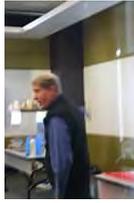


# News You Can Use...

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CLICK "NEWS" IN THE UPPER RIGHT SECTION: <http://www.stemdupage.com/>

## Annual Daughter-Parent STEM Event

Seventy-five 7<sup>th</sup> and 8<sup>th</sup> 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](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](mailto: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). <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](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/>

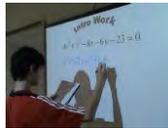
**NSF and the White House Focus on Girls and STEM.** Two new resources to note—the NSF-funded, PBS TV series [SciGirls](#) encourages girls to succeed in STEM, and the White House profiles outstanding STEM professionals in government with its series [The Untold History of Women in Science and Technology](#).

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## Presidents' Day STEM Open House

On February 16, nearly 300 5<sup>th</sup> through 8<sup>th</sup> grade students and parents attended the Open House at Technology Center of DuPage in Addison. Fifteen exhibitors provided numerous hands-on STEM activities for attendants. Volunteers from AAUW and the Technology Center of DuPage assisted at the event.



## How Technology Can Help Close the Skills Gap in STEM Education (The Huffington Post)

A new report from the Education Testing Services (ETS) group highlights a relatively silent but highly urgent problem in America: the skills gap in STEM (science, technology, education, and math) education. What we mean by "skills gap" is the mismatch between the kinds of skills employers say they need compared to the skills our students possess. [Read more here.](#)



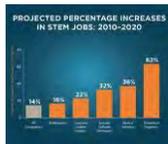
## Career Changers to Teachers: An Investment

Why would a corporation invest in losing a good employee to a teaching career? This is a question that arises whenever I talk about career changers. The answer to this question is twofold. First, it's all about the future. This country is in need of STEM teachers, teachers who have a deep knowledge of the subjects they teach. [Read more here.](#)



## 3D-printing Project Teaches Students about Geometry

Fourth-grade students at a New Jersey elementary school learned geometry concepts by designing small boats online and using 3D printing to bring their designs to life. The students then put the boats to the test in a bucket of water. [3DPrint.com](#)



## STEM Majors Fare Well in Job Market

Employment number climbed during 2011-12 for students who majored in science, technology, engineering, and math, according to a recent report. Researchers highlight hiring and salary trends for STEM graduates. [Science magazine \(free content\)/Science Careers blog](#)



## What Will Tomorrow's Workforce Expect from STEM Students?

The workforce of tomorrow will call on graduates to solve 21st-century problems involving energy, clean water, health and medicine, among other areas, writes Anne Jolly, a lab scientist turned educator turned teacher-trainer. In this blog post, she aims to help new science, technology, engineering and math students tackle the challenges ahead and highlights their first real-world assignment. [MiddleWeb/STEM By Design blog](#)

## Upcoming Events

**The NxtGen Summer Tech Program.** The IIT program is for high school students interested in Information Technology (IT), computing and next generation technologies. Courses are hands-on with support from IIT faculty, staff and select students. <https://appliedtech.iit.edu/nxtgenhttps://appliedtech.iit.edu/nxtgen>

**Summer Teacher Workshops.** SCARCE offers fun and fast paced summer learning opportunities for educators, many with credit available from Aurora University. <http://www.scarcecoed.org/environmental-education/workshops-for-teachers.html>

**Make STEM a Focus of Your Spring Break.** The following posts contain great ideas for science experiments and projects that students can do. [Fun Science at Home: Give Spring Break a Science Boost](#); [Spring Break Science: A Hands-on Project Survival Guide](#); [A Super Science-filled Summer Break](#); [Science and Engineering Activities for the Winter Break \(Or Any Time!\)](#) And, take a look at the [roundup of ideas for Engineers Week](#) contains great picks that are perfect for spring break, too! Also link to these activities: [Rocket Science: How High Can You Send a Payload?](#); [Water Bottle Rocket Blast Off!](#); [Take a Candle Carousel for a Spin](#)

**Google Announces Annual Science Fair with \$50K Prize.** Google has launched its fifth annual global science fair, in which students between ages 13 and 18 are invited to submit projects that break new ground in science and solve real-world problems. The winner will receive a \$50,000 scholarship from Google, among other prizes. [EdTech magazine online](#)

