

Teacher Enrichment Program March 2022 Newsletter

National Women's History Month Pi Day is 3/14 Spring Equinox is 3/20

TEP Events

Register for all events of interest by clicking on the event.

Stick It: Bio-inspired Adhesives

Tuesday, March 8, 2022 6 – 7 pm, ET Find out about speakers!

STEM Careers Webinar: Defense & Information Technology

Thursday, March 31, 2022 5 -6:15 pm, ET

Health Science Highway: Pharmaceutical Sciences

Thursday, April 7, 2022 5—6:15, pm ET

STEM Careers Webinar: Manufacturing

Wednesday, April 20, 2020 5—6:15pm, ET

The Rhythm of Life: Genomic Regulation of the Circadian Rhythm

Monday, April 25, 2022 6 – 7 pm, ET

View TEP Spring Calendar

STEM News

Science

How much energy does a dolphin use to swim?

A new study provides scientists with a new metric for estimating how much energy wild dolphins expend on swimming -- information that is essential for answering fundamental questions about their physiology and ecology.

Technology

Atomic clocks measure Einstein's general relativity at millimeter scale

Physicists have measured the effect called time dilation, at the smallest scale ever, showing that two tiny atomic clocks, separated by just a millimeter or the width of a sharp pencil tip, tick at different rates.

Engineering

Water filtration membranes morph like cells

Researchers are taking a step forward using electron tomography, fluid dynamics theories and machine learning to watch soft polymers as the polymers learn from nature.

Mathematics

<u>Largest ever human family tree: 27</u> <u>million ancestors</u>

Researchers have taken a major step towards mapping the entirety of genetic relationships among humans: a single genealogy that traces the ancestry of all of us.

A Lesson to Learn

<u>Celebrate Pi Day!</u>
<u>Pi Day Activities</u>

<u>7 Women Scientists to Include in</u> Lesson Plans

Women in Science to Learn About Includes activities & career connections

New Resource!

Common Online Data Analysis
Platform (CODAP)

Open-source software for dynamic data exploration

Partner Opportunities

Illumina

Get ready for <u>DNA Day</u> on April 25, 2022! Educators can participate in two ways through the <u>DNA Day</u> website:

 Register to match my classroom with an Illumina STEM professional to learn about their career (this professional could be either a scientist or non-scientist)

American Society of Human Genetics

 DNA Day Essay Contest is pen to students in grades 9-12 worldwide and asks students to examine, question, and reflect on important concepts in genetics.

Celebrating Women in Science! Jewell Plumber Cobb

Jewell Plummer Cobb was born in Chicago, Illinois, on January 17, 1924 and was the third generation of the Plummer family who sought a career in medical science. Her grandfather, a freed slave, graduated from Howard University in 1898 and became a pharmacist. Her father, Frank V. Plummer, became a physician after he graduated from Cornell University, where he helped found the Alpha



Phi Alpha Fraternity. Her mother, Carriebel (Cole) Plummer, taught dance and was a physical education teacher.

Even though she was forced by segregation to attend less academically rigorous public schools, Cobb remained determined to learn and became interested in biology after seeing cells through a microscope for the first time in high school. Cobb went on to earn a degree in Biology from Talladega College in Alabama. After graduating, she applied for a teaching fellowship at New York University but was rejected because of her race. Undeterred, she visited the school to present her credentials in person and was ultimately accepted to the position. She began teaching at NYU in 1945, receiving an M.S. in Cell Physiology in 1947 and a Ph.D. in 1950.

Upon her graduation, Dr. Cobb began working in the field of cancer research, first becoming a fellow at the National Cancer Institute. From 1952 to 1954, she directed the Tissue Culture Laboratory at the University of Illinois. Dr. Cobb began researching the effects of chemotherapy drugs on human cells infected with cancer with a particular focus for melanoma and the melanin that gives skin it's pigmentation. Researchers continue to build on her findings in their work to create new and more effective cancer fighting tools.

As a ground-breaking researcher, distinguished professor, and top university administrator, Dr. Jewel Plummer Cobb has forever changed the face of the scientific community. Her research has advanced our understanding of the production of melanin in skin cells and how those cells become cancerous. CEE was proud to honor her achievements in science and dedication to STEM diversity with the 1999 Achievement in Excellence Award at a gala in her honor in Los Angeles.

Learn more at: <u>Legacy of Leadership</u>, <u>Biography</u>, and <u>CT</u> Women's Hall of Fame