Rural Educator Network Newsletter

Connecting Educators and Sharing Resources

NASA SciAct

NAU NORTHERN ARIZONA UNIVERSITY

Hello Educators!

This Newsletter is dedicated to providing:

1. NASA resources modified to the needs of rural audiences
2. Upcoming NASA events, webinars, and opportunities
3. Partnership highlights
4. Expressing your current needs and successes

You're invited to contribute content to a future newsletter...

Tell us a story, share an activity, photo, lesson plan, or resource.

Share with Us!

Help to Grow the Network: Share this sign-up link with friends: http://eepurl.com/h1xxQ9

April is Earth Month & Citizen Science Month! 🌎

🌎 Calling all Earth lovers, creatives, and film lovers! NASA eClips is hosting an Earth Day Video Challenge and Marathon, and we want YOU to join in the fun!

Students across the country have been creating NASA Spotlite videos, Maker Art Craft videos, and engineering videos in celebration of Earth Day! Don't miss the opportunity to see what students have created during the Earth Day Video marathon on April 22nd!

Want to attend the viewing? Register here!

🌎 Earth Day Toolkit from NASA

Earth Day Toolkit

🌎 Explore the Earth Information Center

The Earth Information Center combines data and resources from different United States government agencies on Earth science. Explore different themes such as agriculture, air quality, and greenhouse gases with accessible data maps.

🌎 Grades 6-8 Earth Systems and History Lesson Plans

Explore Earth processes and systems using NASA assets and science for grades 6-8!

6-8 Lesson Plans

🌎 Grades 3-5 Earth, Weather, and Climate Lesson Plans

Explore Earth processes and systems using NASA assets and science for grades 3-5!

3-5 Lesson Plans

🌎 Grades 9-12 Earth Science Lesson Plans

Explore Earth processes and systems using NASA assets and science for grades 9-12!

9-12 Lesson Plans

🌎 2025 Earth Day and GLOBE 30th Anniversary Broadcast: Celebrating 30 Years of the GLOBE Program

Join the GLOBE Program on Earth Day, April 22nd, to celebrate GLOBE Program's 30th anniversary with our *2025 Earth Day Broadcast: Celebrating 30 Years of the GLOBE Program.* Tune in to the GLOBE YouTube channel to see highlights on how the program has impacted science, people, and communities in its 30 years.

Event Time: 4:00 pm UTC - 5:00 pm UTC

🌎 NASA Eyes on the Earth

Track Earth's vital signs and fly along with NASA's Earth-observing satellites. See natural hazards from space and view near-real-time science data. Explore different data points such as air temperature, precipitation, carbon dioxide levels, and more!

Eyes on Earth

🧬 #CitSciMonth Celebrate by Doing Citizen Science

There are so many ways to be involved in real NASA science with citizen science projects! Check out this shortlist below and start exploring the universe through a researcher's eyes!

1. **Disk Detective:** Interested in how planets form? Become a Disk Detective and search for dusty debris disks around stars where distant worlds form and dwell. Get involved: https://www.zooniverse.org/projects/ssilverberg/disk-detective
2. **Cloudspotting on Mars:** Find the telltale signal of exotic, high-altitude clouds in data collected by the Mars Reconnaissance Orbiter and help us learn about the red planet's atmosphere. Get involved: https://science.nasa.gov/citizen-science/summary/cloudspotting/
3. **Daily Minor Planet:** As a member of the Daily Minor Planet team, you can help us find the unreported main-belt and near-Earth asteroids that slip through the digital cracks of our detection system. New worlds await your discovery! https://www.zooniverse.org/projects/fulsdavid/the-daily-minor-planet
4. **GLOBE Observer: Land Cover:** Care about our planet? Download the GLOBE Observer app and use the Land Cover tool to help scientists understand how forests and fields, seascapes and cities, deserts and wetlands are changing through time. Learn more: https://observer.globe.gov/de/do-globe-observer/land-cover

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Upcoming Events and Opportunities

NAU PLACES

Data Fluency 3-day Professional Learning June 17-18, 2025 + 1 follow-up day in the fall*

This NASA-funded professional learning introduces place-based, data-rich strategies to support data fluency. Individuals with data fluency are confident and able to use and make sense of data, knowing when, how, and why to use data for a specific purpose such as solving problems and communicating ideas. In a place-based approach, learning is anchored in authentic engagement with local phenomena, physical landscapes, and connections to cultures and communities.

Program Highlights:

- Engage in an adult-level outdoor learning experience

- Explore instructional strategies to help students effectively interact with data

- Gain valuable resources to use in your classroom

- Deepen your abilities to identify and address common student difficulties when making sense of data

- Expand your knowledge and teaching strategies for utilizing placed-based approaches to support students' data fluency

- Connect with other teachers who are passionate about using a place-based approach to expanding data opportunities to all students

Registration: tinyurl.com/NAUPLACES2025

Participants: Upper elementary, middle, and high school teachers who are in a position to teach students about a science topic using a place-based approach to data as part of in-school, classroom teaching. We encourage teams of two or more educators to participate.