**BioGENEius for High School Students.** High school students are invited to enter this prestigious science competition for original biotechnology research. The Illinois [BioGENEius Challenge](#) competition offers three new Challenge Tracks: Global Healthcare (medical biotech), Global Sustainability (agricultural biotech) and Global Environment (industrial/environmental biotech). The contest closes at 5 PM or April 10, 2015. Enter today! <http://www.biotechinstitute.org/go.cfm?do=Page.View&pid=47>

**Video Contest for 5<sup>th</sup> - 12<sup>th</sup> Grade Students.** Show how much you love science, technology, engineering and math in a creative video, or share the story of a favorite STEM hero. Enter the [STEM Voice™ Video Competition](#). The deadline to submit videos and applications is Friday, April 17, at 11:59 PST. Learn more at [www.csbinstitutes.org](http://www.csbinstitutes.org).

## Resources

### NGSS Teaching Channel Videos Now Available

Four NGSS videos are now available online through the Teaching Channel. The videos will help educators become familiar with the three dimensions of the NGSS and how they will benefit students. <http://campaign.r20.constantcontact.com/render?ca=9d987b5f-c51f-4ff2-82bd-d4bb8bfd143&c=a10a7b50-92ed-11e3-950e-d4ae529cde13&ch=a19d4570-92ed-11e3-959c-d4ae529cde13>

### Share Your Science, Technology, Math, and Engineering Stories!

Send photos of students' projects – they be featured as a success story on the [Science Buddies Blog](#), in the spotlight at [Facebook](#), [Twitter](#), [Google+](#), or in the newsletter. [Let us know](#), in photos, how the science project went!

### Hear Stories from Women in Engineering and Computer Science

Inspire and motivate female students interested in STEM fields. Use these links to learn more: [Microsoft Women Profiles](#); [Computer Science Women at Dot Diva](#); [Engineering Women at Engineer Girl](#); [Science Women at PBS Scigirls](#).

### Center for Teaching and Learning

The website includes links to courses designed by teachers as part of the Progressive Science Initiative (PSI) which uses innovative approaches to pedagogy, assessment strategies, curriculum, and technology integration. <http://www.3ww.njctl.org/courses/science/>

### Computer Science Resources

Know a young person interested in computer science? Here are some great resources [YouthSpark](#); [Code.org](#); [Khan Academy](#); [Learning Center by UN Women](#); [Harvey Mudd](#); [ITU Girls in ICT Portal](#); [Free Online Computer Science Middle School Toolkit and High School Advanced Placement Gaming Course](#).

### Northwestern Offers NGSS Courses and Programs

Study the shifts required of science educators with the adoption of the NGSS and how to successfully incorporate these shifts in thinking and practice. <http://www.sesp.northwestern.edu/msed/certificate-for-advanced-study-education/next-generation-science-teaching.html>

# News You Can Use...

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

## Curious About How Science Education Will Change with the NGSS?

Check out this [chart](#) from the National Research Council's free downloadable report.



### STEM Women Stories: Aspire and Inspire

The push to attract women to STEM education and careers is gaining steam, but the impact is questionable. Efforts span the country, including Tennessee where the Women Ground Breakers recently held their annual Chattanooga GroundBreaking Storytelling featuring women in STEM. [http://www.huffingtonpost.com/deborah-j-levine/stem-women-stories-aspire-and-inspire\\_b\\_7041686.html](http://www.huffingtonpost.com/deborah-j-levine/stem-women-stories-aspire-and-inspire_b_7041686.html)



### Construction students apply practical skills

Students from the Kankakee Career Center apply math, electrical, construction and other skills in building a three-bedroom, one-story home. Students work on site, installing drywall, insulation, concrete, tile, and electrical work while supervised by construction instructors. [Daily Journal \(Kankakee, Ill.\)](#)



### N.J. School Adjusts Science Courses to Align with Math Classes

A New Jersey school has seen an increase in Advanced Placement course participation since adopting the Progressive Science Initiative, an online guided curriculum that starts with physics (previously an elective) and aligns science courses with math classes. [The Star-Ledger \(Newark, N.J.\)/Times of Trenton](#)



### Kid Invents Cool No-Spill Cup

You don't have to be an engineer to think like one and design things to help people. Ask Lily Born, who at age 9, invented a no-spill cup for her grandfather whose hands trembled from Parkinson's disease. Two years later, her Kangaroo Cup is in production and Lily was honored at the 2015 White House Science Fair. [Learn More](#)



