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Week of June 21, 2010

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### New Survey Finds Parents Need Help Encouraging Their Kids in Science

A new survey announced last month by NSTA and Boehringer Ingelheim Pharmaceuticals, Inc. found that the vast majority (94%) of science teachers wish their students' parents had more opportunities to engage in science with their children. However, more than half (53%) of parents of school-aged children admit that they could use more help to support their child's interest in science. The survey was conducted among a sample of 500 science teachers and 506 parents, including 406 parents of school-aged children.

Read more about the findings of the survey, visit the [NSTA website](#).

Watch a [television interview](#) with former NSTA president Pat Shane on the survey and ways that parents can engage their children in science this summer.

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### NSTA Professional Learning Communities Institute

Science teacher leaders, department chairs, administrators, and teams of science teachers should consider an NSTA Institute on developing professional learning communities. Scheduled for Oct. 7–9 in Bloomington, Minnesota, where the weather is crisp and clear and the season provides a stunning vista of changing leaves, educators will enjoy a combination of plenary and break-out sessions to learn about PLCs: what are the different models, what are the key features, how do I implement, what tools and strategies will support science learning, how do I manage assessment in a PLC environment, and more. PLC experts Susan Mundry, Kathy Stiles, and Kathryn DiRanna will provide leadership and facilitate. For more information, send an e-mail to [plcinstitute@nsta.org](mailto:plcinstitute@nsta.org).

Other dates to remember in your planning process:

NSTA Area Conference, Kansas City, Oct. 28–30, 2010

NSTA Area Conference, Baltimore, Nov. 11–13, 2010

NSTA Area Conference, Nashville, Dec. 2–4, 2010

NSTA National Conference in San Francisco, Mar. 10–13, 2011

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### **Heads Up—Academic Getaway in Kansas City, Oct. 28–30**

Science educators will meet in Kansas City this fall for the first regional conference on Science Education, 2010. Take advantage of access to leading presenters, professional development for content knowledge, performance-based strategies, and hands-on practical workshops for teachers in every grade band and every discipline. Networking and socializing are secondary only to building your professional expertise. Here are some workshops planned for this event.

- **Activities from Across the Earth System**—Educators and scientists share their repertoire of hands-on, inquiry-based activities spanning the five "spheres" of Earth system science. (Elem–Middle School)
- **Engineering Modeling**—Learn the applications of scaling using ratios and proportions. Model airplanes, calculators, and other equipment will be provided. (Elem–High School)
- **Food Safety/Microbial Activity**—Microbes: necessary, competitors (among themselves and for our food); survivors (they've been around for awhile); and now, their role in genetic engineering. (Middle–High)
- **Evolution: Variation, Selection, and Time** (Middle–High)
- **Science and Math Lessons for the Biological Sciences**—Learn how simple materials, formative assessments, and inquiry starters can be used to integrate math and science. Tips for differentiation will also be included.
- **Chemistry Day**—Full-day program to enhance and enrich secondary chemistry teachers' knowledge of chemical bonding and its effects on the properties of matter and to engage teachers in activities, discussion, and analyses that demonstrate how lessons on chemical bond properties can be presented that stimulates student thinking and prompts exploration of the complexity of the concepts in advanced and honors level courses.
- **Physics Day** consists of presentations and demonstrations on physics topics of current interest, from building a school observatory to use of online resources.
- **Biology Day**—Half-day, featuring dynamic speakers, hands-on workshops, and informative presentations with content information and pedagogy for every biology teacher at every level.
- **Science Literacy Through Science Journalism**—For administrators and high school teachers.
- **Exhibit Hall**—See cutting edge new products and services that can raise student performance and meet national standards. Bring a tote for the giveaways!

Visit the [Kansas City conference web pages](#) for more details. The earlybird deadline is **Sept. 17**, so register in time to save the most.

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### ***Brains-Powered Science: Teaching and Learning with Discrepant Events***

[Brain-Powered Science](#) is the ideal resource for middle and high school teachers looking to stimulate students' thinking. Thirty-three hands-on activities based on the science of a "discrepant event"—an experiment or demonstration in which the outcome is not what students expect—will motivate students

to reconsider preconceived notions and think about what has actually occurred.

Author Thomas O'Brien invites teachers to actively participate in the thought-provoking demonstrations, challenging them to question and revise their own assumptions about the nature of science, teaching, and learning. The dual-purpose activities, which are each analogous to a pedagogical principle, will uncover unpredicted results for both student and teacher, leading to a deeper understanding of science concepts.

