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Rural Educator Network Newsletter

Connecting Educators and
Sharing Resources

NASA SciAct



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>

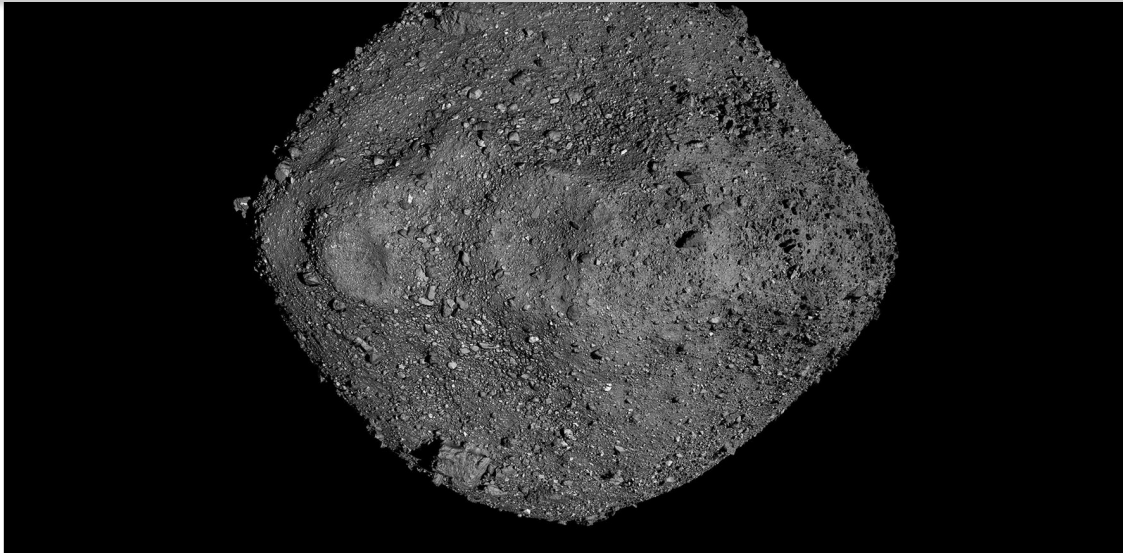


Image: Asteroid Bennu. The NASA OSIRIS-Rex mission sampled dust from the asteroid's surface and is currently traveling back to Earth! *Image Credit: NASA/JPL*

June 30th: Asteroid Day

Even though Asteroid Day has passed, you can still learn and get involved!

A global day of awareness sanctioned by the United Nations, [Asteroid Day](#) is observed each year on June 30 and is designed to educate the public about asteroids and the importance of defending our planet against a potential impact.

NASA's JPL has some excellent opportunities to get involved as an educator. Check these out:

- [The Science Behind NASA's First Attempt at Redirecting an Asteroid](#)
 - Find out more about the historic first test, which could be used to defend our planet if a hazardous asteroid were discovered. Plus, explore lessons to bring the science and engineering of the mission into the classroom.
- [How NASA Studies and Tracks Asteroids Near and Far](#)
- [Teaching Space With NASA Live Stream – Tracking Asteroids](#)

Visit [JPL's Asteroid Day Website](#) for more resources and educational opportunities!



Registration is open for **formal and informal educators of grades K-12 to join NASA this fall in Sparking Participation and Real-world eXperiences in STEM (SPARX)**. SPARX provides educators with hands-on, standards-aligned activities, training, and resources to help engage students in STEM learning in a way only NASA can. [Check out the NASA SPARX website.](#)

Throughout the experience, which will be available from September 2023 - March 2024, student exposure to STEM careers is strengthened through opportunities to connect live to NASA subject matter experts.

To learn more about this opportunity, you can RSVP to a SPARX 101 Webinar on either Thursday, August 17, 7 p.m. EDT or Thursday, September 14, 4 p.m. EDT. [RSVP here.](#)

To sign up, visit the registration link for your grade level below.

[SPARX Grades K-2 Registration](#)

[SPARX Grades 3-5 Registration](#)

[SPARX Grades 6-8 Registration](#)

[SPARX Grades 9-12 Registration](#)

For general inquiries, please email us at SPARX@mail.nasa.gov.



[2023 Rural STEM Convening](#)

August 29-31st at 8:00 am Mountain Time at Little America, Flagstaff, AZ

If you're a STEM Producer, STEM Learning Consumer, STEM and Education Policy Maker, and/or a STEM Learning Thinker, join us at the 2023 Rural STEM Convening in Flagstaff, AZ.

