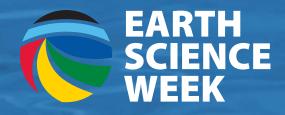
Earth Science Week 2021: Water Today and for the Future

October 10-16, 2021 Highlights Report







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Highlights Report

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See Our News Coverage

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 visit online at www.earthsciweek.org/highlights. Thank you for helping us in our efforts to conserve resources and protect the environment.

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Earth Science Week 2021 Photography Contest entry by Alex Xu.

Introduction

Held October 10-16, 2021, the 24th annual Earth Science Week celebrated the theme of "Water Today and for the Future." The 2021 event focused on the importance of learning how to understand, conserve, and protect water, perhaps Earth's most vital resource. Earth Science Week 2021 learning resources and activities will engage young people and others in exploring the importance of water — and water science — for living things, Earth systems, and the many activities that people undertake. Individuals of all backgrounds, ages, and abilities will be engaged in building understanding of water's role in timely topics including energy, climate change, the environment, natural hazards, technology, industry, agriculture, recreation, and the economy.

AGI organizes Earth Science Week as a service to member societies, with generous help from partners that provide funding, donate materials, organize events, and publicize the event. Sponsors in 2021 included:

- U.S. Geological Survey (USGS);
- American Association of Petroleum Geologists (AAPG) Foundation;
- National Park Service;
- National Aeronautics and Space Administration (NASA);
- Geological Society of America (GSA);
- AmericaView;
- American Geophysical Union (AGU);
- Society for Mining, Metallurgy and Exploration (SME);

- Society of Exploration Geophysicists;
- Geothermal Rising;
- Water Footprint Calculator (Grace Communications Foundation);
- American Meteorological Society; and
- CLEAN (Climate Literacy and Energy Awareness Network).

In addition, Earth Science Week 2021 had four Global Sponsors:

- International Raw Materials Observatory;
- International Union of Geological Sciences;
- Irish Centre for Research in Applied Geosciences; and
- ExxonMobil.



Earth Science Week 2021 Photography Contest entry by Hafsa Firdaus.

Despite challenges arising from the global pandemic that began in 2020, Earth Science Week participation remained strong through 2021. People in all 50 states and the District of Columbia and over 13 countries participated in events and activities. The Earth Science Week website received more than 500,000 page views in 2021. In addition, 365 people across the country and around the globe actively participated in the program's visual arts, video, essay, and photography contests.

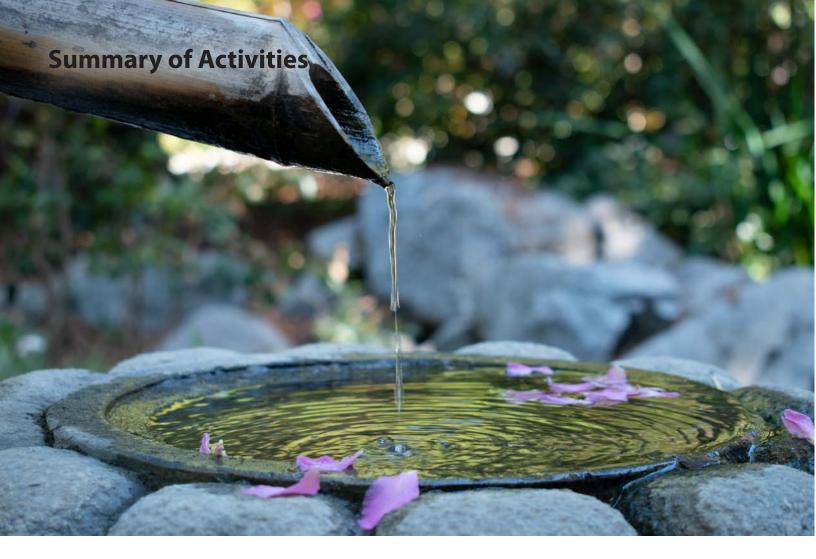
Earth Science Week 2021 included online events as well as in-person events in which educators taught Earth science activities in their classrooms and public outreach events in settings like parks, museums, and science centers. A detailed list of events can be found in the second half of this report; this list represents only events reported directly to and discovered by AGI, so please notify Earth Science Week staff if your participation is not listed.

Events also are highlighted on the Earth Science Week website (www.earthsciweek.org/highlights), which features press releases and other items by members of the geoscience community, as well as news media promoting Earth Science Week. Television and radio

news programs covered Earth Science Week on local stations in several states. Each year, Earth Science Week media in web, print, and broadcast media coverage, along with direct outreach by AGI, reach thousands of people through hundreds of organizations across the country and around the world.

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 2021 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.

Because of the large number of news clippings citing Earth Science Week activities and resources, the print edition of this report does not include such clips. To view the hundreds of press releases and news items promoting awareness of Earth Science Week each year, please visit online at www.earthsciweek.org/highlights. Thank you for helping us in our efforts to build geoscience awareness, conserve resources, and protect the environment.



Earth Science Week 2021 Photography Contest entry by Peter Lee.

Key Partnerships and Efforts

Earth Science Week's success depends on the collaboration of key partners. In 2021, AGI pursued signature initiatives and forged partnerships with numerous organizations (listed alphabetically):

Earth Science Week 2021 participants learned about the array of web resources for K–12 and college-level instruction offered by the **American Association of Geographers** (AAG). AAG's Center for Global Geography Education offers online modules for undergraduate courses in geography and related social and environmental sciences. In addition, GeoSTART helps middle- and high-school students develop geography, Earth science, and spatial thinking skills using NASA's Earth Observing Missions remote sensing imagery and related data.

Educators seeking teaching resources and other support were directed by AGI to the **American Association of Petroleum Geologists** (AAPG) and the AAPG Foundation, both longtime supporters of Earth Science Week. In addition, Earth Science Week promoted awareness of AAPG's Distinguished Lecturer and Teacher of the Year programs. AAPG student chapters received kits. Program participants were encouraged to participate in AAPG's International Meeting for Applied Geoscience & Energy. AAPG's "Water Quality, Dissolved Oxygen, and Phosphorus" activity was featured in the Earth Science Week 2021 activity calendar. Subscribers to AAPG Explorer received copies of the Earth Science Week 2021 poster in the magazine along with an article provided by AGI.

The American Geophysical Union (AGU) continued its role as a supporting program partner in 2021 with the contribution of funds as well as expertise. Earth Science Week's 2021 activity calendar featured AGU's "Visualizing Your Watershed" classroom activity. AGU's annual meetings, professional development workshops, programs for college students, print and electronic resources, and GIFT workshops were promoted through the Earth Science Week e-newsletter, website, and activity calendar.

Earth Science Week 2021 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. AIPG also provided a geologic-timescale bookmark for the educator kit.

The American Meteorological Society (AMS) promoted two teacher professional development programs focusing on the atmosphere and oceans. Project Atmosphere offered a comprehensive teacher professional development program based on studies in the atmospheric sciences. Project Ocean provided teacher professional development focusing on studies of the physical foundations of oceanography. In addition, AMS promoted its DataStreme professional development courses in weather, ocean, and climate science. AMS also provided a bookmark for the educator kit, connecting program participants with information about its Certified AMS Teacher professional development and related resources.

AmericaView, a longtime Earth Science Week partner, provided a "Rivers: Our National Water Resource" set of game instructions and pieces and a "Landsat: Viewing Water From Space" game poster for the 2021 educator kit. Supported by USGS and NASA, this material offered an education and fun way for young people and others to explore topics around water science and Earth Observation Day. Earth Observation Day, established by AmericaView, is a major part of Earth Science Week.

The Archaeological Institute of America (AIA) promoted awareness of and participation in AIA's International Archaeology Day, which takes place annually on the final day of Earth Science Week.

Program participants were introduced to the Association for the Sciences of Limnology and Oceanography (ASLO), an AGI member society that offers an extensive collection of free-access, peer-reviewed, up-to-date content for education about limnology and oceanography, the studies of inland freshwater systems and oceans respectively. ASLO offers e-Lectures written and reviewed by expert scientists, online virtual items that pull articles from various ASLO journals under a common theme, and tools and resources for science communication and policy. Materials are designed to be used from upper-level high school to graduate courses in aquatic science.

For the Earth Science Week 2021 Toolkit, the **Association for Women Geoscientists** provided a mini-flyer

featuring links to informational videos on groundbreaking women in water science.

The Association of American State Geologists partnered with AGI to support Geologic Map Day during Earth Science Week 2021. State geologists nationwide made geologic maps of their states available on their websites for students and others to use in learning activities on Geologic Map Day.

Program participants learned about resources offered by the **Association of Environmental and Engineering Geologists** (AEG). Resources include publications, section and chapter meetings, and special educator sessions at the AEG annual meeting. Opportunities for professional geologists to speak to classes are also available, as well as resume writing workshops and scholarships for students.

Earth Science Week promoted awareness of a website of great value to educators, AGI's **Center for Geoscience & Society.** Largely through its Education GeoSource database, the center enhances geoscience awareness across all sectors of society by generating new approaches to building geoscience knowledge, engaging the widest possible range of stakeholders, and creatively promoting existing and new resources and programs. The Critical Issues Program also provides a portal to decision-relevant, impartial geoscience information relevant to classroom discussions.

Program participants were informed about three online videos by the **Center for Ocean Sciences Education Excellence** (COSEE) 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.

As promoted by Earth Science Week, the Climate Literacy and Energy Awareness Network (CLEAN) online portal stewards a collection of climate and energy science education resources and supports professionals committed to improving climate and energy literacy. Key components include the CLEAN collection of climate and energy science resources, CLEAN guidance and professional development webinars for teaching climate and energy science, and the CLEAN network of professionals committed to improving climate and energy literacy. For the 2021 Earth Science Week Toolkit, CLEAN provided a bookmark in English and Spanish featuring a link to key resources.

Earth Science Week participants were encouraged to celebrate Earth Day in April 2021 with educational activities, experiments, and investigations exploring

the science behind how the world works. Because Earth Science Week offers education materials, information, and tools throughout the year, school audiences were urged to make use of tools highlighting the theme of "Water Today and for the Future."

Program participants were notified of the seventh annual Earth Educators' Rendezvous, a virtual event, in July 2021. Workshops, oral and poster sessions, teaching demonstrations, panel discussions, and plenary talks were tailored to appeal to those working in Earth education, including college faculty, graduate students, K–12 teachers, informal educators, practitioners, administrators, and researchers.

In 2021, Earth Science Week raised awareness of the Earth Futures Festival, an international film and video festival, which connects geoscience and the arts, promoting understanding of the role Earth science plays in building our sustainable future. The festival, taking place September-October 2022, invites professionals and students in Earth science, the arts, and science community along with community associations, school students, and First Nations peoples to submit works. Organized by groups including the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the International Union of Geological Sciences (IUGS), the festival promotes the Earth Science Week 2022 theme "Earth Science for a Sustainable World."

Earth Science Week's 2021 activity calendar featured an **Earth Science Information Partners** classroom activity titled "Make a Watershed Model."

ExxonMobil, a longtime Earth Science Week partner, continued its support of the program. During summer 2021, ExxonMobil Exploration and AGI partnered to hold their 13th annual Earth Science/STEM Teacher Leadership Academy. Traditionally held in Houston, the academy was retooled by AGI in 2020 to enable teachers to enjoy a high-quality professional development experience online. Again in 2021, the academy provided K–8 teachers with Earth science content, hands-on activities to perform at home, resources and field experiences for them to use with their students and with their colleagues in professional development settings. ExxonMobil also supported Earth Science Week 2021 activities as a Global Sponsor.

For the Earth Science Week 2021 Toolkit, the **Gemological Institute of America** provided a GemKids poster exploring what gems are, how they are formed, how they are found, and how they are processed.

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 GeoTeacher program. GSA also organized International EarthCache Day at the start of Earth Science Week 2021 and contributed as an active partner in the Geologic Map Day initiative. Earth Science Week's 2021 activity calendar included GSA's "Frozen Power" activity. Subscribers to the GSA Today magazine received copies of the Earth Science Week 2021 poster in the publication.

The Geological Society of London (GSL), an international Earth Science Week partner, offers a pair of online resources for learning about key geoscience topics. Electronic map-based resources are the focus of GSL's Plate Tectonics page. In addition, a site was launched to accompany GSL's Rock Cycle online module.

Program participants were directed to **Geology.com**, an Earth Science Week partner that provides a variety of geoscience materials as well as resources for teachers, including links to lesson plans from major Earth science organizations. Geology.com, in turn, covered Earth Science Week announcements, programs, and activities through the year.

For the Earth Science Week 2021 Toolkit, the **Geothermal Rising** provided an informational and colorful poster detailing the history, forms, and uses of geothermal energy (in both English and Spanish).

Through the Global Learning and Observations to Benefit the Environment (GLOBE) program, Earth Science Week participants learned how to take part in **GLOBE Observer**, an international network of professional scientists and citizen scientists collaborating to promote education about the environment and climate.

To help teachers and students delve into the science behind current events, Earth Science Week directed them to the **Incorporated Research Institutions for Seismology** (IRIS) website. IRIS provides educational resources including PowerPoint presentations, animations, and visualizations, as well as links to Spanish-language materials and USGS data that deal with current events such as earthquakes. For the 2021 educator kit, IRIS also provided a flyer detailing a number of free educational resources, including earthquake and seismology lessons, animations, videos, and more.

The International Raw Materials Observatory supported a wide range of Earth Science Week 2021 events, materials, and activities as a Global Sponsor.

The International Union of Geological Sciences supported Earth Science Week 2021 activities as a Global Sponsor, providing visibility and funding.

Program participants were encouraged to explore water science through the **International Year of Caves and Karst** (IYCK) in 2021. IYCK resources helped educators and others learn, teach, and plan events around Earth Science Week and the 2021 theme of "Water Today and for the Future."

A Global Sponsor, the **Irish Centre for Research in Applied Geosciences** promoted awareness of Earth Science Week internationally.

Program participants learned about a free app developed by **Lamont-Doherty Earth Observatory** called "Polar Explorer: Sea Level" that allows users to explore maps of the planet, from the deepest trenches in the oceans to the ice at the poles. Users see how ice, the oceans, precipitation, and temperatures have changed over time and listen as scientists explain the phenomena.

Earth Science Week participants tapped the educational offerings of program partner Mineralogical Society of America (MSA), especially in celebrating the second annual Minerals Day on the Monday of Earth Science Week 2021. MSA's Minerals Day website featured two new posters, plus content and resources on the science, value, and beauty of minerals. An MSA Minerals Day webinar series covered topics such as careers in environmental consulting and gem and mineral museum curation. To help program participants prepare for the October celebration of Minerals Day, the September spread of Earth Science Week's 2021 activity calendar featured a "Grow Your Own Crystals" learning activity courtesy of MSA.

The Minerals Education Coalition (MEC) of the Society for Mining, Metallurgy, and Exploration, an AGI member society, supported Earth Science Week in 2021. MEC provided a "Create a Development Plan for a New Reservoir" postcard for the educator kit, as well as a calendar activity entitled "Mining Creates Reservoirs and Habitats."

Earth Science Week directed participants' attention to a joint effort by AGI and the National Association of Geoscience Teachers (NAGT) to strengthen implementation of the Next Generation Science Standards (NGSS) at the state level. Science educators have regularly participated in free webinars and joined discussions online since the 2015 NGSS Summit. Earth Science Week participants have been invited to take advantage of NAGT offerings including online lessons, NAGT's Outstanding Earth Science Teacher Awards, the Dorothy Stout Professional Development Grants, and the Journal of Geoscience Education. NAGT also provided a bookmark for the kit, promoting awareness of its instructional resources relating to water.