Location: Northern Arizona University, Center for STEM Teaching & Learning (CSTL) in Flagstaff and a field experience at historic Hat Ranch on the Colorado Plateau.

Cost: Only $525/person** (regularly $1,000) for three days, thanks to generous support from the CSTL and a NASA grant. Includes transportation from NAU to Hat Ranch on June 17 and lunch daily. Check or purchase order must be received by May 16, 2025 or your registration will be canceled

Contact: Call or email Lauren Shollenberger, 928-523-9079, lauren.shollenberger@nau.edu

time TBD with participants.

***A limited number of scholarships are available for teachers from Phoenix and/or who are in the APS service territory. See registration for details.*

Register Now

Model Based Inquiry Introduction Workshop: 1-day Professional Learning June 24, 2025

This professional learning is an introduction to a model-based inquiry (MBI) framework for designing NGSS-aligned science units. Practical strategies for and practice in constructing a unit are included. Join us to deepen your understanding of MBI or enhance your knowledge of the MBI curriculum design process!

Registration: tinyurl.com/MBIJune2025

Participants: Teachers grades K-12, instructional coaches, curriculum specialists, and district or campus leaders who wish to deepen their understanding of MBI or enhance their knowledge of the MBI curriculum design process.

Location: Northern Arizona University, Center for STEM Teaching & Learning (CSTL) in Flagstaff, only an hour away from the Grand Canyon and in the cooling Northern pines of AZ!

Cost: $150/person includes MBI book and lunch. Check or purchase order must be received by June 13, 2025 or your registration will be canceled.

Register Now

Museum of Science | YES Youth Engineering Solutions

Youth Engineering Solutions STEM Leader Institute 2.5 day professional learning July 17-19, 2025

This professional learning will introduce the Museum of Science's Youth Engineering Solutions Curriculum for elementary and middle school. The curriculum promotes students to tackle real-world problems, scaffolded by an age-appropriate engineering design process. Challenges channel students' creativity and engage them in engineering and science practices. As they engineer, students use science and computer science concepts and tools, thus deepening their understanding of these disciplines.

This workshop goes beyond learning the curriculum. Participants will gain the skills and resources to lead professional learning workshops of their own. The workshop includes facilitation tips, strategies, and support to confidently share these units and engineering learning framework with other educators.

Registration: tinyurl.com/YES-STEMLeader

Participants: Elementary and middle school teachers, instructional coaches, curriculum specialists, district or campus leaders, education professionals, curriculum specialists, district or campus leaders, education professional, administrators, and more, who are looking to train their educators on the YES and EiE curriculum

Location: Northern Arizona University, Center for STEM Teaching & Learning (CSTL) in Flagstaff

Cost: $375/person, includes lunch each day. Check or purchase order must be received by June 13, 2025 or your registration will be canceled.

Contact: Call or email Lori Rubino-Hare, 928-523-6008, lori.hare@nau.edu

National Rural STEM Learning Summit 2025

See you in Central Arzona at the 2025 Rural STEM Summit: We-Ko-Pa Casino Resort Fort McDowell, AZ

STEM learning in rural communities shares many characteristics across vast geographies, yet it is also distinctly unique to each place. The National Rural STEM Learning Summit brings together STEM educators, administrators, STEM industry professionals, and community leaders to strengthen and elevate the quality of STEM education in rural communities through practice and dialogue.

Register Now

OpenSpace

Explore the Night Sky with OpenSpace Webinar

Learn the basics of presenting night sky astronomy with OpenSpace, a NASA-funded interactive data visualization software, with Dr. Ken Murphy, Physics and Planetarium Director at Southwest Minnesota State University. This webinar will provide tips for planetarium presenters and educators to navigate our night sky, constellations, and more using the open-source software.

Monday, April 28, 3pm ET on Zoom

Register for Zoom Information

OpenSpace User Meeting

Join us in NYC this summer for the first in-person OpenSpace User Meeting! OpenSpace users of all levels are invited to the American Museum of Natural History for two days of trainings, presentations, and hands-on sessions. Attendees will sharpen their OpenSpace skills, explore the latest software features and updates, and connect with educators, planetarium professionals, researchers, and developers in the OpenSpace community. Learn more about the OpenSpace User Meeting. **Register by May 15.**

Thursday, July 31 and Friday, August 1 at the American Museum of Natural History

Register Now

NASA Partner

The material contained in this document is based upon work supported by the National Aeronautics and Space Administration (NASA) under award No. NNX16AB91A. Any opinions, findings, conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of NASA.

April 2025 NASA eClips Newsletter

The April 2025 NASA eClips newsletter explores the theme of good health on Earth and in space through engaging videos, educator guides, and interactive student challenges. Highlights include insights from NASA experts on astronaut fitness, the impact of air quality on health, and the science of exercise in microgravity. Educators and learners are invited to participate in Earth Day celebrations and activities that promote STEAM learning and environmental awareness.

