

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: <u>http://eepurl.com/h1xxQ9</u>

Upcoming Events and Opportunities



<u>PLANETS</u> (Planetary Learning that Advances the Nexus of Engineering, Technology, and Science) is a NASA-funded program looking for educators to test our Space Hazards science and engineering curriculum with youth **grades 3-5** in their out of school time setting Spring or Summer 2024.

Do you work with the following youth?

- Indigenous Learners
- Multilingual learners
- Youth who:
 - Are Blind or low vision
 - Are Deaf or hard of hearing
 - Have diverse physical abilities

Contact:

stephanie.jackson@nau.edu OR call 928-523-9805 for more information and/or questions.



PARTICIPATION BENEFITS!

- Materials (\$450 value)
 \$800-\$1200 stipend upon
 - conclusion of data collection

WHAT DO YOU NEED TO DO?

- Attend online orientation
- Complete Surveys
- Implement PLANETS Space Hazard curriculum with your elementary learners.
- Apply HERE. Application Deadline is February 20, 2024, at 11:59 p.m. PST.

PLANETS will notify applicants by March 11, 2024.



Help us test NASA STEM curriculum!

Calling all out-of-school-time educators! <u>PLANETS</u> (Planetary Learning that Advances the Nexus of Engineering, Technology, and Science) is a NASA-funded program that is looking for educators to test out our planetary science and engineering curriculum with youth grades 3-5 in their out-of-school time settings. Specifically, we are looking for out-of-school time educators working directly with emergent multilingual learners, Indigenous youth, or youth experiencing differing physical and/or sensory abilities.

Participants will receive a digital guide and materials kits for our Space Hazards unit and a generous stipend (\$800 for completing one of the unit guides, or \$1200 for completing both unit guides). In exchange, participants will implement the curriculum as written with their out-of-school time learners and participate in evaluation activities. These include completing feedback surveys, photographing project set-up, and participating in focus group feedback conversations. Your expertise and feedback

To apply, fill out <u>this application</u> by Feb 20, 2024. We are looking for educators to participate in spring and summer of 2024. If you have any questions, you can contact Stephanie Jackson at <u>stephanie.jackson@nau.edu</u> or by phone at. 928-523-9805.



Join NASA's Science Mission Directorate for a monthly series that connects rural educators to resources, networking, and professional development opportunities.

What's the big deal about Earth's moon? What would life be like without our favorite neighbor? Join the NASA eClips educators on February 1st at 8 pm EST, to explore new resources and consider the importance of Luna, Earth's moon. This webinar is targeted for formal and nonformal educators of learners in grades 3-12. All introduced resources will be organized in a LiveBinder for easy access.

Register for the Feb. 1st webinar here: <u>https://forms.gle/G856aL1mFfsJ1uRw7</u> Image credit: NASA SMD/SciAct





Join us for the 2024 Rural STEM Summit!

When: June 4-7, 2024

Where: Live event at the Weston La Paloma Hotel in Tucson, AZ

Who: STEM Learning Ecosystem partners - K12, Higher Ed, STEM Non-Profits, industry supports, government agencies, research centers

This second annual Rural STEM Summit continues the focus on Rural STEM Learning and the partners that make that happen. In addition to 2.5 days of amazing breakouts and networking, 2024 will see a pre-conference day with half and full day workshops. Speaker proposals are welcome through March 1, 2024.

Links to more details can be found on the event website: https://azruralstemsummit.net/



Join the Rural STEM EcoSphere for a Monthly Call on the 4th Wednesday of every month at 2pm PST / 3pm MST / 4pm CST / 5pm EST to learn from engaging speakers presenting new topics each month. The upcoming meeting on February 28, 2024 will feature Anna Pawlow & Reina van Dyne, Education Coordinators for Science News Explorers. Join the meeting: <u>https://us02web.zoom.us/j/83762917670?</u> pwd=bFZzeXBxYjNudTdFRloxMFVUZIdaQT09

Links to more details can be found on the Rural STEM Ecosphere website: <u>Rural STEM Ecosphere</u> (google.com)



STEM Enhancement in Earth Science (SEES) Summer High School Intern Program

<u>NASA</u> and <u>The University of Texas at Austin Center for Space Research</u> Summer Intern Program is a nationally competitive STEM program for high school students. The program provides selected students with exposure to Earth and space research. Interns will learn how to interpret NASA satellite data while working with scientists and engineers in their chosen area of work.

Summer internships are offered to motivated high school students who have an interest in pursuing Science, Technology, Engineering, or Mathematics careers. The interns will work beside NASA subject matter experts analyzing and visualizing data. This content knowledge, coupled with hands-on experiences, allows the intern to gain experience in authentic NASA research through field investigation and data analysis.

Interns are selected on the basis of their academic records, written application that includes answers to essay questions, introduction video, recommendation form, and interest in STEM. **The deadline for submitting your application for the summer 2024 internship program is February 24, 2024.**

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Lesson Plans and Materials



1. NASA Earthrise

Earthrise will leverage NASA's digital community of practice for educators and a broad network of learners associated with NASA's federal partners to provide K-12 educators and learners with a focused, monthly collection of Earth and climate science resources from across the federal enterprise. Educators are invited to register for this monthly engagement, with the first monthly collection of resources to be delivered in January and then monthly throughout the remainder of 2024. Our primary focus is centered around access to Earth and climate resources for the K-12 community, and we plan to set up a regular working group to inform plans for carrying this through the summer and beyond as well.

