuge Week also was held October 14-20. The event, celebrating the richness of the 550 units that make up America's National Wildlife Refuge System, was sponsored once again by the **U.S. Fish and Wildlife Service** (FWS), an Earth Science Week partner. FWS also provided an activity for the calendar included in the Earth Science Week 2013 Toolkit.

Earth Science Week participants learned about online education resources offered by the **U.S. Geological Survey** (USGS), a longtime Earth Science Week partner, as well as the thousands of free images and over 69,000 searchable publications such as maps, books, and charts provided online by the agency. Perhaps most significant, USGS continued its leadership role as a founding partner of Geologic Map Day in 2013, providing support as well as its National Geologic Map Database's MapView, which offers a mosaic view of published geologic maps.

Because the **U.S. Nuclear Regulatory Commission** (NRC) employs more than 120 staff members who hold Earth science degrees or work in geoscience-related jobs, the agency wants students to know about these exciting career paths. The NRC developed a series of brief videos on geoscience careers for the NRC YouTube channel, "NRC Q&A Series: Three Minutes With NRC." Earth Science Week participants learned about videos in the series, which cover careers in meteorology and hydrology. Upcoming videos have been planned to cover structural and field geologists, seismologists and geophysicists, geotechnical engineers, geochemists, hydrogeologists, and other geoscientists.

PLAN!T NOW's **Young Meteorologist Program** takes students on a severe weather preparedness adventure while learning about severe weather science and safety. Promoted by Earth Science Week, the program was developed in partnership with the National Oceanic and Atmospheric Administration's National Weather Service and the National Education Association. Young Meteorologists are shown opportunities to put their knowledge to work in hands-on activities and community service projects.

Earth Science Week Toolkits

Across the country, AGI distributed some **16,000 Earth Science Week Toolkits** to teachers and geoscientists in 2013. The number of state geological surveys requesting complimentary kits for distribution remained 30, the same number as in 2012. In addition, the number of AGI member societies requesting complimentary Earth Science Week Toolkits for distribution held steady in 2013 at 25. As in past years, thousands of kits also were distributed through program partners including USGS, NASA, the National Park Service, and AAPG Student Chapters. Hundreds of kits were shipped free to geoscience department chairs at colleges and universities nationwide. Toolkits were shipped to program participants in all 50 states and a number of countries overseas.

The 2013 toolkit featured AGI's traditional Earth Science Week poster, bookmarks, and school-year calendar showcasing geoscience classroom investigations and important dates of Earth science events. Of particular interest, the 2013 Earth Science Activity Calendar contained more activities than ever before. Brimming with 20 learning activities, the calendar provided a great way for teachers and students to explore the Earth Science Week 2013 theme of "Mapping Our World" throughout the 2013-14 school year.

Web Resources

The Earth Science Week web site (www.earthsciweek.org) delivers essential resources for educators throughout the year. A recent redesign and new features made it easier than ever for users to identify and find the programs, publications, and educational tools.

As in past years, the **Earth Science Week web site** was updated regularly to reflect the new theme, contests, proclamations, events, initiatives, and classroom activities for 2013. The home page received 75,516 hits in 2013. Within the site, the classroom activities page received 41,698 hits, the contests page received 11,532 hits, the teacher resources page received 18,020 hits, and the press releases page received 10,713 hits.

Program participants were encouraged to visit the continually updated Earth Science Week **Classroom Activities** page for more than 120 free learning activities, most of them contributed by leading geoscience agencies and groups. Activities are organized and searchable by various criteria, including specific Earth science topics. To find the perfect activity for a lesson, teachers can search by grade level and science education standard. Maybe most useful, they also can search among 24 categories of Earth science topics, from energy and environment to plate tectonics and weathering.

AGI provided a set of free online videos and other electronic resources to help students, educators, and others explore the "big ideas" of Earth science during Earth Science Week 2013 and throughout the year. **Big Ideas Videos** bring to life the nine core geoscience concepts that everyone should know. The Earth Science Literacy Initiative, funded by the National Science Foundation, codified these principles. The videos are available on YouTube and TeacherTube. The Earth Science Week web site also provides dozens of classroom activities linked to the "big ideas."

Those hosting events during Earth Science Week 2013 were invited to let people know about it at **Events in Your Area**. This web page provided information on events taking place through program partners in each state. In addition, events and groups could be listed in **Earth Science Organizations**, an online map that offers clickable links to Earth Science Week events taking place at parks, museums, science and technology centers, university geology departments, local geological societies, and other nearby locations.

A page dedicated to **Geoscience Career, Scholarship, and Internship Resources** was added to the program web site. Another page of **Links** was added to provide external connections to sites provide resources on key topics such as chemistry, climate, drought, earthquakes, energy, floods, hurricanes, landslides, sinkholes, soil, tornadoes, tsunamis, volcanoes, and wilderness fires.

AGI once again offered an **Earth Science Week Webcast** in 2013. The free webcast, entitled “Introduction to Earth Science Week,” provided an overview of learning activities, instructional materials, career resources, upcoming events, networking opportunities, contests, videos, and other programs available. The roughly eight-minute tutorial includes a wealth of online links, which viewers can click during the presentation to review available resources. Additional webcasts are planned.

