



SCIENCE BYTES

NOVEMBER 24, 2009 VOLUME 15

This is an information exchange that is available to all teachers in the Anchorage School District. Please read and then DO it!

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NSTA Conferences 2009-2010

March 17-20, 2010 Philadelphia, PA

Science Olympiad

March 20, 2009 Teeland & Mat-Su Career and Tech HS

Alaska State Science & Engineering Fair

March 26-28, 2010 Begich Middle School

NASA Invites Schools to Apply for Free Space Shuttle Artifacts

NASA invites eligible educational institutions, museums and other organizations to register, screen and request potential space shuttle artifacts. Included are small items such as astronaut helmets, gloves, and boots, and

large items such as shuttle Motion Based Simulators and Crew Compartment Trainers.

NASA will retire the Space Shuttle Program at the end of 2010 and is eager to share the wonders of space exploration through donations to museum and library exhibitions. This is your opportunity to own and display Space Shuttle artifacts.

In order to receive an ID and password to access the web site, schools and universities must register using their IPED or NCES number. Information on registering and links to find the IPED and NCES numbers are available on the U.S. General Services Administration website.

The artifacts are free, but recipients must cover shipping and special handling fees.

For the latest information about NASA shuttle transition and artifacts, visit www.nasa.gov/transition. For more about NASA and agency programs, visit www.nasa.gov.

Nominate a Teacher for the 2010 Presidential Awards

The Presidential Award for Excellence in Mathematics and Science Teaching is the highest award a K-12 math or science teacher may receive for outstanding teaching in the U.S. The President officially names up to 108 teachers annually. Awards alternate between elementary and secondary teachers—with elementary teachers eligible in 2010—and are given to teachers from each of the 50 states, the District of Columbia, Puerto Rico, the outlying territories, and Department of Defense schools. The deadline for 2010 award nominations is May 1, 2010. For more information, please go to www.paemst.org.

ChemMatters Debuts on YouTube

The American Chemical Society's (ACS) award-winning high school chemistry magazine *ChemMatters* is making its YouTube debut with its first video podcast. The podcast highlights the promises of nanotechnology, the science and technology of building very small machines that are as small as 1/50,000th the width of a human hair. It is available at www.bytesizescience.com and on the [Bytesize Science podcast](#) on iTunes.

Produced by the team behind ACS's award-winning *Bytesize Science* video podcast, the *ChemMatters* video serves as an entertaining and educational introduction to the fascinating world of nanotechnology. The episode explains how incredibly small materials could lead to tiny devices that bring medicine exactly where it needs to go in your body, powerful computers the size of a grain of sand and new sources of energy.

ChemMatters has been demystifying the chemistry in our everyday lives for over 25 years. Released quarterly, each issue contains readable articles about the chemistry used in everyday life, and is of interest to high school students and their teachers. New episodes of the *ChemMatters* video podcast will be available in early 2010.

NASA Stardust-NExT Mission Survey

NASA's Stardust-NExT mission is offering the public a chance to win a small cube of aerogel (the lightest and lowest-density solid) or a mission cookie cutter. NASA is asking the public to visit the Stardust-NExT mission Web site and complete an online survey about the site.

A total of 100 surveys submitted through Nov. 30, 2009, will be selected randomly to win the cookie cutter or aerogel sample.

For more information, visit

<http://stardustnext.jpl.nasa.gov/survey.html>.

Applications Available for 2010-2011 Albert Einstein Distinguished Educator Fellowship

Applications are currently available for the 2010-2011 Albert Einstein Distinguished Educator Fellowship Program. This program is open to current public or private elementary and secondary mathematics, technology and science classroom teachers with demonstrated excellence in teaching.

Selected teachers spend a school year in a congressional office, the Department of Energy, or a federal agency such as the National Aeronautics and Space Administration, the National Science Foundation or the National Oceanic and Atmospheric Administration.

Applicants for this program must be U.S. citizens and be currently employed full-time in a public or private elementary or secondary school or school district. Applicants must have been teaching full-time in a public or private elementary or secondary school for at least five of the last seven years. Three recommendations are required. One must be from a school district official.

During the fellowship, each Einstein Fellow receives a monthly stipend plus a monthly cost of living allowance. In addition, there is a moving/relocation allowance as well as a professional travel allowance.

The deadline for applications is Jan. 13, 2010. For more information about this opportunity, visit <http://www.trianglecoalition.org/fellows/einapp.htm>.

Nominations Being Accepted for the Alan Shepard Technology in Education Award

Do you know K-12 teachers or district-level administrators who are making a difference in education through the use of technology? Recognize their achievements by nominating them for the Alan Shepard Technology in Education Award. The Astronauts Memorial Foundation, in partnership with NASA and the Space Foundation, will recognize the accomplishments of one outstanding individual and his or her contributions to lifelong learning through the application of technology in the classroom or professional development of teachers.

Technology personnel and K-12 classroom teachers who have demonstrated exemplary use of technology to enhance learning are eligible for this award. School principals, superintendents or associate superintendents may nominate eligible candidates. The award will be presented in April 2010 at the 26th National Space Symposium in Colorado Springs. The deadline for applications is **Jan. 16, 2010**.

Applications and more information are available online at

http://www.amfcse.org/Alan%20Shepard%20Award/alan_shepard_award.htm.

EngineerGirl Annual Essay Contest

Every year the National Academy of Engineering sponsors an engineering essay contest on our EngineerGirl website for students across the nation. The contest for this year, entitled "Survival Design Challenge", has just been posted, and I am writing to you in hope that you will help us reach interested students and educators in your area. Students in grades 3-12 can compete for cash prizes, and we would like to get the word out to as many young people as possible!

