



SCIENCE BYTES

SEPTEMBER 28, 2009 VOLUME 8

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

2009 - Alaska Math & Science Conference

INQUIRY - The Bridge to Understanding

October 14-17, 2009 Juneau, AK

NSTA Conferences 2009-2010

March 17-20, 2010 Philadelphia, PA

Alaska State Science & Engineering Fair

March 26-28, 2010 Begich Middle School

America's Return to the Moon

In 1969, millions of people around the world gathered around their television sets to watch NASA make history by putting the first man on the moon. Now, forty years later, we will gather around the television set again to watch the beginning of NASA's Return to the Moon.

On Oct. 9, 2009, at 7:32 a.m. EDT, the Lunar CRater Observation and Sensing Satellite, or LCROSS, along with the spent Centaur upper stage rocket will impact a permanently shadowed crater near the lunar south pole.

Following four minutes behind, the Shepherding Spacecraft, or LCROSS, will fly through the debris plume created by the Centaur. LCROSS will collect and relay

data back to LCROSS mission control at NASA's Ames Research Center before impacting the surface and creating a second debris plume. The impacts will provide a wealth of data that will help determine the contents of these permanently shadowed craters at the lunar poles.

For this historic day, NASA has created the LCROSS Impact Kit. This kit is full of videos and educational materials to inspire and engage your students in America's return to the moon. The kit is available on the Web at <http://lcross.arc.nasa.gov/impactkit/>.

Tune in on **Monday, Sept. 21, 2009**, at <http://dln.nasa.gov/dln/content/webcast/> for a discussion of the contents of the impact tool kit and suggestions about how to use it in your classroom or in your community.

from EARTH SCIENCE WEEK UPDATE

American Geological Institute

Vol. 7, No. 9: September 2009

No Child Left Inside' Day Comes to Your School

One of the highlights of last year's Earth Science Week celebration was "No Child Left Inside" Day, an event that engaged hundreds of students in outdoor learning activities and received coverage by news media from NBC to NPR. This year, you're invited to take part!

AGI's new NCLI Day Guide provides everything you need to start planning your own NCLI Day event. The free guide provides 10 outdoor activities you can organize to help students discover Earth science in their own neighborhoods. Also included are recommendations for creating partnerships, planning logistics, reaching out to the local media, and following up in the classroom.

Plan your NCLI Day 2009 event for Tuesday, October 13, during Earth Science Week 2009 (October 11-17), when educators and young people across the country will be wading across creeks, climbing hills, and searching the skies to learn Earth science. You can find the NCLI Day Guide online at <http://www.earthsciweek.org/ncli/index.html>. Have a great NCLI Day 2009!

Women in the Geosciences Day Coming in October

Join the Association for Women Geoscientists and AGI in celebrating the first annual Women in the Geosciences Day - Thursday, Oct. 15 - during Earth Science Week 2009! Women in the Geosciences Day offers you a chance to share the excitement and advantages of geoscience careers with women of all ages, especially those early in their education.

If you're an educator, invite a female geoscientist to speak in your classroom or institution. If you're a female geoscientist, visit a local school or volunteer at a science center. Organize a scout event for badges, lead a 4H field trip, or hold a special "Take Your Daughter to Work Day" focusing on the geoscience workplace. No

matter who you are, you can help show young women what it means to be a geoscientist.

The Association for Women Geoscientists offers scholarships for women pursuing an education and career in the geosciences, as well as support for female geoscientist lecturers in classrooms. To learn more, please visit <http://www.awg.org>. And have a great Women in the Geosciences Day!

PolarTREC Now Accepting Applications for 2010-2011

PolarTREC (Teachers and Researchers Exploring and Collaborating) is accepting applications from teachers for teacher research experiences during the 2010 (Arctic) or 2010-2011 (Antarctic) field seasons.

PolarTREC, a program of the Arctic Research Consortium of the U.S. (ARCUS), pairs K-12 teachers with researchers for professional development through authentic polar research experiences. Through PolarTREC, teachers will spend two to six weeks in the Arctic or Antarctic, working closely with researchers as part of the science team. All major expenses associated with teacher participation in PolarTREC field experiences are covered by the program, including transportation, food, lodging, and substitute teacher costs.

Teacher applications are due Monday, October 5, 2009. More information and application forms are available at <http://www.polartrec.com>.

from INFORMATION EXCHANGE Newsletter of the Alaska Department of Education & Early Development September 18, 2009

Arctic Innovation Competition Open to All

The University of Alaska Fairbanks School of Management will award more than \$18,000 in cash through its inaugural Arctic Innovation Competition.

The competition awards cash to entrants who propose new, feasible and potentially profitable ideas.

The competition originated from UAF professor Ping Lan's research on ways to stimulate, package and trade innovative ideas. Lan has incorporated the competition into his graduate-level technology management class.

The competition is open to the public and there is no entry fee. Individuals or groups with an innovative idea for solving real-life problems and challenges are encouraged to enter. Thirteen winners will be selected to receive cash prizes ranging from \$10,000 to \$100. After the initial screening process, finalists will present their ideas to judges October 23 from 4-6 p.m. in the UAF Wood Center ballroom. The public is invited to attend.

