Teacher Enrichment Program February 2021



Virtual Bite of Science Spring & Summer Events Calendar

Date	Virtual Event Target Area
February 25	Shenandoah & Western VA
March 4	Northern California
March 11	Florida
March 18	Pennsylvania
March 25	Coastal & Eastern VA
April 8	Texas
April 15	Southern California
April 22	Maryland
May 6	West Virginia
May 13	Indiana

You are invited to sign up for any session of interest, regardless of target area. Find more information about each event on the TEP Homepage.

Thank you!



A big thank you to
Claude Moore Charitable Foundation,
one of the sponsors of TEP's
Virtual Bite of Science events.
Learn more here.



Perspectives

Science

Rebuilding trust brick by brick

Dr. Kizzy Corbett, NIH lead for Moderna Vaccine, in an interview with Dr. Sanjay Gupta, CNN Chief Medical Correspondent

Technology

COVID-19 warnings were on Twitter

"Our study adds on to the existing evidence that social media can be a useful tool of epidemiological surveillance." - Massimo Riccaboni, IMT School Social media big data predicts contagion diffusion Information Discovery and Delivery

Engineering Better face masks through origami

"From basic pleats to complex interlocking folds, origami could deliver better fitting, more comfortable, and more stylish face coverings." - National Geographic

Mathematics

DNA and true random number generation

Exploiting the stochastic nature of chemistry through DNA synthesis as a model for encryption and decryption of sensitive information. - *Nature*

Timeless STEM PROJECT

DRAWDOWN.

The mission of Project Drawdown is to promote global awareness of community-based conservation. Project Drawdown shares information about environmental impact sectors such as agriculture, transportation, health & education, and more. Visit Project Drawdown here.



Lessons to Learn Educational Resources & Technology

Boeing's FUTURE U.

Resources for educators - inspire students to create, collaborate, persist, and learn to solve problems that can change the world. Experiential learning that fuels innovation!
- in collaboration with Discovery Education -

FUTURE U. Virtual Field Trips

Create a curiosity-driven learning environment in your virtual or in-person classes. Check out interactive aerospace technology videos, virtual field trips to exclusive locations with behind-the-scenes content, 'ecoAction' environmental education, and more!

Technovation

"Technovation is the global tech education nonprofit that inspires girls and families to be leaders and problem solvers in their lives and their community."

Technovation Families

CREATE A BETTER WORLD TOGETHER

"Develop curiosity, creativity and confidence through family-friendly, hands-on activities." (formerly Curiosity Machine)

Technovation Girls

GIRLS FOR A CHANGE

"Every year, Technovation invites teams of young people from all over the world to learn and apply the skills needed to solve real-world problems through technology."

Visit <u>TEP's Lab Bench</u> for more state and national resources and programming. Drawer and Tab: Additional Resources



Highlighting Diversity in Vaccine Development

National Urban League & the NIH



Dr. Kizzmekia S. Corbett, Ph.D.

Dr. "Kizzy" Corbett is a research fellow at the National Institutes of Health and the lead scientist for the Coronavirus Vaccines & Immunopathogenesis Team (NIH

<u>Director's Blog</u>). Her work was praised by Dr. Anthony Fauci at a forum hosted by the National Urban League in December, 2020.

The question: "Can you talk about the input of African American scientists in the vaccine process?" Fauci had no hesitation in responding: one of the two vaccines with almost 100% efficacy and safety "was actually developed in my institute's vaccine research center by a team of scientists led by Dr. Barney Graham and his close colleague, Dr. Kizzmekia Corbett ... an African American scientist who is right at the forefront of the development of the vaccine."

As a young student, Corbett participated in Project SEED, a program for gifted minority students that promoted lab studies at UNC - Chapel Hill. She later graduated with dual majors in Biological Sciences and Sociology from the University of Maryland on a "full ride" scholarship. She returned to UNC-CH to complete a Ph.D. in Microbiology and Immunology. Upon graduation, she was appointed to the Vaccine Research Center, a division of the National Institute of Allergy and Infectious Diseases at the NIH. Dr. Corbett's specialized training in viral immunology made her a key player in the acceleration of the development of the Moderna COVID-19 vaccine.

ABC News CBS News

American Society for Microbiology