

# Earth Science Week offers activities for all

Lindsay C. Mossa, Lauren Brase, Sequoyah McGee, and Edward C. Robeck

Earth science plays a crucial role in all aspects of the environment, society, and economy. Earth Science Week (ESW) is an annual celebration that highlights the importance of studying the earth with the aim of drawing more people into the geosciences. The celebration is facilitated by the American Geosciences Institute (AGI), along with many partner organizations. Geoscientists, earth science educators, and advocates can effectively demonstrate how the geosciences connect with people's existing interests. This is important for building general knowledge of the geosciences and encouraging awareness of related careers, especially when the connections are not immediately apparent. Members of SEG have a vital role in helping others see how the study of earth's structure and processes connects to people's lives, communities, and futures.

This year, ESW is 13–19 October. The theme, “Earth Science Everywhere,” is intended to encourage students and the general public to appreciate the diversity and complexity of earth's systems and their interactions that can occur over rapid and long-term timescales. We at AGI also want people to recognize the multidisciplinary, interdisciplinary, and transdisciplinary nature of earth science to show that the geosciences have relevance across many settings. This includes how people interact with our planet and its diverse ecosystems (e.g., managing resources, mitigating natural hazards, and more).

## Highlighting the scope of earth science

As part of ESW, AGI worked with sponsor and partner organizations to create a toolkit. The toolkit includes a collection of print media, such as earth science activities and resources, for use by educators in formal (e.g., schools) and informal (e.g., museums) settings. These resources include posters, games, activity sheets, and other formats that are designed to

- Promote the use of real-world geoscience data
- Highlight the various connections between geoscience and human values
- Expose young people to career opportunities within the geosciences
- Emphasize the many roles that the geosciences play in sustainability

One resource in the toolkit is an academic year calendar. Each month features an activity from one of AGI's partners. Activity topics vary widely and include collecting geospatial data, locating EarthCaches, exploring data sonification, and more. Students who complete these activities will understand how the earth sciences and many other subjects in STEM, the

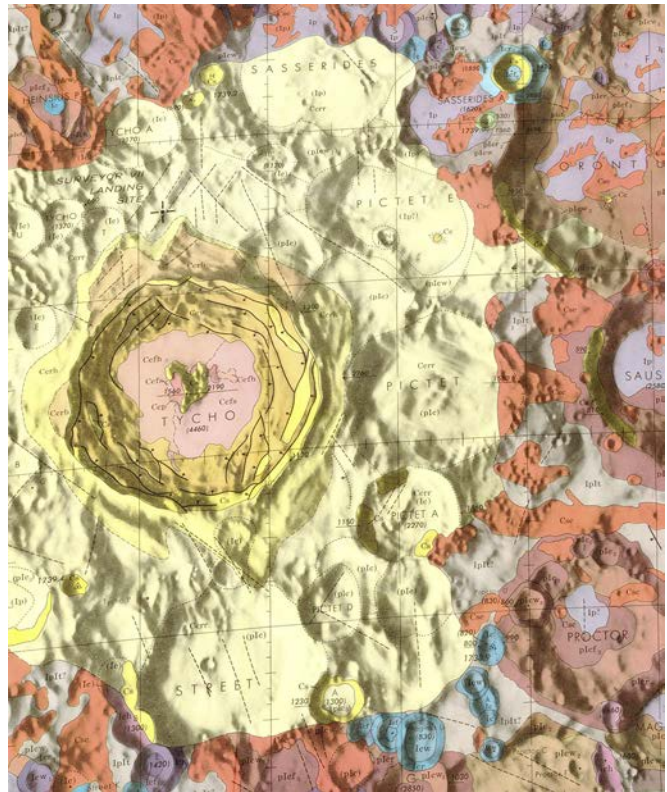


Figure 1. As one of four geologic maps featured on the 2024 Geologic Map Day Poster, Tycho Crater can be used to discuss impact events, comparisons between features on the Earth and Moon, and geophysical data that are used to produce geologic maps.

humanities, and more work together to help us make sense of our world. Each calendar activity is connected to specific United Nations Sustainable Development Goals to help teachers give earth science concepts real-world context and to communicate how people around the world are using geoscience knowledge to address global challenges.

