

News You Can Use...

PRIOR EDITIONS OF "NEWS YOU CAN USE" ARE ARCHIVED ON OUR WEBSITE.
CLICK "NEWS" IN THE UPPER RIGHT SECTION: <http://www.stemdupage.com/>

Annual Daughter-Parent STEM Event

Seventy-five 7th and 8th grade female students and their parents, joined by several area teachers, participated in the December 5 event at Argonne National Laboratory. Attendees participated in design challenges, heard STEM professionals talk about their career paths, and learned about the importance of supporting STEM career interest. Presenters included Jill Arnold, cinematographer; Marta Martinez, engineer; Adalina Ocon, zookeeper; Elizabeth Mattson, engineer; and Doug Sisterson, meteorologist. Below are some snapshots of the day's events.



STEM Career Websites

Search comprehensive information on a majority of STEM careers through the following link.
<https://www.sciencepioneers.org/students/stem-websites>

A New Era in STEM Education

International Innovation sat down with the STEM Education Coalition's Executive Director, James Brown, to discuss the importance of STEM education in the U.S., the trends we have seen over the past year, and what to expect in 2015. <http://www.stemedcoalition.org/2014/12/02/a-new-era-in-stem-education/>

How Educators are Taking STEM Education Out of Traditional Classrooms

The way teachers educate students about science, technology, engineering, and math, or STEM, has come a long way. <http://www.theatlantic.com/education/archive/2014/11/taking-stem-outside-the-classroom/382870/>

Paths to STEM Fields Vary Widely, Study Says

When and how do students become interested in pursuing science, technology, engineering, and math fields? Answering this question could increase the number of STEM graduates, which some company executives say is crucial. A recent study found that the path students take to earning a STEM degree varies widely, and that interest in STEM can be triggered across the age spectrum.

http://blogs.edweek.org/edweek/curriculum/2014/12/survey_stem_motivation.html?cmp=ENL-CM-NEWS3

Introduce Word Problems to Students Sooner

New research suggests word problems might be more beneficial to learning if they are given to students at the beginning—rather than the end—of a math lesson.

<http://www.edweek.org/ew/articles/2014/11/19/13mathwords.h34.html?cmp=ENL-CM-NEWS1>

Upcoming Events

STEM Open House - February 16, 2015. Fifth through eighth grade students and their parents are invited to attend the annual STEM Open House at Technology Center of DuPage. Attendance by registration only. Information will be emailed to everyone on our email list. Questions? Email Mary Biniewicz, mbiniewicz@dupage.k12.il.us.

County Institute Day - February 27, 2015. The ROE STEM Team, in cooperation with several members of the STEM Community Advisory Team, will host several STEM related workshops, with a focus on middle school. Information about all of the Institute Day offerings is available at: <https://www.dupage.k12.il.us/register/findall.php?category=Institute+Day>

DuPage Area Engineers Week - February 28, 2015. The ROE STEM Team will join other exhibitors at IIT - Wheaton campus for this event. For more information <http://www.dupageeweek.iit.edu/>

Tech Savvy - March 21, 2015

Tech Savvy is a daylong science, technology, engineering, and math (STEM) career conference designed to attract girls in sixth through ninth grade to these fields and to inform families about STEM education and careers. Mark your calendars and stay tuned for details.

Wood Werks - January 31, 2015. Students 10-15 years of age will build a Catapult Truck and Cut-off box using basic hand tools and building safety methods. Safety glasses are required and will be provided if needed. The class will be taught by an experienced industrial education teacher and a local furniture maker. The program is supported through the efforts of BR Rally YMCA, Glenbard Township School District, and Glenbard East High School. The \$29 fee includes all materials, instruction and pizza! For more information and to register: <https://register.brrallyymca.org/ymca/classdetail.php?id=5119>

2015 Rube Goldberg Machine Contest. Middle and high school students compete to build the cleverest contraption that can erase a chalkboard. Deadlines vary. <http://rubegoldberg.com/home>

Internet of Things. Young women 13 to 18 design ways to improve the world by harnessing the power of connected technologies. First round is March 2015. [Learn more.](#)

Resources

STEM Teaching Tools. There are many different instructional models that can help students build toward proficiency on the NGSS performance expectations. To learn more, read the recent brief from stemteachingtools.org. <http://stemteachingtools.org/tools>

NGSS Sample Assessment Tasks. These draft sample tasks for middle and high school levels provide examples of how content from both the NGSS and the Common Core State Standards in Math and English Language Arts can be assessed together in classrooms. The front matter for the tasks also provides valuable information for teachers about the tasks' development process so that they can create their own tasks. Find the front matter and assessment tasks: <http://www.nextgenscience.org/resources>

TeenLife STEM Directory. TeenLife provides the web's most comprehensive directory of STEM, gap year, pre-college, overnight summer and community service programs for students in grades 7-12. [Search for a STEM program near you.](#)

Next Generation STEM Lessons. [TeachEngineering](#) has compiled an impressive digital library of 1,352 free, engaging, teacher-tested engineering lessons and activities for use in science, engineering, technology, and math classrooms. Activities and curricular units can be browsed by subject area, standard, and key word, with a featured activity each month. http://teachers.egfi-k12.org/teachengineering-ngss/?utm_source=Teachers+Newsletter+December+2014&utm_campaign=egfi+teachers+Nov+2014&utm_medium=email

2015 Presidential Awards for Excellence in Math and Science Teaching. Nominations for the 2015 Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) are now open. Principals, teachers, students, parents, and the public may nominate exceptional math or science teachers who are currently teaching grades 7-12. Teachers may also self-nominate. Since the program's inception in 1983, over 4,300 teachers have been recognized for their contributions in the classroom and to their profession.

Nominations close on April 1, 2015. <https://www.paemst.org/>

NSF and the White House Focus on Girls and STEM. Two new resources to note—the NSF-funded, PBS TV series [SciGirls](#) encourages girls to succeed in STEM, and the White House profiles outstanding STEM professionals in government with its series [The Untold History of Women in Science and Technology](#).