NASA, a founding partner of Earth Science Week, provided materials in the Earth Science Week 2021 Toolkit as well as online. NASA included multiple resources in the educator kit, including an EO Kids "Sipping Snow in the Sierra" flyer, a Global Precipitation Measurement Mission flyer with a water cycle diagram, and a "Planets Science Series: Water in the Solar System" set of planetary cards. NASA also supported a "Rivers: Our National Water Resource" set of game instructions and pieces and a "Landsat: Viewing Water From Space" game poster for the 2021 educator kit, which helped participants celebrate Earth Observation Day. Earth Science Week's 2021 activity calendar also featured a "Measuring Earth's Water" classroom activity from NASA. Throughout the year, Earth Science Week promoted awareness of NASA's online offerings, such as the Diversity & Inclusion Leadership Video Series, EO Kids, NASA Educator Toolkit, National Parks from Space, Earth Wheel, NASA Earth Observatory, Mapping Our World Interactive, and NASA STEM Engagement. Teachers and students were urged to explore water science through NASA's Global Precipitation Measurement Mission (GPM), which uses satellites to measure Earth's rain and snowfall. Launched by NASA and the Japan Aerospace Exploration Agency in 2014, GPM uses a network of satellites to provide high-quality estimates of precipitation every 30 minutes. NASA also continued to serve as an active partner in Geologic Map Day.

The National Earth Science Teaching Association (NESTA), a longtime Earth Science Week partner, continued its vital role in helping AGI promote excellence in geoscience education. In connection with the National Science Teaching 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. NESTA also provided a postcard promoting water science activities for this year's educator kit. NESTA members also received a special edition of their association publication, The Earth Scientist, featuring content organized by Earth Science Week staff, including an article about the 2021 celebration.

Earth Science Week raised awareness of **National Environmental Education Week** (EE Week), the nation's largest environmental education event. Focusing largely on STEM topics, EE Week connected educators with resources to promote K–12 students' understanding of the environment.

Earth Science Week promoted the **National Ground-water Association**'s (NGWA) Groundwater Awareness Week in March 2021. NGWA offers Groundwater Fundamentals, a website providing water facts.

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Earth Science Week's 2021 activity calendar also featured a "Leaf It to Me" learning activity from the **National Oceanic and Atmospheric Administration** (NOAA). This year's kit featured a NOAA "Science Is Cool" sticker guiding users to the NOAA education website. In addition, Earth Science Week 2021 directed participants to NOAA's online multimedia education resources, including lesson plans, real-world data, instructional games, videos, and more.

A longtime Earth Science Week partner, the **National** Park Service (NPS) continued for the 12th 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, National Fossil Day once again reached millions of people. The NPS National Fossil Day art contest engaged students and others. Earth Science Week participants learned about unique online resource launched by the National Park Service in partnership with AGI, "Virtual Field Trip: Air Quality at Shenandoah National Park," which incorporates interactive features allowing visitors to virtually explore the park, enjoying beautiful park vistas while learning about scientific contributions that the park makes to our understanding of air quality. Program participants also learned about the NPS National Natural Landmarks program, which recognizes and encourages the conservation of sites that contain outstanding biological and geological resources. A miniposter featuring a geologic timescale showing fossils at National Natural Landmark sites was included in the Earth Science Week Toolkit. Earth Science Week's 2021 activity calendar also featured an NPS classroom activity titled "Karst Topography Model." NPS also was an ongoing partner in Geologic Map Day activities.

For the Earth Science Week 2021 Toolkit, the **National Science Foundation** provided a flyer featuring a worksheet on the relationship between water and land, as well as a four-page flyer on geoscience careers.

Earth Science Week partnered with the National Science Teaching Association (NSTA) again in 2021, reaching science educators nationwide. Program participants learned about "Freebies for Science Teachers" on the NSTA website. Also, AGI participated once again at the NSTA National Conference, sharing Earth Science Week and other education material for science teachers.

The National Speleological Society provided a miniflyer promoting online cave science resources for this year's educator kit.

Earth Science Week participants learned about K–12 soil resources offered online by the **Natural Resource**

Conservation Service (NRCS). Resources for the elementary level included frequently asked questions and soil songs. Middle and high school level resources included soil facts, health and quality, and state-specific soil information. Lesson plans and other resources are also accompanied by links to other websites.

AGI worked with its publishing partner **Nautilus**, which hosts AGI's EARTH online news channel, to promote Earth Science Week. Subscribers to the print edition of Nautilus saw a full-page ad for Earth Science Week 2021 in Issue 39 of the magazine.

As the organizer of Earth Science Week, AGI collaborating with the NGSS-ESS Working Group to promote a number of free webinars available for enrichment among geoscience educators throughout the year. Webinars such as one titled "Social Media: From the Chat Room to the Classroom" provided teachers with support in instruction dealing with the Next Generation Science Standards (NGSS) in Earth System Science (ESS).

For the Earth Science Week 2021 Toolkit, the **Nutrients for Life Foundation** provided a colorful flyer on available resources, videos, and student engagement opportunities relating to crop nutrients.

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.

Longtime program partner Partners in Resource Education (PRE) provided 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 2021, PRE collaborated to promote awareness of Earth Science Week, and vice versa.

Earth Science Week participants were invited to join a March 2021 webinar in which **Public Broadcasting Service** (PBS) station representatives from across the country talked about free, ready-to-use resources and services to inspire Earth science students. The free Next Generation Science Standards in Earth and Space Science Working Group webinar, titled "Inspiring ALL Geoscience Learners Nationwide with PBS," connected teachers with resources and strategies that help ensure the standards are accessible to all students.

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. SEG's "What Do Geophysicists Do?" site promoted awareness of ways that geophysicists make a difference with innovations addressing energy, water, and climate. Program participants were encouraged to participate in SEG's International Meeting for Applied Geoscience & Energy. For this year's educator kit, SEG provided a "Geoscientists Save Lives" poster detailing how SEG's Geoscientists Without Borders® (GWB) program addresses the United Nations' Sustainable Development Goals, plus a "We All Need Water" worksheet on water usage. Highlighting insights inspired by GWB, the Earth Science Week 2021 activity calendar featured a "Build a Model Aquifer" classroom activity. Subscribers to SEG's The Leading Edge found an Earth Science Week 2021 article written by AGI staff in the magazine.

The **Soil Science Society of America** (SSSA), a longtime program partner, 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. For the Earth Science Week 2021 Toolkit, SSSA provided a flyer with information and links to educational resources on soil science. Earth Science Week's 2021 activity calendar also featured an "Erosion in a Bottle" classroom activity courtesy of SSSA.

SWITCH Energy Alliance provided a flyer about energy science videos, curriculum, and other resources for the Earth Science Week 2021 Toolkit. Program participants also learned about "Switch On," a film featuring Dr. Scott Tinker available to stream online.

For the Earth Science Week 2021 Toolkit, **UNAVCO** provided a "Monitoring Groundwater with Geodesy" poster. Students and others about geodesy, the science of Earth's shape, measuring changes in its surface, gravitational field, and rotation.

The **U.S. Bureau of Land Management** (BLM), a continuing Earth Science Week partner, provided a flyer including a dinosaur activity sheet for the 2021 educator kit. BLM also was the subject of Earth Science Week promotions, including its Classroom Investigation Series online.

The **U.S. Department of Energy** (DOE) invited educators to explore DOE's websites for the National

Renewable Energy Laboratory. College students were invited to be part of the free, semester-long DOE Geothermal Collegiate Competition. Earth Science Week participants were made aware that AGI's Center for Geoscience & Society produced education materials, including videos in English and Spanish, education guides, a "quick start" guide to energy literacy, lesson connections, and guidance on aligning energy literacy lessons with the *Next Generation Science Standards*. Essential Principles and Fundamental Concepts for Energy Education resources were made available on the DOE website.

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 wildlife and ecosystems in the United States. The online kit includes case studies, activities, and videos based on climate science, environmental education, and stewardship information.

For the Earth Science Week 2021 Toolkit, the **U.S. Forest Service** provided a "Groundwater Dependent Ecosystems" flyer featuring a colorful diagram and linking users to additional resources online.

Earth Science Week participants learned about online education resources offered by the U.S. Geological Survey (USGS), a longtime Earth Science Week partner and supporter, 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. For this year's kit, USGS provided bookmarks promoting online resources about water science. USGS additionally supported a "Rivers: Our National Water Resource" set of game instructions and pieces and a "Landsat: Viewing Water From Space" game poster, which helped participants celebrate Earth Observation Day. Earth Science Week's 2021 activity calendar included a "Modeling Earth's Water - Fresh vs. Salty" activity courtesy of USGS. Also, USGS continued its leadership role as a founding partner of Geologic Map Day, providing support as well as its National Geologic Map Database's MapView, which offers a mosaic view of published geologic maps.

Earth Science Week 2021 helped participants estimate their water-usage habits with the GRACE Communications Foundation's **Water Footprint Calculator.** This online tool illustrates how people's actions impact water use, asking a series of questions about daily activities calculating the number of gallons used after each question. The educator kit also featured a postcard promoting the program as well as related lesson plans.

EARTH SCIENCE WEEK TOOLKITS

Program participants learned about the **William T. Pecora Award**, presented annually to individuals or groups that have made outstanding contributions toward understanding the Earth by means of remote sensing. The award is sponsored by the U.S. Department of the Interior and NASA.

Earth Science Week continued promoting awareness of **Windows on Earth**, an online educational project that features photographs taken by astronauts on the International Space Station. The site is operated by TERC, an educational non-profit, in collaboration with the Association of Space Explorers (the professional

association of flown astronauts and cosmonauts), the Virtual High School, and CASIS (Center for Advancement of Science in Space). The images help show Earth from a global perspective.

Earth Science Week participants were encouraged to celebrate the theme of "Water Today and for the Future" by making connections around **World Water Day**, March 22, 2021. In addition to building understanding of water science through education activities, participants posted #Water2me on social media with a note and a photo about how water is important to them.

Earth Science Week Toolkits



AGI assembled approximately **9,000 Earth Science Week Toolkits**, the majority of which were distributed to teachers and geoscientists before the end of 2021. Fifteen AGI member societies requested complimentary

Earth Science Week Toolkits for distribution, and 28 state geological surveys requested complimentary kits for distribution.

As in past years, thousands of kits also were **distributed to and through program partners** including USGS, NASA, the National Park Service, and AAPG student chapters. Toolkits were shipped to program participants in 11 nations around the world besides the United States. The 2021 toolkit featured AGI's traditional Earth Science Week poster, education and outreach flyers, and schoolyear calendar showcasing geoscience classroom investigations and important dates of Earth science events.

Continuing a practice of recent years, the 2021-22 school-year calendar's classroom investigations featured notations explaining to educators how each activity aligns with expectations outlined in the **Next Generation Science Standards.** Additionally, program partners' contributions, many of which also included activities aligned with the standards, made the Earth Science Week 2021 Toolkit one of the richest ever.

Web Resources

According to Google Analytics, the Earth Science Week website was accessed by users in 219 nations, territories, and regions worldwide in 2021. The program website (www.earthsciweek.org) delivers essential resources for educators throughout the year. As in past years, the Earth Science Week website was updated regularly to reflect the new theme, contests, proclamations, events, initiatives, and classroom activities for 2021. The entire site received 512,092 page views, up from the previous year. Within the site, all searches made in 2021 related

to specific pages totaled 340,266 for Classroom Activities pages, 25,252 for Contests pages, 8,176 for Big Ideas Activities pages, and 1,880 for Focus Days pages.

In collaboration with partners, AGI hosted the "Water Today and for the Future" Webinar Series, available during Earth Science Week 2021. Webinars had live question-and-answer periods with presenters. Aimed at the general public and education community, webinars remain available on the Earth Science Week YouTube

WEB RESOURCES

channel. Presenters covered an array of thought-provoking, timely topics:

- "Groundwater Exploration in Response to Humanitarian Crises," Dr. Paul Bauman, Technical Director of the Near Surface Geophysics Group, BGC Engineering Inc.
- "Water Supply Issues in the Delaware River System:
 A Tale of Tunnels, Transfers, Tumult, and Trout,"
 Dr. David Wunsch, Director and State Geologist of
 the Delaware Geological Survey and President of the
 American Geosciences Institute.
- "Perspectives on a Crucial Resource: The Importance and Vulnerability of Our Water Supplies," Dr. David Kreamer, University of Nevada, Las Vegas and President of the International Association of Hydrogeologists.
- "Earth Science and the International Year of Caves and Karst," Dr. George Veni, Executive Director of National Cave and Karst Research Institute.

The Earth Science Week Online Toolkit, formally introduced in 2021, included downloadable resources available from past program celebrations. This growing, searchable compendium features classroom activities, posters, news articles, career information, teacher professional development resources, and more. Over a dozen highly visual resources dealing with the Earth Science Week 2021 theme of "Water Today and for the Future" were added, including posters, infographics, and other items covering topics such as ocean acidification, coral reef restoration, groundwater, floods, hurricanes, and the hydrologic cycle. Users can search by type of resource, theme, year, language, disciplinary core ideas, cross-cutting concepts, science and engineering practices, and more. The Online Toolkit houses resources dating back to 2014 and is a useful option for partners that want to lower their paper use, as well as users who are limited by shipping and printing costs.

Program participants were invited to see a new report, *Vision and Change in the Geosciences: The Future of Undergraduate Geoscience Education*, examining drivers, needs, and strategies for preparing future generations of geoscientists for rapidly changing geoscience professions. The report, available free online, addresses issues including key geoscience concepts, pedagogy, recruitment, increasing diversity, facilitating change, and career preparation. This National Science Foundation-supported report is the culmination of summits, workshops, and surveys over six years, incorporating input from more than 1,000 members of the geoscience community to develop a consensus on the future needs and approaches for educating future geoscientists.

Promoting high-quality learning activities that stimulate experiential learning and mobilize conceptual

thinking in the geosciences, Earth Science Week hosted its **Diversity**, **Equity**, **and Inclusion Strategies** page for educators online. 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 the Next Generation Science Standards. Each strategy is accompanied by an example of a related geoscience-focused learning experience.

Earth Science Week's online offerings also included the Geoscience Women in STEM website, providing Earth science teaching and learning resources inspired by the geoscience-related work of leading women scientists and engineers, with support from Lyda Hill Philanthropies. AGI produced the site to strengthen geoscience education through the stories of women in geoscience, including some selected as AAAS IF/THEN Ambassadors by IF/THEN®, an initiative created by Lyda Hill Philanthropies to encourage and elevate the participation of girls and women in science, technology, engineering, and math (STEM). The site offers curriculum connections that focus on NGSS-ESS and illuminate ways that STEM topics can be explored across traditional disciplinary boundaries.

Program participants hosting events during Earth Science Week 2021 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, such as exhibits, tours, lectures, and open houses. The **Earth Science Week Event Registry** enabled participants to promote their events more effectively than ever. All registered events were listed on Earth Science Week's **Events in Your Area** site.

In addition, participating 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.

Using various online channels, AGI's Earth Science Week promotional video trumpeted the importance of the geosciences and the celebration's role in promoting public awareness. This brief, exciting, eye-popping video answered key questions: Why is Earth science a big deal? How does Earth Science Week help promote understanding? And what can viewers do to get involved?

While exploring the Earth Science Week theme of "Water Today and for the Future," science teachers and students

NEWSLETTER

were invited to consider the ways that people showcase and access information on Earth systems in a variety of forums. The Our Shared Geoheritage and Visualizing **Earth Systems** pages continue to be popular resources on the Earth Science Week website. Our Geological Heritage features educational material on this heritage and links users to recommended resources, including downloadable reports, articles, blogs, geoheritage locations, and learning activities. The page also features geoheritage-related classroom activities and links to information on geoheritage in every state. Visualizing Earth Systems links users to dozens of recommended visualizations dealing with energy, climate, minerals, water, hazards, and other topics. In addition, the page links users to overviews of these topics provided by AGI's Critical Issues Program.

