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SMSC September 2021 Newsletter

News This Month

NASA Ambassadors!

We are happy to announce that during the next five years we will be working with teacher ambassadors at high schools and middle schools in our service area. Meet the Ambassadors for the 2021-22 school year:

Cherokee Schools - Malia Crowe (HS) & Kathleen McCoy (MS)

Jackson County - Kristin Holt (JCEC) we would love to have others - contact r_neff@southwesterncc.edu

Macon County - Bryan Wilkinson (Macon MS) we would love to have others - contact r_neff@southwesterncc.edu

Swain County - Norma Patillo (Swain HS) & Sally Butler (MS)

Space Apps Challenge with PARI!

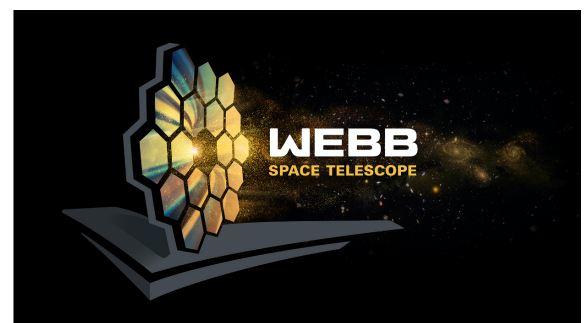
Oct. 1-3 Registration is now open - [see our website](#) to sign up. It's Free! Teams can spend Saturday working at PARI, but the event is entirely virtual. **The prize for the two winning teams is a weekend at PARI.** If you have questions contact r_neff@southwesterncc.edu

Local Events

September 16th - Observe the Moon Night in Sylva at the Library (Rain date: September 18th)

September 24th - STEM-E Conference

October 26th - Hybrid event on the James Webb Space Telescope



NASA NEWS

- As Mars and all its [robotic inhabitants](#) celebrate their solstice, you and your audiences can check on the status of the Red Planet in our [Mars Now embeddable web interactive](#), including locations, information, as well as scheduled transmissions.

Career Connections - <https://nasaclips.arc.nasa.gov/careerconnection>



Downlinks with Astronauts [Oct. 2021 - April 2022] In-flight education downlinks are opportunities for students and educators to interact with astronauts aboard the International Space Station during a live, 20-minute question-and-answer session. The [planning guide](#) offers information about the process and requirements to host an In-flight Education downlink. Proposals open May 3rd and are due on June 30th for the opportunity to participate in this program. Email JSC-Downlinks@mail.nasa.gov for opportunities.

K-12 Curriculum Materials



The Nature of Science - [NASA eClips](#) has a new video out with extension information and activities. Join NASA scientists to see the work they do, whether they're in the lab or at home. See the [latest eClips newsletter](#) for even more resources.

Build To Launch: A STEAM Exploration Series In collaboration with NASA and the Artemis I Mission - Based on STEAM practices and standards, the lessons are designed so each student can:

- Ask questions and define problems
- Plan and carry out investigations
- Develop and use models
- Meet design constraints
- Evaluate competing design solution
- Iteratively test and modify designs
- Communicate best fit solutions
- Explore cause and effects
- Investigate systems and system models
- Understand structure and function

Series Kick Off is TUESDAY, SEPTEMBER 14, 2021 - Sign up Here and download the Teacher Resource Guide: <https://education.lego.com/en-us/build-to-launch>

REPOSITORY ALIGNED TO NC STATE STANDARDS (currently under revision)

<https://www.southwesterncc.edu/stem/stem-repository>

MATERIALS FREE to CLASSROOMS (They're doing no good sitting in an office)

(send an email to r_neff@southwesterncc.edu to claim these for your classroom)

- [Mosquito mapper guide and materials](#)
- The GLOBE Program information guide & activity [connections to NGSS](#)
- Astrobiology Curriculum guide and graphic story books
- Far Out Math Activities for grades 9-12
- Far Out Math Activities for grades 5-12

Professional Development

September 3 at 1pm - Webinar: A Biography of the Pixel More info here:

<https://www.nova77.org/2021/08/14/upcoming-webinar-a-biography-of-the-pixel/>

September 8 at 6pm - Webinar: The Urban Heat Island Effect: Resources from GLOBE and NASA will be featured. A great way to implement the urban heat island effect for students is to use [My NASA Data Urban Heat Island Story Map](#) which engages the learner through storytelling about the heat island phenomenon.

<https://origin-www.eventscloud.com/ehome/index.php?eventid=628179&>

September 14 at 2pm - Online Workshop: Bust out that Chemistry kit for National Chemistry Week 2021 Register Here: <https://www.nisenet.org/events/online-workshop/online-workshop-NCW2021>

September 21 at 9:00pm - The NASA Night Sky Network will host Dr. Paul Abell who will discuss some background on potentially hazardous asteroids, recent Earth impacts, and NASA's activities to help protect Earth from asteroids. The event will be streaming live on YouTube, and a recording will be uploaded to the [NSN YouTube](#) page.