More than 60 ideas have been submitted to the competition from all over the world. The deadline to submit an idea is October 1. More information is available online at www.arcticinno.com

<<http://www.arcticinno.com>> or by calling Lan at 907-474-7688.

Cassini Scientist for a Day Contest

The Cassini Scientist for a Day contest challenges students to become NASA scientists studying Saturn. Participants examine three target images taken by the Cassini spacecraft and choose the one they think will yield the best scientific results. This choice must then be supported in a 500-word essay. Teaming up is encouraged. Winners will participate in a teleconference with Cassini scientists.

The contest is open to all students in the United States from grades 5-12, working alone or in groups of up to four students. Students from other countries should contact local organizers. The essays will be divided into three groups: grades 5-6, 7-8 and 9-12. All submissions must be students' original work. Each student can submit only one entry.

Deadline for Fall 2009 submissions is **noon Pacific time (3 p.m. EDT) on Sept. 30, 2009**.

For more information, visit

<http://saturn.jpl.nasa.gov/scientistforaday/>.

Students from other countries should visit:

<http://saturn.jpl.nasa.gov/scientistforaday/international>.

If you have questions about this contest, please e-mail your inquiries to scientistforaday@jpl.nasa.gov.

NASA's DLN Presents Videoconferences

NASA's Digital Learning Network presents a series of videoconferences to assist educators in staying current on NASA education resources and related products.

During each event, product producers, authors and experts will demonstrate their materials designed to optimize awareness and understanding of science concepts. Instructional objectives, accessing the materials and primary contacts for the materials will also be discussed. During the videoconferences, participants will be able to submit questions to the presenter that will be addressed during the presentation.

In the coming months, the following topics will be covered:

- **Earth Science Week Products:** Sept. 30, 2009, 4-5 p.m. EDT
- **Waste Limitation Management and Recycling Design Challenge:** Oct. 28, 2009, 4-5 p.m. EDT
- **NASAimages.org & eClips:** Nov. 18, 2009, 4-5 p.m. EST
- **Exploring Space Through Math:** Dec. 16, 2009, 4-5 p.m. EST
- **STS-131 Robotics:** Jan. 27, 2010, 4-5 p.m. EST
- **NASA Fit Explorers:** Feb. 24, 2010, 4-5 p.m. EST
- **NASA eProfessional Development Network -- Robotics Course:** March 31, 2010, 4-5 p.m. EDT
- **MoonWorld:** April 28, 2010, 4-5 p.m. EDT

-- **On the Moon:** May 26, 2010, 4-5 p.m. EDT

For more information about these videoconferences and to sign up online, visit <http://dln.nasa.gov/dln/content/webcast/>. Questions about these events should be directed to Caryn Long at caryn.long@nasa.gov.

Noteworthy News - Ag Science

Trailside teacher Patrick Ryan was one of 17 teachers awarded the new Alaska Teachers' Scholarship Program (ATSP). Funding is a result of the successful USDA Specialty Crop Block Grant (SCBG) proposal submitted by the Division of Agriculture. Mr. Ryan will receive \$500 to fund the purchase of a Book Bundle from Minnesota Agriculture in the Classroom (www.mda.state.mn.us/kids), and a field trip for a tour of Bell's Nursery, ASD Student Nutrition and Carrs Quality Center on Huffman road, where the students will be conducting a scavenger hunt for Alaska-grown produce.

Mrs. Thibodeau's class will accompany Mr. Ryan's first graders as they learn where our food comes from, and how it gets to Alaska and into our homes.

Congratulations Patrick!

6th Grade Health Link

This is a great health link for looking at food labels. <http://www.accessdata.fda.gov/videos/CFSAN/HWM/hwmsk01.cfm> submitted by Michael Hansen - Mirror Lake 6th teacher

from ANROE Electronic Newsletter 9/22/09

Resources For Educators

Free Audubon Posters

Free downloadable PDF posters are available online.
Healthy Yard: <http://www.audubonathome.org/yard>
<<http://www.audubonathome.org/yard>>
Healthy Apartment:
<http://www.audubonathome.org/apartment/index.html>
<<http://www.audubonathome.org/apartment/index.html>>
Healthy Country Home:
<http://www.audubonathome.org/countryhome/index.html>
<<http://www.audubonathome.org/countryhome/index.html>>
Healthy Schoolyard:
<http://www.audubonathome.org/schoolyard/index.html>
<<http://www.audubonathome.org/schoolyard/index.html>>
Healthy Neighborhood:
<http://www.audubonathome.org/neighborhood/index.html>
<<http://www.audubonathome.org/neighborhood/index.html>>

COSEE-West Resources-

Marine Science Field Trip Guide for Teachers, Ocean Bibliographies, and Marine Science Video list, resources from lectures and workshops such as Elephant

seals: Masters of the Depths; Grants, Grant Writing, Field Trips, Teacher Field Experiences; The Ocean In A Warming Climate; Polar Regions; and more.

