Partner

Smoky Mountains STEM Collaborative

Southwestern Community College

EXPLORE YOUR PATH TO SUCCESS

SMSC June 2021 Newsletter

News This Month

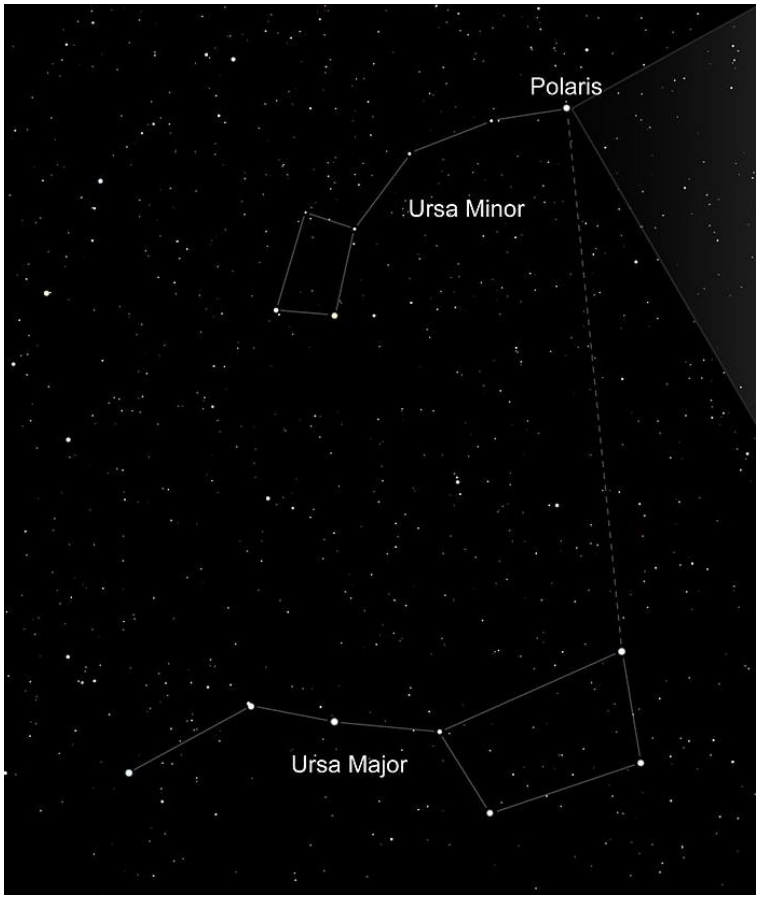
June skies

Ursa Minor, the Little Bear, occupies an area of 256 degrees and its brightest stars form one of the best known asterisms in the northern sky, the Little Dipper. Ursa Minor is invisible to observers in the southern hemisphere (except for those living north of latitude 10°S), but it is circumpolar, i.e. it never sets below the horizon for observers north of the equator.

The Little Dipper is used in navigation because the star that marks the end of the Dipper's handle or the tip of the Bear's tail is Polaris, the North Star, the closest bright star to the north celestial pole

Read more at this Source

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 or you can follow us on Facebook or Twitter.



Location of Polaris and the Little Dipper. Image: Hubblesite. Credit: NASA, ESA, N. Evans (Harvard-Smithsonian CfA), and H. Bond (STScI).

NASA NEWS

3 Students Named Winners of Artemis Moon Pod Essay Contest - 14,000 students entered the contest for a trip to NASA Kennedy Space Center in Florida for the first Artemis launch. Each student represented a different grade category [K-4, 5-8, 9-12]. Read more about the contest and the winning essays HERE.

Follow the Mars Guy on this you tube channel - See Dr. Steve Ruff as he tests out space suits on Mars and meets the Mars Insight Helicopter.

NASA will design a new set of Earth-focused missions to provide key information to guide efforts related to climate change, disaster mitigation, fighting forest fires, and improving real-time agricultural processes. With the **Earth System Observatory**, each satellite will be uniquely designed to complement the others, working in tandem to create a 3D, holistic view of Earth, from bedrock to atmosphere.

Career Connections - https://nasaeclips.arc.nasa.gov/careerconnection

Lucy Soundscape - 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!

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.

Events

June 4 - Deadline to Send an Artemis Generation Pledge to the Moon. NASA is turning the page to a new chapter of human space exploration with Artemis missions to land the first woman and next man on the Moon. All schools, museums, youth serving organizations, universities and other STEM organizations in the United States and its territories are invited to send a recorded video pledge to the Moon aboard the Artemis I mission.

June 7-11 - **Robotics camp** at Southwestern Community College. More details and Registration HERE

June 14-25 - AstroCamp at Southwestern Community College. Email r_neff@southwesterncc.edu for more information.

June 12th [11am - 3pm] - GLOBE in the Park at Oconaluftee River Park. Drop in anytime between 11 and 3 to learn about monitoring water quality and other GLOBE protocols.

June 23- 29 - you are invited to join NASA, ESA (European Space Agency), and JAXA (Japan Aerospace Exploration Agency) for the **all-virtual**, **global Earth Observation Dashboard Hackathon**. During the hackathon, participants will form teams and solve challenges related to the COVID-19 pandemic using open data from the Dashboard and other relevant sources --- and help tell the story of the Dashboard itself. All challenge statements and data resources will go live on June 1st.