Once again, AGI offered four quarterly **Earth Science Week Webcasts** in 2021, expanding the program's use of online formats and media for public outreach. The free webcasts provided lively overviews of Focus Days (spring), Contests (summer), the Toolkit (autumn), and the Roy Award (winter). Each roughly five-minute tutorial includes a wealth of online links, on which viewers can click during the narrated presentation to review available resources.

Program participants were encouraged to visit the continually updated Earth Science Week **Classroom Activities** page for more than 200 free learning activities, most contributed by leading geoscience agencies and groups. To find an activity corresponding to a lesson, teachers can search by Earth science topic, grade level, and science education standard.

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 2021 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 website also provides dozens of classroom activities linked to the "big ideas."

Finally, Earth Science Week makes ample use of online social networking to reach new audiences, especially young people. The program's presence on Facebook 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. The number of people learning about Earth Science Week through social media remained impressive in 2021, with the program having 6,517 Facebook followers and 8,524 Twitter followers.

Newsletter

The monthly Earth Science Week Update newsletter reached more than 4,500 teacher, student, and geoscientist subscribers in the past 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 for one week each October.

Contests

AGI held contests in connection with Earth Science Week for the 21st consecutive year. 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 continued expanded eligibility for its photo contest to allow international members of AGI Member Societies and AGI International Affiliates to participate and again invited international submissions to the video contest.

Hundreds of submissions were received. Each first-place winner received \$300 and an AGI publication. Entries submitted by winners and finalists were posted online.

Nathan Xu of Clyde Hill, Washington, won first place in the visual arts contest, "Water and Me." Finalists were Benjamin Kwack of Lisle, Illinois; Everett Lee of Fargo, North Dakota; Justin Xu of Sugar Hill, Georgia; and Elizabeth Xu of Sugar Hill, Georgia. Students in grades K–5 made two-dimensional artworks illustrating how water plays a role in their lives.

• CONTESTS



Earth Science Week 2021 Visual Arts Contest entry by Nathan Xu.



Earth Science Week 2021 Visual Arts Contest entry by Elizabeth Xu.



Earth Science Week 2021 Visual Arts Contest entry by Everett Lee.

Peter Lee of Montrose, California, won first place in the photo contest, "Water as a Resource in My Community." Finalists were Andrej Ciric of Virginia Beach, Virginia; Hafsa Firdaus of Pleasanton, California; Andrew Mead of East Northport, New York; and Alex Xu of Clyde Hill, Washington. Submissions illustrated the theme of water as a resource in the community.

From Wastewater to Sweetwater

by Travis Cooper, for the 2021 ESW Essay Contest

I live in the Sonoran Desert, and conserving water is a part of everyday life here. Sewage water in Tucson is recycled to create a riparian habitat called the Sweetwater Wetlands. First, wastewater passes through a reclamation facility. Then, large solids drop out of the water in settling pools. From there, the water travels to the main ponds, where aquatic plants filter out dangerous particles. Once the water is through the ponds, it sits in large basins where it can recharge Tucson's aquifer.

Read the rest of this essay on the **ESW website**.

Travis Cooper of Tucson, Arizona, won first place in the essay contest, "How We Understand, Use, and Protect Water." Finalists were Alex Lauro of Vienna, Virginia; Madison Murrell of Virginia Beach, Virginia; Henry Nguyen of Virginia Beach, Virginia; Alana Voces of Virginia Beach, Virginia. Students in grades 6-9 wrote essays of up to 300 words exploring how people can use water as a natural resource in ways that support sustainable practices.

Michael and Precious Golez of Naga City, Camarines Sur, Philippines (team), won first place in the video contest, "Water Is Part of Life Around the World." Finalists were Sarah Eaton of Lexington, Virginia; Riley Milano of Boulder, Colorado; Tanvi Soans and Jacqueline Davis (team) of Chicago, Illinois; Raheemah Hafsah Pangarungan of Marawi City, BARMM, Philippines. Individuals and teams created brief, original videos exploring the many ways people interact with water.

Earth Science Teaching Award

For the 14th consecutive year, AGI and the AGI Foundation offered the Edward C. Roy Jr. Award for Excellence in K–8 Earth Science Teaching. The 2021 award went to Darcie Fregoe, a sixth-grade Earth science and social studies teacher at Madison Elementary School in Massena, New York. Drawing on technology and emphasizing project-based and problem-based learning, Fregoe makes cross-curricular connections with what students are learning in mathematics, English language arts, and history.



Darcie Fregoe, winner of the 2021 Edward C. Roy Jr. Award for Excellence in K–8 Earth Science Teaching. Image courtesy of Darcie Fregoe Fregoe received a \$2,500 prize and an additional grant of \$1,000 to enable her to undertake professional development activities of her choosing. Fregoe was presented with the award during a virtual reception hosted by the National Earth Science Teachers Association during the annual conference of the National Science Teaching Association.

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.

Focus Days

Earth Science Week 2021 kicked off on Sunday, October 10, with the 14th annual 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. 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 Earth Science Week program partner.

On Monday, October 11, educators, young people, and mineral enthusiasts of all ages were encouraged to take part in **Minerals Day.** AGI and the Mineralogical Society of America (MSA) launched Minerals Day to raise awareness of and appreciation for minerals among the general public as well as students and teachers of all ages and at all levels. Minerals Day introduced participants to a host of educational resources and activities focusing on the role of raw materials in the lives of individuals and in society. AGI's and MSA's Minerals Day web pages provided educational resources. To help program participants prepare for the October celebration of Minerals Day, the September spread of Earth Science Week's 2021 activity calendar included a "Grow Your Own Crystals" learning activity by MSA. MSA's Minerals

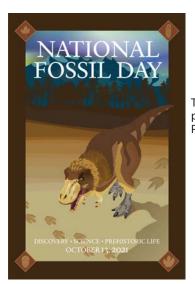
Day website featured two new "Cool Careers" posters as well as content and resources on the science, value, and beauty of minerals. An MSA Minerals Day webinar series covered topics such as forensic geoscience, gemology, mining and aggregate, environmental consulting, gem and mineral museum curation, glass and ceramics research and development, mineral collecting, working as a scientist for NASA, and being a rotator at the National Science Foundation.

On the Tuesday of Earth Science Week 2021, participants were invited to take part in Earth Observation Day. Previously celebrated at other times of the year, this October 12 event aimed to engage students and teachers in remote sensing as an exciting and powerful educational tool. The event was a STEM educational outreach event of AmericaView and its partners. AmericaView is a nationwide partnership of remote sensing scientists who support the use of Landsat and other public domain remotely sensed satellite data through applied remote sensing research, K–12 and higher STEM education, workforce development, and technology transfer. Participants made use of online lessons and activities by AmericaView and other organizations, as well as additional Earth Observation Day resources.

One of the highlights of recent years' Earth Science Week celebrations has been "No Child Left Inside" Day, an

• FOCUS DAYS

event that in its inaugural year (2008) engaged some 500 students in outdoor learning activities and received coverage by news media from NBC to NPR. In 2021, students and educators nationwide were encouraged to engage in safe, educational activities outdoors on the Tuesday of Earth Science Week, October 12. AGI's online NCLI Day Guide provided everything needed to plan a local NCLI Day event. The free guide provides 17 outdoor activities, as well as detailed recommendations for creating partnerships, planning logistics, reaching out to the local media, and following up in instruction.

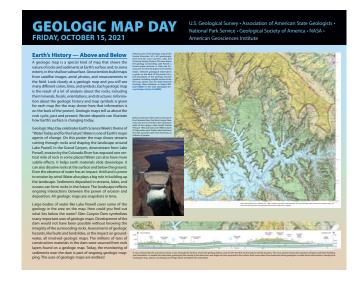


The 2021 National Fossil Day poster from the National Park Service.

Earth Science Week featured the return of a popular event, **National Fossil Day**. In partnership with the National Park Service (NPS), AGI helped conduct the 12th annual event, on Wednesday, October 13, 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 website 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 that engaged program participants.

Program participants were invited to join the Earth Science Week team in encouraging everyone — including women, minorities, and people with a range of abilities — to explore geoscience careers on **Geoscience for Everyone Day**, Thursday, October 14. The aim was to open a young person's eyes to the world of Earth science. In doing so, participants supported the efforts of AGI member societies such as the Association for Women Geoscientists and the National Association of Black

Geoscientists in raising awareness of the remarkable opportunities available to all young people in the Earth sciences. The program website directed participants to the "Be a Visiting Geoscientist" page on the AGI website, designed to inspire geoscience professionals to engage with the public and provide Earth science enrichment for students, especially in school programs at the K–12 level.



The 10th annual **Geologic Map Day** held on Friday, October 15, 2021, 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 2021 was hosted by the U.S. Geological Survey and the Association of American State Geologists in partnership with AGI, along with additional partners including the National Park Service, the Geological Society of America, and NASA. 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 2021 Toolkit contained a Geologic Map Day poster that provided geologic maps, plus step-by-step instructions for a related classroom activities dealing with Lake Powell and water science. Additional resources for learning about geologic maps were featured on the Geologic Map Day web page of the Earth Science Week site.

Earth Science Week 2021 reached its finale with International Archaeology Day on Saturday, October 16. The event was a celebration of archaeology and the thrill of discovery. Every October, archaeological programs and activities for people of all ages and interests are presented by the Archaeological Institute of America and archaeological organizations across the United States, Canada, and elsewhere. Activities provided the chance for participants to indulge their inner "Indiana Jones."

AGI Promotions

Earth Science Week promoted awareness of numerous AGI programs and resources of interest to Earth science educators, students, and enthusiasts, including AGI's Center for Geoscience & Society, AGI's Geoscience Job Center, the AGI Geoscience Workforce program, AGI Scholarly Information (including GeoRef), AGI's Teacher Leadership Academy, Geoscience Currents, the William L. Fisher Congressional Geoscience Fellowship, AGI's NGSS Education Webinars, the Visiting Geoscientists guide, AGI's Critical Issues Program, AGI's Career Compass infographics, Geoscience in Your State Factsheets, the Earth Science Organizations website, the Faces of Earth four-part film series, the EARTH Channel on Nautilus magazine online, the award-winning Why Earth Science video, and the Why Earth Science brochure.

To assist geoscience students, educators, and other professionals at a time when many were working remotely or in new ways during the pandemic, AGI announced the availability of several electronic resources for free or at reduced prices, including AGI's Education GeoSource, Glossary of Geology, Geoscience Handbook, and more. AGI alerted educators to the availability of dozens of modules in the free-to-take Geoscience Online Learning Initiative (GOLI) platform. To support geoscience faculty who are moving to an online teaching format, AGI's publishing partner, Pearson, provided free e-text of the AGI/NAGT Lab Manual in Physical Geology to all adopters of that manual. These resources complimented the many offerings already available through the Earth Science Week website.

State Proclamations

Seven states have demonstrated outstanding science-literacy leadership by issuing "perpetual proclamations" of Earth Science Week, ensuring recognition every year: Alaska, Delaware, Illinois, Nevada, North Dakota, Oklahoma, and South Dakota.

Governors issued single-year proclamations in seven additional states — Alabama, Indiana, Missouri, Ohio, Oregon, Pennsylvania, and Tennessee — bringing the total number of states with proclamations of recognizing Earth Science Week 2021 to 14.

Publicity and Media Coverage

AGI enlisted the support of a wide range of media in promoting awareness of Earth Science Week, resulting in exceptional reach for promotional activities in 2021 and helping to lay a foundation for more coverage in years to come. To view the many news items dealing with Earth Science Week, please visit online at www.earthsciweek.org/highlights.

Earth Science Week 2021 news, events, programs, and resources were covered by international news organizations including AllEvents. In Dhaka, Bangladesh; Brock University, Canada; Geocaching.com; The Geological Society of London, England; Geothermal Rising; Greek Reporter, Greece; Irish Centre for Research in Applied Geosciences, Ireland; Museum of Ontario Archaeology, Canada; The University of the West Indies, Jamaica; News Break, Philippines; Times Now News, India; and Top Stories UK, United Kingdom.

Additionally, the event was covered by **national news organizations** such as AAPG Explorer; American Institute of Professional Geologists; Archaeological Institute

of America; Awareness Days; Boxlight; Celebrate Picture Books; Collegexpresss; Dig It Games; Facebook; Freshers LIVE; Geological Society of America's GSA Today; The GLOBE Program; Happening Next; Jurassic Quest; Macaroni Kid; Literacious; myQuest; National Earth Science Teachers Association's The Earth Scientist; NOAA Planet Stewards Education Program; The River Houses; Society of Exploration Geophysicists' The Leading Edge; Teachers First; Time Scavengers; Trendsmap; Twitter; and Vaniman.

Throughout the United States, coverage of Earth Science Week programs and activities was provided by **regional and local news organizations** such as AllEvents.In Baltimore, MD; AllEvents.In Boise, ID; AllEvents.In Chisholm, MN; AllEvents.In East Lansing, MI; AllEvents. In Kenosha, WI; AllEvents.In Littleton, CO; AllEvents.In Shelbyville, TN; AllEvents.In Mobile, AL; AllEvents.In Wilson, NC; Areawide Media, MO; Arizona Archaelogical Council, AZ; Bay Area Science, CA; Bay Soundings, FL; Beaches Museum, FL; Burpee Museum, IL; Central Oregon Geoscience Society, OR; Cherokee Phoenix, AZ;

PUBLICITY AND MEDIA COVERAGE

The Cheyenne Post, WY; Cincinnati Chronicle, OH; Cision PR News, TX; City of Las Cruces, NM; The College of Wooster, OH; The Cotsen Institute of Archaeology at UCLA, CA; Crescenta Valley Weekly, CA; Delaware Geological Survey, DE; Douglas County, CO; Eagle Rock Elementary PTA, CA; East Valley Tribune, AZ; EIN Presswire, TN; The Ekalaka Eagle, MO; Elizabethton Star, TN; EventBrite Boise, ID; EventBrite Chicago, IL; EventBrite Oak Bluff, MA; EventBrite Roxborough, CO; EventBrite Saint Petersburg, FL; EventBrite San Francisco, CA; Explore Washington, CT; The Florida Times-Union, FL; Garden of the Gods Visitor and Nature Center, CO; Georgia Southern University, GA; The Highland County Press, OH; Humboldt State University Natural History Museum, CA; Leimert Park Beat, CA; LimaOhio.com, OH; Main Street Nashville, TN; Maryland Geological Survey, MD; Michigan State University, MI; Missouri Department of Natural Resources, MO; Mommy Poppins, PA; The Mount Vernon Grapevine, OH; Mpls St Paul, MN; The Museum of Indian Arts and Culture, NM; Museum of Western Colorado, CO; MV Times, MA; Nantasket Beach Resort, MA; National Park Service, NJ; Nevada Today, NV; New Mexico Office of Archaeological Studies, NM; The North Carolina Museum of Natural Sciences, NC; North Texas eNews, TX; Now Playing Utah, UT; Odessa American Online, TX; Ohio Department of Natural Resources, OH; Ohio Statehouse, OH; Oklahoma Historical Society, OK; Opera News, NY; Patch, AZ; Patch, CA; Pennsylvania Department of Conservation and Natural Resources, PA; Pick Education, TX; Press Register, AL; Protectors of Tule Springs, NV; Record Herald, OH; Red Lake, CO; The Reflector, MS; Rochester Museum and Science Center, NY; Rome Daily Sentinel, NY; San Diego Reader, CA; Statesboro Herald, GA; StayHappening Bloomington, IN; StayHappening Boise, ID; StayHappening Calabasas, CA; StayHappening Littleton, CO; StayHappening Mobile, AL; StayHappening Saint Petersburg, FL; StayHappening Schoenchen, KS; StayHappening Shelbyville, TN; StayHappening Yorktown, VA; Sul Ross State University, TX; Teach Hub, NC; Tennessee Department of Environment and Conservation, TN; This Is Reno, NV; Tiger Media Network, KS; Times Standard, CA; University of Nevada, Reno, NV; Union County Daily Digital, OH; The University of New Mexico, NM; University of Washington, WA; Urban and Community Forestry News, MI; Utah Geological Survey, UT; WYDaily, VA; Yahoo Finance, TN; The Yazoo Herald, MI; and Your Hub, CO.

