



Teacher  
Enrichment  
Program

*Excellence*  
Center for Excellence in Education



## MAY 2022 NEWSLETTER

**Asian American and Pacific Islander Heritage Month**

**Teacher Appreciation Week is 5/1 to 5/8**

**National Space Day is 5/6**

**Autonomous Vehicles Day is 5/31**

### Upcoming Events

*Register for all events of interest!*

#### TEP

##### Square Root of STEM

Tuesday, May 10, 2022

6:00 – 7:00 PM (ET)

##### Health Science Highway: Radiology

Wednesday, May 18, 2022

5:00 – 6:15 PM (ET)



**Dr. Sarah Sarvis Milla**  
Chief of Radiology  
Children's Hospital Colorado



**Dr. Yueh Z. Lee**  
Associate Professor of Radiology  
University of North Carolina Chapel Hill

#### STEM Lyceums

##### STEM Lyceums: Nuclear Engineering

Wednesday, May 25, 2022

5:00 – 6:00 PM (ET)



**Robin Penley**  
Systems Modeling and Simulation Engineer  
Newport News Shipbuilding



**Dr. Neil Todreas**  
Nuclear Engineering Professor Emeritus  
MIT

### STEM News

#### Science

##### Old skins cells reprogrammed to regain youthful function

Scientists have developed a new technique for rejuvenating skin cells, which could eventually have implications for regenerative medicine.

#### Technology

##### Researchers take step toward developing 'electric eye'

Using nanotechnology, scientists have created a newly designed neuromorphic electronic device that endows microrobotics with colorful vision. The newly designed artificial vision device could have far-reaching applications for the fields of medicine, artificial intelligence, and microrobotics.

#### Engineering

##### Sending out bacteria-carrying mosquitoes to protect people from dengue

Scientists have created a bioengineered 3-D model that mimics the biology of two rare diseases and shows how a drug could potentially treat the diseases. This is one of the first examples of using primarily tissue chip data for an FDA application to test the efficacy of a candidate drug for rare diseases.

#### Math

##### Tear-free hair brushing? All you need is math

Scientists explore the mathematics of combing and explain why the brushing technique used by so many is the most effective method to detangle a bundle of fibers.

## Teacher Summer Professional Development Opportunity

The TGR Foundation, supported by DoD STEM, is offering a virtual STEM Studio. STEM Studio is a FREE three-day, hands-on professional learning program for in-school and out-of-school educators to create active student-centered environments using inquiry. Educators from all STEM disciplines and grade levels are encouraged to attend. Space is limited, so be sure to RSVP [HERE](#) by May 30, 2022 for a chance to win a set of school supplies for your class and a Discovery Education Experience License.

## STEM Lyceums Student Scholarship Opportunity

The Center of Excellence in Education (CEE) is partnering with RePicture to provide a unique summer opportunity for students. The [RePicture STEM Summer Program](#) allows students to explore STEM careers, build important professional skills and a resume, and create a unique online portfolio of work to showcase on job and university applications. CEE is offering two scholarships for STEM Lyceums students to attend the RePicture summer program.



This 100% virtual program runs 6 weeks from June 21 to July 29, 2022. Live, online sessions are every Tuesday, Wednesday, and Thursday between 4:00 to 5:00 PM Eastern Time (ET). If you can't make a session, you can watch the recording on your own schedule. Each week, the program will focus on a STEM topic and a career skill such as personal branding, career exploration, STEM writing, professional networking, and giving presentations. Students will also get a chance to connect with a wide range of STEM professionals.

Click [HERE](#) to apply for the scholarship! Students must submit applications by midnight on Monday, May 23, 2022. STEM Lyceums students are also eligible for a discount.

## STEM Spotlight Dr. Isabella Aiona Abbott



Isabella Abbott was an educator and ethnobotanist from Hawaii. The first Native Hawaiian woman to receive a PhD in science, she is regarded as the world's leading expert on algae in the Pacific Ocean, identifying more than 200 species of algae over the course of her career. She was known for her wonderful hospitality and her kelp-centric culinary skills, including the coveted seaweed cake. Abbott

navigated an ocean of "firsts" for indigenous people.

Isabella Aiona Abbott was born in Maui, Hawaii, where she spent hours during her childhood gathering seaweed for use in traditional Hawaiian foods. She learned their uses from her mother. After graduating from Kamehameha Schools in 1937, Abbott earned a bachelor's degree in botany from the University of Hawaii in 1941, and a master's degree from the University of Michigan in 1942. She married zoologist Don Abbott, then obtained her PhD in algal taxonomy from the University of California, Berkeley, in 1950.

In 1960, she began work as a lecturer at Hopkins and in 1972, Abbott became the first female full professor in Stanford's biology department, as well as the first minority full professor, bypassing the normal tenure track due to her exceptional record. In 1976, she wrote *Marine Algae of California*. Altogether, Abbott penned eight books and more than 150 articles.

In 1982, Abbott joined the University of Hawaii Manoa and taught Hawaiian ethnobotany. Thanks to her work, the university created a bachelor's degree in this subject. The National Academy of Sciences honored Abbott with its highest award in marine botany, the Gilbert Morgan Smith Medal, in 1997. Abbott was named a Living Treasure of Hawaii, and she was given the opportunity to name a National Oceanographic and Atmospheric Administration (NOAA) research ship, the *Hi'ialakai*. In 2008, she received a lifetime achievement award from the Hawaii Department of Land and Natural Resources for her studies of coral reefs. Abbott continued working at the University of Hawaii Manoa until her death in October 2010.