

Excellence

Center for Excellence in Education

SUMMER 2022 Newsletter



Upcoming Events

<u>TEP</u>

June 1: DoD STEM Ambassador application deadline June 14: Square Root of STEM

STEM Lyceums

June 20: Clean & Renewable Energy

YOU MADE IT TO SUMMER BREAK!

This year has been long and challenging. Enjoy your summer break and as you reflect on this year and plan for the next, you are invited to revisit CEE webinars on interesting STEM topics to share with your students.

STEM News

Science

Cheaper, more efficient ways to capture carbon

Technology

These flying robots protect endangered wildlife

Engineering

New enzyme discovery is another leap towards beating plastic waste

Mathematics

<u>Chaos theory provides hints for</u> <u>controlling the weather</u>

STEM Spotlight

Dr. Wanda Austin



Dr. Wanda M. Austin is a renowned academic who is internationally recognized for her work in aeronautics and systems engineering. She

earned a B.A. in mathematics from Franklin & Marshall College, M.S. degree in systems engineering and mathematics from the University of Pittsburgh and a Ph.D. in systems engineering from the University of Southern California. She is co-founder of MakingSpace, Inc, a system engineering and leadership development consultant and motivational speaker. She served as interim president of the University of Southern California and is the former president and CEO of The Aerospace Corporation. Austin is committed to inspiring the next generation to STEM disciplines.

A Lesson to Learn

Computational Thinking

Tata Consultancy Services

Teachers experience in-class training through the Ignite My Future in school program – gaining lessons to promote computational thinking and advanced Problem solving. Ignite My Future in School, a one-of-akind initiative, transform the way students across America learn through computational thinking.

Partner Opportunities

Lockheed Martin STEM Careers

Talk Techy

Watch our new "Talk Techy" video series to learn how Lockheed Martin engineers apply STEM concepts in surprising ways.

Claude Moore Scholars Foundation

Health Science Highway

Did you know there is a shortage of Health care workers, particularly in Virginia? CEE has partnered with the Claude Moore Scholars Foundation for teachers to share with their students exciting Healthcare careers and opportunities through Health Science Highway webinar series.

STEM Bellringers

Click the links for the answers

Biology: What is it about red that makes bulls so angry?

Chemistry Are two atoms from the same element identical?

Earth/Environmental Science Clouds are just water vaper, so why do they move?

Physical Science Is light a particle or a wave?

STEM Challenge

Have you ever wondered how they make spacesuits for astronauts? Special fabrics help keep astronauts safe in space. Every suit is custom made for each crew member. When the crew sit in their seats, they plug in the suit to the umbilical that provides communication, electronics, and air supply. What else would be important for a spacesuit to have? How would you design one? Watch <u>bit.ly/3BNpes1</u>



STEM Activity Corner

Can you solve the Riddles?

- 1. What's full of holes, but still holds water?
- 2. What rock is bigger than Venus but smaller than Uranus?
- 3. What can't be seen, felt, or touched, but can cook your lunch?

ANSWERS: 1) a sponge, 2) earth, 3) a microwave particle

Cool STEM Careers

Food Science

STEM Activities

Did you ever wonder how food makes it safely from a farm to your plate? Food science includes the study of animals, plants, soils, and the environment to help produce more and better foods for us. Food scientists work with companies that process, package, and deliver food to stores and restaurants.



A career in food science can involve ways to make foods look and smell more appealing to customers. NASA employs food scientists that ensure astronauts have a delicious and nutritious meals in space. Packaging engineers find ways to make sure food stays fresh during delivery and on your shelf.

Food production uses STEM at every step of bringing breakfast or dinner to you. If this type of career sounds interesting, learn more about the people making food better as a Food Scientist: <u>bit.ly.3GAlfkw</u>

STEM in the News

Did you know that there are about 10,00 asteroids floating around Jupiter? The Lucy satellite launched October 16, 2021 on a 12 year mission to fly near 8 of the biggest asteroids in the two clusters of Trojan asteroids.

In that time, the spacecraft will loop around Earth to pick up momentum to get to Jupiter's orbit. Lucy will be powered by two large solar arrays and will travel farther than any other solar powered spacecraft. It has multiple cameras to photograph the asteroids. Some capture wavelength, color, or thermal properties. The goal of the mission is to learn more about the asteroids and from where they came. Learn more about this mission: <u>bit.ly/3p5b5mJ</u>