June 24th - Livestream introduction to the next big thing from NASA, the James Webb Space Telescope which will launch in October.

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.

A Teacher's **Guide To Educational Media For Diversity And Equity**
This Guide introduces relevant, research-based, actionable principles to support science educators in selecting and contextualizing media to promote culturally and linguistically responsive teaching and learning in their classrooms. Available from this website.

NASA Citizen Science projects -: https://science.nasa.gov/citizenscience - are collaborations between scientists and interested members of the public. The projects offer learning resources to help you connect citizen science experiences with the learning objectives or standards of your curriculum. The matrix below shows the grades served by each project.

NASA Citizen Science Project	K - 5	6-8	9-12	13-16
1. Fireballs in the Sky	X			
2. Snapshot Wisconsin	X	X	X	
3. GLOBE Observer - Clouds	X	X	X	
4. GLOBE Observer - Trees	X	X	X	
5. GLOBE Observer - Land Cover	X	X	X	
6. GLOBE Observer - Mosquito Habitat Mapper	X	X	X	
7. Goldstone Apple Valley Radio Telescope (GAVRT)	X	X	X	
8. Growing Beyond Earth		X	X	
9. Planet Hunters TESS		X		X
10. The International Astronomical Search Collaboration (IASC)			X	X
11. Radio JOVE			X	X
12. Floating Forests				X

REPOSITORY ALIGNED TO NC STATE STANDARDS
https://www.southwesterncc.edu/stem-repository

MATERIALS AVAILABLE FOR CLASSROOMS
(**send an email to r_neff@southwesterncc.edu to claim these for your classroom**)

- 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
- Class set (20) TI-84 graphing calculators

ONLINE
Learn basic coding using data from NASA's Chandra X-ray Observatory and other satellites on exploded stars, star-forming regions, and black holes.

Professional Development

June 9 (6-7pm) online webinar - Teaching Space With NASA Live Stream – Tracking Asteroids - Perhaps you've heard about an asteroid making a close pass by Earth and you've wondered just how close it will get. Or maybe you've enjoyed seeing a meteor shower on a starry night and thought about the science behind these celestial events. Did you know that NASA monitors and tracks asteroids and comets to better understand them from a science perspective and also to keep a close watch on any objects that might come close to Earth?

Explore NASA STEM @ Home - June Distance Learning Opportunities for Educators and Students.

Opportunities For Libraries & Community Groups

Applications for *NASA@ My Library* open on May 17, 2021 and close on July 21, 2021. 60 U.S. public and tribal libraries will be selected to become NASA@ My Library Partners. NASA@ My Library Partners will receive training and resources to implement NASA events and programming, access to a university Subject Matter Expert (SME) to support patron engagement, and a $1,600 programming stipend to purchase materials for NASA STEAM activities and/or support presentations by local NASA-funded SMEs.

Free Online Workshop: Confidence and Curiosity: Girls at the Telescope In this online workshop, you will be able to explore some Girl Scout-tested, effective ways to interact with girls in informal learning environments. You can master techniques to help create an inviting environment where everyone has the opportunity to learn more about space science. August 8th - 28th, 2021. Live sessions will be on Tuesdays at 12 noon Pacific / 3 pm Eastern on August 10, 17 and 24th. **DEADLINE to apply: July 25th, sign up for the August workshop** here

Mosquito Tracking and Elimination Activities - Activity guides to build a simple trap to capture mosquito eggs and larvae using recycled and inexpensive materials, learn about the mosquito life cycle, habitat and play some games.

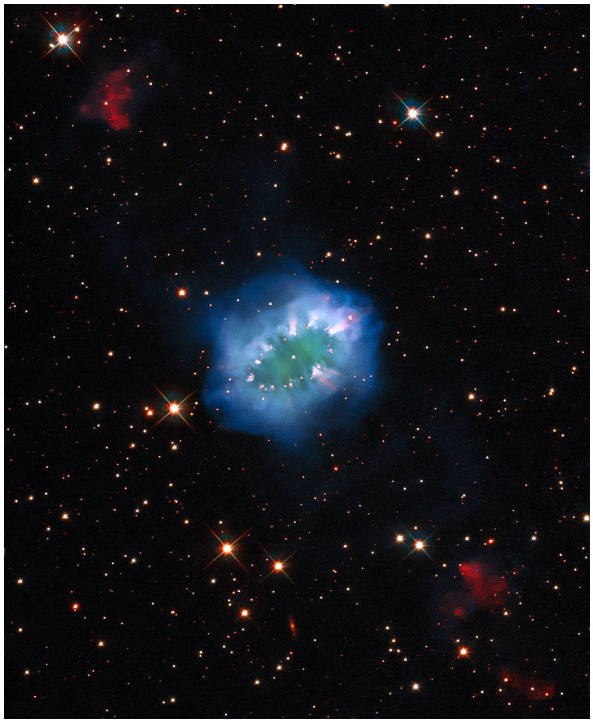


Image Spotlight

The interaction of two doomed stars has created this spectacular ring adorned with bright clumps of gas – a diamond necklace of cosmic proportions. Fittingly known as the “Necklace Nebula,” this planetary nebula is located 15,000 light-years away from Earth.

Image credit: ESA/Hubble & NASA, K. Noll