



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

NSTA Regional Conferences – 2008

December – Cincinnati, OH: December 4-6, 2008

2009 National NSTA Conference

New Orleans, LA – March 19-22, 2009

Science Fair 2008 - 09

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

Flinn Scientific - Middle School Activities

Free from Flinn Scientific! Here are two new middle school activities which show that curiosity about common, everyday items can lead to wonderful teaching opportunities!

The life science activity, "Modeling Movement," asks the questions, "How does an earthworm move? How does it get from one place to another?" This open-ended, guided inquiry lab helps students formulate the explanation.

Combine physical science and art with the integrated learning activity, "Science and Art with Acids and Bases." Your students will have fun learning about pH as they create colorful works of art on specially treated paper. The paper changes color when students dab it with various solutions of common household substances such as detergent and soft drinks. Acids, bases, and neutral solutions produce different colors! This activity is also available as a new Flinn kit, "Chem"-eleon Indicators, AP7018. (See page 6 in the 2008 Flinn Science Catalog Reference Manual--Middle School Edition.)

Would you like to get more free activities every month? Simply order your science supplies from Flinn! Receiving these new activities by e-mail is just one of the many benefits of being a Flinn Customer! Middle school teachers love our top-quality products, friendly service, and the helpful information available in our catalog. Read what middle school science teacher Scott Thiel has to say:

"Excellent Service, Excellent Products. I have been impressed ever since I started ordering from Flinn almost 15 years ago. I especially like the information in the catalogs regarding safety and disposal of chemicals."

--Scott Thiel, Altoona Middle School, WI

Did you know many teachers at your school may not receive these activities because they haven't signed up to receive e-mail from Flinn? Don't leave them in the dark! Please forward this e-mail to your teaching peers so they too can benefit from these activities. If they want to receive future Flinn e-mails they can sign up at http://www.flinnsci.com/email/demo_request_MS_email.asp <http://www.flinnsci.com/email/demo_request_MS_email.asp>

Start enjoying the benefits of being a Flinn customer. Order from Flinn today!

To print "Modeling Movement" and "Science and Art with Acids and Bases" please go to: http://www.flinnsci.com/Sections/MS/Activities/MS_act.asp <http://www.flinnsci.com/Sections/MS/Activities/MS_act

[.asp>](#)

What's New from Lab-Aids?

Over the years you have come to expect the best from LAB-AIDS, including materials that save you time and money and focus on those key, hard-to-teach science standards and concepts. Join us as we take a look at two exciting, new courses for middle and high school students. To make it any easier, we'd have to come and teach it for you!

Issues and Life Science: A Great Program Is Now Even Better

[<http://origin.ih.constantcontact.com/fs056/1102238939225/img/2.gif?a=1102320049247>]

Everyone's favorite Life Science program has been expanded, updated and improved! SEPUP's Science and Life Issues has a new look and a new name. Issues and Life Science takes everything that was good about SALI and makes it even better. With new literacy strategies embedded throughout the course, updated content, expanded teacher resource materials and even alerts to common student misconceptions, this one is sure to please!

Dr. Tom Hsu's "A Natural Approach To Chemistry"

[<http://origin.ih.constantcontact.com/fs056/1102238939225/img/3.gif?a=1102320049247>]

Join us for a special preview of selected laboratory activities from author Tom Hsu's new high-school book, *A Natural Approach to Chemistry*, available in Spring 2009. Selected lab activities will feature an innovative new probe system that measures temp. and pH by colorimetry, and by voltage for electro-chemistry. The unit also includes a spectrophotometer. If you have been looking for a way to help all students experience chemistry, in and out of the laboratory, don't miss this one.

NASA Education Spacesuits and Spacewalks

With the upcoming space shuttle missions continuing construction on the International Space Station and to provide maintenance to the Hubble Space Telescope, the importance of spacewalks and the reliance on spacesuits are taking center stage. To help educators share these topics with their students, NASA Education has unveiled a new Web site.

