November 2017

News You Can Use. .

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



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Leaders Discuss STEM Trends During Summit

Lindsey Gardner, STEM Education Coalition, told attendees during a recent STEM Pathways Summit about the federal administration's STEM priority. Read the takeaways from all the speakers at the Summit.

Educators Rethink the Way Students Learn Science

Move from sit-and-get lessons to students being active participants in their learning through an inquiry-based approach. Inquiry helps students vocalize their understanding. Read the article.

The Million Dollar Problem

So, what is an algorithm? And why are algorithms useful to us? Mathematicians search for the one algorithm to solve them all. Learn more.

Tips for Teaching STEAM Using Sports

Look at STEAM through the lens of football. Here are <u>five tips</u> for making STEAM learning relevant to students, including hands-on activities and using processes to talk about job skills.

Challenging Middle School Thinkers

Use <u>science fairs and competitions</u> to challenge persistent, passionate middle school students to pursue careers in science and engineering.

Prevent Passing Down Math Anxiety

Parents agonize over their children's homework. It turns out that parents' fear of math can be passed along to our kids without even realizing it. Read more here.



Upcoming Events and Opportunities

Students Involved in Technology (SIT) Conference - February 10, 2018 at Blackhawk Middle School, Bensenville This conference is by and for 3rd through 12th grade students. Attend, present and volunteer. Teachers, encourage your technology-geared students to present at the conference and consider volunteering, too.

Understanding Inquiry Within the Context of the Next Generation Science Standards: A Workshop for Science Leaders and Evaluators - November 28, 2017 at Medina Shriners, Addison (New Workshop)

Learn the important role that inquiry plays in the NGSS-aligned classroom and what this means for teacher evaluators and science leaders. Click here to register and here for more information.

Team America Rocketry Challenge

This hands-on, project-based learning program incorporates aerospace-specific STEM concepts. Students in grades 7-12 design, build, and fly a rocket. There is a \$125 entry fee per team. http://rocketcontest.org/

Lexus Eco Challenge

In this <u>STEM contest</u> for students in grades 6-12, teams tackle environmental issues related to land, water, air, and climate, while they create practical solutions and compete for amazing prizes.

Real World Impact: Water Quality Project Funding Applications Due January 12, 2018

Do you or your students have a project idea for your school that could help improve water quality in your area? DuPage County Stormwater Management has an annual fund for community projects that provides up to 25% of construction costs. Read more.

Resources

Celebrate World Soil Day - December 5, 2017

One of our greatest natural resources is right beneath our feet! Get the dirt on soil and find links to activities and recommended reading.

STEMscopes

 $\label{eq:continuous} \mbox{Activate a $\underline{$f$ree preview}$ to experience some of the reasons other districts have adopted this STEM curriculum.}$

Empower Sixth-Grade Students Through a Climate Change Lesson

"Can a single human impact the planet's climate?" Sixth-grade students dig into this question as they measure their carbon footprints in this article from the October issue of Science Scope.

Community Action Grants Program Offered by AAUW (formerly American Association of University Women)

AAUW funds programs to promote education and equality for women and girls. Special consideration given to projects that focus on STEM and involve community partners. Applications are due January 15, 2018. For more information, click here.

Teacher Research Associates (TRAC) Program - Expected for Summer 2018 at Fermilab

TRAC offers research opportunities to outstanding science, mathematics, computer science and technology teachers. The eight-week appointments have a stipend of \$700 per week and an expected application deadline of February 18, 2018. See details on the website.

Lemelson-MIT Program

The Lemelson-MIT Program offers a <u>collection of resources</u> designed to celebrate inventors and inspire young people to pursue creative lives and careers through invention. Designed for students in grades 7-12 to invent and develop hands-on STEM skills.

An Illustrated Guide to Biology - Book published by Jeff Grant, Downers Grove North Teacher

This <u>illustrated book</u>, published in black and white so students can color and highlight content, can be used in biology courses, including high school (Introduction and AP), college, and even Anatomy. Work with concepts in a more organic, non-linear, approachable way.