This conference is the direct result of networking and relationships built through the Rural Activation and Innovation Network (RAIN, NSF dnl#1612555). The RAIN project sought to understand the perspective on STEM in rural and remote communities and build a roadmap for shifting perceptions and self-efficacy. This conference will bring together partners that helped make the RAIN project a success to share, learn, and develop additional pathways to supporting rural learners across the generations. Current support is being provided by the Arizona Science Center, SciTech Institute, Arizona State University's Center for Innovation in Informal STEM Learning, NASA SciAct Broadening Participation with Ecosystems, and Arizona Library Association.

Website and registration are available now! [Click here to register and learn more.](#)

Europa Clipper: NASA's Mission to Jupiter's Icy Moon

Explore the resources below to learn more and get involved!

Europa Clipper's main science goal is to determine whether there are places below the surface of Jupiter's icy moon, Europa, that could support life.

- go.nasa.gov/MessageInABottle

- europa.nasa.gov/toolkit

- europa.nasa.gov/participate

- **STAY IN TOUCH!**

europa.comms@jpl.nasa.gov



STAR★net

Science-Technology Activities & Resources For Libraries

Bilingual Spanish/English Solar Science Kits

This NASA@ My Library offering will provide 30 public libraries in areas with a large percentage of Spanish speakers (or patrons of Hispanic/Latinx descent) with a Solar Science kit meant to support the October 2023 and April 2024 eclipses, and other astronomy/solar science activities. The draft kit list is as follows:

4.5" Dobsonian Telescope with solar filter and moon filter

2 SunSpotters

Materials for "Moon Bear's Shadow" Activity

"Sorting Games" Activity

"Eclipse Soundscapes" Citizen Science Tools and Activities

GLOBE Eclipse Citizen Science project: Postcards + Taylor 1441 digital thermometer

Selection of eclipse books



Smoky Mountains STEM Collaborative

Space Apps

October 7 at 8:00 am Eastern Time in Rosman, NC

Space Apps is open to anyone and is focused on developing real solutions to global challenges by the end of the event. Space Apps is open to creatives, storytellers, and anyone with a passion and desire to have an immediate impact on the world. For each year's NASA International Space Apps Challenge, NASA designs challenges, and works with local hosts around the world to implement events where teams work intensively to design solutions over the course of a 2 day period.

[Register Here](#)




Learning Ecosystems Northeast

Maine Eclipse Events

Maine has a variety of fun events developing related to the eclipses, including snowshoe walks, runs, and more. Activities will occur through libraries, classrooms, and community

Not in Maine? [Tell us about an eclipse event or activity taking place in your classroom or community HERE!](#)

Lesson Plans and Opportunities

 On the left, an annular eclipse is depicted as a dark circle with a distinct golden ring of light around it and a black background. The text reads: Annular Eclipse, October 14, 2023. On the right, a total eclipse is depicted as a dark circle with a more diffuse white ring of light around it and a black background. The text reads: Total Eclipse, April 8, 2024.

1. Interpreting Eclipses Webinar July 24

Are you an interpreter or informal educator with an eclipse focus? Or do you simply have an interest in discovering and sharing the meanings and significance of solar eclipses? Join us for this virtual Interpreting Eclipses Webinar with speaker, Shauna Edson (Smithsonian Air and Space Museum) and learn all about how to share the story and the science of solar eclipses.

This event is hosted by [Earth to Sky](#), an exciting, growing partnership between NASA, the National Park Service, and the US Fish and Wildlife Service that nurtures and supports a growing community of interpreters, educators, and scientists learning and sharing science and communication techniques.

[Register](#) to join us at 12:30 p.m. EDT

2. Explore Aeronaut-X: Shape Your Flight Webinar July 26

Have you considered exploring geometry with aeronautics? Look back at the history of X-planes and NASA aeronautical research while also looking forward to the future of aeronautics innovation. In this session, you'll learn about NASA's newest X-plane, the X-59, and the research on quiet supersonic flight. Explore NASA's Next-Gen STEM activity "Shape Your Flight" which will guide your students through a hands-on activity that teaches them about Newton's laws of motion and the engineering design process. This session will share NASA STEM resources, background information, and teaching strategies to bring Aeronaut-X to your classroom. [Register here to join us at 7 p.m. EDT on July 26](#)

Note: you can register as a guest for this webinar without having to make an account through NASA STEM Gateway.

