

STEM News You Can Use. . .

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<https://www.americaninno.com/>

Achieve Publishes Science Cognitive Complexity Framework

Use the [framework](#) to identify and communicate the level of complexity of summative assessment items and tasks designed to assess NGSS three-dimensional standards.

Small Institutions Lead the Way in STEM Degree Attainment for Underrepresented Students

Small and mid-sized institutions play significant roles in strengthening the STEM pipeline for under-represented students. [Read the article.](#)

What is a STEM Mindset and How Do We Get There?

A STEM mindset is important for scientists and engineers and to help young people see STEM-related careers as possibilities. A STEM mindset applies beyond STEM and STEM Careers. Learn more about the [STEM mindset](#); how to foster this mindset [across learning settings](#), and [changing mindsets](#) through educator training.

Raising Entrepreneurs

[Entrepreneurial education](#) can be life-changing, particularly for young people struggling with poverty and other oppressive situations. Learn about the benefits and how teachers can implement lessons in their classrooms.

Upcoming Events and Opportunities

Webinar: Developing a Competitive Teacher Award Application - November 6, 2019, 6:30 - 8:30 pm (ET)

Learn how you can win up to \$10,000 for your outstanding work as a science educator. The presenter will discuss the application process, share insight into completing your application, and provide tips for strengthening your submission. [Register here.](#)

Webinar: Fostering a Positive Classroom Environment - November 14, 2019, 3:30 - 4:30 pm (CST)

Learn strategies that foster a positive classroom environment by building relationships and rapport to support the risk-taking and authentic learning. The presenter is a 4th grade teacher in a diverse school district with 100% of the students receiving free lunch and a 28% chronic absenteeism rate. [Register here](#) for the first ever cross-curricular #ILMathCom*, #ILSciCom, #ILSSCom event.

2019 NISE Conference - November 18, 2019

Northern Illinois Science Educators will host its sixth [annual conference](#) in Naperville. Registration includes food, workshops, and nationally recognized speakers. Group discounts available.

Great Water Design Challenge - November 20, 2019

IMSA and NOAA are hosting this competition for middle and high school student teams of 4-5 with one teacher or adult chaperone. Students will research a water-related environmental concern; spend the morning with subject matter experts; then innovate a solution or intervention. Breakfast, lunch, snacks, and swag provided; transportation costs not covered. [Registration link.](#)

What is Mathematical Modeling? What Does it Matter? April 9, 2020, 3:30 - 4:30 pm (CST)

What is the standards' vision for mathematical modeling? How can you enhance the modeling work for students in grades K-5, 6-8, and 9-12? These questions and more will be explored in this session. [Register here.](#)

Presidential STEM Mentoring Awards

Nominations and applications are now open for the 2019-20 cycle of the [Presidential Awards for Excellence in Science, Mathematics, and Engineering Mentoring](#) (PAESMEM). Nominations are due December 15 and completed applications are due January 15, 2020. [Keep reading](#) for more information.

The 2019-20 Northrop Grumman Foundation Teachers Academy

Applications are now being accepted. Teachers of physical science, engineering, and/or technology located in public school districts in select Northrop Grumman communities across the United States will be considered. Applicants must be US citizens. Access the application portal [here](#).

Resources

Free Resources from Statistics in Schools

[Statistics in Schools](#) is a free program that uses census data to create PK-12 classroom materials. [New activities](#) highlight the importance of the 2020 Census. Census data drive decisions to allocate more than \$675 billion in federal funds to states, communities and school programs/services (Title I, special education, Head Start, and more).

Teach Plate Tectonics

The new [Plate Tectonics module](#) for middle/high school students from Concord Consortium's GEODE (Geological Models for Explorations of Dynamic Earth) project includes student modules, pre/post-tests, teacher's edition and dashboard, and more.

Explore STEM Careers

Each video [introduces the amazing inventors and adventurers](#) who spend their lives solving big problems, uncovering hidden secrets, and finding new questions to answer using science, technology, engineering, and math.

Upcoming STEM Competitions for Middle School Students

Consider one or more of the following to foster STEM interest and workplace skills: [Computer Science](#); [MathCounts](#); and [American Rocketry Challenge](#).

Celebrate Computer Science Education Week with CodeSciGirls!

A new Season of [SciGirls](#) premieres December 12 during [Computer Science Education Week](#)! Learn about the new season by attending the December 11 webinar, which runs from 11 am to 12 pm, Pacific Time. [Register here](#) for the December 11 webinar. Instructions will be emailed after registering for the webinar. Questions? Contact Casi Herrera, cherrera@ngcproject.org.