A new feature of the calendar showcases projects conducted by Geoscientists *without* Borders (GWB). Each month of the calendar has a callout box that summarizes a GWB project, highlights its relevance to earth science concepts, and links to an activity designed to help students connect their learning with work done by geoscientists. For example, the project highlighted in December is “Integration of geophysical, hydrogeological, and geotechnical methods to aid monitoring landslides in Nordic countries.” Teachers can use this project as an introduction to soil conditions, such as how they are measured and monitored or how they may lead to landslides. This callout box also links to the Web Soil Survey, which can be used to

<sup>1</sup>American Geosciences Institute, Alexandria, Virginia, USA. E-mail: [lmossa@americangeosciences.org](mailto:lmossa@americangeosciences.org); [lbrase@americangeosciences.org](mailto:lbrase@americangeosciences.org); [smcgee@americangeosciences.org](mailto:smcgee@americangeosciences.org); [ecrobeck@americangeosciences.org](mailto:ecrobeck@americangeosciences.org).

access visual and quantitative data on soil conditions across the United States. These data can enable students to study factors that affect the occurrence of landslides. The transdisciplinary nature of this GWB project could also be discussed in the context of addressing SDG 11 (Sustainable Cities and Communities) and SDG 15 (Life on Land) and how the work and knowledge base of many professions is needed to solve real-world problems. These callout boxes fit with the “Earth Science Everywhere” theme by highlighting the work of practicing geoscientists around the world. They also connect the work to educational standards in ways that enable teachers to discuss earth science concepts through the lens of geoscience careers and progress toward sustainability.

### Getting involved

The success of ESW depends on the involvement of AGI’s partners, including SEG, and collaborative efforts to host events and create materials that can help everyone understand the importance of studying the geosciences. Each day of ESW has a unique focus that can help center a celebration on specific earth science topics, such as fossils or geologic maps. We at AGI encourage you to participate in ESW in any way you can, such as by


- Hosting virtual or in-person ESW events
- Being a guest speaker in K–12 classrooms
- Distributing toolkits to educators



Figure 2. ESW photography contest finalist Peter Schuchman shows geoscience data being collected by students.

- Partnering with AGI to develop activities or lessons related to your research and projects
- Promoting ESW on social media

In addition, AGI and our partners will host webinars 14–18 October during ESW. This year, the webinars will cover many topics including progress of sustainability efforts, how plastics affect environmental and human health, geologic mapping of impact craters, earth science at the poles, and regenerative agriculture. Each webinar will premiere live on AGI’s YouTube channel, and the presenters will be available to answer questions in the chat. Visit <https://www.americangeosciences.org/webinars> for more information and to register for each webinar. During the week, there are also four contests, in which people can use their creativity to illustrate, demonstrate, and express their thoughts on the ESW theme (see sidebar).

To learn more about ESW and all the ways to get involved, please visit <https://www.earthsciweek.org> or e-mail [info@earthsciweek.org](mailto:info@earthsciweek.org). 

## Contests highlight earth’s processes

One way to get involved in ESW is to compete in the contests detailed below.

The photography contest, Earth Science in Action, is open to everyone. Submit a photo showing earth processes occurring in your community.

The video contest, Earth Science Connects Us, is open to individuals and teams of all ages. Submit an original video to show how people around the world experience similar earth processes.

A visual arts contest is open to U.S. students in grades K–5. Submissions should show how earth’s systems are interconnected with each other and/or other subjects.

The essay contest, How Earth Science Affects Us All, is open to U.S. students in grades 6–9 and asks them to write about how geoscience knowledge can be used to address challenges being faced around the world.

The winner of each contest will receive a US\$300 prize, and their work will be published on the ESW website. The due date for submissions is 5 p.m. U.S. EDT on 18 October 2024.