

Education, Exploration, & Innovation for Today and Tomorrow

STEM News You Can Use. . .

August 2019



VISIT THE DUPAGE ROE STEM WEBSITE AT http://stemdupage.com/

Career Readiness in Middle School

School districts are urging career exploration for middle and lower grade students, convinced the preparation necessary for tomorrow's jobs needs to begin earlier. Read the <u>report</u>.

How to Engage All Students in STEM

The answer: high-quality project-based learning (PBL), which is already deployed in career and technical education (CTE) programs. The <u>Education Week</u> article also includes free resources.

Encouraging Creativity in STEM Class

Creativity may be overlooked in STEM but STEM teachers are finding ways to make their lessons and courses innovative and encourage their students to be creative. Read more in <u>NSTA Reports</u>.

Engaging English Learners in the Science and Engineering Practices Teachers should know *Next Generation Science Standards* practices are heavily language-dependent requiring inclusive approaches for multilingual students. Read more in <u>STEM Teaching Tools</u>.



Five Nonprofits Are Driving a Revolution in STEM Education <u>Read</u> about these five organizations that are making STEM career path awareness their critical focus.

Read <u>this article</u> to understand how social studies, science, engineering and math can be integrated into a music lesson. **Ten Simple Ways to Empower Girls to Love STEM**

Use these simple methods to help your daughter fall in love with STEM. The bonus is that the methods echo good

New Drop Anywhere STEM Education Concept

STEM Strategies Fit into the Elementary Music Classroom

Smaller, lighter and less expensive than brick-and-mortar or trailer labs, Drop Anywhere Labs offer a blend of career and skills education. <u>Read more</u> about this project supported by <u>Learning Undefeated</u>.

Upcoming Events and Opportunities

parenting, in general.

STEM into the Future – September 25, 2019

Explore engineering projects, online coding sites, tech toys and more that will help students become thinkers, investigators, collaborators, creators, and doers. Click <u>here</u> for more information.

2019 ISTA/ICTM Joint Conference - October 18-19, 2019

Attendees may choose from both science and math sessions. Sessions for teachers of all grade levels. Learn more and register.

Illinois Future City Competition - January 18, 2020

Sixth-eighth graders are invited to participate in this exciting competition to be held at Whitney Young Magnet School (Chicago). Details and the theme will be announced in June. More information <u>here</u>.

STEM VOICES

Do you use songs to teach? Enter the Virtual Ongoing Interdisciplinary Collaborations on Educating with Sound contest by December 31. Learn more.

Resources

More Community Science Ideas...

Thanks to Laura Riley, instructional coach at Westmont Junior High School. Here are some great links to learn about integrating community science into your STEM courses.

https://www.globe.gov/

https://www.globe.gov/web/mission-mosquito/overview

https://www.globe.gov/web/mission-mosquito/overview/webinars/archived-webinars

Build a Telegraph Tapper

In <u>this activity</u>, students learn the basics of electricity, patterns, engineering, and coding, while integrating important elements of standards related to communication, literacy, technology, and math.

National Geographic Grants

These grants help build geographic competency by fostering an explorer mindset and understanding, appreciation and value for the natural and social sciences. <u>Applications</u> are due October 9, 2019.

Local Firefighters Spark Middle School STEM Lessons

Tap this <u>article</u> to read how students in one district learned about emergency services careers while also getting to light something on fire.

Start a FREE Girls Who Code Club Today!

Girls Who Code Clubs are **FREE** programs for 3rd-5th or 6th-12th grade girls. Check the <u>Clubs Overview</u> or join an upcoming <u>webinar</u>. Ready to join the movement? Complete a Clubs <u>application</u>. Have questions? Contact Girls Who Code at <u>clubs@girlswhocode.com</u>.

Quality STEM Resources from NSTA

These <u>multidisciplinary resources</u> integrate science and engineering practices to help teachers provide quality STEM learning.

This newsletter is published with the support of the DuPage Regional Office of Education Dr. Darlene Ruscitti, Regional Superintendent 421 County Farm Road, Wheaton, IL 60187