The NASA Education Spacesuits and Spacewalks Web site brings a wealth of educational resources together in one place.

Visitors to the Web site can:

--Check out the Clickable Spacesuit and learn about the different parts of a spacesuit.

- Take a look at videos about the spacesuits of the future.
- Watch Brain Bites videos and learn about hard-to-do moves in a spacesuit.
- Take a step back in time and visit the Spacesuit History Gallery.
- Explore the Educational Activities.
- Read about spacesuit designers and engineers who create and test spacesuits.
- Discover other NASA Web sites with information about spacesuits and spacewalks.

www.nasa.gov/education/spacesuits

ANCHORAGE - GET OUTDOORS ANCHORAGE SUMMIT

The summit will be held at the Den'aina Center. It is hosted by a coalition of government agencies including the Municipality and non profit groups to raise awareness of the issue of nature deficit disorder and the need to assure that this generation of children plays out of doors and develops an appreciation for nature. It is expected that about 100 service providers, land managers, environmental groups and health officials to gather and continue developing a strategic plan that will address social, economic and cultural barriers to children playing out of doors. The intended outcome is a network of collaborators who address the practical needs of families and day care providers, policy issues and risk management. For more information, contact Aimee M. Wedemeier at 907-343-4369 or 907-764-0382 (cell) or via email at WedemeierAM@ci.anchorage.ak.us. To see the flyer, go to <http://www.alaskageographic.org/static/1039/get-outdoors-anchorage-working-summit>.

NASA Quest Fall 2008 Challenge

NASA Quest presents its Fall 2008 Challenge, LCROSS: Exploration Through Navigation.

During this challenge, students will chart a course from the Big Island of Hawai'i to Rapa Nui (Easter Island) by using ocean navigation skills that were used in early Polynesian exploration. In Part II of the challenge, students will chart a course from NASA's Kennedy Space Center at Cape Canaveral, Fla., to one of the lunar poles by using navigation skills appropriate for space.

For both tasks, each participating classroom will submit its navigation plan to NASA for experts to review. At the end of the challenge, students will be asked to compare and contrast methods of navigating on Earth (at sea) and in space. For both parts of the challenge, the es-

sentential question that will keep students on task will be "How will you stay on course?"

Background materials are available to help prepare for the challenge. An educator's guide aligned to national education standards is available for those who register.

Registration is open now, and student projects are due Nov. 24, 2008.

Join NASA QUEST on Nov. 3, 2008, for an informative webcast designed to help participants design their navigation plans. Meet Kālepa Baybayan, Polynesian Captain and Navigator of Hawaiian deep-sea voyaging canoes, and learn more about this art that lives on. Participants will be able to ask questions relating to polynesian navigation and receive encouragement in the design process.

For more information about the challenge and to register online, visit

<http://quest.nasa.gov/challenges/lcross2/index.html> <<http://quest.nasa.gov/challenges/lcross2/index.html>> .

This challenge is a part of the educational programming for the Lunar CRater Observation and Sensing Satellite mission, also known as LCROSS. This mission will be navigating an impactor to look for water ice in the polar region of the moon.

To learn more about the LCROSS mission and read news as it breaks, visit the main LCROSS site at <http://lcross.arc.nasa.gov> <<http://lcross.arc.nasa.gov/>>

from Space Explorers, Inc., Planetary Times FALL & WINTER STUDENT COMPETITIONS

Check out these contests to keep your students excited about science both inside and outside the classroom. More Info... <http://news.space-explorers.com/?v=6&i=11&a=4> <<http://news.space-explorers.com/?v=6&i=11&a=4>>

ONLINE CHAT ABOUT ASTRONOMY & THE HUBBLE SPACE TELESCOPE

Live online chat with Dr. H. John Wood, an astronomer and an optical engineer for the Optics Branch at NASA's Goddard Space Flight Center on Thursday, November 13.