To maximize Earth Science Week teachers’ access to education resources in both Spanish and English, over 70 lessons, posters, fact sheets, and other materials have been compiled in the **SEED Earth Science Week Online Toolkit**. The web site, a partnership of Schlumberger Excellence in Educational Development (SEED) and AGI, was created in 2010 to provide educational materials, activities, and other resources for Spanish-speaking students and teachers, as well as English speakers, in U.S. and SEED network schools around the world. Resources developed by SEED, AGI, and other geoscience organizations include lessons, posters, and fact sheets.

Finally, Earth Science Week makes ample use of online social networking to reach new audiences, especially young people. The program’s presence on **Facebook**, the Internet’s most popular networking site, includes an Earth Science Week Fan Page. In addition, web surfers are invited to receive geoscience news, resources, and opportunities by following Earth Science Week on **Twitter**. Tweets are sent frequently, whenever there is valuable news or information to share.

Newsletter

The monthly **Earth Science Week Update** newsletter reached over 7,700 teacher, student, and geoscientist subscribers in the past year, an increase of nearly 4 percent from the previous year. The electronic newsletter kept planners and participants up-to-date on Earth Science Week planning at the national level, encouraged participation in local areas, and provided news on geoscience topics of interest to participants.

Besides highlighting worthwhile resources, these monthly e-mail updates reinforce the belief that geoscience education is a priority throughout the year, not only during one week each October. It is little wonder that the e-newsletter remains one of the program’s

most popular online offerings, with 87 percent of survey respondents rating it as “useful” or “very useful.”

National Contests

AGI held three national contests in connection with Earth Science Week for the 12th consecutive year. The contests were designed to encourage K-12 students, teachers, and the general public to become involved in the celebration by exploring artistic and academic applications of Earth science. Earth Science Week expanded eligibility for its photo contest to allow international members of **AGI Member Societies** and **AGI International Affiliates** to participate.

The three contests continued to provide ways for many people to participate in Earth Science Week. Photos, art, and essays were submitted by hundreds of people. Each first-place winner received \$300 and a copy of AGI’s *The Geoscience Handbook*. Entries submitted by winners and finalists were posted online.

Briana Davis of Wichita, Kansas, won first place in the visual arts contest with a creative drawing of a satellite mapping service for cell phone users. Finalists were Ian Bench, Canyon Garner, Holly Gehman, and Swetha Karthikeyan. Students in grades K-5 made two-dimensional artworks illustrating the theme “**Making Maps Through the Ages.**” Libby Hinchliff of Hilton Head Island, South Carolina, won first place in the photo contest with a photo of her little sister using a map to find her way around the beach. Finalists were Kailee Loving, Adam Stibla, Kelly Yang, and Elaina Zodiatis. Submissions illustrated the theme “**Mapping My Community.**” Mason Port of Woodstock, Georgia, won first place in the essay contest with a paper on seismologists and engineers using fault maps to understand potential earthquake hazards. Finalists were Nisha Chandra, Sophie Gonzales, Amy Liao, and Vijeta Revankar. Students in grades 6-9 wrote essays of up to 300 words on this year’s theme, “**How Geoscientists Use Maps.**”

Earth Science Teacher Award

For the sixth consecutive year, AGI and the AGI Foundation offered the **Edward C. Roy, Jr. Award for Excellence in K-8 Earth Science Teaching**. Nathan Shotwell, a teacher at Holman Middle School in Glen Allen, Virginia, was 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.

Shotwell received a \$2,500 prize and an additional grant of \$1,000 to enable him to attend the National Science Teachers Association 2013 National Conference to accept the award during a reception hosted by the National Earth Science Teachers Association. 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, New York. The 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., a past president of AGI and strong supporter of Earth science education.

In addition to U.S. teachers, instructors throughout the United Kingdom were invited to compete for the prize. U.K. teachers were provided with detailed guidance on entering the competition by AGI and **The Geological Society of London**, a member society and Earth Science Week partner.

Events

Earth Science Week 2013 officially kicked off on Sunday, October 13, with **International EarthCache Day**. “EarthCaching” is a variation of a recreational activity known as geocaching, in which a geocache organizer posts latitude and longitude coordinates on the Internet to advertise a cache that geocachers locate using GPS devices. The activity has attracted over a million participants worldwide. When people visit an EarthCache, they learn something special about Earth science, the geology of the location, or how the Earth’s resources and environment are managed there. EarthCaching has been developed by the Geological Society of America, a major program partner.

On Monday, October 14, educators and young people were encouraged to explore “big ideas” as part of **Earth Science Literacy Day**. The AGI “Big Ideas of Earth Science” videos provided on YouTube and TeacherTube outline the core concepts of geoscience, as codified by the Earth Science Literacy Initiative with support from the National Science Foundation. To help teachers and students use the videos, the Earth Science Week web site offers dozens of related classroom activities.

One of the highlights of recent years’ Earth Science Week celebrations has been “**No Child Left Inside**” Day, an event that in its inaugural year engaged some 500 students in outdoor learning activities and received coverage by news media from NBC to NPR. In 2013, students and educators nationwide were invited to take part on the Tuesday of Earth Science Week, October 15. AGI’s online NCLI Day Guide provided everything needed to plan a local NCLI Day event. The free guide provided 17 outdoor activities, as well as detailed recommendations for creating partnerships, planning logistics, reaching out to the local media, and following up in the classroom.