3. Lesson Plan: Modeling an Asteroid

Students will shape their own asteroid models out of clay as a hands-on lesson in how asteroids form,

4. NASA Moon Trees Quest: June 21 - September 21

The GLOBE Program's GLOBE Observer, in collaboration with [NASA Next Gen STEM](#) and the [USDA Forest Service](#), invites you to join the NASA Moon Trees Quest for Apollo 14 Moon Trees and related tree species. This activity is part of a collaborative STEM Engagement initiative to inspire the [Artemis generation](#).

[Click here for more information and background on this activity.](#)



5. NASA eClips Lesson Resources

Check out these [NASA eClips videos, lessons, and resources](#) that can be used to support lessons highlighting upcoming eclipses.

6. New Solar Eclipse Educational Materials from My NASA Data and NASA HEAT

Access these [NGSS-supported solar eclipse activities](#) for multiple grade levels in the forms of 5 Mini-Lessons, 6 Interactives, 1 Story Map, and 4 Lesson Plans. NASA HEAT also provides public access to [annular eclipse products](#) for print and download.

Individual and Program Spotlights

[PARI Space Science Summer Camps](#)

The Pisgah Astronomical Research Institute is a non-profit space science outreach and education center, whose mission it is to inspire all to reach their next frontier through STEM and exploration. With a historic, former NASA site on over 200 acres and natural beauty, PARI provides summer campers with hands-on exposure to STEM principles and space exploration in a setting that inspires tomorrow's scientists and engineers. Campers will get a fun and unique experience to use various telescopes, conduct research, touch meteorites, and enjoy the amazing outdoors of western North Carolina.



This summer PARI has topic centric camps ranging from cryptography and secret messages, to mapping the Milky Way. **Registration is open now!**

Signup or reach out to find out how you can sponsor a kid to attend camp at PARI camps@pari.edu



[Hitting the Road with Artemis](#)

Smokey Mountain Elementary students participated in the Artemis ROADS challenge, presented by [Northwest Earth & Space Science Pathways \(NESSP\)](#). 6th, 7th and 8th graders

and culminated with this Hub Event at their school on May 12.

Image credit: Brad Herring

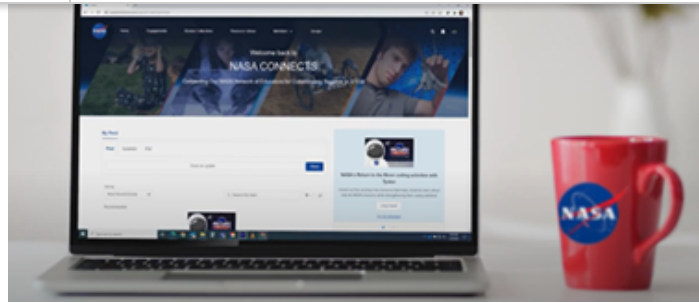


[GLOBE Mission EARTH](#) Hosts NOAA B-wet Teacher Professional Development at Earth Heart Farms

Seven educators from Ohio participated in the GLOBE/NOAA B-wet professional development at Earth Heart Farms in Oak Harbor, Ohio. Teachers learned how to take GLOBE Atmosphere and Hydrosphere observations and developed research projects associated with the conservation farm. Earth Heart Farms is in the process to being converted to a wetland with habitat restoration. Unfortunately, the farmhouse was struck by a tornado about 3 hours after the PD ended. Thankfully, no one was hurt!

NASA Science Activation Preparing Libraries for Upcoming Solar Eclipses

[STAR Net Libraries](#), [NASA Earth Science Education Collaborative \(NESEC\)](#), and [GLOBE Mission EARTH](#) are working with librarians to prepare them for the upcoming solar eclipses (October 14, 2023 and April 8, 2024). Libraries across the US applied to be part of the training and to receive kits to help their patrons take weather observations during the solar eclipses and to contribute to the GLOBE database.



[NASA CONNECTS](#)

NASA Connects is a partnership between NASA educators, scientists and educators, librarians and anyone wanting to utilize NASA resources. NASA Connects serves as a hub for lesson plans, webinars, tool kits, videos, subject matter experts, and more that are organized according to your needs. You can sign up as a teacher, informal educator, administrator, or parent. Members meet online to discuss common topics and ideas and to share activities. This source is useful to programs with limited resources to provide professional development to staff.



"The material contained in this document is based upon work supported by a National Aeronautics and Space Administration (NASA) grant or cooperative agreement. Any opinions, findings, conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of NASA."

The Rural Education Network team serves as volunteer representatives from NASA Partner projects funded through SciAct. We are aiming to amplify and

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