



SCIENCE BYTES

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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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For your Calendar:

NSTA Conferences 2008-2009

2009 National NSTA Conference

New Orleans, LA – March 19-22, 2009

Science Fair 2008 - 2009

Alaska Science and Engineering Fair

March 27-29, 2008 @ Begich Middle School - Anchorage

Looking for volunteers for the SF Board.

Science Olympiad 2008-09

April 4, 2009 @ Begich Middle School - Anchorage

2009 - Alaska Math & Science Conference

INQUIRY - The Bridge to Understanding

October 14-17, 2009 Juneau, AK

Robotics Site - Botball

Do you have a robotics program in your school? Want a challenging way to interest students in STEM?

Check out Botball <http://www.botball.org/>

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Applications Available for 2009 Albert Einstein Distinguished Educator Fellowship

Applications are currently available for the 2009-2010 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, 2009.

For more information about this opportunity, visit <http://www.trianglecoalition.org/fellows/einapp.htm>. Inquiries about the Albert Einstein Distinguished Educator Fellowship Program may be directed to tricoal@triangle-coalition.org.

15th Annual Space Exploration Educators Conference, Feb. 5-7, 2009

Register today for the 15th Annual Space Exploration Educators Conference, to be held Feb. 5-7, 2009, at Space Center Houston. This conference is for all K-12 educators. Activities presented use space-related themes to teach across the curriculum and can be used for science, language arts, mathematics, history and more.

Attend sessions hosted by scientists and engineers working on the International Space Station, Mars exploration and the planets beyond. Hear from astronauts who will be leading the charge in exploration. Learn about the bold vision to send humans back to the moon and off to Mars. Attend sessions presented by educators and receive ready-to-implement classroom ideas. Attendees can earn up to 24 hours of continuing professional education credit.

For more information and to register for the conference, visit <http://spacecenter.org/TeachersSEEC.html>. If you have any questions about the conference, please call 281-283-7773 or email seec@spacecenter.org.

Registration Open for the 16th Annual Great Moonbuggy Race

Registration is open for the 16th Annual Great Moonbuggy Race. High school and college students design and build a vehicle that addresses a series of engineering problems similar to those faced by the original lunar-roving vehicle team. Each school may enter up to two teams. The race will take place April 3-4, 2009, in Huntsville, Ala., at the U.S. Space & Rocket Center. Entries must be received by Feb. 1, 2009.

For more information about the competition and to register online, visit <http://moonbuggy.msfc.nasa.gov/index.html>.

Please e-mail any questions about this opportunity to Sabrina Pearson at Sabrina.M.Pearson@nasa.gov.

National Science Teacher Association Interactive Web Seminars

The latest seminar is: Beyond Penguins and Polar Bears- Energy and the Polar Environment. This site also contains web seminars, power point presentations, and downloads on a variety of science topics. http://learningcenter.nsta.org/products/symposia_seminars/NSDL3/Webseminar3.aspx

Operation: Resilient Planet Game

The Jason Project and National Geographic offer Operation: Resilient Planet, a game which brings students along

on real-life science expeditions with practicing researchers and explorers. Students will need to use the right tools, find the right data, and be prepared to argue their case. The game offers 3D graphics, stereo sound, and fun-to-use controls. It is correlated to National Science Education standards for grades 5-8.

<http://www.jason.org/Public/Curriculum/ORPGame.aspx?pos=1>

Meet the Greens

Meet the Greens Activity Guide and Short Films on the topics: Cutting Down on trash, Reducing and Recycling, and Global Warming and Our Carbon Footprint.

<http://meetthegreens.pbskids.org/features/>

United Nations Association High School Essay Contest

Application deadline: January 5, 2008

Each year the United Nations Association of the USA publishes a topic and question of particular importance to the international community. This year's National High School Essay Contest focuses on Millennium Development Goal Seven, and asks students "What can the US do to help ensure environmental sustainability?"

<http://unausanationalhighschoolessaycontest.com/summary.php>

InvenTeam High School Invention Grants

Application deadline, March 20, 2009 Lemelson-MIT InvenTeams is a national grants initiative of the Lemelson-MIT Program to foster inventiveness among high school students. Teams composed of high school students, teachers, and mentors are asked to collaboratively identify a problem that they want to solve, research the problem, and then develop a prototype invention as an in-class or extracurricular project. The deadline for early feedback is with an initial application deadline of April 24, 2009.

<http://web.mit.edu/inventeams/>

Learn Outside Greenworks Grant

Project Learning Tree® (PLT) will award a \$500 cash grant to four randomly selected schools throughout the country. All you need to do is register before the December 30th deadline and you'll be eligible to win a Learn Outside GreenWorks! grant for your school. Winners can create a butterfly garden, host a PLT LearnOutside activity day, or even create an outdoor classroom. Enter today!

Entry Deadline is December 30, 2008. Winners will be notified by January 15, 2009.

To enter, sign up now at www.forestfoundation.org/gw_grant.html!

Forward this email to your friends and colleagues and share the news of this Learn Outside GreenWorks! grant opportunity with other PLT trained educators in your community.

Make a Year End Contribution to Support Project Learning Tree Programs in your community and around the country.

Here is what PLT does for you:

Trains over 30,000 educators and hosts over 1,500

PLT professional development workshops each year

Has awarded over \$635,000 in GreenWorks! Grants from 2003-2008

Is a driving force with the No Child Left Inside Coalition

Develops state of the art environmental education curricula

Visit www.plt.org and our online newsletter, The Branch, to read about success stories from previous GreenWorks! grant recipients.

For additional information or questions call Laura Tuel, Development Manager, at 202-463-2585 or e-mail ltuel@forestfoundation.org.