More Info... <http://news.space-explorers.com/?v=6&i=11&a=5> <<http://news.space-explorers.com/?v=6&i=11&a=5>>

Interesting Grant Possibilities

Captain Planet Foundation Environmental Education Grants

Deadlines: December 31, March 31, June 30, September 30

Supports innovative hands-on environmental education projects for children and youths in grades K-12 to empower them to work individually and collectively to solve environmental problems in their neighborhoods and communities.

Grants from \$250 to \$2,500 each

<http://www.captainplanetfdn.org/grants.html>

Honeywell Educators at Space Academy Scholarships

Deadline: December 31

Offers travel scholarships for middle school teachers of math, science or technology to attend the 5-day 2009 Honeywell Educators Space Academy program in Alabama in the summer. During the program, teachers participate in astronaut-style training and simulations, along with activities designed to promote life-long learning in a classroom setting

Travel scholarships provide:

--Tuition for the 5-day Space Camp in Alabama

--Roundtrip airfare

--Meals & hotel, and

--Workbooks & program materials for participating teachers

<http://www51.honeywell.com/hhs/ourprograms-sub/scimathedu-sub/honeywelledu.html?c=31>

American Association of University Women (AAUW) Community Action Grants

Deadline: January 15

One-year grants provide seed money for new projects that promote education and equity for women and girls.

One-year grants (\$2,000-\$7,000)

Two-year grants provide start-up funds for longer-term programs that address the particular needs of the community and develop girls' sense of efficacy through leadership or advocacy opportunities.

Two-year grants (\$5,000-\$10,000)

http://www.aauw.org/fga/fellowships_grants/community_action.cfm

National Association of Biology Teachers (NABT) Outstanding Biology Teacher Award

Deadline: February 1

Award recognizes an outstanding 7-12th grade biology educator in each of the 50 states. Nominees are judged on teaching ability and experience, cooperativeness in the school and community, inventiveness, initiative and student-teacher relationships.

Binoculars, microscopes, certificates, NABT membership, and honored at NABT Professional Development Conference
<http://nabt.org/sites/S1/index.php?p=290>

Harvard University Announcement

Harvard University announced over the weekend that from now on undergraduate students from low-income families will pay no tuition. In making the announcement, Harvard's president Lawrence H. Summers said, 'When only 10 percent of the students in Elite higher education come from families in lower half of the income distribution, we are not doing enough. We are not doing enough in bringing elite higher education to the lower half of the income distribution.'

If you know of a family earning less than \$ 60,000 a year with an honor student graduating from high school soon, Harvard University wants to pay the tuition. The prestigious university recently announced that from now on undergraduate students from low-income families can go to Harvard for free...no tuition and no student loans!

To find out more about Harvard offering free tuition for families making less than \$ 6 0,000 a year visit Harvard's financial aid website at:
<http://www.fao.fas.harvard.edu/>
<http://www.fao.fas.harvard.edu/> or call the school's financial aid office at (617) 495-1581.
SEND TO SOMEONE WHETHER THEY CAN USE OR NOT. THEY JUST MIGHT KNOW SOMEONE WHO CAN.

Live From Antarctica

Join New York City Educator Shakira Brown-Petit, LIVE from Antarctica, for exciting, highly interactive sessions about Earth's polar regions and climate change. See and learn how and what scientists are researching on the ice as they attempt to find evidence of a world much warmer than it is today. Brown-Petit will share climate resources.

Option 1 is designed for classroom participation, allowing students to see, hear and interact directly with Brown - Petit.

Option 2 offers educators a professional development opportunity to interact directly from the comfort of home. Sessions are designed for elementary and middle school audiences and are taking place on Nov. 12, 19 and 24, 2008.

Sessions require both an Internet connection and a telephone.

To register, visit
<http://www.us-satellite.net/antarcticalive/>.

Questions about the webcasts should be directed to
webinfo@us-satellite.net.