Earth Science Week featured the return of a popular event on Wednesday, October 16, 2013. In partnership with the National Park Service (NPS), AGI helped conduct the fourth annual **National Fossil Day**, including activities and resources designed to celebrate the scientific and educational value of fossils, paleontology, and the importance of preserving fossils for future generations. NPS offered a web site full of educational resources and information designed specifically for students and teachers. On the site’s NPS Fossil Park Highlights page, visitors could find lesson plans developed to reflect state standards, fossil trading cards, videos about pygmy mammoths, special brochures, a virtual museum exhibit on dinosaurs, and more. NPS also held a National Fossil Day Art Contest. Unfortunately, the federal shutdown in October prevented paleontologists and park rangers from conducting what would have been the fourth annual National Fossil Day Celebration on the National Mall in Washington, D.C.

The Association for Women Geoscientists (AWG), an AGI Member Society, collaborated with AGI to organize the fifth annual **Women in the Geosciences Day** on Thursday, October 17, 2013. The special day offered adult geoscience professionals a chance to share the excitement and advantages of their careers with women of all ages, especially those early in their education. Educators invited female geoscientists to speak in the classroom. Women geoscientists took their daughters to work, visited local schools, and volunteered at science centers. AWG worksheets were included in Earth Science Week Toolkit to promote the event. In addition, Earth Science Week offered guidance to geoscience professionals in the form of “Visiting Geoscientists: An Outreach Guide for Geoscience Professionals,” an online handbook co-produced by AGI and the American Association of Petroleum Geologists’ Youth Education Activities Committee.

The second annual **Geologic Map Day**, held on Friday, October 18, 2013, promoted awareness of the study, uses, and importance of geologic mapping for education, science, business, and a variety of public policy concerns. The final event for the school week of Earth Science Week 2013 was hosted by the U.S. Geological Survey and the Association of American State Geologists in partnership with AGI, along with new partners including the National Park Service, the Geological Society of America, and Esri. Students, teachers, and the wider public tapped into the various educational activities, print materials, online resources, and public outreach opportunities for active participation. The Earth Science Week 2013 Toolkit contained a Geologic Map Day poster that provided geologic maps, plus step-by-step instructions for a related classroom activity. Additional resources for learning about geologic maps were featured on the new Geologic Map Day web page of the Earth Science Week site. USGS invited university-level students to enter its 2013 Best Student Geologic Map Competition. Activities nationwide, many led by state geologic surveys, also spurred learning in schools.

Citywide Celebration

Houston educators and organizations have been longtime supporters of Earth Science Week. That is why Earth Science Week 2013 featured the first city-specific celebration of the national geoscience awareness campaign, **Earth Science Week Houston** (October 13-19, 2013). AGI collaborated with the Houston Geological Society and the Houston Independent School District to extend and deepen the reach of the program throughout the Houston area this year with special events, educational materials, online resources, and activities in schools and other settings. To support the celebration, AGI donated an Earth Science Week 2013 Toolkit to each of HISD’s approximately 280 schools. District officials worked with teachers to use the materials in inspiring activities in the classroom. AGI also launched an Earth Science Week Houston web site to provide links to additional educational resources as well as events and contests for Houston students.

AGI Promotions

Earth Science Week promoted awareness of numerous AGI programs and resources of interest to Earth science educators, students, and enthusiasts, including the AGI International Affiliates program, the William L. Fisher Congressional Geoscience Fellowship, the annual Geosciences Congressional Visits Day, the Pulse of Earth Science web site, the Visiting Geoscientists, the Earth Science Organizations web site, the Faces

of Earth DVD, the This Is AGI video, the Why Earth Science video, GeoSpectrum, and EarthNotes.

Official Proclamations

Governors issued proclamations recognizing Earth Science Week 2013 in **18 states**: Alabama, Alaska, Arkansas, Connecticut, Delaware, Illinois, Indiana, Louisiana, Maryland, Missouri, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, Pennsylvania, South Dakota, and Tennessee. Seven of these states have issued “perpetual proclamations,” ensuring recognition of Earth Science Week every year.

Publicity and Media Coverage

AGI enlisted the support of a wide range of media in promoting awareness of Earth Science Week, resulting in unprecedented reach for promotional activities in 2013 and helping to lay a foundation for more coverage in years to come.

Internet: Earth Science Week activities were highlighted on hundreds of Internet pages besides the official event site. Program partners and promoters USGS, AAPG, AASG, GSA, AGU, SME, AAG, AMS, GSL, AWG, SEG, SPE, NSTA, NESTA, NAGT, SSSA, NASA, NOAA, National Park Service, Bureau of Land Management, Consortium for Ocean Leadership, The NEED Project, Critical Zones Observatories, UNAVCO, Esri, Rite in the Rain, IRIS, ExxonMobil, SEED, Switch Energy Project, Houston Geological Society, Hands on the Land, Live Science, Austin Earth Science Week Consortium, Archaeology.com, Geoscience Australia, Newsroom America, GeoCommunity, Utah Coalition for Educational Technology, The Fossil Forum, On Circulation, TeacherLink, Geology.com, Universe Today, Digital Journal, Yes Network, Enviro-Equipment Inc., Utah Geological Survey, Big Bend Now, Prairie Research Institute, Tennessee Department of Environment and Conservation, University of Nevada, Knovation, Kansas Geological Survey, Desert Research Institute, In the Capital, DCist, Black Hills to Go, Tech4Learning, Geography Education, e! Science News, Geophysical Society of Houston, Alpha Galileo Foundation, New South Wales Division of Resources and Energy, SpiceWorks, Before It’s News, Science 2.0, All Voices, Biodiversity Heritage Library, Dreams and Nightmares blog, About.com, and Geocaching.com featured information promoting that organization’s events and publicizing the celebration. Earth Science Week was mentioned on hundreds of web sites, social networks, and blogs.