Earth Science Week also was covered by **television and radio stations** across the country, including 6 Park News, WY; Do512, TX; KFVS12, MO; KMMO, MO; Radio NWTN, TN; WGNS Radio, TN; and KGWN-TV Wyoming News Now, WY.



Earth Science Week 2021 Photography Contest entry by Andrew Mead

AGI distributed **press releases** to thousands of newspapers, magazines, media websites, and other organizations and individuals. The articles highlighted Earth Science Week activities and the program theme. Press releases about Earth Science Week activities were also released by the American Institute of Professional Geologists, the Mississippi Department of Environmental Quality, and the Wyoming State Geological Survey.

Copies of the Earth Science Week 2021 poster, featuring a geoscience learning activity in addition to promotional content, were distributed as inserts in publications carrying articles about the event, such as AAPG Explorer. GSA Today also featured a poster insert. Articles penned by AGI about Earth Science Week appeared in the National Earth Science Teachers Association's The Earth Scientist and the Society of Exploration Geophysicists' The Leading Edge. In addition, the poster image appeared in Nautilus magazine.

Earth Science Week Sponsors

American Association of Petroleum

American Association of Petroleum Geologists Foundation

National Park Service

U.S. Geological Survey

National Aeronautics and Space Administration

Geological Society of America

AmericaView

American Geophysical Union

Society for Mining, Metallurgy and Exploration

Society of Exploration Geophysicists

Geothermal Rising

Water Footprint Calculator (Grace Communications Foundation)

American Meteorological Society

CLEAN (Climate Literacy and Energy Awareness Network

Global Sponsors

International Raw Materials Observatory

International Union of Geological Sciences

Irish Centre for Research in Applied Geosciences

ExxonMobil

Earth Science Week Program Partners

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

Association for Women Geoscientists

Association of American State Geologists

CLEAN (Climate Literacy and Energy Awareness Network)

Earth Science Information Partners

ExxonMobil

Gemological Institute of America

Geological Society of America

Geothermal Rising

Incorporated Research Institutions for Seismology

International Raw Materials Observatory

International Union of Geological Sciences

Irish Centre for Research in Applied Geosciences

Mineralogical Society of America

Minerals Education Coalition

National Association of Geoscience Teachers

National Earth Science Teachers Association

National Speleological Society

Nutrients for Life Foundation

Society for Mining, Metallurgy, and Exploration

Society of Exploration Geophysicists

Soil Science Society of America

UNAVCO

U.S. Bureau of Land Management

U.S. Forest 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 Science Foundation

Water Footprint Calculator/Grace Communications Foundation

Earth Science Week 2021 Events and Activities by State and Territory

While AGI is unable to track all Earth Science Week activities in the United States, major activities across the country included the following.

Alabama

- The governor of Alabama issued a proclamation for Earth Science Week 2021.
- The National Speleological Society and the Geological Survey of Alabama distributed complimentary Earth Science Week Toolkits to science educators for use in the classroom.
- The Alabama Museum of Natural History hosted a free event on October 13 to celebrate National Fossil Day, the scientific and educational value of paleontology, and the importance of preserving fossils for future generations.
- The University of South Alabama's Archaeology Museum welcomed visitors of all ages to participate in International Archaeology Day on October 16. The event included experimental archaeology, fun, games, and educational activities including Native American Atlatl Throwing and the traditional French game of Pétanque.
- The Geological Survey of Alabama and the University of West Alabama virtually presented "Fossils of the Black Belt 21," the latest in a long-running series of annual field paleontology workshops for teachers, which focused on paleoecology and biostratigraphy.
- In October, the Second Annual Huntsville Science Festival was held at the Von Braun Center with free indoor and outdoor activities for participants of all ages. This was an exciting, week-long celebration of science and technology in northern Alabama.
- The Anniston Museum, Geological Survey of Alabama, Alabama Museum of Natural History, Birmingham Paleontological Society, and Alabama Paleontological Society promoted awareness as official National Fossil Day partners.

Alaska

- The governor of Alaska issued a perpetual proclamation of Earth Science Week.
- Alaska's Division of Geological and Geophysical Surveys, the Alaska Museum of Natural History, as well as the University of Alaska Museum of the North were among the official National Fossil Day partners, in 2021.

Arizona

- Grand Canyon National Park celebrated National Fossil Day on social media, where highlights included the work of the park's paleontologists and some of the remarkable history buried within Grand Canyon's rock layers.
- Grand Canyon National Park presented a special National Fossil
 Day video, "Paleozoic Fossils of
 Grand Canyon National Park,"
 on Facebook, where paleontologists answered questions from
 the public.
- The Arizona Archaeology Council celebrated International Archaeology Day by organizing an event on Friday, October 15.
- Travis Cooper of Tucson won first place in the essay contest with his paper, "From Wastewater to Sweetwater."
- To coincide with International Archaeology Day, Mesa Grande Cultural Park celebrated its reopening on Saturday, October 16.
- The Arizona Geological Survey, Arizona Museum of Natural History, Arizona Science Center, Museum of Northern Arizona, and the Southwest Paleontological Society were among the 2021 National Fossil Day partners.
- Pueblo Grande Museum (PGM) and Archaeological Park participated in

- International Archaeology Day both online and in person. From #IAD-Artifact of the Day on Instagram to #AskACurator on Twitter, PGM generated excitement about the event with a series of posts and announcements.
- For National Fossil Day 2021, Petrified Forest National Park highlighted recent paleontological discoveries and research conducted in the park.
- The Arizona Museum of Natural History promoted participation in the 2021 celebration of National Fossil Day via social media.

Arkansas

- In celebration of Earth Science Week, Ciara Mills, geologist with the Arkansas Geological Survey, shared an article on the Arkansas Geological Survey website highlighting Geoscience for Everyone Day.
- The Arkansas Geological Survey promoted awareness of Earth Science Week among residents and community members through its website and by distributing educational materials.
- Hot Springs National Park sponsored a family-focused day. The
 event highlighted the importance of
 archeology in parks with hands-on
 activities, archaeological displays,
 hands-on workshops, guided hikes,
 and collaborations with surrounding agencies and parks.
- The Arkansas Geological Survey, the Arkansas Museum of Discovery, and the Pratt Museum were among hundreds of partners celebrating National Fossil Day 2021.

California

- Peter Lee of Montrose won first place in the photo contest with an image, captured at Descanso Gardens, depicting how water has many overlooked applications throughout our daily lives, such as recreational, artistic displays.
- Humboldt State University Natural History Museum celebrated Earth Science Week with a live, virtual, afterschool program daily October 11-16. The 75-minute sessions were geared towards children, ages 8-12.
- The Earth Science Club of California State University at Dominguez
 Hills' Department of Earth Science & Geography showcased the
 Focus Days of Earth Science Week
 and supported events happening
 throughout the week.
- Geothermal Rising partnered with AGI in promotion of Earth Science Week again by contributing an educational poster that highlights the many uses and benefits of geothermal energy in both English and Spanish.
- The Bay Area Environmental STEM Institute provided a teacher professional development workshop focusing on the 2021 Earth Science Week theme "Water Today and for the Future." The workshop, preparing teachers to participate in Earth Science Week through inquiry-based learning aligned with the Next Generation Science Standards, was held completely online, and included both synchronous and asynchronous learning, as well as small group experiences.
- The National Park Service and California State Parks sponsored "Archaeology Day in the Santa Monica Mountains" at the Anthony Beilenson Interagency Visitor Center.
- The Presidio Trust celebrated International Archaeology Day with family-friendly activities that uncovered the layered history of this national park site.
- October was California Archaeology Month, and the Santa Monica

- Mountains National Recreation Area celebrated with International Archaeology Day. Guests joined in a day of activities at King Gillette Ranch.
- The San Diego County Archaeological Society hosted "Arch in the Park," a celebration of California Archaeology Month and International Archaeology Day. The event educated the public about archaeology and provided information on career and volunteer opportunities with more than 30 local archaeological companies, museums, universities, and organizations.
- In honor of National Fossil Day, an article and photos were shared by Crescenta Valley Weekly of a famous fossil of Tyrannosaurus rex. The publication also presented information on some fossils that make up the local geology of Southern California.
- Leimert Park Beat's SPMG Media promoted awareness of Earth Science Week in its "October Monthly Holidays and Observances."
- Eagle Rock Elementary Parent-Teacher Association invited families to "play in dirt" and "hunt for fossils" on National Fossil Day.
- The Western Science Center celebrated Earth Science Week by welcoming guests to explore the museum and enjoy activities on the piazza. Attendees met some of the Ice Age animals that called Hemet home in celebration of National Fossil Day. They also prepared for International Archaeology Day by discovering tools and techniques archaeologists use to learn about the past.
- The California Geological Survey, Anza-Borrego Desert State Park, Children's Discovery Museum of San Jose, Fossil Discovery Center of Madera County, the Page Museum at La Brea Tar Pits, and several others raised awareness as National Fossil Day partners.
- The Archaeological Institute of America sponsored a virtual Archaeology Abridged talk by

- Monica Smith, Professor in the Department of Anthropology and Professor in the Institute of the Environment and Sustainability at the University of California, Los Angeles.
- Finalists in the Earth Science Week photography contest included Hafsa Firdaus of Pleasanton.
- Dinosaur aficionado Elliott Dabill presented "Questions to Ask Dinosaurs," a look at questions answered by science, exploring the history of dinosaurs, new findings, the origin of birds, and more. Dinosaur enthusiasts of all ages attended this free live online event hosted by the Humboldt State University Natural History Museum.
- The Raymond M. Alf Museum of Paleontology hosted a National Fossil Day livestream. The public joined virtually as the museum explored three national collections to look at their fossils and learn how their paleontologists help to preserve fossils on public lands.
- The University of California-Los Angeles' Cotsen Institute of Archaeology celebrated archaeology throughout October by compiling a collection of resources and events to show the public what archaeology is about. Guests explored international excavations and details found under microscopes. In addition, an online lecture series ran every Wednesday throughout the month.

Colorado

- Finalists in the Earth Science Week video contest included Riley Milano of Boulder.
- The American Institute of Professional Geologists issued a press release promoting Earth Science Week 2021.
- At the encouragement of Douglas County's website, the public explored Colorado's colorful past firsthand at the 2021 International Archaeology Day Expo on Saturday, October 16. The event offered

- a lecture series, exhibits and artifact displays, activity booths, demonstrations, and visits to archaeological sites.
- The GLOBE Implementation Office highlighted Earth Science Week 2021 learning resources and activities regarding the importance of water for living things, Earth systems, and the many activities that people undertake.
- In celebration of National Fossil Day 2021, KUNC Public Radio provided an update on Pops, Weld County's official dinosaur.
- The Museums of Western Colorado hosted a National Fossil Day virtual lecture with Dr. Matt Wedel, who talked about the battle with heat, storms, and gravity to find and recover new fossil bones of the Brachiosaurus.
- Western Colorado's museum sites celebrated Earth Science Week and the theme of "Water Today and in the Future" with a walking tour at Cross Orchards Historic Site. This one-hour guided walking tour of the irrigation demonstration, orchard, and other aspects of the Cross Orchards Historic Site was led by Dennis Gorsett, a retired soil conservationist of the Natural Resources Conservation Service who specialized in water use and vegetation management.
- For Earth Science Week 2021, the STAR Library Network provided resources and strategies to celebrate Earth's most precious resource with the theme "Water Today and for the Future" via a blog post.
- In celebration of International Archaeology Day, Roxborough State Park hosted two Walk-and-Talk programs focusing on the archaeology of the park. Partner agencies participated at the Colorado Archaeology Day Expo held at Roxborough Intermediate School.
- History Colorado sponsored an Archaeological Expo with professional lectures by Jack Warner, Anna Cordova, and Jeffrey Brzezinski, as well as informational booths,

- demonstrations, hands-on activities, poster shows, and more.
- In conjunction with the Archaeology Expo being held nearby, the Lamb Spring Archaeological Preserve hosted talks and tours with atlatl tossing.
- Humboldt State University Natural History Museum hosted "The Life and Times of Dinosaurs Family Fun," a free live virtual event. During this program participants were invited to explore the world of dinosaurs with pictures, games, and exploratory activities.
- The Minerals Education Coalition produced the "Create a Development Plan for a New Reservoir" educational unit, which includes two new coalition activities in the online lesson plan, and the "Aggregate Mining Creates Freshwater Reservoirs and New Habitats" activity in the 2021 Earth Science Week Calendar found in the Toolkit.
- Colorado's Energy Day Festival returned for the 2021 celebration.
 K–12 students and their families once again learned about energy, participated in interactive demonstrations, and watched an outdoor robotic competition at this free event.
- The Colorado Geological Survey, Friends of Dinosaur Ridge, Garden Park Fossil Area, Denver Museum of Nature and Science, Rocky Mountain Dinosaur Resource Center, Morrison Natural History Museum, the Rocky Mountain Association of Geologists, and several other organizations were among the Colorado partners of National Fossil Day.
- Roxborough State Park, Lamb Spring Archaeology Preserve, and the Bradford House in Ken Caryl enabled guests to join in celebrating International Archaeology Day by visiting a site, attending a presentation, and viewing exhibits.
- The Garden of the Gods Visitor & Nature Center hosted a free family day with partners offering educational presentations, fossil

- identification, hands-on activities, and more.
- The Geological Society of America encouraged geocachers around the world to participate in International EarthCache Day during Earth Science Week.
- In honor of Earth Science Week 2021's "Water Today and for the Future" theme, the National Earth Science Teachers Association published a Fall 2021 issue of The Earth Scientist full of water-related articles.
- Earth Science Week 2021 Toolkits were distributed to students, teachers, and others by representatives of the American Institute of Professional Geologists; the Society for Mining, Metallurgy, and Exploration; the National Earth Science Teachers Association; and the Geological Society of America.
- A series of events, co-sponsored by Colorado Parks and Wildlife and Roxborough State Park, offered a different guided activity almost every day of October. The program featured guided tours, hikes, walks, lectures, and more.

Connecticut

- International Archaeology Day was celebrated at the Institute for American Indian Studies. Guests dug into fun with staff and uncovered what makes archaeology such a fascinating field of study.
- The Connecticut Department of Energy and Environmental Protection promoted Earth Science Week by distributing educational materials.
- The Connecticut Geological Survey, Dinosaur Trackways State Park, Bruce Museum, Yale Peabody Museum of Natural History, and New Haven Mineral Club advanced understanding as National Fossil Day partners.

Delaware

- The governor of Delaware issued a perpetual proclamation of Earth Science Week.
- The Delaware Geological Survey promoted Earth Science Week and Geologic Map Day by distributing Earth Science Week Toolkits and informational materials to educators and sharing information online.
- The Delaware Museum of Natural History and Delaware Geological Survey were partners of National Fossil Day.

