



Calendar of Events

Virtual Bite of Science

CEE and TEP are excited to announce the schedule of this fall's virtual events! Registration information can be found on the [TEP homepage](#).

Date	Location(s)
Sept 24	Roanoke & Danville
Oct 1	Monterey Bay, Hayward & Oakland
Oct 8	Shenandoah Valley
Oct 15	Reading, Bethlehem & Harrisburg
Oct 20	Hampton Roads
Oct 22	Fredericksburg, Richmond & Petersburg
Oct 29	San Diego, Long Beach & Los Angeles
Nov 5	Orlando & Melbourne
Nov 12	Houston, Dallas & San Antonio
Jan 14	Baltimore
Jan 21	Frederick & Martinsburg
Jan 28	Fairmont & Charleston
Feb 4	Logansport & North Central Indiana

NEW! Virtual classroom speaker opportunities!

Lockheed Martin has volunteers within its corporation who are eager to speak to your students through virtual classrooms! To request a speaker, email [Kim Edwards](#).

The [Lab Bench](#) resource site has been refreshed! For assistance finding specific resources, email [Molly Allen](#), TEP Program Analyst.

Symbiosis in STEM

Science

Necessary Symbiosis

She wants to restore the public's confidence in science. In a forthcoming book, titled [Necessary Symbiosis](#), Vyshnavi Karra underscores the importance of scientists engaging the public on issues such as the COVID-19 pandemic.

Technology

'The Electricity of Our Age'

In an [interview between Axios co-founder Mike Allen and Microsoft President Brad Smith](#), Smith spoke to the urgent need for broadband internet access in America's rural communities. He compared broadband connectivity to a utility as ubiquitous as electricity. Using relevant examples including telehealth and small business growth, he urged: "Even post-COVID, the importance of the broadband gap is not going abate one bit. It will remain just as important to our future as it is right now."

Smith [speaks to the divide in a blog](#) from May of this year. More information about Microsoft Corporation's broadband expansion focus area can be found here: [Microsoft Airband Initiative](#).

Engineering

Global Engineering Machinery Steel Market 2020 Analysis, Types, Applications, Forecast and COVID-19 Impact Analysis 2025

[This report](#) "examines the global Engineering Machinery Steel market size of the historical pathway. Key regions are kept in mind with special emphasis on the highest demand and growth countries."

Mathematics

How can mathematical modeling contribute to the social sciences and policy making?

Larry Liebovitch, a professor of both physics and psychology at Queens College and of physics at the City University of New York Graduate Center recently developed a mathematical model simulation of sustainable peace in a society. View the Core Engine Sustainable Peace Map at [What's Math Got to do With Peace?](#)

A Lesson to Learn

This year looks quite different for most educators! At TEP, through teacher input, we realize that two factors of teaching that are significantly impacted by virtual education are student assessment and lost opportunities for collaboration with colleagues. The resources below provide insight into assessment, engagement, and methods of collaboration as teachers and students navigate virtual learning environments.

[Creating Synergy: Lesson Design in a Co-Taught Classroom](#)
[Your Assignment: Be the best you can be through synergy!](#)

[Five Generational Tips for Enhanced Synergy in Schools](#)

RSI & USABO Highlights

Research Science Institute (RSI):

CEE is pleased to announce its top 5 award winners for oral and for written presentations. Scholarship awards in the amount of \$1,000 were presented by Dr. Ross Grossman on behalf of Regeneron Pharmaceuticals, Inc.. Dr. Grossman currently serves on the Board of Trustees for the Center for Excellence in Education.

Written

Kenneth Choi - CT
Yunseo Choi - NH
Jay Iyer - LA
Victor Kolev - Bulgaria
Vivian Yee - MI

Oral

Oreoluwa Alao - NJ
Alexandre Benoit - GA
Blanca Gilabert Lopez - Spain
Addison Liu - PA
Melanie Quan - CA

Eldar Urkumbayev of Kazakhstan was selected by His RSI peers for the top honor - **Rickoid of the Year**.

United States Biolympiad (USABO):

CEE is proud to announce the results of US team's participation in the virtual International Biology Olympiad.

Gold Medalists

Judson Lam - IL
Nithin Parsan - TX
Albert Zhang - CA

Silver Medalist

Derrick Liang - VA

Futhermore, capitalizing on this virtual era, this year's cohort has begun a novel research project to increase international collaboration amongst student participants in the IBO. To learn more about the project, visit:

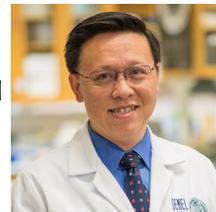
[International Exchange Project](#)

Celebrating Symbiosis in Scientific Research

Dr. X. William Yang, M.D., Ph.D.

Center for Neurobehavioral Genetics at the Semel Institute for Neuroscience & Human Behavior

Dr. X. William Yang, an alum of CEE's Research Science Institute ('85), has contributed to medical advancements in neuroscience since the late 90's. During his PhD thesis research at Rockefeller University and



Weill Medical College of Cornell University, Dr. Yang co-invented a novel genetic technology with his mentor, Dr. Nathaniel Heintz.

Since establishing his own laboratory at UCLA in 2002, Dr. Yang has mentored over 20 undergraduate, graduate, and research associates. Working with dedicated team members, Dr. Yang's method of using bacterial artificial chromosomes (BACs) to model human neurodegenerative disorders such as Huntington's disease has contributed to identifying therapeutic targets. His research teams have also developed new tools to study gene traits and expression in neurons, such as the impacts of basal ganglia nuclei on human development of either typical or pathological behaviors.

To learn more, visit ["the X. William Yang research group"](#) online.

Timeless STEM

[Why do we ask questions?](#)

Harold Eugene "Doc" Edgerton was a professor of electrical engineering and classes relating to other curiosities for over 43 years at MIT. Edgerton was the recipient of many awards over his career and lifetime, including the National Medal of Science, bestowed in 1973 by the President of the United States.

In [this TEDxVienna presentation](#), Michael Stevens speaks about Edgerton, quoting him: "The trick to education is to teach people in such a way that they don't realize they're learning until it's too late."

Michael "VSauce" Stevens shares his love of learning through his captivating [YouTube Channel](#) dedicated to science education.

Posted on STEM Blog: [Synergy in Education](#)