Television/Radio: Earth Science Week was covered by television stations across the country, including NBC 4 Southern California, NBC WSAV 3 in Georgia, NBC News Channel 2 WKTV in New York, NBC 7KWWL in Iowa, NBC WRCB TV in Tennessee, CBS WDEF 12 News, NewsChannel 5 WTVF in Tennessee, CW WABI TV 5 in Maine, and WGBY 57 in Massachusetts. In addition, the event was covered by radio stations such as KCSR AM 610 in Nebraska and University of New Mexico KUNM Radio.

Print/News Media: AGI distributed press releases to hundreds of newspapers, magazines, and other print media outlets. Many local and national publications ran items on Earth Science Week (for examples, see Section 2). AGI staff also wrote articles for the American Geophysical Union’s *Eos* magazine and the National Earth Science Teacher

Association's *The Earth Scientist* magazine. The articles highlighted Earth Science Week activities and theme.

Earth Science Week news and events were covered by major national and international news organizations such as *Scientific American*, *The New York Times*, *The Washington Post*, *The Chicago Tribune*, *The Seattle Times*, *SEEN Magazine*, *OldWest NewWest*, *International Mining*, *Dominica News*, and *National Geographic*. Coverage of Earth Science Week programs and activities was provided by local news organizations such as *Illinois Times* of Illinois; *Columbus Dispatch* of Ohio; *Rome Observer* of New York; *The Press-Enterprise* in California; *Kennebec Journal* of Maine; *Southern Maryland News Net* of Maryland; *Canon City News* of Colorado; *The Gainesville Sun* of Florida; *Quay County Sun* of New Mexico; *Hot Springs Star* of South Dakota; *All Alabama* in Alabama; *New Market Press* of Vermont; *The Paris News* of Texas; *Hudson Hub Times* of Ohio; *The Hays Daily News* of Kansas; *Cedar Valley Business* of Iowa; *DC Chieftain* of New Mexico; *Casper Journal* of Wyoming; *Sierra Sun Times* of California; *Nevada Today* of Nevada; *San Diego Union-Tribune* of California; *Canon City Daily Record* of Colorado; *Green Mountain Outlook* of Vermont; *Arizona Journal* of Arizona; *Daily Journal* of Ohio; *Star Herald* of Nebraska; *Knoxville News Sentinel* of Tennessee; *Rapid City Journal* of South Dakota; *The News-Reporter* of Georgia; *Washington State Geology* of Washington; *Missoulian* of Montana; *Merced Sun-Star* of California; *Akron Beacon Journal* of Ohio; *Baylor Lariat* of Texas; *The Eagle* of Vermont; *Hays Post* of Kansas; *The Republic* of Indiana; *Montana Kaimin* in Montana; *Rancho Santa Fe Review* of California; and *Starkville Daily News* of Mississippi.

Some 50,500 copies of the Earth Science Week 2013 poster, featuring a geoscience learning activity in addition to promotional content, were distributed as inserts in publications carrying articles about the event, such as *The Earth Scientist*, *GSA Today*, *AAPG Explorer*, and AGI's own *Earth* magazine.

External Evaluation of Earth Science Week 2013: Key Findings

Following the event, AGI secured an independent contractor, PS International, to complete a formal external evaluation of Earth Science Week 2013, as it has in past years. Some 7,800 program participants were invited to participate in a survey in the closing months of 2013, with a valid response rate of 3.1 percent.

Results were overwhelmingly positive. Comparing participation last year and plans for next year, 84 percent of survey respondents said they anticipate either increasing or maintaining level participation. Despite this vote of confidence for the program, it is worth noting that this figure is down from 90 percent the previous year. This decline, unusual in the program's history, was attributed largely to factors related to the federal shutdown, which coincided with Earth Science Week 2013. Survey respondents repeatedly cited budget cuts, furloughs, and the inability to access key government web sites as obstacles to participation.

A large majority of participants (87 percent) said Earth Science Week offers opportunities for teaching and promoting Earth science that they wouldn't have otherwise. "[ESW] seems to raise awareness of the Earth sciences on a national level," noted one participant. Similarly, 86 percent said program resources and activities are "very" or "somewhat" important to educating students and others about Earth science. "Great selection of classroom materials to choose from," a respondent remarked.

Most respondents find Earth Science Week and related resources highly useful, with 78 percent rating the program's overall usefulness as "excellent" or "good." When respondents were asked to rate 20 key items from the Earth Science Week 2013 Toolkit and the program web site, all were rated "very useful" or "useful" by majorities of participants. Top-rated items were the Big Ideas activities, AGI classroom activities, ESW newsletter, Geologic Map Day activity poster and web page, NASA mapping materials, National Park Service geologic map resources, Esri GIS poster, NOAA GPS materials, and the ESW poster and calendar.

Participants said they were very active during Earth Science Week. Fifty-nine percent said they conducted a "major" activity. Moreover, many reported specific activities that were highly active. For example, 94 percent reported activities categorized as "most active" (e.g., field trips and outside lessons), "active" (e.g., external speakers and open house discussions), or "somewhat active" (e.g., lesson plans and kit distribution).

Asked how Earth Science Week might be improved, the largest share of respondents (31 percent) advocated additional program materials and activities. Additional suggestions included increasing partnerships and promotions. AGI uses evaluation findings to improve the program.