The 1st issue of the Earthrise newsletter is here to elevate Earth & climate science in your classroom! Explore "<u>The</u> <u>Importance of Earth Observation</u>" with STEM resources from NASA & our federal partners.



2. First Woman Graphic Novel and STEM Activities

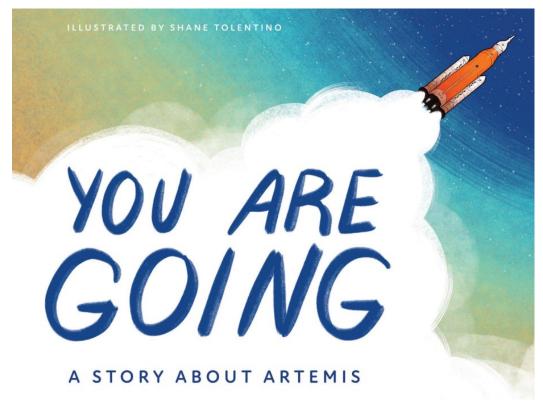
Issue #1: Dream to Reality: follows Callie's trailblazing path as the first woman on the Moon. Callie and her robot sidekick, RT, overcome setbacks, disappointment, and tragedy along the way. From her childhood dreams of space travel to being selected as an astronaut candidate, Callie takes us on her journey to the Moon. Access the graphic novel for free <u>here.</u> The novel is also available in Spanish.

First Woman Camp Experience: This set of hands-on activities accompanies NASA's "First Woman" graphic novel series, which tells the story of Callie Rodriguez, the first woman to explore the Moon. While Callie is a fictional character, the first female astronaut and person of color will soon set foot on the Moon. Intended for use in K–12 informal education settings such as after-school programs, summer camps, STEM nights, and weekend workshops, this First Woman Camp Experience Guide will bring the excitement of NASA's science and technology. Read the fictional story of Callie, the first woman and person of color on the Moon. Download the interactive graphic novel and mobile apps.

Download the mobile apps available for Android and iOS to explore life-sized environments and 3D objects, including NASA's Orion spacecraft and the lunar surface. Additional content includes videos, games, challenges to earn collector

Use extended reality (XR) and web-based augmented reality (WebAR) for the full experience.

Access the First Woman Camp Experience Booklet here.



3. You are Going: Children's Book about the ARTEMIS Mission

You Are Going, illustrated by former NASA intern Shane Tolentino, shares a glimpse into future Artemis missions. Learn all about the elements that will help make Artemis possible: the powerful Space Launch System rocket, the Orion spacecraft, the Gateway, and so much more.

To download the book (available in multiple languages) and to access related STEM activities and resources, <u>visit the</u> <u>website here.</u>

4. What do you know about Mars?

In this lesson, students begin a KWL (Know, Want, Learn) chart and decide what they want to learn from a robotic mission to Mars.

5. 'How Far Will It Go?': A Lesson in Graphing

Students experiment with the amount of air in a balloon to see if the amount affects the distance the balloon travels along a fishing line. Students collect and graph data from multiple tests so they can visualize the effects of the changes in air.

Access the lesson here.





6. What's the big deal about Earth's moon?

What would life be like without our favorite neighbor? Explore new NASA eClips resources and consider the importance of Luna, Earth's moon. All resources are organized for educators teaching grades 3-12 in a LiveBinder for easy access. Access the LiveBinder here.



NASA HEAT Releases Two Eclipse-Focused MinuteEarth Videos

In September 2023, the NASA Heliophysics Education Activation Team (HEAT), in partnership with Neptune Studios, released two eclipse-related videos as part of the MinuteEarth video series – short, illustrated stories about science and our awesome planet. Without eclipses, our world would be a lot different, because eclipses give us the ability to do science we otherwise wouldn't be able to do. Watch these videos to learn about how eclipses led to the discovery that the Earth is slowing down and how, because eclipses can be such powerful and frightening events, ancient cultures went to great lengths to understand them, leading to remarkably accurate predictions.

Watch: How Eclipses Proved that the Earth is Slowing Down https://www.youtube.com/watch?v=inMPbM6Rsl8

Eclipses Used To Be Terrifying https://www.youtube.com/watch?v=SUSo74fyZbY

The NASA HEAT project is supported by NASA under cooperative agreement award number 80NSSC21K1560 and is part of NASA's Science Activation Portfolio.

Learn more about NASA HEAT: <u>https://science.nasa.gov/science-activation-team/nasa-heliophysics-education-activation-team</u>

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Individual and Program Spotlights

Exploring Mining in Arizona

In February two pilot teacher PD events around Mining are taking place in Arizona. An educator tour of the Copper Queen Mine in Bisbee, AZ on 2/7 will look at the history of copper and gold mining in southern Arizona and modern mining restoration experiments and advances. On 2/27 another event, this time with AZ Science Center, University of AZ School of Mining and Mineralogy, and the Society for Mining, Metallurgy, and Exploration, and Society for Science will host the first teacher PD at MinExchange in Phoenix. Both events will engage middle and high school educators with authentic workforce experiences that can be translated into classroom activities. Both of these came about from a phone call by one person who persuaded program managers that teachers are the keys to workforce development and they can be more active partners when given the chance.



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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.

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