### Budding Scientist-Entrepreneur Puts the Girls-in-STEM Problem in New Perspective

There's no doubt that women tend to steer clear of careers in science and technology. Nor is there any doubt that the persistent gender disparity in STEM fields represents a big problem for our competitiveness as a nation as well as for individual women. [Read more here.](#)



### Key to Engaging Girls in Science? Teachers

Early exposure to science teachers who are inspiring role models can play an important role in getting more girls interested in the sciences, says Carol Robinson, the first female professor of chemistry at Oxford and Cambridge universities. She shares her own experience with an inspiring teacher and offers some steps schools can take to engage more girls in the sciences. [Forbes](#)

## Upcoming Events and Opportunities

### Verizon Innovative App Challenge

The [Verizon Innovative App Challenge](#) is an exciting, creative and collaborative competition that offers grants for winning middle and high schools and Galaxy Tabs for students on the winning teams. Ignite student interest in STEM. Bartlett High School had a winning team in the 2014 challenge. Registration opens August 4, 2015.

### IIT Offers High School Next Gen Tech Camps

NxtGen courses offer a glimpse of the future of the internet, computing, programming, networking, and the next wave of emerging technologies. Courses are hands-on and involve interactive projects with support from IIT faculty, staff and select students. Open to sophomores, juniors and seniors. <http://appliedtech.iit.edu/nxtgen>

### Ready for a Change of Pace? Take a Teacher Class at Brookfield Zoo!

Our expert educators will inform, entertain, and engage you as you explore a wide range of topics and carry ISBE credit (PDCHs) at no additional charge. Many provide optional graduate credit for an additional fee. <http://www.czs.org/teacher-classes>

### U of I Extension

New and exciting opportunities for teachers and students are scheduled for the weeks of June 15 and 22 and July 20 and 27. Learn more: <http://web.extension.illinois.edu/cook/summerenrichment>

### TEACH (Teachers and Engineers for Academic Achievement)

Northrop Grumman engages teachers in unique experiences to help teachers integrate all STEM areas. Applicants must be US citizens and middle school guidance counselors or science, technology, engineering, or math teachers. <http://www.northropgrumman.com/CorporateResponsibility/Community/Pages/Teach.aspx>

### The CryptoClub Project

U of I Chicago is offering a 3-day summer workshop for middle school teachers and afterschool leaders on June 25-27, 2015. For more information: <http://www.math.uic.edu/CryptoClubProject/workshops.html>

### Fresh Water Ecosystems Class – Brookfield Zoo, August 9-13 from 8:30 a.m. to 4:30 p.m.

Investigate NE Illinois fresh water ecosystems. Design a student project to experiment, analyze data, and report results. All Grades, 45 CPDUs, 3 optional graduate credits (Aurora University). Involves off-site water quality investigations and local area travel. Cost: \$50, refunded after successful completion. Receive a \$100 stipend, books and materials. Mail \$50 check (payable to **Brookfield Zoo**, with your name, address, phone, e-mail, and grade or subject taught to: Teacher Workshops, Attention Julie Wozniak, Brookfield Zoo 3300 Golf Road, Brookfield, IL 60513. **Not available on the website.** For information: Lanis Petrik [Lanis.petrik@czs.org](mailto:Lanis.petrik@czs.org) or 708-688-8372.

## Resources

### Egg Science

If you think a hard-boiled egg has to be ovoid in shape, think again! With a bit of kitchen chemistry, you can [turn ordinary hard-boiled eggs into fun shapes!](#) The trick to the transformation is understanding the science behind the process of hard-boiling.

### Science Buddies Wants to Know Your Science, Technology, Engineering, and Math Stories

Let Science Buddies know how your students' projects went by emailing photos to [blog@sciencebuddies.org.com](mailto:blog@sciencebuddies.org.com). (Be sure to obtain media releases first!) Your students might end up featured in a success story on the [Science Buddies Blog](#), in the spotlight at [Facebook](#), [Twitter](#), [Google+](#), or in the newsletter.

### Digital Compass: A Free Gaming Platform

[Common Sense Education](#) has released [Digital Compass](#), a free, interactive gaming platform created to help sixth- through ninth-graders learn digital literacy and citizenship skills.

