



January 2024 NEWSLETTER

Upcoming Events

TEP

Teacher Meet-Up

- February 24th, 9am-2pm

[Click here to register!](#)

STEM Lyceums

The Science Behind Sports

- January 24th; 4:30-5:45 (EST)

[Click here to register!](#)

For Teachers & Students

STEM Spotlight

Noreen Hynes, MD, MPH



Dr. Noreen Hynes, with over 35 years of medical and public health experience, holds key roles at The Johns Hopkins Medical Institutions. Currently serving as an Associate Professor of Medicine, she directs the Geographic Medicine Center and holds positions in infectious diseases and public health. Dr. Hynes, a CEE Board of Trustee member, focuses her research on infectious diseases in resource-constrained settings, including tropical diseases, zoonoses, and high-consequence pathogens, collaborating on vaccine trials at the Johns Hopkins Bloomberg School of Public Health. She is also slated to be the keynote speaker at the upcoming Regional TEP/Lyceums Meeting.

Teacher Enrichment Program

Teachers invited to Virtual Bite of Science and College & Career Panels to learn about new cutting-edge research and technology.

STEM Lyceums

Students can join the virtual Lyceum club to build STEM communities and engage in discussions and explorations of STEM concepts and STEM career pathways.

USABO

Students and teachers register their school for the opportunity to be a part of the premier biology competition open to all schools in the United States.

STEM News

New Approach to teaching Computer Science

Summary:

Even though there is a growing demand for computer science skills to be taught in K-12 schools, teachers still struggle to prepare the computer scientists of the next generation. Teachers have many obstacles when incorporating computer science into their lessons. Integrated Computing provides a useful solution to these obstacles whilst not deviating from course standards.

This approach allows students to learn programming and computer literacy while engaging in activities relevant to subjects such as math, science, and language arts. Integrated Computing aims to bridge the digital divide, equipping students with essential skills to thrive in an ever-evolving technological landscape. Unlocking computer literacy for every K-12 student, integrated computing emerges as the pathway forward.

Partner Opportunities

STEMcx

STEMcx, passionately guides underrepresented minority (URM) students towards STEM careers. Students are inspired through targeted academic support, hands-on learning, and connections with accomplished STEM professionals of color. By combining educational excellence with direct engagement, STEMcx breaks barriers and cultivates a sense of belonging for URM

The organization believes in the transformative power of direct engagement with STEM professionals, providing unique insights and mentorship opportunities that propel students towards fulfilling and impactful careers. With this comprehensive approach, STEMcx envisions a future where every student, regardless of background, can confidently thrive in the dynamic and diverse world of Science, Technology, Engineering, and Mathematics. For more information visit the STEMcx [here](#).

STEM Bellringers

Click the links for the answers

Space:

[Why is the sky not blue as seen for space?](#)

Health:

[Why do humans crave sugary foods? Shouldn't evolution lead us to crave healthy foods?](#)

Chemistry:

[How does plasma make a campfire flame orange?](#)

STEM Activities

Cool STEM

Brain Scans and Navigating Pandemic Stress

Scientists explored how teens handle stress during the COVID-19 pandemic, using pre-pandemic brain scans to predict mental health outcomes. Presented at a Society for Neuroscience meeting, the findings suggest potential for early interventions. The pandemic exacerbated a mental health crisis among teens, with increased depression and anxiety. Computational neuroscientist Caterina Stamoulis, using data from the Adolescent Brain Cognitive Development study, investigated why some teens fared better. Those with stronger pre-pandemic brain networks exhibited better mental health during challenging times. The ongoing study aims to unravel the mysteries of resilient brain circuits and their evolution over time in response to experiences and environmental factors. For more information please visit: <https://www.snexplores.org/>



STEM Scholarships/Internships

Students

[Lockheed Martin STEM Scholarship](#)

[The Gates Scholarship](#)

[GE-Reagan Foundation Scholarship Program](#)

[Sierra Nevada Corporation Women in STEM Scholarship](#)

[Foot Locker Scholar Athletes Program](#)

[McDonald's Hacer National Scholarship](#)

[United States Senate Youth Program](#)

[PG&E Corporation Scholarship](#)

[Saint Paul & Minnesota Foundation](#)

Teachers

[Albert Einstein Distinguished Educator Fellowship \(AEF\) Program](#)

[Fund for Teacher Fellowship Grant \(Opens Oct. 1\)](#)

[Connecting Mathematics to Other Subject Areas](#)

[Classroom Research Grant](#)

[National Science Teacher Award](#)

Classroom Activities

[Witness the carbon cycle in action](#)

[Detect latent fingerprints](#)

[Discover the size of a mole](#)

[Generate a Lichtenberg figure](#)

[Build your own Newton's Cradle](#)