Earth Science Week Sponsors

United States Geological Survey
National Aeronautics and Space Administration
National Park Service
American Association of Petroleum Geologists Foundation
American Geophysical Union
Society for Mining, Metallurgy, and Exploration
National Geographic
Association of American State Geologists
Geological Society of America
Esri

Earth Science Week Contributors

American Association of Petroleum Geologists Foundation
American Geophysical Union
American Geosciences Institute
American Meteorological Society
Association for Women Geoscientists
Association of American Geographers
Association of American State Geologists
Consortium for Ocean Leadership
Critical Zones Observatories
Esri
ExxonMobil
Geological Society of America
Incorporated Research Institutions for Seismology
National Earth Science Teachers Association
National Energy Education Development Project
National Geographic Education
National Science Teachers Association
Rite in the Rain
SEED: Schlumberger Excellence in Educational Development
Society for Mining, Metallurgy, and Exploration
Society of Exploration Geophysicists
Society of Petroleum Engineers
Soil Science Society of America
Switch Energy Project
UNAVCO
U.S. Bureau of Land Management
U.S. Fish and Wildlife Service
U.S. Geological Survey
U.S. National Aeronautics and Space Administration
U.S. National Oceanographic and Atmospheric Administration
U.S. National Park Service
U.S. National Weather Service

Earth Science Week 2013 Events and Activities by State and Territory

Alabama

- The Alabama Geological Survey distributed 50 complimentary Earth Science Week Toolkits to science educators.
- Governor Robert Bentley proclaimed October 13-19, 2013, as Earth Science Week for the State of Alabama.
- The University of Alabama Museums hosted National Fossil Day events on October 16. Activities included specimen displays, demonstrations on 3-D scanning and printing of fossils, an unveiling of a new Elasmosaur, and a “Lost Worlds in Alabama Rocks” book signing by author Jim Lacefield.

Alaska

- The governor of Alaska issued a perpetual proclamation of Earth Science Week.
- The Alaska Public Lands Information Center planned fossil resources and hands-on activities for students and teachers.

Arizona

- The Earth Science Museum and Mesa Community College joined together to celebrate “Mapping Our World” at an Earth Science Day event. The event included a fossil dig, an opportunity for students to start their own mineral collections, and mapping activities.

Arkansas

- The governor of Arkansas proclaimed October 13-19 to be Earth Science Week.

California

- The California Geological Survey hosted a booth at the California Science Education Conference. With more than 1,800 science teachers in attendance, the survey passed out geological maps, earthquake hazard posters, videos, and Earth Science Week 2013 Toolkits. The survey also hosted a workshop explaining how rocks and mineral resources are applied to everyday life.
- To celebrate National Fossil Day, the Fossil Discovery Center of Chowchilla held museum tours, mock digs, and an Atlatl (spear) throwing competition. The museum also showcased fossils, and museum patrons learned about California native animals from Chaffee Zoo.
- The John D. Cooper Center held “Prehistoric Day” at the Santa Ana Zoo. Visitors saw and touched real fossils and artifacts from Orange County.

Colorado

- The Society for Mining, Metallurgy, and Exploration distributed Earth Science Week 2013 Toolkits at the Denver Gem & Mineral Show and the Colorado Association of Science Teachers’ Conference.
- The Geological Society of America encouraged geocachers around the world to participate in the International EarthCache Day.

- “Dinosaur Discovery Day” at Dinosaur Ridge celebrated Earth Science Week with guides stationed at the world-famous track site and other fossil sites along the Dinosaur Ridge Trail. Patrons experienced sifting for microfossils, dinosaur track painting, dinosaur digs, and rock and mineral identification.
- Dr. Steve Getty of Colorado College led an informative hike along Tunnel Drive in Canon City.
- The Colorado School of Mines distributed 50 Earth Science Week 2013 Toolkits to students to encourage their Earth science education.

Connecticut

- The Yale Peabody Museum of Natural History celebrated Earth Science Week and National Fossil Day with expert-led demonstrations and activities. Visitors examined minerals and fossils, watched stones being polished, and played games.
- The governor of Connecticut declared October 13-19 to be Earth Science Week.

Delaware

- The Delaware Geological Survey participated in the University of Delaware’s College of Earth, Ocean, and Environment’s “Coast Day” on October 8. The survey showcased rocks, minerals, fossil, maps, and research tools to over 6,000 attendees. The survey also provided information on Geologic Map Day on its web site as well as supplying 50 Earth Science Week Toolkits to teachers.

District of Columbia

- AGI made preparations to host an exhibit at the USA Science & Engineering Festival for Earth Science Week, including earthquake shake-table challenges and learning about energy.

Florida

- The Florida Geological Survey hosted “Scout Night,” an event designed to assist local scouts obtain their geology badge. The survey also held an Open House, allowing tours of the Florida State University Antarctic Marine Geology Research Laboratory, views of drill core samples, and demonstrations of geographic information systems (GIS) as applied to geologic maps and hazards.
- Paynes Creek Historic State Park celebrated National Fossil Day with fossil digs and a lecture on the area’s geologic history.

Georgia

- EEinGeorgia (Environmental Education in Georgia) promoted Earth Science Week and National Fossil Day to science educators throughout the state.
- Mason Port of Woodstock won the Earth Science Week Essay Contest.
- The WSAV3 News Station promoted Earth Science Week on its web site.
- Iris Garden Club celebrated No Child Left Inside Day with activities for students at Washington-Wilkes Primary School.