District of Columbia

- Federal agencies including the U.S. Geological Survey, NASA, and the National Park Service supported Earth Science Week with the provision of teaching materials, distribution of kits, and activities.
- During National Fossil Day events across the country, the National Park Service offered young people the opportunity to download the Junior Paleontologist activity booklet from the website.
- National Parks and Conservation Association produced a podcast on National Park Service paleontology and National Fossil Day for this year's virtual event.
- The National Oceanic and Atmospheric Administration's Planet Stewards Education Program highlighted this year's Earth Science Week celebration in its online newsletter.
- The U.S. Geological Survey encouraged people around the world to participate in Earth Science Week by highlighting activities for several Focus Days online.
- The American Geophysical Union promoted Earth Science Week by distributing educational materials.
- NASA highlighted this year's Earth Science Week celebration in its NASA STEM EXPRESS online newsletter.
- Natural Science Collections Alliance promoted National Fossil Day on its website.

 Smithsonian-Natural Museum of Natural History, American Geophysical Union, Geological Society of Washington, Natural Science Collections Alliance, and National Environmental Education Foundation were among the D.C.-based National Fossil Day partners.

Florida

- The Florida Geological Survey promoted Earth Science Week by distributing educational materials.
- The Florida Department of Environmental Protection promoted educational resources about Florida geology and hosted a field trip to Edward Ball Wakulla Springs State Park.
- In celebration of International Archaeology Day, the Alliance for Weedon Island Archaeological Research and Education and the Central Florida Gulf Coast Archaeological Society hosted an on-site event with a diverse showcase of pre-Columbian artifacts from the Tampa Bay region. Archaeological experts were on-hand to illustrate the use of these tools and their importance to native populations.
- The Jacksonville Chapter of the Archaeological Institute of America and the Beaches Museum celebrated International Archaeology Day on October 16. The event featured pottery and rope-making demonstrations, identification of artifacts by Dr. Keith Ashley, an explanation by master gardeners on how Native Americans used plants, and a simulated archaeology dig for young people.
- Led by the Florida Public Archaeology Network with support from the Gainesville Society of the Archaeological Institute of America, Floridians explored the University of Florida from a different perspective on a free tour focusing on archaeological sites and historic features that make the campus unique.
- For International Archaeology Day, four student clubs at Florida State

- University welcomed children with visual disabilities from the Lighthouse of the Big Bend of Florida to "Lighting the Way to Archaeology," a day of learning about archaeology through sensory experiences of smelling, tasting, and touching.
- The Florida Geological Survey, Florida Museum of Natural History, Jacksonville Museum of Science and History, Mulberry Phosphate Museum, Orlando Science Center, South Florida Museum, Frost Museum of Science, Florida Paleontological Society, Florida Fossil Hunters, Manasota Fossil Club, and other organizations raised awareness as National Fossil Day partners.
- In celebration of the 2021 "Water Today and for the Future" Earth Science Week theme, Floridians joined the Florida Department of the Geological Survey on a guided tour of Cherokee Sink at Edward Ball Wakulla Springs State Park. Attendees learned about the area's geologic features, how the sink was formed, and geology's role in drinking water resources.
- The Florida Geological Survey promoted the Earth Science Week photography, video, essay, and visual arts contests on its website.
- The Florida Public Archaeology Network hosted an hour-long trail hike in Oak Tree Nature Park to celebrate International Archaeology Day. This tour highlighted local archaeological resources, focusing on the area's Native American heritage. Participants learned about Native American history in northwest Florida, what archaeology can tell us about pre-contact Native American sites, and how we can preserve and protect these nonrenewable cultural resources.

Georgia

 Elizabeth Xu and Justin Xu of Sugar Hill were among the finalists of the 2021 Earth Science Week visual arts contest.

- Fernbank Science Center, Tellus Museum, and Georgia Southern University Museum were among 2021 National Fossil Day partners.
- "Dig It," an archeology-centered festival organized by the Ancient Mediterranean Studies program at Emory University, was held at the Michael C. Carlos Museum in celebration of International Archaeology Day. The festival included talks by Emory faculty on topics related to Mediterranean archeology as well as a keynote speech by Dr. Steven Sidebotham of the University of Delaware. Interactive activities were included.
- For Earth Science Week 2021, a group of students in Dr. Christy Visaggi's Senior Seminar from the Department of Geosciences at Georgia State University presented a project dealing with human effects on the water cycle.
- Sponsored by the Gwinnett Archaeological Research Society and the Fort Daniel Foundation, the annual Fort Daniel Frontier Fair was held October 16 on the grounds of historic 1813 Fort Daniel in Buford. Featured events were ongoing supervised public archaeological investigations and blacksmith shop demonstrations.
- Georgia Southern University Museum reopened in time to celebrate Earth Science Week. As part of its celebration, the museum featured social media videos and interactive displays by Georgia Southern students, faculty, and alumni.

Hawaii

 Lyman Museum and Mission House was among hundreds of National Fossil Day partners for the 2021 celebration.

Idaho

• In honor of Geologic Map Day, the Idaho Geological Survey shared its geologic map of the De Lamar and Swisher Mountain Quadrangles in Owyhee County online.

- The Idaho Geological Survey promoted awareness of Earth Science Week among community members through its website and by distributing educational materials.
- Hagerman Fossil Beds National Monument promoted National Fossil Day 2021 on its website by gathering an electronic collection of their Hagerman horse fossils.
- Members of the public joined the Idaho Museum of Natural History on the Pocatello campus of Idaho State University for a handson day of fossils at Fossil Fest on October 16.
- A celebration of National Fossil Day and Earth Science Week was hosted by the Idaho Museum of Mining and Geology. Visitors hunted for gems, explored Idaho rocks and minerals, and created their own earthquakes.

Illinois

- The governor of Illinois issued a perpetual proclamation of Earth Science Week.
- Finalists in the Earth Science Week visual arts contest included Benjamin Kwack of Lisle.
- The team of Tanvi Soans and Jacqueline Davis of Chicago was recognized as a finalist in the 2021
 Earth Science Week video contest.
- Guests learned the secrets of groundwater and how geologists study this precious resource with a short hike hosted by the Forest Preserve District of Cook County.
- During an interview with Chicago's Windy City Live! Jessica Esquivel, particle physicist and AAAS IF/ THEN® Ambassador, discussed her collaboration with AGI and the "Geoscience Women in STEM" initiative.
- For International Archaeology Day, the Archaeological Institute of America hosted an informal tour of Oak Woods Cemetery, Chicago's oldest chartered rural garden cemetery, with Dr. Jane Baxter.

- The Burpee Museum of Natural History invited members to celebrate National Fossil Day during an all-day event on October 16. Attendees were welcomed to touch specimens from the fossil collection while learning about their unique history to Illinois and the world. There were also make-and-take crafts, workshops, a raffle opportunity, and more.
- Augustana College's Fryxell Geology Museum, the Field Museum, Burpee Museum of Natural History, Children's Discovery Museum, Field Museum, Illinois State Museum, the Peggy Notebaert Natural History Museum, the Earth Science Club of Northern Illinois, and the Southern Illinois Earth Science Club were among Illinois partners for National Fossil Day 2021.
- In celebration of National Fossil Day, the Illinois State Museum hosted a virtual event allowing attendees to view the Illinois State Museum's Paleontology Collection with Geology Curator Dr. Melissa Pardi.
- The Earth Science Club of Northern Illinois promoted participation in National Fossil Day on its website.
- Naperville Park District promoted participation in National Fossil on its website.
- During Earth Science Week, the Gazette-Democrat celebrated National Fossil Day as being a "celebration 300 million years in the making."

Indiana

- Indiana Geological Survey, Falls of the Ohio State Park, Indianapolis's Children's Museum, Indiana State Museum, Joseph Moore Museum of Natural History, WonderLab Museum of Science, and Indiana's Earth Science Teachers Association promoted understanding as National Fossil Day partners.
- The governor of Indiana issued a proclamation for Earth Science Week 2021.

- Mundell & Associates, Inc. dedicated a page on its website to highlight the Focus Days of Earth Science Week.
- The Indiana Geological & Water Survey promoted awareness of Earth Science Week among community members through its website and by distributing educational materials.
- Monroe Lake invited guests to join in a week of geology-themed programming in celebration of Earth Science Week.
- On October 10, Indiana's Department of Natural Resources kicked off Earth Science Week by making geology story bead necklaces at the Campground Playground with local participants.
- Falls of the Ohio Foundation welcomed guests to celebrate National Fossil Day at the Falls of the Ohio State Park with a series of special fossil bed hikes, reduced adult admission for the Interpretive Center, guides on the collecting piles, and more.
- Members of the public met at the Nature Center of Clifty Falls State Park to embark on a fossil hike exploring deep time.

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- The Buchanan County Conservation Board's Fossil Fun Day enabled attendees to explore Buchanan County Park while discovering Iowa's paleontological past.
- Iowa's list of partners for this year of Nation Fossil Day included the Devonian Fossil Gorge, Fossil and Prairie Center, Sanford Museum and Planetarium, University of Iowa's Museum of Natural History, and the Mid-America Paleontology Society.

Kansas

 The Kansas Geological Survey distributed Earth Science Week Toolkits for educators.

- El Quartelejo Museum in Scott City celebrated National Fossil Day 2021 by recommending activities, such as the National Fossil Day Art Contest, for participants of all ages.
- The University of Kansas' Biodiversity Institute and the Natural History Museum invited the public to view their 2021 virtual paleontology party for this year's celebration of National Fossil Day.
- In celebration of National Fossil Day 2021, the Sternberg Museum offered a free day for patrons to see the new exhibits of the museum.
- Among the list of 2021 National Fossil Day partners were the Kansas Geological Survey, Fick Fossil and History Museum, the Kansas University Natural History Museum, the Sternberg Museum of Natural History, and Prairie Oaks Nature Center.
- Fort Hays State University's Department of Geosciences hosted Earth Science Week events, both virtually and in person, and contests throughout October.

Kentucky

- The Kentucky Geological Survey offered a 2021 Earth Science Week webpage with short videos about geology and geologists; information about rocks, minerals, and fossils; and links to home-based science activities.
- Mammoth Cave National Park celebrated Earth Observation Day with groundwater mapping.
- The Kentucky Geological Survey distributed Earth Science Week kits among educators.
- Big Bone Lick State Historic Site, Kentucky Geological Survey, and Kentucky Paleontological Society promoted 2021 National Fossil Day as event partners.

Louisiana

 Poverty Point World Heritage Site welcomed visitors on International Archaeology Day on October 16.

- Guests learned about spear-throwing with an atlatl, watched as stone tools were created during flint-knapping demos, and assisted site archaeologists in their work.
- The Audubon Nature Institute was an official partner of National Fossil Day.
- The University of Louisiana at Lafayette Anthropology Society presented "A Student's Experience in the Field on the Coushatta Archeology Project," an online event, for International Archaeology Day.

Maine

- The Maine Geological Survey and the L.C. Bates Museum raised awareness of National Fossil Day 2021 as program partners.
- The Maine Geological Survey distributed complimentary Earth Science Week Toolkits to science educators for use in the classroom.

Maryland

- The U.S. Census Bureau posted an announcement about the 2021 Earth Science Week on its website.
- The Natural History Society of Maryland welcomed the local community for an event celebrating National Fossil Day. Guests went home with fossils to start or augment their own collections, and the first 10 teachers to arrive each received a free comprehensive classroom fossil collection to take back to schools.
- Maryland-National Capital Park and Planning Commission's Department of Parks & Recreation hosted members of the public who joined state and local archaeologists at the 13th annual American Indian Festival at Patuxent River Park.
- The Maryland Geological Survey distributed kits among educators in celebration of Earth Science Week.
- Community members celebrated National Fossil Day by visiting interpretative tables stationed outside the Yorktown Battlefield

Visitor Center and learning about local fossils. Activities included a mini fossil dig, an opportunity to make fossils, and a microscope fossil search. There was also a chance to talk with Dr. Godfrey, curator of paleontology from the Calvert Marine Museum.

- Maryland's Dinosaur Park, Calvert Marine Museum, Chesapeake Children's Museum, and the Maryland Science Center were among this year's National Fossil Day partners.
- The Maryland Geological Survey promoted Earth Science Week on its website.

Massachusetts

- Critical Zone Network hosted the local community in a celebration of Earth Science Week during a "Water Today and for the Future" event.
- New England Environmental Education Alliance promoted the 2021 Earth Science Week toolkits in their network.
- 2021 National Fossil Day partners included Harvard Museum of Natural History, Museum of Science, and Marine and Paleobiological Research Institute.
- Welcoming hundreds of fossil enthusiasts and rockhounds, Oak Bluffs
 Public Library's annual Fossil Day
 free public science educational event
 took place at the Tabernacle in Oak
 Bluffs. Guests brought their own fossils to share and discuss with experts.
- Cape Cod Museum of Natural History hosted community members who joined Archaeologist Dan Zoto for a guided walk of Wing Island, the location of the Wing Island Archaeology Project, to learn the history of the island and its varied uses throughout the millennia.
- Members of the public joined local collectors, researchers, and scientists from the Invertebrate Paleontology Divisions of both Harvard and Yale universities, to share fossils, information, and other findings, and examine collections on tables from around the Island, region, and world.

- A virtual National Fossil Day celebration was held online with Harvard paleontologists.
- The American Meteorological Society distributed complimentary Earth Science Week Toolkits to science educators for use in the classroom.
- In celebration of National Fossil Day, the Harvard Museum of Natural History welcomed visitors to virtually meet Harvard paleontologists through a series of free webinars and learn about prehistoric animals on exhibit.
- Lowell National Historical Park sponsored an International Archaeology Day walking tour of standing structures and the landscape of the Boott Cotton Mills.

Michigan

- The Marquette Regional History Center presented an archaeology fair in celebration of International Archaeology Day. Visitors learned about local and global archaeology through activities, demonstrations, artifacts, and displays at a variety of interactive booths.
- Michigan State University Museum, University of Michigan Museum of Natural History, Michigan's Mineralogical Society, and the Michigan Earth Science Teachers Association raised awareness as National Fossil Day partners.
- The Michigan State University Museum hosted an evening of fossil fun for students in honor of National Fossil Day.
- The Forest Preserve District of Cook County hosted "The Lake, The Rocks, & The People: The Geoheritage of Lake Michigan," a live online event, via the Sagawau Environmental Learning Center Facebook page.
- The Michigan Department of Natural Resources highlighted Earth Science Week in its October bulletin.
- The Michigan Geological Survey promoted awareness of Earth Science Week among residents and

- community members through its website and by distributing educational materials.
- Michigan Technological University hosted a series of career day events as part of its Career FEST. Students had opportunities to learn about different job and career opportunities, including in the geosciences.
- The University of Michigan's Museum of Paleontology held a virtual "misconceptions in paleontology" chat live on October 13 for National Fossil Day.

Minnesota

- The Minnesota Geological Survey, Duluth Children's Museum, Science Museum of Minnesota, and the Geological Society of Minnesota were among hundreds of National Fossil Day partners.
- The National Association of Geoscience Teachers created a webpage providing ideas and resources for teaching about water in support of the 2021 Earth Science Week theme of "Water Today and for the Future."
- Minnesota Discovery Center offered a Family Discovery Day for International Archaeology Day.
- The University of Minnesota showcased photos submitted by Department of Earth Sciences faculty and researchers for Earth Science Week.
- The Science Museum of Minnesota invited the community to help decide the state's official fossil and announced the winner, the Giant Beaver, on National Fossil Day 2021. All Minnesotans over the age of 13 were eligible to vote, and educators could help their students cast votes as a classroom.
- Carleton College promoted Earth Science Week on the Science Education Resource Center-Carlton website.
- The Minnesota Geological Survey and the National Association of Geoscience Teachers promoted Earth Science Week among teachers and citizens.