Teachers can take advantage of 200 up-to-date internet resources included in the book, as well as extensions to each of the physical science, biology, and chemistry activities—bringing the total number to nearly 120. This book will remind teachers that the study of science is full of surprises and should be both meaningful and fun for students.

For more information or to order, visit the [NSTA Science Store](#).

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### **From the NSTA Calendar: Summer Fun with the Iron Science Teacher Competition**

Batteries. Chocolate. Dental hygiene products. Wire. Contestants in the Exploratorium's Iron Science Teacher competition are challenged to use these and other everyday items to develop a science demonstration that can be used in the classroom. If you like the *Iron Chef* television series, you'll want to see what's cooking during this summer's zany Iron Science Teacher live shows at San Francisco's Exploratorium. Those unable to make it to the museum can watch the [live webcasts](#) from noon to 1 p.m. Pacific Time on Fridays from June 25 to July 16.

Iron Science Teacher is part of the [Exploratorium Teacher's Institute](#) for science and math teachers.

Visit the [NSTA online calendar](#) for more science events and opportunities you can use in and out of the classroom.

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### **Call for Conference Proposals from the Association for Science Teacher Education (ASTE)**

The theme of the ASTE 2011 International Conference (Minneapolis, Jan. 20–22), "Explore the Boundaries," challenges us all to examine the limits imposed by our existing knowledge and practices. It highlights the need to find new ways to lower the barriers to innovation and to strengthen relationships with partners in ways that reframe existing problems and open doors to new possibilities. The program committee encourages everyone to submit proposals that highlight ASTE's commitment to lowering barriers and extending its boundaries as a professional society.

This year *syllabus sharing* has been added as a presentation option to the robust program of papers, posters, round-table discussions, experiential sessions and themed paper sets. All these presentation formats are designed to engage conference attendees in discussions of high-quality evidence-based practices.

The [proposal submission form](#) is available online. The deadline to submit is **July 10, 2010**, in order to receive full consideration for inclusion in the conference program.

Questions about proposal submission or the conference should be directed to Eugene Wagner, ASTE Executive Director, at [executivedirector@theaste.org](mailto:executivedirector@theaste.org)

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### Reminder: NSTA Waives NCSE Registration Fee

NSTA has waived the registration fee for everyone attending the National Congress on Science Education (NCSE). This national conversation on science education, which is organized *by* science leaders and *for* science leaders, is comprised of one voting delegate from each of NSTA's Chapters and Associated Groups. For the past ten years, the Congress has provided an opportunity for chapters and associated groups, the NSTA Council, the NSTA Board of Directors, and NSTA staff to collaboratively address issues and work toward strategies that will support our mission, "to promote excellence and innovation in science teaching and learning for all."

NSTA knows that budgets are tight and also knows the value of learning and collaborating with peers. With the registration fee waived, every Chapter and Associated Group is urged to participate. For more information, please [click here](#).

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### University of Massachusetts Amherst's Science Education Online (SEO) Leads to M.Ed. or Certificate of Advanced Graduate Study

*Offered by School of Education and College of Natural Sciences*

Fall 2010 courses include:

#### MOTION, FORCES AND ENERGY

Introduction to a fundamental area of physics through hands-on inquiry: the nature of motion, what affects it, how it is measured. **Examine** Newton's laws including gravity, how forces produce acceleration, and the nature of energy—potential and kinetic—and how it relates to motion and forces. **Concentrate** on how to analyze physical situations and solve basic equations of motion. For middle school science teachers.

#### INVESTIGATING SCIENCE CLASSROOMS

Fosters meaningful discussions about the nature and practice of elementary and middle school science education and enables teachers to **identify elements of inquiry, conduct investigations, implement scientific inquiry in their classrooms**. Teachers conduct several scientific investigations to experience the inquiry process.

For more information, visit the [University of Massachusetts website](#) or contact Dr. Kathleen Davis, [kdavis@educ.umass.edu](mailto:kdavis@educ.umass.edu).

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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 June featured book, [Exemplary Science in Informal Education Settings: Standards-Based Success Stories](#)

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**Professional development courses in your future?**  
*Online options give you a world of choice.*  
Take a look at these groups offering [courses](#) for science educators!

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