<http://www.usc.edu/org/cosee-west/resources.html>
<<http://www.usc.edu/org/cosee-west/resources.html>>

October 11-17: Earth Science Week Toolkit

The 2009 kit includes an activity calendar, posters, resources, activities, a field notebook, and student handouts. Materials cover a range of earth science topics including National Parks, GIS technology, volcanoes and the ecological impacts of climate change.

<http://www.earthsciweek.org/materials/index.html>
<<http://www.earthsciweek.org/materials/index.html>>

EarthTrends

Earth Trends is an online database maintained by the World Resources Institute that focuses on environmental, social, and economic trends. Research topics include Coastal and Marine Ecosystems, Climate and Atmosphere, and more. The website includes maps, information guides, a monthly newsletter, and other resources.

<http://earthtrends.wri.org/#> <<http://earthtrends.wri.org/#>>

Freshwater and Marine Image Bank

The University of Washington Libraries offers 21,000 digitized images of freshwater and marine life taken from 1735-1924 from various publications. Visitors can browse by collection and subject, or enter search criteria. There are also links to other sources for digital images.

<http://content.lib.washington.edu/fishweb/index.html>
<<http://content.lib.washington.edu/fishweb/index.html>>

Marine Debris Poster

The North American Marine Environment Protection Association offers a downloadable marine debris poster, "Do You Know Where Your Litter Is? Right Where You Left It."
http://www.namepa.net/Downloads/News/NAMEPA_Marine_Debris_Poster.pdf
<http://www.namepa.net/Downloads/News/NAMEPA_Marine_Debris_Poster.pdf>

Opportunities for Educators

Journey South

Give your students hands-on experience with nature by participating in Journey South, the fall portion of Annenberg Media's Journey North program for K-12 students and teachers. The international program puts students in touch with students in other countries as together they track wildlife migrations and seasonal growth and change. <http://www.learner.org/jnorth/>
<<http://www.learner.org/jnorth/>>

Ocean Leadership Award

Application deadline: February 1- Ocean Leadership Award- recognize educators who make outstanding contributions to K-12 ocean science education, through the Ocean Leadership Award. Nominations are accepted in different categories to help further marine science educational goals.

<http://www.usc.edu/org/cosee-west/quikscience/OceanLeadershipAwards.html>

<<http://www.usc.edu/org/cosee-west/quikscience/OceanLeadershipAwards.html>>

Teachers Needed for Pilot Program About Ocean Sustainability

DigitalOcean is providing an opportunity for 200 middle and high school teachers and classrooms to participate in their pilot program *DigitalOcean: Sampling the Sea*, which aims to interactively educate the next generation of seafood consumers about declining global fish populations and implications for humans and oceans. Participating teachers will receive curriculum guides, exercises, online training, and support to help them implement the program.

<http://www.cftnm.ucsb.edu/Programs/EMI/Research/SS.html>

<<http://www.cftnm.ucsb.edu/Programs/EMI/Research/SS.html>>

from EE- News from NAAEE

A Sea Change: New Film About the Ocean and Climate Change

This multiple award-winning film on the subject of ocean acidification will air on Planet Green, September 26, 2009, at 8 pm. A Sea Change is suitable for all audiences. Check the Web site for release dates.

"The story that "A Sea Change" tells is urgent, unsettling and desperately in need of understanding and action." - Ann Hornaday, The Washington Post

<http://www.greenrightnow.com/kabc/2009/08/17/a-sea...>

<http://www.greenrightnow.com/kabc/2009/08/17/a-sea-change-humanizes-a-sometimes-abstract-threat/>>

ASCEville!

This exciting educational outreach initiative was recently launched by the American Society of Civil Engineers. ASCEville! provides students in grades 4-7, a new online destination where they can explore the important role of civil engineering and the connection to the world we see every day. Engineers, teachers, and parents will find helpful educational outreach and teaching resources on the site.

<http://content.asce.org/asceville/index.html>

Climate Change Presentations for High Schools

The Alliance for Climate Education (ACE) will visit your high school to deliver exciting science-based

multimedia presentations on climate education including delving into tangible solutions to stop climate destruction. ACE also offers grant and scholarship opportunities to empower students to take action. View their trailer on YouTube:

www.tinyurl.com/acetrailer<<http://www.tinyurl.com/acetrailer>>and visit their Web site for details.

<<http://www.tinyurl.com/acetrailer>>

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

2009 Healthy Sprouts Awards Program

Deadline: October 17, 2009

The National Gardening Association Healthy Sprouts Awards Program encourages the growth of health-focused youth garden programs. Sponsored by Gardener's Supply Company, the awards support school and youth garden programs that teach about nutrition and the issue of hunger in the United States. Schools or organizations applying must plan to garden in 2010 with at least 15 children (ages 3-18).

<http://www.kidsgardening.com/healthysprouts.asp>

7. Green Your School Contest Deadline: October 9, 2009
The Student Conservation Association Green Your School Contest is a national competition to stimulate and/or identify conservation service projects designed by high school students who improve, restore, beautify, or conserve their high school environment. There will be one grand prize of \$5,000 and two runner-up prizes of \$2,500 each. Prizes will be awarded directly to high schools and not to individuals. <http://www.thesca.org/green-your-school>