Mississippi

- Dunn-Seiler Museum and the Department of Geosciences at Mississippi State University celebrated National Fossil Day 2021 with a "Favorite Fossil Challenge." This four-part video series challenged friends, faculty, and staff to share and vote on their favorite Dunn-Seiler Museum specimens.
- The Mississippi Department of Environmental Quality's Office of Geology recognized National Fossil Day and Geologic Map Day.
- Mississippi Petrified Forest, Dunn-Seiler Museum at Mississippi State University, and Mississippi Museum of Natural Science helped build understanding of paleontology as 2021 National Fossil Day partners.

Missouri

- The Missouri governor recognized October 10-16 as Earth Science Week 2021.
- The Missouri Department of Natural Resources promoted Earth Science Week among teachers and citizens with the distribution of educational materials.
- The Bollinger County Museum of Natural History held an International Archaeology Day and National Fossil Day celebration in Marble Hill on October 9. The event included hands-on children's activities, puzzles, games, crafts, and presentations.
- The Missouri Division of Geology and Land Survey, the Mastodon State Historic Park, Bollinger County Museum of Natural History, Edward L. Clark Museum of Missouri Geology, Missouri's Institute of Natural Science, and the St. Louis Science Center were 2021 National Fossil Day partners.
- A virtual event explored the Missouri Museum of Anthropology's archaeological collections and the history of the University of Missouri's involvement in the archaeology of Missouri.

- The Missouri Department of Natural Resources promoted participation in Earth Science Week's focus days and contests. The department website featured activities and podcasts related to Earth science in Missouri.
- Millions of people participated in the "Drop, Cover, and Hold On" earthquake drill on October 21 for Earth Science Week.
- KMMO Radio promoted awareness of the Missouri Department of Natural Resources' celebration of Earth Science Week.
- The Missouri State Museum offered special activities throughout Earth Science Week, and especially on National Fossil Day, when visitor viewed fossils in the limestone walls, floors, and stairs of the State Capitol.
- The public was invited to the Ed Clark Museum of Missouri Geology in October for a celebration of Earth Science Week.

Montana

- Visitors at Carter County Museum on October 13 helped to celebrate National Fossil Day, as Stew Cook and Claire Jorgensen led children's activities, including "Pellets and Poops: Uncovering the Past from the Other End."
- The Fort Peck Interpretive Center and Museum, Bug Creek Fossil Area, Great Plains Dinosaur Museum and Field House, Museum of the Rockies, University of Montana Paleontology Center, and the Two Medicine Dinosaur Center were partners in this year's National Fossil Day celebration.
- Makoshika State Park, in partnership with the Glendive Dinosaur and Fossil Museum, held a National Fossil Day event where participants toured of the paleo lab.

Nebraska

 KOLN 10/11 News shared a video on a National Fossil Day event held

- at the University of Nebraska Fossil Museum.
- The University of Nebraska State Museum, Omaha's Children's Museum, and Ashfall Fossil Beds State Park were state partners of National Fossil Day.
- In collaboration with the University of Nebraska State Museum, Nebraska Public Media Labs presented "Expedition Nebraska." This WebXR experience launched with two exhibits on opposite sides of an open-air courtyard with pieces to explore.

Nevada

- The governor of Nevada issued a perpetual proclamation of Earth Science Week.
- The Nevada Bureau of Mines and Geology led a free public field trip in celebration of Earth Science Week. To celebrate this year's theme, the excursion toured three rivers in western Nevada to learn how the rivers have influenced the geology of the area.
- Visitors at the Nevada Science Center celebrated National Fossil Day by learning about Nevada's first named dinosaur species and others that roamed the state millions of years ago.
- The Nevada Bureau of Mines and Geology promoted awareness of Earth Science Week among community members through its website and by distributing educational materials.
- Berlin Ichthyosaur State Park, Nevada Bureau of Mines and Geology, Tule Springs Ice Age Site, Las Vegas Museum of Natural History, Nevada State Museum, Nevada Friends of Paleontology, Outside Las Vegas Foundation, Protectors of Tule Springs, and Archaeo-Nevada Society promoted understanding of paleontology as 2021 National Fossil Day partners.
- In partnership with the Las Vegas Natural History Museum, the Las Vegas Science and Technology

- Festival, and the Clark County School District School-Community Partnership Program, Protectors of Tule Springs hosted an art contest titled "I'm a Protector, Too ... Past & Present" in celebration of National Fossil Day 2021.
- For National Fossil Day 2021, Tule Springs Fossil Bed National Monument hosted "Pleistocene Palooza" an interactive outdoor event for fossil enthusiasts of all ages, featuring live animals and a junior paleontologist program. Visitors glimpsed Ice Age Las Vegas, as they viewed Pleistocene fossils and representative animals that live today, including a camel. Event attendees also were sworn in as a Tule Springs Fossil Beds Junior Paleontologists and earned official Junior Paleontologist badges.

New Hampshire

 The New Hampshire Geological Survey promoted awareness of Earth Science Week among community members through its website and by distributing educational materials.

New Jersey

- The Big Brook Preserve hosted an interactive fossil hunt for all ages. Participants waded the shallow waters of Big Brook, sifted through the substrate, and looked for fossils including shark teeth.
- The New Jersey State Museum promoted public participation in National Fossil Day by highlighting the day on its social media platforms. A video series of David Parris, curator of natural history, presenting *Hadrosaurus*, the state dinosaur, was made available online.
- The New Jersey Geological and Water Survey promoted Earth Science Week and provided Earth Science Week Toolkits to the first 50 Earth and space science teachers to request one.

- Gateway National Recreation Area hosted students who worked to become Junior Archaeologists, watched a test pit being dug by a National Park Service archaeologist, participated in a hands-on excavation, and pieced together the story of local cultural history in a National Fossil Day event at Miller Field Garden.
- National Fossil Day partners included New Jersey State Museum, Rutgers Geology Museum, New Jersey Earth Science Teachers Association, and New Jersey Paleontological Society.
- Savvas Learning Company spotlighted inspiring talks such as "If Water Has Memory, Then What Does That Mean for Our Oceans?" from its Virtual STEM Fair, which teachers can use in the classroom for free and on-demand.
- Rutgers Geology Museum's "Virtual Dinosaurs Late Night" enabled participants to step back in time to discover various types of dinosaurs and other creatures that inhabited Earth during the Paleozoic, Mesozoic, and Cenozoic Eras. This free online event included do-at-home educational activities, a trivia game, and a guest presentation about Theropod dinosaurs.

New Mexico

- For the past 12 years, the New Mexico Bureau of Geology and Mineral Resources has hosted Earth Science week podcasts for a local public radio station. During each day of Earth Science Week, the bureau offered a two-minute podcast on the geology of New Mexico.
- The New Mexico State Historic Preservation Office conducted its Archaeology Fair virtually. Participants learned about the history of the fair, archaeological review at the agency, and the New Mexico SiteWatch program. Participants also downloaded a free coloring book, watched video presentations from the SiteWatch annual meeting,

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- and read a Bureau of Land Management publication.
- The New Mexico Geologic Survey put together a virtual open house with a local middle school as part of its Earth Science Week celebration. Students competed for prizes locally as well as in the national art contest.
- The Las Cruces Museum of Nature & Science offered families takeout STEM activity kits and several events, including one for National Fossil Day which featured paleontologists, educators, and fossil activities
- For International Archaeology Day, the Office of Archaeological Studies presented a series of live "Question & Answer" chats via the Friends of Archaeology's Facebook page.
- New Mexico's Friends of Archaeology celebrated International Archaeology Day with a series of online events to raise awareness of the value of archaeology as history and to provide opportunities for the public to participate in archaeological activities.
- Keeping with annual tradition, the partners of the Center for New Mexico Archaeology — the Office of Archaeological Studies, the Archaeological Research Collections of the Museum of Indian Arts and Culture, and the Friends of Archaeology — celebrated International Archaeology month. Opportunities included online interactive events with staff, premiers of new videos, highlights of favorite featured videos, and debuts of childfriendly downloadable activities.
- During the week leading up to International Archaeology Day, Archaeological Research Collections staff posted daily "Curator's Choice" entries to the Center for New Mexico Archaeology's Facebook page. In addition, the Museum of Indian Arts & Culture sponsored a special presentation by former curator of archaeology Dr. Maxine McBrinn on children in the ancestral Southwest.

- Visitors celebrated International Archaeology Day at the Maxwell Museum of Anthropology's "Passport to People Family Day" event. The in-person event was held October 9.
- The New Mexico Bureau of Geology and Mineral Resources distributed Earth Science Week educational materials.
- The New Mexico Bureau of Geology and Mineral Resources, Ghost Ranch, Prehistoric Trackways National Monument, Mesalands Community College's Dinosaur Museum, New Mexico Museum of Natural History and Science, and the New Mexico Science Teachers Association raised awareness as National Fossil Day partners.

New York

- Andrew Mead of East Northport was a finalist of the 2021 Earth Science Week photography contest.
- Darcie Fregoe, a sixth-grade Earth science and social studies teacher at Madison Elementary School in Massena was named the 2021 recipient of the Edward C. Roy Jr. Award for Excellence in K–8 Earth Science Teaching.
- The Paleontological Research Institution invited guests to join in its annual "Fossil Mania" event at the Museum of the Earth.
- Community members celebrated Earth Science Week by visiting Jericho Library's "Explore Science Online" and its other online databases.
- The American Museum of Natural History and NASA@ My Library organized a live OpenSpace flight webcast for Earth Science Week to take a deep look into space with the James Webb Space Telescope, the most advanced and complex instrument ever placed in space.
- The Paleontological Research Institution promoted awareness of Earth Science Week among community members through its website and by distributing educational materials.

- The Rochester Museum & Science Center and the Archaeological Institute of America's Rochester Society presented a family-friendly introduction to archaeology in honor of International Archaeology Day. Visitors got up close with local artifacts, practiced at archaeology in the indoor dig box, and checked out stone tool demonstrations.
- Fort Stanwix National Monument and Rome Historical Society hosted Archaeology Day in celebration of International Archaeology Day on September 25. The event had inperson components at Fort Stanwix and virtual components enabling participation from home.
- Partners of National Fossil Day 2021 included Penn Dixie Paleontological and Outdoor Education Center, American Museum of Natural History, Buffalo Science Museum, Paleontological Research Institute, Museum of the Earth, Rochester Museum and Science Center, Science Museum of Long Island, and Warthin Museum of Natural History.
- Guests were welcomed to use trowels, explore trenches, and join archaeology professors and students from State University of New York at Brockport as they uncovered the story of a 19th century homestead located at Cumming Nature Center.

North Carolina

- The North Carolina Geological Survey promoted awareness of Earth Science Week among residents through its website and by distributing materials.
- Visitors from North Carolina, South Carolina, Virginia, Maryland, Tennessee, West Virginia, Florida, Georgia, New Hampshire, and the District of Columbia took part in the Aurora Fossil Museum's fossil hunt celebration of National Fossil Day. The free event is held annually through a partnership with the National Park Service.
- The North Carolina Fossil Club promoted National Fossil Day

- 2021 on its social media platforms, highlighting activities happening virtually and in surrounding areas.
- North Carolina's Department of Environmental Quality helped community members celebrate Earth Science Week by joining the North Carolina Geological Survey on a virtual tour of some of the state's noteworthy geologic sites. Prizes were awarded to the first 30 educators to complete the tour.
- Aurora Fossil Museum, Discovery Place, Appalachian State University's McKinney Geology Teaching Museum, North Carolina Museum of Natural Sciences, Imagination Station Science & History Museum, North Carolina Fossil Club, and North Carolina's Museum of Life and Science helped build understanding about paleontology as National Fossil Day partners.
- Teach Hub shared an article on its website highlighting ways to celebrate National Fossil Day 2021 in the classroom.
- International Archaeology Day volunteers joined Exploring Joara Foundation in the excavation of Berry Site located near Morganton.
- Gannett Fleming showcased a webcast titled "Engineering, Economics, and Earth Sciences: The Three Es of Watershed Planning" for Earth Science Week.
- North Carolina's Museum of Natural Sciences promoted Earth Science
 Week, especially highlighting Minerals Day, on its website. Online,
 Curator of Geology Chris Tacker
 spoke on science, value, and beauty.
- Imagination Station Science and History Museum hosted a National Fossil Day-inspired event including activities focusing on fossils.
- Environmental Education in North Carolina promoted Earth Science Week among teachers and citizens.

North Dakota

 North Dakota's governor issued a perpetual proclamation of Earth Science Week.

- Everett Lee of Fargo was selected as a finalist of Earth Science Week's visual arts contest.
- The Dakota Science Center, North Dakota Geological Survey, and North Dakota Geological Society were partners for the National Fossil Day celebration.

Ohio

- The Ohio Department of Natural Resources Division of the Geological Survey promoted Earth Science Week and many ways for Ohioans to get involved on its website. Options ranged from hands-on activities and classroom-based inquiries to talks and interactive experiences with professional geologists and guests.
- The governor of Ohio issued a proclamation for Earth Science Week 2021.
- Ohioans were welcomed by the School of Earth Sciences and the Orton Geological Museum in celebrating Earth Science Week and National Fossil Day. On each day, organizers highlighted a rock, mineral, or fossil that tells an interesting story and helps expand our understanding of the planet.
- The American Institute of Petroleum Geologists promoted the 2021 celebration of Earth Science Week on its website.
- The Allen County Museum, in conjunction with Ohio State University-Lima, presented a live stream lecture titled "Jurassic Park Dinosaurs" on October 12 on the museum's Facebook page. Dr. Mark Kleffner, a paleontologist and stratigrapher, lectured in support of the celebration of National Fossil Day.
- The Cincinnati Chronicle promoted local participation in Earth Science Week.
- Visitors at Allen County Museum picked up free dinosaur-themed activities and National Park Service dinosaur coloring pages.
- For International Archaeology Day and Ohio's Archaeology Month,

- Friends of the Museums offered a day of "Digging the Past" at Campus Martius Museum.
- The College of Wooster's Archaeology Student Colloquium hosted Archaeology Day on October 23 on the Scot Center Promenade. The event in celebration of International Archaeology Day welcomed Wooster students, faculty, staff, their families, and local members of the American Institute of Archaeology. The event featured sandbox excavation for young people, tree rings from Ohio and Alaska, Cedar Creek mastodon and hominin fossil casts, artifacts from Ohio and around the world, atlatl throwing and archery, student summer field reports, and the Wooster archaeology lab camel skeleton.
- The Ohio Department of Natural Resources Division of the Geological Survey and the Association of Environmental & Engineering Geologists distributed Earth Science Week Toolkits and other materials to teachers and others.
- The Falls of the Ohio State Park celebrated National Fossil Day on October 16 with a series of fossil bed hikes, reduced adult admission for the Interpretive Center, guides on collecting piles, and talks and displays about fossils.
- The Clermont Sun and Union County Daily Digital showcased the Ohio Department of Natural Resources' Division of Geological Survey invitation for Ohioans to celebrate Earth Science Week with a series of activities and webinars.
- National Fossil Day partners included Ohio Geological Survey, Cincinnati Museum Center, Cleveland Museum of Natural History, Dry Dredgers, and North Coast Fossil Club.
- The Ohio Earth Science Teachers Association highlighted Earth Science Week on its website, promoting participation.
- For National Fossil Day, visitors explored fossils in the building stones of the Ohio Statehouse. This

event included special guests Mike Angle and Mark Peter of the Ohio Geological Survey, Ohio Department of Natural Resources, and Dale M. Gnidovec, curator of Ohio State University's Orton Geological Museum.