Hawaii

- The Hawaii Environmental Education Alliance promoted Earth Science Week 2013 among educators throughout the state.

Idaho

- The Idaho Geological Survey operated a booth at the Idaho Science Teachers Association annual meeting to distribute copies of the Earth Science Week 2013 Toolkit, brochures on state geology and minerals, the new state geologic map, and other educational resources.

Illinois

- The National Fossil Day celebration at the Illinois State Museum featured a “Changes: Dynamic Illinois Environments” exhibition and “Play Museum.” Children examined fossils under a video microscope.
- The governor of Illinois issued a perpetual proclamation of Earth Science Week.
- Fifth-graders at St. Joseph School enjoyed a “Fun with Rocks!” program, hosted by geologist Steve Padovani.

Indiana

- The governor of Indiana declared October 13-19 to be Earth Science Week and posted the proclamation alongside a large exhibit on geologic mapping at the Indiana University library.

Iowa

- BMC Aggregates’ Morgan Quarry kicked off Earth Science Week with a “Sunday at the Quarry” event. Participants collected rocks, fossils, and minerals with the Gem and Mineral Society and took a Geology Tour of the Quarry. BMC Aggregates also distributed Earth Science Week 2013 Toolkits to educators.
- Four Iowa children who discovered a mastodon tooth fossil while playing in a creek were guests of honor at the Upper Iowa University “Iowa Rocks” meeting for National Fossil Day.

Kansas

- The Kansas Geological Survey ordered 100 toolkits for teachers and educators.
- Briana Davis of Wichita won the Earth Science Week Visual Arts Contest.
- The Stenberg Museum of Natural History in Hays unveiled a new sea turtle fossil at its National Fossil Day celebration.
- Fort Hays State University hosted many activities throughout October to celebrate Earth Science Week. Festivities included a photography contest, paleontology presentations, geocaching activities, and an informative career lecture.

Kentucky

- In celebration of National Fossil Day, Big Bone Lick State Park held a “Salt Festival.” Visitors participated in numerous hands-on demonstrations and activities, including flint knapping, salt making, weaving, and storytelling.

Louisiana

- The governor of Louisiana declared October 13-19 to be Earth Science Week.

Maine

- Over 1,000 students visited the Maine State Museum for Earth Science Day. Activities included energy exploration and panning for gold.
- The L.C. Bates Museum held a National Fossil Day tour of the museum. The museum featured a collection of dinosaur fossils, and participants created their own “fossils” to celebrate.

Maryland

- The Calvert Marine Museum celebrated National Fossil Day with a bone dig, a scavenger hunt, crafts, and presentations.
- The Maryland Geocaching Society took part in International EarthCaching Day.
- The governor of Maryland declared October 13-19 to be Earth Science Week.

Massachusetts

- The Harvard Museum of Natural History featured an “Arthropods: Creatures that Rule” exhibit. Museum volunteers answered visitor questions about the dozens of fossil specimens.
- The Oak Bluffs Library hosted a show-and-tell event for National Fossil Day. Participants from the Martha’s Vineyard Museum, Woods Hole Oceanographic Institution, and the library displayed materials and led discussions.
- The Department of Geosciences at the University of Massachusetts hosted a grand opening of the Rausch Mineral Gallery.

Michigan

- Visitors at the Michigan State University Museum explored the Hall of Evolution and talked with university students about fossils, preservation, and research methods. The museum also hosted guided tours and a Junior Paleontologist Scavenger Hunt.
- Grand Valley State University encouraged participation in Earth Science Week and promoted the message of Earth science understanding.

Minnesota

- The Duluth Children’s Museum held activities in celebration of National Fossil Day, including fossils digs, dinosaur bingo, fossil-related arts and crafts, and a showcase of fossils from Minnesota and Wyoming.
- On National Fossil Day, visitors at the Science Museum of Minnesota learned about Twin Cities fossils, fossil fish, fossil coprolites, microfossils, and a recently discovered fossil saber-toothed cat from Minnesota.

Mississippi

- The Dunn-Seiler Geology Museum at Mississippi State University sponsored an art-and-story contest in conjunction with National Fossil Day. K-12 students were encouraged to creatively represent, either through art or creative writing, a mammoth that once roamed the state.
- The Starkville Daily News featured an article highlighting Geologic Map Day.

Missouri

- The “Great Central U.S. ShakeOut” was held on October 17, during Earth Science Week, to promote preparedness and safety during earthquakes.
- The Missouri Geological Survey celebrated National Fossil Day with special exhibits and activities at the Edward L. Clark Museum of Missouri Geology. Visitors received a small Crinoid stem fossil, the official state fossil. For Geologic Map Day, survey staff promoted awareness of the study, uses, importance of geologic mapping for education, science, business, and public policy concerns. A geologist from the Missouri Geological Survey took eighth-grade science students on a field trip to Shaw Nature Reserve to explore geomorphology features and Earth system interactions.
- The governor of Missouri declared October 13-19 to be Earth Science Week.

Montana

- The Museum of the Rockies held a “Fossil Festival” to celebrate National Fossil Day. Children explored ways that paleontologists work, learned about Earth’s history and ancient plants and animals, and discovered how to protect fossils through hands-on activities.
- The University of Montana’s Paleontology Center hosted activities including fossil identification, a lecture on climate change by Dave Trexler, and a movie premier of “The Day the Mesozoic Died.”