Link: <https://youtu.be/ldX5dtDLwQM>

Sign up for all five webinars in the

4H Virtual Science Series

All Lessons are on a Thursday night starting in September starting at 6pm ET

Lesson 1: Sept 2nd - **Aquifers**

Lesson 2: Sept 9th - **Erosion & Weathering**

Lesson 3: Sept 16th - **Engineering Design Challenge**

Lesson 4: Sept 23rd - **Exploration of the Seasons**

Lesson 5: Sept 30th - **Lunar Phases**








 **THE GLOBE PROGRAM**

Trees Around the GLOBE Student Research Campaign Webinar

Celebrating Land Cover and Tree Height Observations from the Ground and Space with the Launch of the Landsat 9 Satellite: Looking Back at the First Three Years of the Trees Around the GLOBE Student Research Campaign and Taking a Deeper Dive into the Landsat, ICESat-2, GEDI, GPM, and ECOSTRESS Missions.

**Tuesday, September 21, 2021 @ 1:00pm EDT
(5:00pm UTC)**

Sponsored by:  Supported by:    Implemented by:  **UCAR**

Opportunities For Libraries & Community Groups

NASA Invites You to Create Landsat-Inspired Arts and Crafts



Scientists created the Landsat Image Mosaic of Antarctica by stitching together more than 1,000 Landsat 7 images; science writer Kate Ramsayer created her mosaic of Landsat 7 and Antarctica by arranging dozens of stained glass pieces.

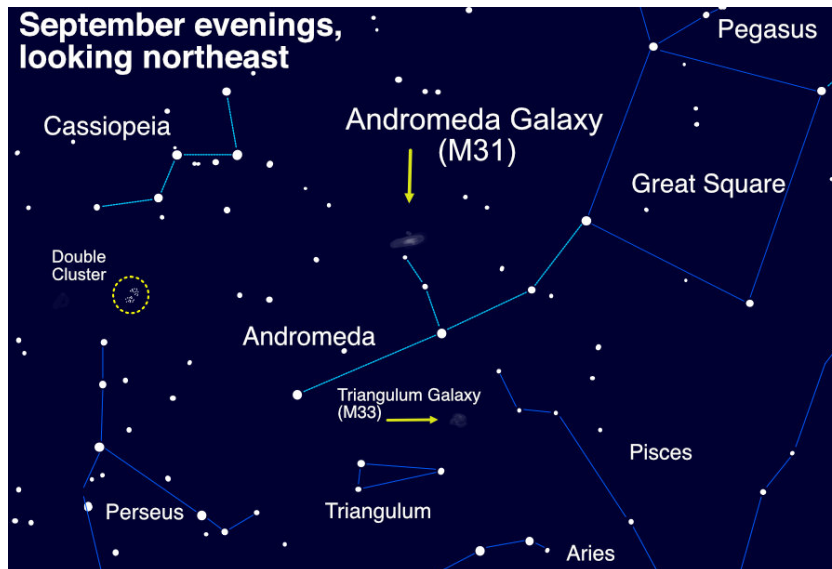
Credits: Kate Ramsayer/NASA

In September, Landsat 9 is scheduled to launch and continue this legacy. In honor of the launch, we invite you to get creative and show us what Landsat means to you! Create art or make a craft that's inspired by a favorite Landsat image or the satellite itself, and share it with us on social media. [Read more about this here:](https://www.nasa.gov/feature/goddard/2021/nasa-invites-you-to-create-landsat-inspired-arts-and-crafts)

<https://www.nasa.gov/feature/goddard/2021/nasa-invites-you-to-create-landsat-inspired-arts-and-crafts>

Lucy Soundscape Project - Are you a musician – composer, performer, music educator, or student – inspired by exploration and discovery? Share your inspiration in your unique voice, and join with others to create the Lucy Soundscape, a public collection of original music inspired by NASA's Lucy mission launching in 2021!

September skies



The Andromeda Galaxy, contains trillions of stars appearing to our eyes as a 3.4 magnitude patch of haze. Why so dim? Distance! It's outside our galaxy, around 2.5 million light years distant - so far away that the light you see left M31's stars when our earliest ancestors figured out stone tools. Binoculars show more detail: M31's bright core stands out, along with a bit of its wispy, saucershaped disc. Telescopes bring out greater detail but often can't view the entire galaxy at once. *Image & info source:*

https://nightsky.jpl.nasa.gov/download-view.cfm?Doc_ID=629

We have a slack channel - if you would like to be added to the channel to discuss ways to use NASA resources locally, or if you have questions about how we can help you meet your goals, please send an email to r_neff@southwesterncc.edu.



Image Spotlight

A NASA Black Brant XII suborbital sounding rocket was launched in May from the Wallops Flight Facility. The four stage rocket carried the KINETic-scale energy and momentum transport eXperiments. These student-designed projects are a mix of technology and science experiments, including the development of a 360-degree camera for use on sounding rockets; space debris removal concepts; a solar array deployment system for CubeSats; and collection of particles in space for research on the origins of life.

Image Credit: NASA Wallops/Terry Zaperach