Oklahoma

- Oklahoma's governor issued a perpetual proclamation of Earth Science Week.
- Spiro Mounds Archaeological Center celebrated International Archaeology Day with a lecture, a guided walk, and many other activities. Oklahoma Archaeology Month, sponsored and promoted by the Oklahoma Anthropological Society and the Oklahoma Public Archaeology Network, included many additional events throughout Oklahoma in October.
- The American Association of Petroleum Geologists shared an article on its website highlighting ways to celebrate Earth Science Week 2021.
- Oklahoma's National Fossil Day partners included the Oklahoma Geological Survey and the Sam Noble Museum of Natural History.
- For International Archaeology Day, Oklahoma Public Archaeology Network rented a theater at Rodeo Cinema OKC allowing members of the community to enjoy some archaeology-themed fun at a "Jungle Cruise" movie matinee.
- Oklahoma Public Archaeology Network guests joined in an evening webinar exploring the archaeology of beer with public archaeologist Patty Hamrick.
- The Oklahoma Geological Survey and the Society for Sedimentary Geology distributed Earth Science Week Toolkits to educators and students.
- For Earth Science Week, Oklahoma State University's Boone Picken School of Geology hosted a presentation on "Promoting the Value of Earth Science Research, Its Applications, and Relevance to Our Lives."

 In honor of Oklahoma's Archaeology Month and International Archaeology Day, Oklahoma Public Archaeology Network presented an Archaeological Skills Workshop at Cleveland County Fairgrounds. Attendees learned how to participate in an archaeological survey, set up an excavation unit, illustrate soil profiles, and clean and refit artifacts.

Oregon

- The governor of Oregon issued a proclamation for Earth Science Week 2021.
- John Day Fossil Beds National Monument celebrated National Fossil Day at the Thomas Condon Paleontology and Visitor Center on October 19. Participants worked on a fossil jacket, joined a ranger talk or tour, and became Junior Rangers.
- The Central Oregon Geoscience Society purchased Earth Science Week 2021 Toolkits for distribution among K–12 educators in central Oregon.
- National Fossil Day was promoted by partners including Oregon's Department of Geology and Mineral Industries, University of Oregon Museum of Natural and Cultural History, and Douglas County Museum of Natural and Cultural History.

Pennsylvania

- For Earth Science Week, the Pennsylvania Department of Conservation and Natural Resources invited the public to visit its education webpage dedicated to "Identifying and Collecting" fossils and rocks of Pennsylvania.
- Penn Dixie Fossil Park & Nature Reserve encouraged Pennsylvanians to join PaleoJoe Kchodl for a virtual presentation where he described fish that once swam the ancient Devonian Seas.
- For National Fossil Day, the Carnegie Museum of Natural

- History presented "Bone Wars: The Excavation and Celebrity of Andrew Carnegie's Dinosaur," in which writer and historian Tom Rea discussed Wyoming's rich and complicated paleontological past and its connection to a famous figure of American history, Andrew Carnegie.
- In time for International Archaeology Day, the Penn Museum's "Cartifacts" events returned, providing visitors interactive experiences with reproductions of artifacts from ancient Egypt and North America. Guests talked with and learned from experts as they explored the museum's collections up close.
- The Pennsylvania Geological Survey, Ferncliff Peninsula Natural Area, Academy of Natural Sciences, Carnegie Science Center, the Earth and Mineral Sciences Museum & Art Gallery at Penn State University, Carnegie Museum of Natural History, State Museum of Pennsylvania, Reading Public Museum, Pennsylvania Earth Science Teachers Association, and the Delaware Valley Paleontological Society raised awareness as National Fossil Day partners.
- The Academy of Natural Sciences' Paleopalooza, an annual festival of fossils, returned with nine days of in-person and virtual events for fossil lovers.
- State Museum of Pennsylvania invited the public to join in celebrating National Fossil Day.
- Guests traveled to Raccoon Creek State Park on National Fossil Day and learned what plants and animals used to call it home.
- Earth Science Week Toolkits were distributed among science teachers statewide by the Pennsylvania Department of Conservation and Natural Resources as well as the Petroleum History Institute.
- The governor of Pennsylvania declared October 10-16 as Earth Science Week.
- Wildflower Reserve Interpretive Center welcomed guests for

- a 1.5-mile hike at Raccoon Creek State Park to learn about fossils and how they form. Afterward, attendees found out how to make their own "fossils" at home.
- The Newlin Grist Mill enabled the public to participate in an archaeology dig to celebrate International Archeology Day.

Rhode Island

 The Rhode Island Geological Survey and Museum of Natural History and Planetarium promoted National Fossil Day as official program partners.

South Carolina

- The University of South Carolina, Friends of Arkhaios, and University of Pittsburg sponsored the ninth annual Arkhaios Cultural Heritage and Archaeology Film Festival, a free, public, educational event offering lessons about past cultures gained from ethnological or archaeological research and illustrated by documentary films.
- Members of the College of Charleston campus community attended an unveiling for a new solar shade pavilion near Rivers Green and a commemoration of the indigenous and enslaved people who labored and lived near the site throughout history.
- The South Carolina Geological Survey celebrated Earth Science Week by distributing Earth Science Week Toolkits to educators.
- Environmental Education in South Carolina promoted Earth Science Week among teachers and citizens.
- The College of Charleston's Mace Brown Museum of Natural History presented a dinosaur exhibit for National Fossil Day. The museum launched videos that took viewers on a virtual guided tour through the museum's paleontological gallery and fossil preparation laboratory.

South Dakota

- South Dakota's governor issued a perpetual proclamation of Earth Science Week.
- National Fossil Day was celebrated by the Museum of Geology at School of Mines and Technology. The weeklong celebration included events, tours, and exhibits highlighting geology and paleontology.
- South Dakota's Mammoth Site promoted National Fossil Day 2021 by providing facts, history, tourist tips, and more on a dedicated webpage.
- Mammoth Site and South Dakota School of Mines and Technology's Museum of Geology were among hundreds of National Fossil Day partners.
- South Dakota's Mammoth Site engaged the public through its You-Tube channel featuring two new videos about fossils, caving, and fossil preparation.

Tennessee

- The Tennessee Geological Survey distributed Earth Science Week Toolkits to science teachers and home schoolers.
- The University Memphis' Department of Earth Sciences hosted, in collaboration with the Memphis Museum of Science and History, a colloquium during Earth Science Week 2021. During this event, the museum's Steve Masler introduced a new permanent exhibit focusing on the Mississippi Embayment.
- Nashville Mainstreet, an online newspaper, highlighted educational resources and activities of Earth Science Week.
- Alex's Rock Shop of Shelbyville hosted a National Fossil Day event for lovers of fossils, crystals, rocks, and artifacts.
- East Tennessee State University's General Shale Brick Natural History Museum and Gray Fossil Site held a "Fossil and Artifact ID Night" celebration in honor of National Fossil Day.

- The Frank H. McClung Museum of Natural History and Culture, Gray Fossil Site, East Tennessee State General Shale Brick Natural History Museum, and the Pink Palace Museum promoted awareness as National Fossil Day partners.
- The governor of Tennessee declared October 10-16 to be Earth Science Week.
- WGNS Radio highlighted educational resources and activities of Earth Science Week to engage Tennesseans regarding the importance of water and water science.
- Discovery Center, in partnership with the University of Tennessee-Martin's Department of Agriculture, Geosciences & Natural Resources, celebrated with an exploration Earth and environmental science. Activities ranged from fossil displays to games and stories from a storm chaser.
- This year's fifth annual Tennessee STEAM Festival offered an array of hands-on activities for children and adults, from scavenger hunts to hiking.
- The Archaeological Institute of America-Nashville Society and the Nashville Parthenon teamed up to join hundreds of archaeological organizations around the world to celebrate International Archaeology Day.

Texas

- In honor of International Archaeology Day, Witte Museum guests experienced a story of land, water, and sky by making rock art during "Making Rock Art" events.
- The Arlington Archosaur Site promoted this year's National Fossil Day celebration across its social media platforms.
- For Earth Science Week, the Texas Water Development Board offered K-12 resources for teachers to use in classroom activities.
- The Texas State Geological Survey, Arlington Archosaur Site, Dinosaur Valley State Park, Fossil

- Rim Wildlife Center, Ladonia Fossil Park, Mineral Wells Fossil Park, Waco Mammoth Site, Perot Museum of Nature and Science, Centennial Museum, Heard Natural Science Museum and Wildlife Sanctuary, Houston Museum of Natural Science, Mayborn Museum, Museum of Texas Tech University, Panhandle-Plains Historical Museum, Sherman Museum, East Texas Gem and Mineral Society, Paleontological Society of Austin, and Dallas Zoo were National Fossil Day partners.
- Bexar BiblioTech Public Library led community in craft events at various locations for Earth Science Week.
- Archaeology Now sponsored "Ancient Houston," a free hands-on event for children at Tony Marron Park in Houston.
- The Texas Memorial Museum held a public event in celebration of National Fossil Day, including fossil identifications and a paleontologist meet-and-greet.
- Celebrating National Fossil Day and Earth Science Week, the Dinosaur Company hosted a two-day "Fossil Fest 2021" event. Offerings were provided by the Dallas Paleontological Society and "Dr. Dino" Chris DeLorey, who also presented a program on dinosaurs.
- During Earth Science Week, the Houston Gem & Mineral Society hosted the 68th Annual Gem, Jewelry, Mineral & Fossil Show at the Humble Civic Center.
- The University of Texas at El Paso's Department of Earth, Environmental and Resource Sciences presented Earth Science Week activities on October 23, including a weather balloon launch, earthquake demo, and stream table demos.
- PICK Education celebrated the 12th Anniversary of National Fossil Day by inviting paleontologists, educators, and students to join in fossilrelated events and activities across the country in parks, classrooms, and online.

- For Geologic Map Day 2021, Sul Ross State University presented a display of west Texas maps and other regions. The event included a discussion of regional geology and sample identification with faculty.
- Ladonia locals celebrated National Fossil Day at a new, improved park location on the North Sulphur River, along with representatives from the Dallas Paleontology Society, local geologists, and fossil enthusiasts.
- Texas Master Naturalist, an extension of Texas A&M University, promoted participation in Earth Science Week on its website.
- An announcement about Earth Science Week 2021 appeared on the Texas Bureau of Economic Geology's website.
- The Society of Exploration Geophysicists highlighted, on its SEG Library webpage, materials, activities, and opportunities for Earth Science Week.
- Students and staff at Crockett Middle School were recognized for their artistic prowess in the National Fossil Day Art Contest during a school event.
- The Mineral Wells Chamber of Commerce held its 11th annual Crazy Fossil Dig on October 16 at the Mineral Wells Fossil Park. The event included fossil displays and a scavenger hunt. Fossils found in the park are about 300 million years old, dating back to the Pennsylvanian era, when the area was part of the sea.
- For Earth Science Week and National Fossil Day, the Perot Museum of Nature and Science highlighted its *Nanuqsaurus* fossil. Dr. Ron Tykoski, the museum's director of paleontology, offered a behind-the-scenes look at actual *Nanuqsaurus* bones.
- The Dallas Paleontological Society sponsored several National Fossil Day events, including "Fossilmania" in Glen Rose, Texas.
- Dallas Public Library, an official partner of National Fossil Day,

- celebrated the event with a "trip back in time" to when mammoths and other Ice Age creatures lived. Guests learned how animals from the Age of Mammals were first discovered, what they ate, and with what they shared their world.
- For National Fossil Day, the Houston Museum of Natural Science shared details about their collection's "Giant Crinoid" on social media.
- The Houston Geological Society hosted a scaled down, socially distanced Earth Science Week event at the Houston Museum of Natural Science. The society also provided links to videos, field trips, and other resources on how to understand, conserve, and protect water.

Utah

- Earth Science Week 2021 Toolkits were distributed to students, teachers, and others by the Utah Geological Survey and Utah Digital Labs.
- Dinosaur National Monument virtually shared their museum's resources and events, including a link to search a geologic map of the state (or any state), a scienceof-rocks worksheet, a link to view satellite images using Landsat, and videos and livestream events.
- The Utah Geological Survey hosted free activities for school groups to celebrate Earth Science Week. In two-hour sessions, subgroups rotated through five hands-on activity stations.
- Utah Public Archaeology Network presented an online webinar for International Archaeology Day.
- Utah residents were welcomed at Brigham Young University's Museum of Peoples and Cultures to celebrate International Archaeology Day. Attendees received archaeological treats.
- Discovery Gateway Children's Museum organized a National Fossil Day celebration including a fossil show and fossil-making experiences.

- The Utah Geological Survey's Earth Science Week webpage featured short videos about geology and geologists; information about rocks, minerals, and fossils; and links to home-based science activities.
- The Utah Geological Survey, Cleveland-Lloyd Dinosaur Quarry, Ogden Eccles Dinosaur Park, St. George Dinosaur Discovery Site at Johnson Farm, Garth and Jerri Frehner Museum of Natural History, Museum of Moab, Utah Field House of Natural History State Park Museum, Thanksgiving Point Museum of Ancient Life, University of Utah Natural History Museum, Utah Friends of Paleontology, and Earth Science Education promoted National Fossil Day as partners.
- The Prehistoric Museum and the Utah Field House of Natural History State Park Museum highlighted their collections of fossils from across Utah's geologic history in celebration of National Fossil Day.
- The sixth annual Moab Festival of Science was sponsored by organizations including the Utah Division of Wildlife Resources, the Canyonlands Natural History Association, Moonflower Community Cooperative, Moab Astronomy Tours, and Science Moab. The event connected and inspired citizens of southeastern Utah with science through hands-on activities and tours.

Vermont

- The Vermont Geological Survey and Chazy Fossil Reef were partners for National Fossil Day.
- For International Archaeology Day, the Niagara Peninsula Society of the Archaeological Institute of America Public Lecture Series welcomed Mark Usher of the University of Vermont as its first lecturer of the season.

Virginia

 Finalists of the Earth Science Week essay contest included Alex Lauro of Vienna, Madison Murrell of

- Virginia Beach, Henry Nguyen of Virginia Beach, and Alana Voces of Virginia Beach.
- The Mineralogical Society of America (MSA) provided content for the 2021 Earth Science Week Toolkit and activity calendar. MSA also promoted Minerals Day 2021 on its website with resources and information. Minerals Day, held on the second day of Earth Science Week, is a collaboration between MSA, AGI, and other partner organizations.
- Virginia's Department of Energy shared its publication "Geology of the Wise Quadrangle, and the Coal-Bearing Portion of the Fort Blackmore Quadrangle, Virginia" online, for Earth Science Week.
- Andrej Ciric of Virginia Beach was a finalist in this year's Earth Science Week photography contest.
- For National Fossil Day, the National Science Foundation shared an "Ancient Animal Puzzle" activity, encouraging students to learn about fossils and the role they play in helping us understand plants and animals that lived in the past.
- The Virginia Geological Survey, Science Museum of Virginia, Virginia Museum of Natural History, Paleo Quest, and AGI helped build understanding of paleontology as National Fossil Day partners.
- Sarah Eaton of Lexington was a finalist in the 2021 Earth Science Week video contest.
- In honor of Earth Science Week, Virginia's Department of Energy provided informative content on its "Geology and Mineral Resources" webpage.
- The Williamsburg Society invited community members to join in celebrating International Archaeology Day at the College of William & Mary in Williamsburg.
- For Earth Science Week, Friends of Mineralogy's Virginia Chapter encouraged the public to help raise awareness of and appreciation of minerals and mineralogy.
- In celebration of National Fossil Day, interpretive tables were

- stationed outside the Yorktown Battlefield Visitor Center for guests to learn about the region's prehistoric past. The event included a miniature fossil dig, an opportunity for guests to make their own fossils, and a microscope fossil search. Guests spoke with Dr. Stephen Godfrey, curator of paleontology from the Calvert Marine Museum.
- The National Science Teaching Association promoted Earth Science Week offerings such as the 2021 webinar series on its website and in its October NSTA Reports.
- The Archaeological Institute of America's Richmond Society collaborated with the Department of Classical Studies at the University of Richmond to host outreach events including a celebration of International Archaeology Day.
- Jamestown Rediscovery engaged the public in a celebration of International Archaeology Day and Virginia's Archaeology Month. Attendees toured the site with an archaeologist and visited the archaearium.
- The Frontier Culture Museum of Virginia sponsored an Archaeology Day event where participants excavated dig boxes and learned about how closely living history and archaeology are linked.
- The U.S. Geological Survey (USGS) Youth and Education in Science office created a webpage to link USGS Earth Science Week efforts.

