

Earth Science Week 2019:

“Geoscience Is for Everyone”

October 13-19, 2019

Executive Summary

Highlights Report: Earth Science Week 2019

The American Geoscience Institute’s 22nd annual Earth Science Week celebrated the theme of **“Geoscience Is for Everyone.”** The program promoted both the inclusive potential and the importance of the geosciences in the lives of all people.

Reaching People

Earth Science Week 2019 reached more than **50 million people** with programs, information, education resources, and activities relating to the geosciences, mostly through direct outreach and coverage in news media online. The program’s reach remained widespread, as people in every U.S. state and more than 26 countries directly participated in events and activities.

Earth Science Week offered a way to participate for virtually anyone. Millions of K–12 students are estimated to have taken part in hands-on, investigative learning activities as part of Earth Science Week, based on usage of the Earth Science Week Toolkit and the program website (www.earthsciweek.org). Many people learned about geoscience in universities, government agency facilities, parks, museums, science centers, and other settings. Hundreds actively participated in the program’s long-running visual arts, video, essay, and photography contests. And many more engaged with Earth Science Week through program innovations that began in 2019.

Program Innovations

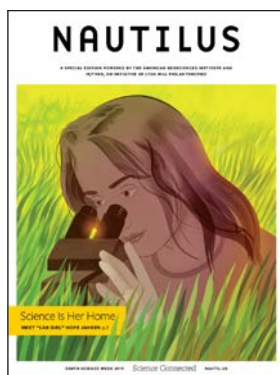
Earth Science Week 2019 provided the occasion for several programs:

- To promote 2019’s theme, the program website debuted a **Diversity, Equity, and Inclusion Strategies** page for educators. The page shows how inclusive activities can be geared to serve the needs of all learners — regardless of age, background, or identity — allowing them to participate fully in the learning process. A selection of strategies designed to support inclusive activities is organized under headings given in Appendix D of the Next Generation Science Standards.
- Educators were invited to take part in a free webinar titled **“Operationalizing the Earth Science Week Theme in K–12: Geoscience Is for Everyone!”** The NGSS-ESS (Next Generation Science Standards–Earth System Science) Working Group showcased efforts around diversity and inclusion in the geosciences, with an emphasis on K–12 connections and resources.



A 2019 Earth Science Week Photography Contest finalist entry by Erika Komp.

- Lyda Hill Philanthropies became a major Earth Science Week partner in 2019, supporting the launch of an initiative to share the inspiring stories of leading women geoscientists named **IF/THEN Ambassadors**. To encourage the participation of young women in science, technology, engineering, and math (STEM) fields, Earth Science Week launched a new website featuring profiles of IF/THEN Ambassadors and educational activities linked to their work as geoscientists.



- Earth Science Week partnered with **Nautilus**, a respected science magazine, to advance the 2019 theme. Nautilus, which hosts AGI's EARTH online news channel, published a special edition of its magazine, which was disseminated in the Earth Science Week 2019 Toolkit. Highlighting the theme of "Geoscience Is for Everyone," the special edition promoted the launch of the new website on IF/THEN Ambassadors. AGI and its partners also disseminated IF/THEN materials through the Earth Science Week website, the Nautilus Women in Science and Engineering Channel, and the AGI/Nautilus EARTH channel, as well as additional events and online outlets.

- The eighth annual **Geologic Map Day** held on Friday, October 18, 2019, promoted awareness of the study, uses, and importance of geologic mapping for education, science, business, and a variety of public policy concerns. The Earth Science Week 2019 Toolkit contained a Geologic Map Day poster that provided geologic maps, plus step-by-step instructions for a related classroom activity dealing with color blindness and geologic mapping. Additional resources for learning about geologic maps were featured on the Geologic Map Day web page. Activities nationwide, many led by state geologic surveys, spurred learning in schools.

- The **American Geophysical Union** helped participants gear up for Earth Science Week's 2019 theme with an invitation to take part in a webinar on science careers and the LGBTQ community. In addition, the Earth Science Week 2019 Toolkit included an AGU poster celebrating women in Earth and space science over the past century.
- Longtime program partner **ExxonMobil** provided relevant contributions. During summer 2019, ExxonMobil Exploration and AGI partnered to hold a five-day Earth Science/STEM Teacher Leadership Academy in Houston and provided K-8 teachers with Earth science content, hands-on activities, resources and field experiences. In addition, ExxonMobil's learning activity in the program calendar featured a "Geoscience Reading Is for Everyone" lesson that emphasized inclusive reading strategies.



Participant Maria Rodriguez poses at the 2019 National Fossil Day event at the Grand Canyon.

Image credit: AGI, background by NPS

- Earth Science Week celebrated **National Fossil Day** in a special way. In partnership with the National Park Service, Earth Science Week staff helped to conduct a major National Fossil Day event at Grand Canyon National Park. Staff educated fossil enthusiasts and other visitors with a green screen-equipped "Paleontology Play Space" photo booth. The event was designed to celebrate the scientific and educational value of fossils, paleontology, and the importance of preserving fossils for future generations.