### Want to Teach Code? Not Sure Where to Start?

Start with a one-hour introduction to demystify computer science. While students worldwide join together to learn an Hour of Code during the international campaign each December, you can bring it to your students any time. <http://code.org/>. Or, explore guides, activities, videos, and more to help you with your Hour of Code campaign, from December 8-14, 2015. <http://hourofcode.com/us/resources>

# News You Can Use...

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## Parents – Start with These 10 Questions

Teachers seek ways to help parents better understand the science learning taking place in the classroom. Start by giving them this new handout, *10 Questions Your Kid's Science Teacher Wishes You Would Ask*. Download the [pdf here](#), or visit the [NSTA Parent Portal](#) for this and other great resources for parents.

## How Children Learn Math and Science

This [video](#) provides suggestions for engaging students in inviting and empowering math and science learning environments. [Learn more](#)

## Before You Lead that STEM Lesson

As the new school year starts, get ready to engage students in exciting STEM lessons and be sure to keep these five STEM lesson principles upfront and personal.

<http://www.middleweb.com/24152/before-you-lead-that-stem-lesson/>

## How Mentorships, Sponsorships Support Women in STEM

Studies suggest that science, technology, engineering and math sectors struggle to retain female employees. Some research indicates that workplace mentorships can help connect women to networking and promotion opportunities, while high-level sponsors also can help accelerate women's careers. [TheNextWeb.com](#)



## Upcoming Events and Opportunities

### A Comprehensive Overview of A Framework for K-12 Science Education and the Next Generation Science Standards for Elementary and Secondary Administrators Part I - September 23, 2015

For administrators in grades K-12, this is the first workshop in a two-workshop series. The second workshop is scheduled for October 6, 2015, which is specifically geared toward administrators in grades 6-12. For more information and to register:

<https://www.dupage.k12.il.us/register/course.php?recid=6388>

### Translating A Framework for K-12 Science Education and the Next Generation Science Standards into a Grade 6-12 Science Curriculum - October 6, 2015

The second workshop in the series is specifically for administrators in grades 6-12. Registrants should have attended the September 23 workshop or have a solid understanding of A Framework for K-12 Science Education and Next Generation Science Standards. For more information and to register:

<https://www.dupage.k12.il.us/register/course.php?recid=6389>

### Foundational Science Training for Teachers and Administrators Grades K-5 - October 8, 2015

Learn practical, exciting, and standards-driven science information that can be immediately used in your classroom. For more information and to register:

<https://www.dupage.k12.il.us/register/course.php?recid=6374>

### Foundational Science Training for Teachers and Administrators Grades 5-8 - October 15, 2015

Learn practical, exciting, and standards-driven science information that can be used in your Grade 5-8 classroom. For more information and to register:

<https://www.dupage.k12.il.us/register/course.php?recid=6375>

### A Comprehensive Overview of A Framework for K-12 Science Education and the Next Generation Science Standards for Elementary and Secondary Teachers - November 3, 2015

Engage in discussions and activities that truly reflect A Framework for K-12 Science Education and the NGSS three dimensional learning, with a focus on significant shifts for teachers and students and how performance expectations can be effectively reflected in the classroom. For more information and to register:

<https://www.dupage.k12.il.us/register/course.php?recid=6390>

## Resources

### Back to School Items at SCARCE

Here is a sampling of items available at SCARCE: books, novels, posters, dictionaries, file folders, magazines, office supplies, craft wheels, desk organizers, math manipulatives, spiral notebooks, and more. Larger items that may still need a home include 10 6 ft. tables, 20 student desks, 4 teacher desks, 6 computer tables, 5 laptop carts, 11 round tables, 3 cabinets. Bring a teacher ID or other similar documentation. Please email SCARE for more information at [info@scarce.org](mailto:info@scarce.org).

### Women@NASA

Women@NASA shares the stories of 32 female astronauts, engineers, scientists, and program administrators of diverse backgrounds who represent different aspects of the agency's work. Through video interviews and articles, the women discuss their accomplishments and offer encouragement to women and girls considering technical careers. <http://women.nasa.gov/>

### National Science Foundation Grants

[Advancing Informal STEM Learning \(AISL\)](#) - deadline **November 4**

[Innovative Technology Experiences for Students and Teachers \(ITEST\)](#) - deadline **November 13**

Also learn more about the National Science Foundation's Discovery Research (DR) K-12 [program](#) and [solicitation](#) at one of the [three webinars](#) free and open to the public this fall. The DR K-12 program supports projects that develop and study resources, models, and technologies for STEM education.

