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**Week of August 23, 2010**

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Two University of Virginia Online Courses for Physical Science and Physics Teachers starting September 13, 2010: **PHYS 6050 3 cr How Things Work I** and **PHYS 6090 3cr Galileo & Einstein**. For details, visit <http://k12.phys.virginia.edu/upcoming-courses.html>. Call 434-982-5319 to register.

### What Research Says to the Science Teacher

NSTA is bringing back the series *What Research Says to the Science Teacher*. The original series, published in the 1980s, was popular among science teachers because it synthesized research and offered practical suggestions for how to apply research in the classroom. The books in the new series will have these same qualities and more! The publications will be relatively short (15–20 pages), will offer research-based suggestions, and will be reviewed by teachers before they are published to ensure relevancy and readability. More importantly, the contents and themes of the books will be selected by the NSTA community.

In order to identify pertinent *What Research Says* book topics, we need your input. We're asking members of the NSTA community to spend 10–15 minutes selecting and ranking your 10 most important topics from a list of 25. We'll conduct a Rasch analysis of the survey returns and will report on the results and the top 10 selected topics in a future article in *NSTA Reports*.

Please participate in our survey by following this link: [www.surveymonkey.com/s/2BBPMSD](http://www.surveymonkey.com/s/2BBPMSD). The survey will be open through **September 15, 2010**.

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## Teachers Fly for Science

In late July, 11 teams of teachers from across the country participated in a zero-gravity flight at NASA Johnson Space Center in Houston, Texas, and conducted hands-on research aboard a modified Boeing 727 jetliner.

Prior to the flight, the teams designed experiments with their students that included capturing carbon from fossil fuels, kicking a field goal in microgravity, and measuring the distances.

The teams of teachers were part of a joint NASA/NSTA/TFS Reduced Gravity Education Flight Week pilot project to include classroom lessons and professional development as part of the flight experience. They utilized the [NSTA Learning Center](#) to prepare for the flight experience and will continue to use the resources in their classroom lessons. The teachers will also present their findings in a series of free web seminars planned for this December. The web seminars are free and all are welcome to share in the experience and see the results of the research. To register, go to the [NSTA Learning Center](#).



Two teachers from Greensboro Day School work on their experiment Hooke's Law Orbits.

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## ExploraVision Returns

The Toshiba/NSTA ExploraVision Awards program is back for its 19th year, and the application to participate will be available online August 30, 2010, at [www.exploravision.org](http://www.exploravision.org). The ExploraVision program is open to K–12 students who could win up to \$10,000 in savings bonds and other valuable prizes. To start the year off right, NSTA will host the first in a series of free web seminars designed to answer questions and assist teachers in using the ExploraVision program in their classrooms. “*What is ExploraVision and How Can I Use It?*” is scheduled for Wednesday, September 15, 2010, at 6:30 pm ET. Coaches of prior winning teams will share their experiences, give tips, and answer questions. To register, visit the [NSTA Learning Center](#). If you have questions, contact us at 1-800-EXPLOR9 or e-mail us at [exploravision@nsta.org](mailto:exploravision@nsta.org).

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## Siemens Foundation, Discovery Education Conclude Two Elite Professional Development Programs Empowering Educators Nationwide to Improve STEM Achievement

This summer, select educators were given the unique opportunity to further develop their teaching skills through two professional development programs sponsored by the Siemens Foundation, in conjunction with Discovery Education, College Board and Oak Ridge Associated Universities (ORAU). Components of the Siemens STEM Academy, these programs—Siemens Teachers as Researchers (STARs) and Siemens STEM Institute—provided educators tools and best practices needed to foster student achievement in science, technology, engineering, and math (STEM).

The Siemens Teachers as Researchers (STARs) program, a two-week program administered by ORAU, at the Department of Energy's Oak Ridge National Laboratory in Oak Ridge, Tenn., gave twenty middle and high school teachers the opportunity to work with top scientists on projects related to energy efficiency and renewable resources.

The Siemens STEM Institute, a weeklong professional development experience at Discovery Education's global headquarters, gave fifty teachers the opportunity to meet with government officials, leading scientists, and respected educational leaders. Teachers also formed groups and used digital tools to work on STEM-related research projects on topics such as biodiversity and energy. Participants will continue work on their project throughout the school year and present their projects next spring via a live webinar.

For more information visit: [www.siemensstemacademy.com](http://www.siemensstemacademy.com).