Build A Plane - Youth Art Competition

Another opportunity to be rewarded for excellence in Math and Science!

<http://www.intel.com/education/schoolsofdistinction/>

Build A Plane is holding a Youth Art Competition for the design of a paint scheme for the Build A Plane Glassair Sportsman. High school kids, working with professional assistance at the Glasair factory, built a Sportsman 2+2 in just two weeks! This new Build A Plane aircraft will tour the country in 2009. Entry rules are on the front to the entry form attached. Deadline for entries is 1/31/2009. You may also visit the Build A Plane website to link to the schemeDesigners web site to see some possibilities. http://www.buildaplane.org/youth_art_program.htm

NASA'S INSPIRE Project

NASA's INSPIRE project (Interdisciplinary National Science Project Incorporating Research and Education Experience) is accepting applications from students in grades 9-12 to join the INSPIRE online community.

Selected students who are selected will learn about science, technology, engineering, and mathematics (STEM) fields of study and careers. They also will be eli-

gible to compete for unique summer experiences at a NASA facility.

Applications are due at the end of the month, December 31, 2008. For more information, including requirements and an online application, visit http://www.nasa.gov/audience/forstudents/postsecondary/programs/INSPIRE_Project.html.

Reaching Out to Spanish Speaking Students

Many geoscience organizations and educators distribute AGI's "Why Earth Science?" brochure to promote awareness of the importance of Earth science in K-12 education. To ensure that this vital message reaches the widest possible audience, AGI recently translated the publication into Spanish.

The geoscience community encourages minority participation. America's 40 million Hispanics comprise the nation's largest race or ethnic minority, a population that is rapidly growing. What's more, three in four Hispanics ages five and up speak Spanish at home, says the U.S. Census Bureau.

"Why Earth Science?" explains the importance of Earth science education for success in school, careers, informed decision-making, and civic engagement. To receive copies, contact AGI's Geoff Camphire at gac@agiweb.org. English and Spanish versions of the brochure also are available online as downloadable files at http://www.agiweb.org/education/teachers/online_resources.html.

NOAA Teaches Teachers About Oceans, Atmosphere

The U.S. National Oceanographic and Atmospheric Administration (NOAA) promotes education about oceanic and atmospheric science - and not only during Earth Science Week. NOAA offers resources and opportunities for students and teachers all year long.

On NOAA's education site at <http://www.education.noaa.gov/teachers1.html> you'll find lesson plans, interactive activities, educational games, videos, images, scholarships, career opportunities, and detailed information on weather, climate change, oceans, and satellites. Also, look for information on NOAA's Teacher at Sea program, which allows a K-16 teacher to serve aboard a NOAA ship as a researcher. For resources geared toward students, including games and scholarship and career information, go to <http://www.education.noaa.gov/students.html>.

In addition to online offerings, NOAA's Office of Education conducts teacher development workshops

throughout the year to help improve oceanic and atmospheric literacy among science teachers. To find out where a workshop is being held near you, see <http://www.oesd.noaa.gov>.

Harvard Offers Full Financial Aid to Low-Income Students

Harvard University has announced that undergraduate students from low-income families will no longer pay tuition.

To find out more about Harvard offering free tuition for families making less than \$60,000 a year, visit Harvard's financial aid web site at: <http://www.fao.fas.harvard.edu/>.

Museum of the North Highlights the Yupik People

A new exhibit at the University of Alaska Museum of the North highlights the innovation and ingenuity that have helped the Yupik people survive for generations on the Bering Sea coast.

"Yuungnaqpiallerput (The Way We Genuinely Live): Masterworks of Yup'ik Science and Survival" opens Saturday, December 13, 2008, and runs through Sunday, March 22, 2009.

Based on knowledge shared by Yup'ik elders, the exhibition takes visitors through the seasonal cycle of activities, and features more than 100 artifacts from national and international collections. Hands-on activities show visitors how grass serves as insulation, how to sew waterproof stitches, how a hunter uses a paddle to hear sound vibrations in the water, and how to build a qasqi, the Yupik communal men's house.

Anthropologist Ann Fienup-Riordan, who guest-curated the exhibit, will present a free public lecture on Thursday, February 19 at 7 p.m. at the museum. The companion book to the exhibit is available at the museum store (\$45/softcover, 360 pages).

The Anchorage Museum at Rasmuson Center organized the exhibit in partnership with the Calista Elders Council. More information is available at www.yupikscience.org/ [<outbind://50/www.yupikscience.org/>](http://50/www.yupikscience.org/) .

Information on the museum is available at 907-474-7505 and www.uaf.edu/museum [<outbind://50/www.uaf.edu/museum>](http://50/www.uaf.edu/museum)

UAF to Offer New Marine Graduate Program

Thanks to a five-year, \$3 million grant from the National Science Foundation, the University of Alaska

Fairbanks will offer an interdisciplinary graduate program in marine ecosystem sustainability.

The Marine Ecosystem Sustainability in the Arctic and Subarctic program will provide graduate students with a broad education in all aspects of marine ecosystems, including the biological, chemical, physical and human factors that affect ocean life.

The academic program will include courses and case studies in anthropology, ecology, economics, fisheries science and management, marine policy and oceanography.

The program begins in the fall semester of 2009 and will continue until 2012. MESAS will support 19 Ph.D. candidates for two years each and UAF will guarantee a third year of support through teaching assistantships and fellowships. Applications for MESAS must be submitted by February 15, 2009.

See: <http://www.uaf.edu/mesas> [<http://www.uaf.edu/mesas>](http://www.uaf.edu/mesas)

American Museum of Natural History

<http://www.amnh.org/ology/astronomy#channel>
<http://www.amnh.org/ology/index.php?channel=archaeology>