### NAE Launches LinkEngineering

The National Academy of Engineering has launched [LinkEngineering](#), a dynamic new website designed to support implementation of preK-12 engineering education. At LinkEngineering, teachers, teacher educators, and school/district administrators will find tons of resources on the big ideas in engineering education and can connect with other educators to get feedback and share ideas.

### Try Science!

Experience the excitement of contemporary science and technology through on and offline interactivity with science and technology centers worldwide. <http://tryscience.org/>

### Bill Nye the Science Guy

Online science activities for all ages. [www.billnye.com](http://www.billnye.com)

### Environmental Kids Club

Help elementary students learn about the environment and how to protect it through projects, art, games and more!

<http://www2.epa.gov/students>

### Northrop Grumman Foundation - Excellence in Engineering Education Award

One award will be presented to a K-12 public school science/technology teacher in recognition of excellence in engineering science. Apply by **November 30**. For more information, contact Amanda Upton, NSTA Awards and Recognition Program liaison, at 703.312.9217 or [awards@nsta.org](mailto:awards@nsta.org), or apply online <http://www.nsta.org/about/awards.aspx#list>.

### Visit with Prominent Historical Figures

Multi-media programs that provide students the opportunity to interact with Sally Ride, STEM role model, astronaut, and scientist. Lessons and presentations are aligned with NILES – Science (NGSS) and other Illinois Learning Standards. <http://www.historicalperspectives.net/>

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### Bedtime problems boost kids' math performance

Puzzling through a word problem even once a week produces sizable gains. <http://news.sciencemag.org/brain-behavior/2015/10/bedtime-problems-boost-kids-math-performance?>

### Should We Teach Science like Sports?

*Scientific American* published a recent article equating the process of engaging in the performance expectations of the NGSS to that of engaging in the performance of sports skill. <http://www.scientificamerican.com/article/schools-should-teach-science-like-sports/>

### 3 Key Ingredients for Successful STEM Implementation: Trust, Collaboration, and Innovative Thinking

STEM focuses on seamless integration of science, technology, engineering, and mathematics. Such integration works well when teachers have initial training, time to plan collaboratively, and a common belief about how students learn best.

<http://nstacommunities.org/blog/2015/10/04/3-key-ingredients-for-successful-stem-implementation-trust-collaboration-and-innovative-thinking/>

## Upcoming Events and Opportunities

### Physics Slam IV - November 20, 2015

Multiple physicists compete for audience approval, each sharing their respective work at Fermi Lab. For more information: [www.fnal.gov](http://www.fnal.gov) or call 630.840.2787.

### 7<sup>th</sup> and 8<sup>th</sup> Grade Daughters and Parents Event - December 4, 2015

Registration information was mailed to DuPage elementary and middle school principals. Registration is accepted only through schools. For more information, contact your principal or Mary Biniewicz, [mbiniewicz@dupageroe.org](mailto:mbiniewicz@dupageroe.org).

### Hour of Code - December 7-13, 2015

The Hour of Code is a global movement reaching millions of students across the world. Organize an event. Access tutorials. <https://code.org/>

### NGSS for ALL Students - February 24, 2016

Participants will explore research-based strategies to engage students in three-dimensional learning. To learn more and to register: <https://www.dupage.k12.il.us/register/course.php?recid=6403>

## Resources

### Engineering Resources from The Science Teacher

The October issue of *The Science Teacher* shows how case studies from the history of science help develop students' understanding of science. Read more at: [http://www.nsta.org/publications/browse\\_journals.aspx?action=issue&id=102514](http://www.nsta.org/publications/browse_journals.aspx?action=issue&id=102514)

### The Ultimate STEM Guide

Link to websites designed to engage students in STEM activities. <http://www.mastersindatascience.org/blog/the-ultimate-stem-guide-for-kids-239-cool-sites-about-science-technology-engineering-and-math/>

### Volcanoes in the STEM Classroom

Use the study of volcanoes to integrate STEM lessons. Designed for grades 3-5, it could be adapted for middle or high school students. <http://nstacommunities.org/blog/2015/10/05/the-stem-in-volcanoes/>

### Enter Now for a Chance to Win the 2015-2016 Shell Science Lab Challenge

The Challenge offers a chance to win a middle or high school science lab makeover. The deadline is **December 16, 2015**. Visit the [NSTA website](#) for more information about the Challenge or to download an application.

### STEM Grants

The website features new, updates and a free downloadable guide to STEM K-12 educational grants, educational non-profits, and universities. <http://stemgrants.com/>