To read more about Shakira Brown-Petit, visit
<http://www.nasa.gov/audience/foreducators/science-and-the-city.html>.

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from Newsletter of the Alaska Department of Education & Early Development November 7, 2008

Climate scenario mapping is available to educators, others

Educators and the general public can now access the statewide climate scenario maps used by the governor's Climate Change Sub-Cabinet in its statewide planning efforts.

The maps use the free global mapping program Google Earth to display data from the Scenarios Network for Alaska Planning. SNAP is the policy and research component of the University of Alaska Geography Program.

Recently, the program and SNAP collaborated with Google and the National Geographic Society to bring climate models and related information to K-12 educators in Nome, Kotzebue and Barrow. The geography program serves as the National Geographic Society's K-12 and outreach office for Alaska.

Available maps and data include projections of average summer and winter temperatures by decade, as well as month-by-month projections for every year from 1980 to 2100. Maps are available for three different greenhouse gas emission scenarios: low, midrange and high. All maps are at 2-kilometer resolution, which allows users to pinpoint regions and communities. Google Earth features allow users to select scenarios, zoom in and out, pan across the landscape and animate selected time series.

See: www.snap.uaf.edu
<outbind://36/www.snap.uaf.edu> Google Earth can be downloaded from www.googleearth.com
<outbind://36/www.googleearth.com> .

PHYSH ED Grant Opportunity - National Fishing and Boating Education Grants Initiative Application The Future Fisherman Foundation

This information was taken directly from the Future Fisherman Foundation

<http://www.futurefisherman.org/programs/physh_ed/grants.html> Website:

Through our partnership with the Recreational Boating and Fishing Foundation <<http://www.rbff.org>> , the Future Fisherman Foundation has developed the Physh Ed grants initiative which offers grants in the amount of \$2,500 to certified teachers in public, private or charter schools. Our grants, training, and other services help prepare teachers to launch fishing and boating programs in schools across the country. Grants are awarded to schools to offer fishing and boating education programs as a part of a cross curricular curriculum that meets state academic standards. Entering into its 6th year, the Physh Ed program has reached over 80,000 students in over 300 schools since its inception.

Our partnership provides a researched based curriculum, hands-on training, equipment discounts, and on-going guidance from the Foundation staff and its partners. During the summer prior to their program implementation, each school sends one teacher to attend a 5-day hands-on skill based training workshop in angling skills and sustainable program development. Transportation, lodging and meals are all covered by the grant funds. Experienced professionals in the field of aquatic education, fishing, boating and conservation deliver workshop educational sessions both in the classroom and on the water in the following subjects:

Angling and boating-basic skill progression and safety
Fly fishing and fly tying
Spincasting
Aquatic Conservation
Programming and Partnerships
Equipment and tackle-purchasing, maintaining and repairing

2009/2010 Physh Ed National Fishing and Boating Education Grants Initiative Application The Future Fisherman Foundation <<http://www.futurefisherman.org>> requests proposals for the 2009/2010 school year under the Physh Ed National Fishing and Boating Education Grants Initiative. The purpose of the initiative is to enable public, private or charter schools to incorporate quality standards-based fishing and/or boating program activities into their curriculum.

The Future Fisherman Foundation invites teachers to apply for these funds to incorporate fishing and boating activities into their classrooms to work collaboratively

with other subject areas to integrate fishing and boating activities into the broader school curriculum.

More information can be gained at Future Fisherman Foundation

<http://www.futurefisherman.org/programs/physh_ed/grants.html> or email futurefisherman@asafishing.org

Jay Baumer

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Suggested Websites - Earth Materials / Geology

<http://www.mysciencebox.org/crayonrock>

<http://geologyonline.museum.state.il.us/tools/lessons/6.4/lesson.html>

Both of these sites were recommended by Meredith McCool - teacher at Polaris K-12. Thanks Meredith.