You can find the announcement, guidelines, and related information about the contest on the EngineerGirl website: <http://www.engineergirl.org/CMS/Contest.aspx>

The deadline for this year is March 1, 2010. Feel free to contact us with any questions you may have. We look forward to reading some exciting and creative essays this year, and we hope you will help us to spread the word!

If you know of any alternate emails or mailing lists where it would be appropriate for us to send an announcement, please let us know. You can contact us by sending an email to EngineerGirl@nae.edu.

A Sightseer's Guide to Engineering

Many sights around the country can help children and families learn about engineering. Places such as Hoover Dam, the National Inventors Hall of Fame, Thomas Edison's Birthplace, Museums of Ceramics or Aeronautics, roller coasters and other sights can be both educational and fun. Created by the National Society of Professional Engineers.

<http://www.engineeringsights.org/>

ASTRONOMICAL SOCIETY OF THE PACIFIC WEB PAGE GIVES REAL SCOOP ON "DOOMSDAY 2012"

Will Doomsday come in 2012? A widespread Internet-circulated story claims that Dec. 21, 2012 will be the end for planet Earth because some astronomical event, allegedly predicted by the ending of a Mayan calendar cycle, will destroy or decimate our planet. But do not hold your breath, says NASA scientist David Morrison, because it is not going to happen. His concise summary of

the claims and the scientific response is being published by the Astronomical Society of the Pacific as a public service at: <http://www.astrosociety.org/2012>

Many mechanisms for doomsday are being proposed, including a collision with a fictional planet called Nibiru, deadly activity on the surface of the Sun that lashes out at Earth, alignments with the center of our galaxy, and so on. For several months, NASA and many astronomers have received increasingly worried letters and e-mails from members of the public about the possibility, widely touted on the Internet that the world will end in 2012. David Morrison has coined the term "cosmophobia" -- fear of the cosmos -- for these concerns, and has seen a huge increase in the phenomenon this year.

Dr. Morrison, a world-renowned expert on the solar system (and asteroid impacts), also serves as the public scientist for NASA's Ask an Astrobiologist service, where he answers questions for the public. For an annotated guide of resources for responding to many claims of astronomical pseudo-science, from astrology to crop circles, and ancient astronauts to Moon-landing denial, see:

<http://www.astrosociety.org/education/resources/pseudobib.html>

ONLINE CLIMATE COURSES FOR MIDDLE & HIGH SCHOOL EDUCATORS—ACCEPTING WINTER REGISTRATIONS

<http://ecourses.ncar.ucar.edu>

The National Center for Atmospheric Research (NCAR) offers a series of six and seven week courses for middle and high school teachers that combine geoscience content, information about current climate research, easy to implement hands-on activities, and group discussion. The courses run concurrently from Jan. 22 through March 14, 2010. There is a \$225 fee per course (save \$25 if you register by Jan. 1st.)

CD 501: Introduction to Earth's Climate

CD 502: Earth System Science: A Climate Change Perspective

CD 503: Understanding Climate Change Today

For more course information, a course schedule and registration information, contact Kirsten Meymaris kirstenm@ucar.edu Early Registration Deadline: Jan. 1, 2010.

Real World Design Challenge Deadline Extended

Due to the late sign up of four states and due to some technical issues that some teams had registering, we are extending the deadline for Real World Design Challenge team registration for one week. The new deadline for team registration is **Midnight Monday November 23rd**. Registration is done on the RWDC website www.realworlddesignchallenge.org.

Please send the information on the new deadline out to your teachers. Thanks!

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NASA's New Education Robotics Web Site

Innovation, creativity, problem solving -- the world of robotics at NASA is all of these things. Bookmark this new one-stop shop on NASA.gov for news about robotics for educators and students. Check out the things to do on the site to see if robotics might be in your future.

Things you can do on this site:

--Answer the question: What Is Robotics?

--Practice your programming skills with the interactive robotic activity.

--Watch and download video and multimedia features about robotics.

--Follow a timeline tracing the history of robotics.

--Check out lesson plans for your classroom.

--Stay up-to-date with information about NASA-supported robotics competitions.

--Visit the Robotics Image Gallery.

--Explore other worlds with NASA through robotic spacecraft discoveries.

--Read about scientists and engineers who design and test robots.

--Browse NASA Web sites for information about robotics.

<http://www.nasa.gov/education/robotics>

Helpful Tools, Tips, and Projects to Pass on to Parents Pearson Announces New "Continuity of Learning" Website

Pearson, a global leader in education services, technology and school solutions recently launched its www.PearsonContinuity.com website, offering print and online resources for students, parents, and teachers to continue education if attending school is not an option due to the H1N1 virus or other crisis. Pearson's School Solutions president Scott Drossos said, "We've created the website as a central repository where parents, students, and teachers can have access to our dedicated Pearson solutions and tools, and be able to easily link to numerous other resources." He added, "Pearson products and services are in almost every US school, and we have created additional offerings for everyone to assist them during this time of crisis." For more information on Pearson's Continuity of Learning offerings, go to

www.PearsonContinuity.com.

ScienceLab Web Site Offers Online Activities by Grade Level

If you're looking for ways to interest K-12 students in science, check the ScienceLab (<http://www.osti.gov/sciencelab>) from the federal Office of Science and Technology Information.

The site offers links to online science activities by grade level. Also on offer are lesson plans, classroom resources, "Ask an Expert" links and even a performance of Tom Lehrer's song "The Elements" (see <http://www.osti.gov/sciencelab/ScienceArt.html>).