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### **Become an NSTA Insider: Join a Committee, Advisory Board, or Panel**

NSTA is shaping the future of science education, and you can be a part of it. Your connection with NSTA can mean so much more than reading journals and attending meetings. You can network with colleagues, gain insights into the complexity of issues, and have a positive impact on science education at the national level. We need your views and expertise—we're looking for everyone from grade-level experts to retired teachers with time to mentor newbies, from curriculum experts to informal science educators, and from those of you who are comfortable looking at a spreadsheet to those of you who are avid journal readers. So if you're a member, consider boosting your career by joining a committee, advisory board, or panel. The application and appointment process begins on Monday, August 23, 2010. To learn more about the various opportunities available, apply online, or download an application, please [click here](#).



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### **From the NSTA Calendar: Free Webinar on Using Text in K–5 Classrooms**

Using informational text in the elementary classroom is important. Creating and employing multigenre text sets can enhance your instruction. Spend an hour exploring this topic at 3:30 p.m. on August 26 during a free webinar hosted by the National Science Digital Library's Beyond Penguins and Polar Bears project. Beyond Penguins provides elementary teachers with instructional resources and professional development opportunities.

This [webinar](#) is the first of a series on integrating science and literacy at the elementary level. No registration is required, and you can log on up to 30 minutes before the seminar. If you miss the live webinar, an archived version will be available the next day.

Visit the [NSTA online calendar](#) for more science education opportunities.

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### **Earth Science Week 2010**

The American Geological Institute (AGI) is encouraging teachers and students to take part in Earth Science Week 2010 (October 10–16), which will encourage people everywhere to explore the natural world and learn about the geosciences. The theme for Earth Science Week 2010 is "Exploring Energy." AGI hosts Earth Science Week in cooperation with other sponsors as a service to the public and the geoscience community. Each year, local groups, educators, and interested individuals organize

celebratory events. The program is supported by the U.S. Geological Survey, NASA, the National Park Service, the AAPG Foundation, the U.S. Department of Energy, ExxonMobil, ESRI, and other geoscience groups.

This year, AGI is sponsoring three national contests in conjunction with Earth Science Week 2010. Students, scientists and the general public are encouraged to enter the Earth Science Week photography contest, "We Depend on Energy." Students in grades K–5 are encouraged to enter the visual arts contest, "Energy on Earth." And an essay contest, "How Energy Powers the Planet," is open to students in grades 6–9. For more information on these contests and the full program, visit [www.earthsciweek.org/contests](http://www.earthsciweek.org/contests). The American Geological Institute is a nonprofit federation of 47 geoscientific and professional associations that represents more than 120,000 geologists, geophysicists, and other earth scientists. More details are at [www.agiweb.org](http://www.agiweb.org).

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### **New School Year, New Journal Content**

Two of NSTA's award-winning journals are debuting new columns, just in time for the new school year. By constantly refreshing our content, we keep you up-to-date on what's most important in science education today.

#### ***Science and Children* Debuts "Formative Assessment Probes"**

How do you determine what your students are learning? There are countless assessment alternatives, but what we like about formative assessment probes is their emphasis on assessment *for* learning—how their use informs teaching, whether used as preassessment or during a lesson. *Science and Children*, NSTA's journal for elementary teachers, debuts a monthly column devoted to these tools in the September 2010 issue. "Formative Assessment Probes," based on the best-selling NSTA Press series *Uncovering Student Ideas in Science*, features a probe and describes how it can be used and adapted in the classroom. More important, it suggests ways to address what probe results reveal about student understanding.

Each column's accompanying probe will be available for download at the elementary school home page, under "[NSTA Connections](#)." Read the debut column "[Doing Science](#)." Read more about the *Uncovering Student Ideas in Science* series—and find [free sample chapters](#). Listen to a [podcast featuring author Page Keeley](#) as she discusses the use of formative assessment probes.

#### ***The Science Teacher* Launches "The New Teacher's Toolbox!"**

The first years of teaching can be tough: Getting to know a new school, new students, and what really works in the classroom can be a lot to handle! In "[The New Teacher's Toolbox](#)"—a new column in *The Science Teacher (TST)*, NSTA's journal for high school teachers—one teacher shares some insight from his first years of teaching—and some tips to help new (and even veteran) teachers along the way. The debut column, on helping new teachers survive their first day of school, appears in the September 2010 issue of *TST*. Future columns will address teaching in the digital age and class participation.

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### **And Don't Forget...**

**Visit our member services web page** to ensure that NSTA has your current [contact information](#). And when the time comes to renew—select the "Autorenew" option!

Visit the [NSTA Science Store](#) for an outstanding array of bestselling books and teaching resources. Receive 30% off the price of the August featured book, [Science Beyond the Classroom](#).



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