Connections Online

Receiving over 489,000 views in 2019, the **Earth Science Week website** was accessed by users in 220 nations worldwide, according to Google Analytics. Within the site, Classroom Activities pages received over 329,000 views, and contests pages received over 26,000 views. The Earth Science Week website features resources too numerous to list, including Big Ideas videos, a national clickable Map of Earth Science Organizations, and the program's promotional video and quarterly webcasts.

The monthly **Earth Science Week Update e-newsletter** reached some 5,000 teacher, student, and geoscientist subscribers. The newsletter kept planners and participants up to date on program planning at the national level, encouraged participation in local areas, and provided news on geoscience topics of interest to participants.

Finally, Earth Science Week used online social networking to reach new audiences, especially young people. The program's presence on **Facebook**, the Internet's most popular networking site, included an Earth Science Week Fan Page. In addition, web surfers were invited to receive geoscience news, resources, and opportunities by following Earth Science Week on **Twitter**. The number of people learning about Earth Science Week through social media remained impressive in 2019, with the program attracting more than 3,300 Facebook followers and over 226,000 Twitter impressions.



The winning entry in the 2019 Earth Science Week Visual Arts Contest, by Elizabeth Xu.

Print Materials

Even in today's high-tech learning environments, educators also repeatedly report that they need print materials to use with students. AGI answered this need



The winning entry in the 2019 ESW Photography Contest, by Tonya Boone.

once again by assembling some **10,000 Earth Science Week Toolkits**, virtually all of which were distributed to teachers and geoscientists before the end of 2019. The kit featured AGI's annual Earth Science Week poster, education and outreach flyer, and school-year calendar showcasing geoscience classroom investigations and important dates of Earth science events. Additionally, program partners' contributions made the 2019 kit one of the richest in recent years, containing more than 30 educational items on a wide variety of geoscience topics.

Program partners assisted in distribution. Fifteen AGI member societies requested complimentary Earth Science Week Toolkits for distribution, and 25 state geological surveys requested complimentary kits for distribution. As in past years, thousands of kits also were distributed through program partners including USGS, NASA, the National Park Service, and the AAPG Student Chapters Program. 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.

Media Coverage

Earth Science Week 2019 news, events, programs, and resources were covered by **national news organizations** such as AARP; App.com, part of the USA Today Network; American Geophysical Union; Archaeological Institute of America; *AAPG Explorer*; CBS News; *Eos Earth & Space Science News* of the American Geophysical Union; FossilEra; GeoCaching.com; Geological Society of America; iHeart Radio; NASA; National Park Service; National Parks Traveler; National Science Collections Alliance; Newstral; NPR National Public Radio; Paleontological Society; Public Library of Science PLOS Blogs; Society of Exploration Geophysicists; TeachersFirst; Think GeoEnergy; WiredFocus Tech News; and Yahoo News.



2019 Earth Science Week poster by K. Cantner.

Additionally, the event was covered by **international news organizations** including Agenparl in Italy; Before It's News of the United Kingdom; Big Stamp of Approval in England; *Bharath Gyan* of India; Biotecnika Blog of Biotecnika Edulabs, Bangalore, Noida, Pune, Kolkata & Chennai, India; Bishop's University of Quebec, Canada; *The Daily Mirror* of the United Kingdom; Diamond of Oxfordshire, England; Earth Science Week Japan in Shizuoka; Geological Society of London; *Ghana Business News*; Ghana News Agency; Government of Saint Vincent and the Grenadines; *The Guardian* of Great Britain; *Iran Front Page* of Iran; *Isle of Wight Observer* of the United Kingdom; *Mirage News* of Australia; *The National Tribune* of Australia; News Locker; The University of British Columbia in Canada; and Wikipedia.

Geoscience Community

AGI organizes Earth Science Week as a service to member societies, with generous help from partners that provide funding, contribute materials, organize events, and publicize the program: American Association of Petroleum Geologists; American Association of Petroleum Geologists Foundation; American Geophysical Union; American Geosciences Institute; American Institute of Professional Geologists; American Meteorological Society; AmericaView; Archaeological Institute of America; Association for Women Geoscientists; Association of

American State Geologists; CLEAN (Climate Literacy and Energy Awareness Network); Critical Zones Observatories; EarthScope; Energy Day (CEE/CEA); ExxonMobil; Geological Society of America; Geothermal Resources Council; IF/THEN (Lyda Hill Philanthropies); Incorporated Research Institutions for Seismology; Keystone Policy Center; Minerals Education Coalition; National Earth Science Teachers Association; Nautilus; Nutrients for Life Foundation; Schlumberger; Science Friday (National Public Radio); Society for Mining, Metallurgy, and Exploration; Society of Exploration Geophysicists; Soil Science Society of America; TERC; UNAVCO; U.S. Bureau of Land Management; 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; Water Footprint Calculator/Grace Communications Foundation.

For additional details, please see the full *Earth Science Week 2019 Highlights Report*, visit online at www.earthsciweek.org, or contact staff at info@earthsciweek.org.

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