Access the newsletter here!

Explore OpenET: An Accessible Water Management Tool

OpenET uses best available science to provide easily accessible satellite-based evapotranspiration (ET) data for improved water management across the western United States. OpenET is a powerful tool to investigate your local water resources through the lens of evapotranspiration, which is key to better water management in the western United States.

Learn more about how OpenET has been an integral tool for farmers and ranchers, and how remote sensing data is directly helping people on Earth!

DoD STEM

DoD STEM supports a wide variety of activities including after-school programs, competitions, and internships for students and professional development and training for educators. Learn about upcoming STEM opportunities in your area or online.

Arizona STEM Acceleration Project

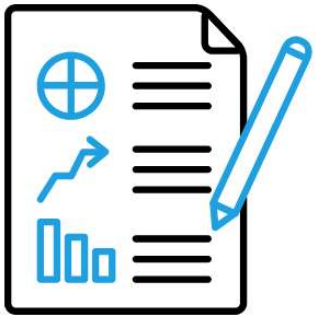
The Arizona STEM Acceleration Project (ASAP) reimagines Arizona's STEM education ecosystem and prepares teachers to deliver high-quality, hands-on STEM activities by providing professional development opportunities, as well as the time and materials needed to update curricular materials. ASAP provides funding to teachers to support STEM programs and materials, and funding for teachers to attend professional development

GLOBE Resources for Libraries

Share the GLOBE Resources for Libraries (pdf) with your local librarians! This guide provides ready-to-use library program plans for patrons of all ages that feature GLOBE Program activities and data collection opportunities. Activities are focused on clouds and sky, trees, seasons, soils, and water for children's, teen, and intergenerational programming. There are also instructions on downloading and using the GLOBE Observer app. The guide was developed for the 2025 Collaborative Summer Library Program theme "Color Our World" but can be used at any time.

Weather Station Installation Guide

This streamlined guide for installing a GLOBE weather station (pdf) can be shared with an organization's facilities manager or anyone determining the correct placement of the station and its instruments. The guide focuses on site selection, security, mounting an instrument shelter and rain gauge, and placing instruments in the shelter. Weather stations are available from a number of GLOBE equipment vendors in North America.

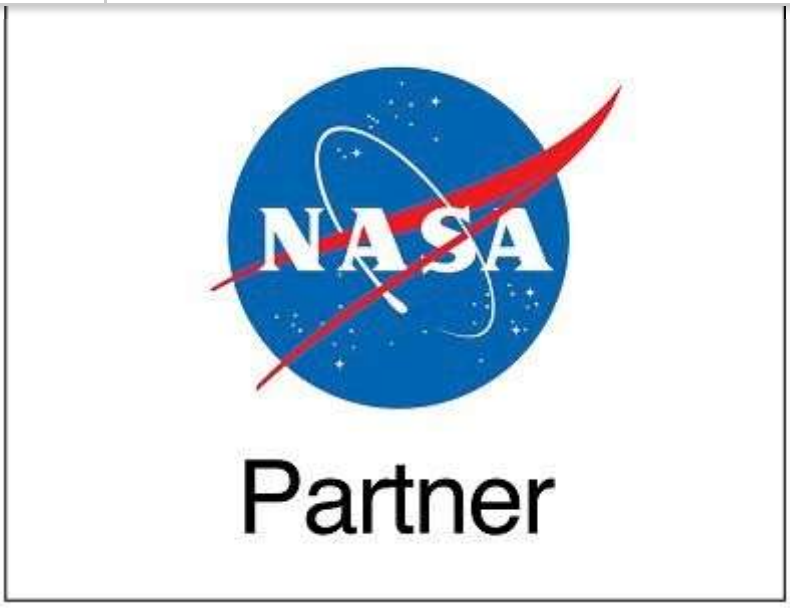


The equipment database has specifications for all GLOBE equipment and costs from various vendors, arranged by sphere. The U.S. and North American GLOBE Office does not recommend one vendor or shopping option over another. This resource is simply to guide the GLOBE community in finding the GLOBE equipment and supplies needed for your chosen protocols. Prices change over time, so costs may not be precise, but should provide close estimates. Access the U.S. GLOBE Equipment Database (Google Sheets).

Join NASA Connects

Registered community members will have the opportunity to sign up for engagement events, view and chat with other members who are interested in similar fields, read exclusive NextGen STEM content, and access resources such as lesson plans and interactive media.

Check out our latest knowledge articles that share NASA STEM content including activities, games, videos, educator guides, teacher toolkits, and much more.



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The Rural Education Network team serves as volunteer representatives from NASA Partner projects funded through SciAct. We are aiming to amplify and elevate the voice of rural educators while providing access to resources that support educators in engaging youth in planetary science and STEM.
