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Southwestern Community College
EXPLORE YOUR PATH TO SUCCESS

Smoky Mountains STEM Collaborative

SMSC April 2022 Newsletter

APRIL EVENT CALENDAR

4/3 & 4/10 - Science at the Sylva Art Market
4/6 - Chandra Virtual Field Trip
4/8 - Artemis Star Party
4/29 - Drive-in Professional Development for Teachers
4/30 - Earth Day at Swain High School

Local Events

Apr. 6 - 1 p.m. - Livestream tour of Chandra's Operations Control Center
Touring the Chandra spacecraft and some exploding stars in our galaxy through virtual reality (VR)

Apr. 8 - 7:30 p.m. - Star Party at WCU Apodaca Building Roof with Artemis activities

Apr. 29 - 12-4 p.m. - Drive-in Professional Development at SCC for public school teachers
Hosts: Randi Neff (SMSC), Amanda Clapp (WCU & The Catamount School), Kristin Holt (JCEC)

Request funds to cover half-day sub by emailing r__neff@southwesternncc.edu
Presenters and Teachers Register here.

Challenges, Opportunities & Resources

NASA Space Place Art Challenge

In this activity, we'd like to challenge young explorers to imagine and draw a space-related situation every month. At the end of each month, we'll select a few of the drawings to be featured on the NASA Space Place website. See details here.

Genes in Space Challenge

Entry Deadline: Apr. 11

In this activity, students are asked to design a DNA experiment that discusses challenges in space travel. The winning experiment will be launched to the International Space Station, where it will then be carried out by astronauts. See details here.

Power to Explore Student Challenge

Proposal Deadline: Apr. 13

Students of all ages are being challenged to write an essay about the Radioisotope Power Systems that provide the energy to explore space and how those systems inspire them. In addition to that, students are also tasked to discover the unique powers they have that inspire them. See details here.

Career Connections

NASA Aeronautics Career Day

The link provided here is a recorded session hosted by NASA on the emerging field of advanced air mobility. The session features a handful of representatives discussing their roles in this field. Careers in public affairs, communications, infrastructure, manufacturing, budgeting, coding, project management are explored, and specific tracks such as flight operations, project support, research and engineering are highlighted. Additional information can be found here.

Data Science, IT and Cyber Professionals

"*From the Earth to the skies, cybersecurity protects ground, aeronautics and space mission systems, enabling* NASA *to accomplish extraordinary missions.*"
-Faith Chandler, Deputy Cybersecurity Advisor for Mission Systems

For more information, click here.

See also:
Cybersecurity
IT Talk Newsletter
Electronics

K-12 Educators

NASA Kahoots!

For ages 13-up: Want to learn more about the engineering, science and technology responsible for talking to astronauts and retrieving data from the Moon and beyond? Explore the challenges faced by communications engineers from NASA's Goddard Space Flight Center in Greenbelt, Maryland with this fun quiz!

GLOBE Educator One-Week Pacing Guides

Are you interested in doing GLOBE, but you're not sure where to start? Check out these guides that provide a five-day sequence of activities that addresses questions.

Air Quality (Aerosols) - Grades 6-12
Cloud Types Featuring NASA GLOBE CLOUD GAZE - Grades 3-8
Clouds and Energy Budget - Grades 6-12
Mosquito Habitat - Grades 4-8
Plant Phenology - Grades 4-8
Trees and the Carbon Cycle - Grades 6-12
Urban Heat Islands - Grades 6-12

More resources provided by The GLOBE Program can be found here. The GLOBE Program also has instructional videos providing more information about the program as a whole, as well as demonstrations of scientific protocols and more, which can be found here.

Science at the Jackson Arts Market

Free and family-friendly, this event will be held on the second and third Sundays in April (4/3 and 4/10) from noon-5 p.m. There will be presentations with university scientists and students, activities for children and adults to learn physics, a Solar System Walk through downtown Sylva, a safe solar viewing if the weather allows for it and more. Children will also be able to participate in a scavenger hunt.

Earth Day

Swain County High School is hosting an Earth Day event on April 30, led by students, at the football stadium from 11 a.m. - 2 p.m. The event aims to celebrate the Earth, as well as educate others about the planet and the plethora of life inhabiting it.

Books, Videos and Interactives

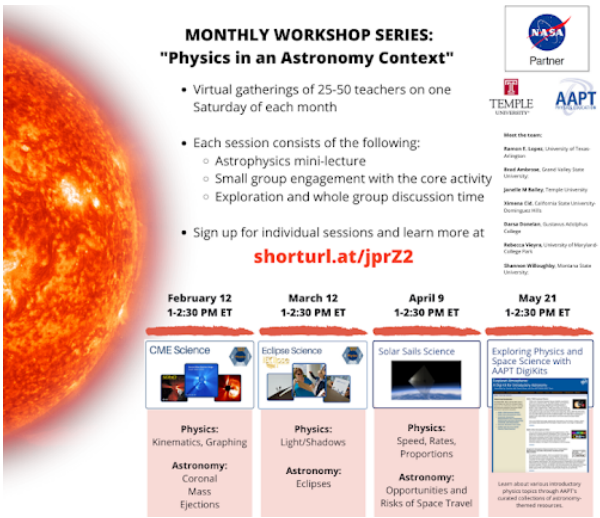
Send Your Name with Artemis!

“Artemis I will be the first uncrewed* flight test of the Space Launch System rocket and the Orion spacecraft. The flight paves the way toward landing the first woman and the first person of color on the Moon!”

*But YOU can be a part of the flight test! Click the Virtual Boarding Pass to get your very own and send YOUR name to the Moon!

Professional Development

Join the NASA STEM Engagement and Educator Professional Development Collaborative at Texas State University for FREE 60-minute webinars. Earn one hour of professional development credit by attending. See the titles, dates, and registration links for each event here.



Monthly Workshop Series

This free workshop will be held via Zoom from 1-2:30 p.m. one Saturday a month from February to May. Each session will showcase a presentation pertaining to scientific backgrounds and how astronomy is relevant in those fields. Click here to sign up!

Opportunities for All

Celebrating Earth's Oceans, Protecting our Future

During the Summer of 2022, libraries across the country will celebrate earth science in their summer learning programs. The slogan "Oceans of Possibilities" was chosen by CSLP and many library professionals to help inspire children of all ages to dream big and think of all the ways they can make our world a better place to live for everyone, as well as put their ideas into action. Find resources for your library here.

Virtual Field Trip with NASA's Chandra X-Ray Observatory

Apr. 6 at 1 p.m.

As NASA's premier X-ray telescope, Chandra gives us a powerful tool to investigate hot regions of the universe, from black holes to exploding stars, colliding galaxies and more. Get a backstage pass to Chandra's Operations Control Center, tour the Chandra spacecraft through virtual reality, and take a (virtual) quick trip to some exploding stars in our own galaxy. This virtual field trip is part of the Code.org CS Journeys. Choose a session and submit your group's registration HERE. You can also join us in-person or online for a livestream of this event.

April Skies

Lynx and Leo Minor

Avid skywatchers will be excited to know there will be a couple of cats prowling in the spring at night near the Ursa Major. **Lynx** is a faint zigzag pattern between Ursa Major, Gemini and Auriga; **Leo Minor** is a faint set of stars between Leo and Ursa Major. Its most noticeable feature is its triangle pattern, and it is often referred to as Leo the Lion's cub.

Image was created with assistance from Stellarium and was provided by the NASA Night Sky Network.