Nebraska

- Agate Fossil Beds National Monument celebrated National Fossil Day with hands-on activities for students. The National Park Service’s senior curator of natural history, Greg McDonald, gave a talk about mammal fossils. The Monument’s trails were also available to visitors for exploration of sites where fossils were found in the late 1800s.

Nevada

- For National Fossil Day, the Nevada State Museum in Las Vegas presented “Sloths: Strangest Members of Nevada’s Ice-Age Fauna,” a discussion hosted by the National Park Service.
- The governor of Nevada issued a perpetual proclamation of Earth Science Week.
- The Nevada Bureau of Mines and Geology held its 15th annual Earth Science Week field trip. Participants saw how scientists use geologic maps to understand history of the area, assess earthquake hazards, and evaluate the potential for mineral resources.

New Hampshire

- The New Hampshire Geological Survey promoted Earth Science Week among residents and community members.

New Jersey

- The New Jersey Geological and Water Survey distributed Earth Science Week 2013 Toolkits and Geologic Map Day materials to teachers. Survey staff members celebrated by holding a “geo-photo” scavenger hunt and a “geo-sample” identification contest, a parking-lot cleanup, and a plant swap.

New Mexico

- The New Mexico Bureau of Geology hosted its annual public radio spots during Earth Science Week, in collaboration with KUNM radio. The radio broadcasts, focusing on geologic mapping, were heard by thousands of citizens. The bureau also opened its offices to the public, offering activities including geologic and aquifer mapping displays and three-dimensional displays of faults, folds, and rock formations.
- The Mesalands Community College Dinosaur Museum and Natural Science Laboratory presented a special lecture for National Fossil Day.

New York

- The Museum of the Earth trained visitors to become Junior Paleontologists and celebrated the Eurypterid, New York’s state fossil.
- The Paleontological Society hosted a National Fossil Day celebration at Fort Stanwix National Monument. Participants made fossil casts, worked on a geologic timeline, and become Junior Paleontologists.

North Carolina

- The Discovery Place’s KidScience in Charlotte celebrated National Fossil Day. Visitors learned about preserved remains of organisms from the past from the museum’s extensive fossil collection.
- Enviro-Equipment Inc. donated Earth Science Week 2013 Toolkits to the North Carolina Science Teachers Association.
- Local geocachers celebrated International EarthCache Day, the first day of Earth Science Week.

North Dakota

- The governor of North Dakota issued a perpetual proclamation of Earth Science Week.
- The Fargo Public Library hosted a free, hands-on session presented by a guest geologist from the Geosciences Department of North Dakota State University.

Ohio

- The Ohio Statehouse hosted an Earth Science Week Fossil Tour, a geology tour of the statehouse with special guests from Ohio State University's Orton Geological Museum and the Ohio Department of Natural Resources' (ODNR) Division of Geological Survey. Participants learned from these experts about the "Building Stones of Capital Square."
- ODNR Division of Geological Survey staff led hikes at four eastern state parks, highlighting the Mississippian Black Hand Sandstone Formation. Geologists also led a "fossil hunt" hike at Hueston Woods State Park to find fossil specimens.

Oklahoma

- The governor of Oklahoma issued a perpetual proclamation of Earth Science Week.
- The Oklahoma Science Teachers Association promoted Earth Science Week and its resources to teachers and educators throughout the state.

Oregon

- The governor of Oregon declared October 13-19 to be Earth Science Week.
- The Oregon Department of Geology and Mineral Industries hosted an open house featuring maps, tools of the trade, and a question panel.

Pennsylvania

- The Pennsylvania Earth Science Teacher Association promoted National Fossil Day among educators statewide.
- The State Museum of Pennsylvania held an event for National Fossil Day. Visitors learned about the Pennsylvania state fossil, the trilobite *Phacops rana*.
- The governor of Pennsylvania declared October 13-19 to be Earth Science Week.

Puerto Rico

- To celebrate Earth Science Week, the Puerto Rico Seismic Network organized educational activities including the "Great Puerto Rico ShakeOut" for educators and students throughout October.
- Earth Science Week 2013 Toolkits were distributed to science educators and outreach contacts in Puerto Rico.
- Dozens of students from Caguas contributed submissions to the 2013 Earth Science Week essay and photo contests.

Rhode Island

- The Museum of Natural History in Roger Williams Park celebrated National Fossil Day with special fossil events and activities. Events at the museum included activity stations, fossil-themed scavenger hunts, and craft activities. Visitors brought fossils to be identified by the museum's paleontology curator.
- The Rhode Island Geography Education Alliance promoted Earth Science Week among residents and community members.

South Carolina

- South Carolina State Museum visitors were shown how fossils are prepared for display.
- Libby Hinchliff of Hilton Head Island won the Earth Science Week 2013 Photography Contest.

South Dakota

- The governor of South Dakota issued a perpetual proclamation of Earth Science Week.
- To celebrate National Fossil Day, Badlands National Park offered interactive programs for students through a distance-learning videoconference.
- The Journey Museum in Rapid City featured Earth science activities and demonstrations in the facility's geodome.
- The Museum of Geology at the South Dakota School of Mines and Technology celebrated National Fossil Day by inviting the public to bring in rocks and fossils to be identified by experts.

Tennessee

- The governor of Tennessee declared October 13-19 to be Earth Science Week.
- The Tennessee Division of Geology distributed 90 Earth Science Week Toolkits to educators.
- The McClung Museum of Natural History and Culture hosted a "Can You Dig It?" event highlighting fossil exploration for National Fossil Day.