Washington

- Nathan Xu of Clyde Hill won first place in the Earth Science Week visual arts contest with an abstract self-portrait that included examples of ways that water plays a role in our lives.
- Washingtonians visited the Burke Museum of Natural History and Culture for activities and information on local and global archaeology.
- Alex Xu of Clyde Hill was a finalist in the 2021 Earth Science Week photography contest.

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- Washington locals celebrated National Fossil Day on October 13 with the Burke Museum of Natural History and Culture's Fossil Costume Contest.
- An estimated more than 150 attendees braved an October drizzle to take part in Seattle's first in-person celebration of International Archaeology Day. Following last year's virtual event, this year saw the Puget Sound Society of the Archaeological Institute of America team up with the Burke Museum of Natural History and Culture under the direction of Professor Ulrike Krotscheck of Evergreen State College and Professor Randall Souza of Seattle University.
- Kenosha Public Museum celebrated fossils with activities dealing with "Arctic Dinosaurs."
- Ginkgo Petrified Forest State Park, Burke Museum of Natural History and Culture, and the Stonerose Interpretive Center and Eocene Fossil Site were partners in National Fossil Day.
- Earth Science Week Toolkits were distributed among science teachers statewide by the Washington Geological Survey.

West Virginia

- In honor of Archaeology Day and West Virginia Archaeology Month, Grave Creek Mound Archaeological Complex featured activities on October 2. The day included flint-knapping demonstrations and a display of tools, behind-thescenes tours of the West Virginia Archaeological Research and Collections Management Facility, a museum treasure hunt run by the Greater Moundsville Convention and Visitors Bureau, archaeological films in the museum's auditorium, and spear throwing using the atlatl.
- On social media, the West Virginia Geological and Economic Survey shared resources for National Fossil Day.

 The West Virginia Geological and Economic Survey and the Clay Center for Arts and Sciences raised awareness as National Fossil Day partners.

Wisconsin

- The Soil Science Society of America participated in Earth Science Week by providing content for the 2021 toolkit and activity calendar.
- Dunn County Historical Society celebrated National Fossil Day at the Rassbach Museum with several Dunn County fossils on exhibit. The group also provided "take home" fossils for budding paleontologists.
- In celebration of National Fossil Day, Weis Earth Science Museum highlighted *Xiphactinus*, a giant fish skull fossil on display in the "Animals Through Time Exhibit."
- The Wisconsin Geological and Natural History Survey promoted participation in Earth Science Week among teachers, and citizens through social media.
- The Dinosaur Discovery Museum and the Milwaukee Public Museum shared National Fossil Day events happening statewide through social media.
- Kenosha Public Museum welcomed visitors celebrating fossils during "Arctic Dinosaurs," a National Fossil Day event and offered guidance on how to get certified as a Junior Paleontologist through the National Park Service.

Wyoming

- The Wyoming State Geological Survey disseminated Earth Science Week 2021 Toolkits among students and educators statewide.
- Instead of the traditional Wyoming ROCKS! event celebrating Earth Science Week in October, the Wyoming State Geological Survey, University of Wyoming Geological Museum, and Science Kitchen partnered to offer Water Science Boxes to Wyoming students. Boxes



Earth Science Week 2021 Photography Contest entry by Andrej Ciric.

- contained activities focused on Wyoming geology and water.
- Wyoming locals visited the National Historic Trails Interpretive Center to learn about the state's rich and complicated paleontological past.
- Wyoming Public Radio highlighted ways that community members could participate in this year's Earth Science Week celebration.
- Tate Geological Museum celebrated Geologic Map Day by showcasing geological maps hanging throughout the facility.
- Buffalo Bill Center of the West, Draper Museum of Natural History at the Buffalo Bill Center of the West, Sheridan College's Geology Museum, Tate Geological Museum, University of Wyoming Geological Museum, Wyoming Dinosaur Center, and Bighorn Basin Foundation promoted National Fossil Day as partners.
- The Cheyenne Post promoted awareness of the Wyoming State Geological Survey's offer of toolkits to classrooms in Wyoming in celebration of Earth Science Week.

- Tate Geological Museum at Casper College promoted participation Earth Science Week by highlighting Focus Days on their social media platforms.
- The Wyoming State Geological Survey and University of Wyoming Geological Museum celebrated with daily activities and funfact posts on the survey's social media platforms throughout Earth Science Week.

International Events

According to Google Analytics, the Earth Science Week website was accessed by users in 219 nations, territories, and regions in 2021. More substantial international activity included the following.

Australia

- GSA NEO, a new online initiative of the Geological Society of Australia, provided early-career geoscientists with new skills, knowledge, new confidence for the workplace during Earth Science Week 2021.
- The Australian Institute of Geoscientists presented a week of online and radio activities and presentations by Australian scientists.
- Geoscience Australia offered live shows, teacher resources, and online activities to celebrate Earth Science Week. Events celebrated ways Earth science impacts our everyday lives, featured a diverse range of Earth scientists, and offered activities for virtually anyone.
- Australian Earth Science Education highlighted several educational organizations and resources to engage Australians in exploring the importance of the geosciences and geoscience education.
- The Wholesome Show, a science story podcast by Dr. Will Grant and Dr. Rod Lamberts sponsored by the Australian National Centre for the Public Awareness of Science, dedicated a live episode to Earth Science Week. Those who listened to "The Ground Beneath Our Feet" learned about the development of the theory of plate tectonics.
- DART Learning, an initiative of the New South Wales Department of Education, promoted Earth Science Week on its website and offered opportunities to learn about the Earth in the classroom or from home. Free sessions were available to watch online through October 15.
- Virtual Excursions Australia provided educational opportunities focusing on the Earth sciences.

Bangladesh

 Bangladesh held its fourth annual Earth Science Week celebration.
 Events included photo competitions, an online essay competition, and online seminars.

Belgium

 The European Federation of Geologists promoted participation in Earth Science Week.

Belize

- The Belize Institute of Archaeology celebrated International Archaeology Day, hosting multiple Trivia Fridays pertaining to Belizean archaeology.
- Galen University's Anthropology Club hosted sessions and activities in celebration of International Archaeology Day.
- Institute of Archaeology Belize encouraged community members to celebrate International Archaeology Day by entering its "Build a Monument" competition.
- Galen University's Anthropology Club celebrated International
 Archaeology Day with Facebook
 sessions throughout Earth Science
 Week. During the events, club
 representatives discussed laws
 in Belize concerning artifacts and
 monuments, field work experiences, and how they are important
 for all Belizeans.
- Members of the public celebrated International Archaeology Day with Heritage Education Network Belize and 7 New Belize Ltd. Guests joined a virtual event for an informative discussion on heritage management legislation with Brandon Usher of the "Law Man for the Layman" morning show.

Canada

- The Ontario Archaeological Society promoted International Archaeology Day by inviting members and symposium attendees to participate in a photo contest.
- For International Archaeology Day, expert flint knapper Dan Long provided a demonstration on October 23. The demonstration was hosted by the Department of Classics and the Niagara Peninsula Chapter of the Archaeological Institute of America.
- Celebrating International Archaeology Day, the Museum of Ontario Archaeology, Ontario Archaeological Society's London Chapter, and ASI Archaeological and Cultural Heritage Services organized activities.
- The Newfoundland and Labrador Archaeological Society invited the public to visit The Rooms Provincial Museum for International Archaeology Day. Attendees learned how to draw archaeological artifacts, checked out the display of artifacts, and chatted with scientists about archaeology in this province.
- The Laboratoire d'archéologie et de patrimoine (Archaeology and Heritage Laboratory) of the University of Quebec at Rimouski allowed visitors to interact with the archaeologists in residence as they conducted research on local and regional archaeological material.

• INTERNATIONAL EVENTS

Croatia

 As part of International Archaeology Day, the Archaeological Museum of Osijek organized a drawing workshop "Nacrtaj artefakt / Draw an artifact" on the theme of artifacts in the permanent exhibition. Free admission was available all day, as was a guided tour and a game on the museum's Facebook page.

Czech Republic

- The Archeopark Pavlov archaeological museum celebrated International Archaeology Day with its "Wolf from Pavlov" exhibition, plus additional programs.
- National Heritage Institute Czech Republic offered a series of short lectures covering topics from the Neolithic to the Modern Age, discussions, and a poster exhibition on the activities of archaeologists of the National Monuments Institute for International Archaeology Day.

Ecuador

 The American Association of Petroleum Geologists (AAPG) Escuela Superior Politecnica Del Litoral Student Chapter celebrated Earth Science Week with classes and experiments for local children and a conference about research and community outreach.

Greece

- The American School of Classical Studies' Corinth Excavations co-hosted an event at the Archaeological Museum of Ancient Corinth in celebration of International Archaeology Day. Guests experienced the art of vase making and painted vases.
- Archaeological Institute of America Tours hosted a tour from city to mountains to seaside, exploring Greece from the Bronze Age to the Classical era and beyond in celebration of International Archaeology Day.

India

- Times Now News highlighted top events on each Focus Day of Earth Science Week. Times Now of Delhi promoted participation in Earth Science Week on its website.
- Nirgranth Centre of Archaeology and Shri Bharatvarshiya Digamber Jain Teerth Samrakshini Mahasabha jointly organized a national seminar on International Archaeology Day.

Indonesia

 AGI invited members of AAPG Student Chapters in the Asia Pacific Region to enter Earth Science Week's "Water Is Part of Life Around the World" video contest. The University of Indonesia's AAPG Student Chapter team won first place in the video contest with its entry on how pollution affects water sources of Indonesia and suggestions for improvements that could be made.

Ireland

- Earth Science Week events took place in museums, libraries, schools, universities, geoparks and more, including urban geowalks, family activity days, talks, conservation days, and field trips.
- Girls Into Geoscience-Ireland shared updates, resources, and posts about Earth Science Week and water science throughout the week on social media.
- Irish Centre for Research in Applied Geosciences (iCRAG) experts on water produced "Protecting Our Precious Water," a magazine for schoolchildren combining science, experiments, and games. The magazine is the second in the STEM Matters magazine series which visits a different Science Foundation Ireland-funded research center each month. iCRAG highlighted the research of their scientists to celebrate the theme of Earth Science Week 2021, "Water Today and for the Future."

Jamaica

• The University of the West Indies Seismic Research Centre (UWI-SRC) regularly collaborates with regional emergency management partners to raise public awareness of the hazards through special campaigns. During the last quarter of each year, Earth Science Week is celebrated at UWI-SRC under a theme supplied by AGI.

Japan

- The fourth annual Earth Science Week Japan was celebrated in Sendai, mainly at Sendai City Science Museum.
- Innovinc Organization held the second World Congress on Geology & Earth Science in Osaka.

Pakistan

 The Save Cultural Heritage Group and its partners organized virtual International Archaeology Day celebrations to share knowledge and experiences that foster understanding of both challenges and opportunities in the art, architecture, archaeology, and related cultural heritage sectors.

Philippines

- The team of Michael and Precious Golez of Naga City, Camarines Sur, won first place in the Earth Science Week video contest with their entry showing how they conserve water at home to protect water resources in their community, like the waterfalls of the Camarines Sur Mountains.
- Raheemah Hafsah Pangarungan of Marawi City, Bangsamoro Autonomous Region in Muslim Mindanao, was a finalist in the Earth Science Week video contest.
- News Break highlighted the top events held for each Focus Day of Earth Science Week 2021.

INTERNATIONAL EVENTS

Poland

 "Around the World and Through the Ages with Garb on the Back" was presented at Muzeum Górnośląskie w Bytomiu on October 16.

South Africa

The Council for Geoscience celebrated Earth Science Week and called on all Earth scientists to "continue contributing to the understanding and preserving of our beautiful scarce natural resources."

Trinidad & Tobago

 The University of the West Indies' Seismic Research Centre promoted participation in Earth Science Week 2021 on its website as well as through its social media with educational posts, videos, and more.

United Arab Emirates

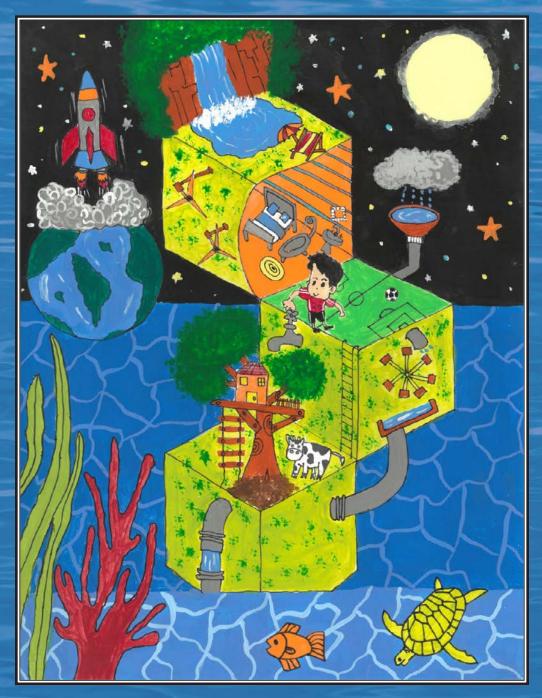
 Students in Year 7 at the Dubai British School Jumeirah Park were challenge to take a photo related to this year's Earth Science Week theme of "Water Today and for the Future."

United Kingdom

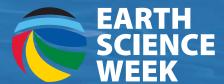
- The Geological Society of London (GSL) supported several Earth Science Week events, including geowalks, hands-on activities, talks, and open days.
- GSL and the Paleontological Association fostered understanding of paleontology as official National Fossil Day partners.
- Open University Geological Society promoted participation in Earth Science Week.
- Top Stories UK highlighted major events during the Focus Days of Earth Science Week 2021.
- The International Association of Hydrogeologists distributed Earth Science Week Toolkits to science educators for use in the classroom.
- York Cemetery offered "Geology in the Cemetery with Tom Berry and Liam Herringshaw," an informative geological walk where participants

- learned about the multitude of rock types that make up the headstones of a cemetery.
- Newcastle University's School of Natural and Environmental Sciences showcased a video of its Earth and Environmental Science students on a field trip to a local quarry in celebration of Earth Science Week.
- Earth Science Partnership shared resources and presentations from GSL for Earth Science Week 2021.
- University Technical College Portsmouth celebrated Earth Science
 Week with activities including
 a mining challenge, panning for
 gold, geology quizzes, and a talk
 on careers by GSL.
- The European Association of Geoscientists and Engineers and the European Federation of Geologists co-hosted a photography competition focusing on extraordinary actions or aspects in geoscience, particularly the categories of Geosciences for Society, Women Geoscientists, Landscape and Environment, and Geoscientists' Life.

Because of the large 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.



Earth Science Week 2021 Visual Arts Contest entry by Justin Xu.



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