Texas

- The Austin Earth Science Week Consortium held a career educational event for middle school students. Earth science professionals gave presentations about their careers, and students participated in hands-on activities through various exhibits. Students learned about careers in petroleum, solar energy, industrial mining, groundwater and surface water resources, weather and climate, archeology, astronomy, and environmental science.
- The Mineral Wells Area Chamber of Commerce hosted its annual "Crazy Fossil Dig" event in celebration of National Fossil Day.
- The Houston Geocaching Society celebrated International EarthCache Day.
- The Houston Geological Society held various events for Earth Science Week with various partners in the Houston area. HIS Inc. hosted a "Geoscience Day" for middle-school Girl Scouts and Boys Scouts of America with workshops including hands-on demonstrations on oil and gas formation as well as methods used to find and extract these valuable resources. The Annual Family Energy Festival of the Houston Museum of Natural Science offered hands-on activities for children and guided tours of the Wiess Energy Hall and the Paleontology Hall. The Downtown Houston Festival by Consumer Energy Alliance hosted "Energy Day," providing free tours of downtown building stones. The Houston Gem and Mineral Society sponsored a field trip to Whiskey Bridge, sight of the Crockett Formation.
- Visitors joined paleontologists at the Texas Memorial Museum to celebrate National Fossil Day and learn about fossils and paleontology.

- A “Family Fossil Fun Day” was hosted to celebrate National Fossil Day in Ladonia.
- Sul Ross State University engaged students all week with activities including an Earth science book cart, a geocaching race, and a mapping treasure hunt.

Utah

- More than 800 students visited the Utah Geological Survey for educational activities such as panning for minerals, experimenting with erosion and deposition in a stream, exploration of the rock cycle, identification of minerals, and researching fossils.
- State Paleontologist James Kirkland featured the paleontology of Willard County on the National Fossil Day feature “Paleozoic Partner Highlight.” “Teacher Trilobite Day” was held in Delta to help teachers further their understanding of the area’s paleontology.

Vermont

- The Vermont Geological Survey promoted Earth science activities and Geologic Map Day among educators.
- The Vermont State House celebrated the bedrock geologic map of the state for Geologic Map Day.
- The Omya marble quarry conducted bus tours of the facilities and allowed children to mechanically erode large rocks.

Virginia

- The Virginia Department of Mines, Minerals and Energy premiered the movie “Switch” and hosted a paleontology presentation by an emeritus professor on National Fossil Day.
- Patrick Henry Community College hosted many events throughout the week both on campus and off. The public was invited to view a display from the Virginia Museum of Natural History, take a hike on a nature walk, attend a lecture by the paleontology curator of the Virginia Museum of Natural History, and enter a Recycled Art Sculpture Contest.
- Glasgow Middle School in Alexandria featured a display case to show students and teachers the contents of the Earth Science Week 2013 Toolkit and other Earth science resources.

Washington

- To honor the Pacific Northwest’s geologic and biologic past, the Stonerose Interpretive Center hosted its third annual National Fossil Day celebration. Events included an open house, fossil identification courses, tours of the fossil collection, presentations, and staff-led digs.
- Chief Hazard Geologist Tim Walsh presented a lecture on how glacial activity changed the landscape of Washington parks.

West Virginia

- The Clay Center celebrated National Fossil Day by inviting visitors to learn about fossils at the center, showcasing their new exhibit, “Be the Dinosaur.” Many hands-on activities used computer simulation to show families the environments dinosaurs inhabited and the excavation methods used to acquire fossils.

Wisconsin

- The Wisconsin Geological and Natural History Survey promoted Earth Science Week among residents and community members.

Wyoming

- The University of Wyoming’s Geological Museum celebrated National Fossil Day by inviting the public to research bones and fossils and learn about a paleontologist’s method for preparing fossil specimens.
- The Tate Geological Museum offered “Fossil Road Show,” a program encouraging the public to bring in rocks, minerals, and fossils from personal collections to be professionally identified. Other activities included a laboratory tour, crafts, art exhibitions, and free National Park Service Junior Ranger books.

International Events

Australia

- Geoscience Australia's Earth Science Week 2013 celebrated the theme of "Mapping Our World." Geoscience Australia promoted its annual Top Geoshot photography competition and participation in International EarthCache Day.

Canada

- EarthCache events were held in Canada as part of Earth Science Week.

Germany

- German citizens participated in EarthCache events as part of Earth Science Week.

New Zealand

- EarthCache events were held in New Zealand during Earth Science Week.

Trinidad and Tobago

- A volcanologist from the University of the West Indies Seismic Research Centre helped promote awareness of hazards for Earth Science Week.

United Kingdom

- UK Earth Science Week, hosted by The Geological Society of London was celebrated October 7-13.
- The Geological Society of London featured a short webcast on the "fossiliferous" limestone in London's Green Park Station.
- The Royal Society Summer Science Exhibition showcased science institutions across the UK. The exhibition hosted 20 exhibits, where visitors spoke with scientists about their research and attended talks and panel discussions.
- EarthCache events were held throughout the UK during Earth Science Week.

Because of the large and increasing number of news clippings citing Earth Science Week activities and resources, the print edition of the print report no longer includes clippings. To view the hundreds of press releases and news items promoting awareness of Earth Science Week each year, please go online to www.earthsciweek.org/highlights. Thank you for helping us in our efforts to conserve resources and protect the environment.