



SCIENCE BYTES

OCTOBER 22, 2008 VOLUME 10

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

In this Issue:

1. **For Your Calendar**
2. **SunEarth Day 2009 - Our Sun Yours to Discover**
3. **Fall Vernier Updates**
4. **Online Resources from the American History of Natural History**
5. **When your Students Think Green - Your School Can Win Big**
6. **Exploravision Awards 2009**
7. **NASA Education**
8. **Mapping Alaska Communities Workshop: An Introduction to GIS & Community Analysis**
9. **FLINN Scientific - Middle School Science**

For your Calendar:

NSTA Conferences 2008-2009

NSTA Regional Conferences – 2008

October – Charlotte, NC: October 30-November 1, 2008

November – Portland, OR: November 20-22, 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 Looking for volunteers for the SF Board.

Science Olympiad 2008-09

TENTATIVE April 4, 2009 @ Begich Middle School

SunEarth Day 2009 - Our Sun Yours to Discover

We have just launched the new website for this year's Sun-Earth Day ! We are introducing the new and

improved Space Weather Viewer- V3. The Space Weather Viewer has better images, new data and many more videos about the science of the Sun and the Missions that observe the Sun.

*****The first section is the data from the Sun today.

Within each section you can click on Details and learn more about the image you are viewing. There are new activities for Educators, Galileo Project, Space Mathematics and Exploring Magnetism are a few of the new featured activities. Be sure to check out the Make-N-Take activities in the Public Outreach section. The section for Scientists has many ways to get involved in Education and Public Outreach, click Develop Your Program for more information.

Amateur Astronomers will want to take part in the Sun Earth Day 2009 Observing Challenge. We will keep you informed as new additions are added. We are sure you will find this year's Sun-Earth Day as exciting as the previous 8 years!

Remember to update your information in the registration section if your mailing information has changed, our packets for this year are being assembled now and we will begin mailing them in December. You won't want to miss it!

****This is another special opportunity that you might be interested in: NASA's Interstellar Boundary Explorer (IBEX) Mission is scheduled to launch October 19, 2008. NASA will be webcasting this event live on launch day. In addition, Adler Planetarium and the IBEX mission will be hosting an additional webcast for Museum audiences that will be longer, include additional educational interpretation, activities, interviews, Q & A and more. The Adler webcast will be from 11am-4pm EDT and the main launch event will occur at 1:48pm EDT. There will be two different bandwidth speeds for you to choose from. In addition, you may choose to participate in a live chat/ Twitter commentary during the webcasts. We will also setup an optional pre-webcast support phone call to discuss technical details of connecting your location to the webcast.

While anyone is welcome to join the webcast, we appreciate an RSVP for planning and to keep you up to date with details such as time or date changes, educational materials and time/date of the support phone call.

Please RSVP to ibex@adlerplanetarium.org, include a contact name, email address and shipping address if you would like available handouts to be shipped to your location (please include an estimate of the audience you expect to have so we know how many to send).

Links to the webcasts will be available here:

<http://ibex.swri.edu/planetaria/index.shtml>

For information about the IBEX mission visit:
<http://ibex.swri.edu> or
<http://www.nasa.gov/ibex>
The Sun-Earth Day Team

Fall Vernier Updates

1. Share Your Thoughts about Vernier Products

Help shape the future of data-collection technology in science education! Take our short survey, and you will be entered into a drawing for a free LabQuest. Winners will be chosen at random and notified by email.

<http://www.vernier.com/e-news/2008-10-09/survey/>

2. Free LabQuest Software Updates

If you received your LabQuest prior to October 1, 2008, it is time to update your software. A new LabQuest software update (version 1.1.1) is now available. We recommend that everyone update to this version of the software to ensure that you have all the latest features and the best user experience.

<http://www.vernier.com/e-news/2008-10-09/labquest-update/>

3. Vernier Sponsored Events at NSTA Western Regional in Portland, Oregon

Thinking of attending this year's NSTA Western Regional in Portland? Here are a couple of reasons you should be sure to come:

- David Vernier will be your host for a behind-the-scenes tour at Vernier. You will tour our LEED Gold Certified green building, with 126 solar panels, see what is new at Vernier with some product demonstrations, have a chance to take a ride on a Segway(R), and take home a Vernier gift. This NSTA field trip is scheduled for Thursday, November 20 from 12:30-4:00 PM. Registration is required through NSTA.

<http://www.vernier.com/e-news/2008-10-09/tour/>

- Vernier Software & Technology and the Oregon Museum of Science and Industry (OMSI) are co-sponsoring a night at the museum. Join us for a pasta dinner, complete with salad and dessert, explore OMSI's newest exhibit, Mindbender Mansion, and attend live demonstrations in OMSI's labs. While you are there, you can relax and enjoy a show in the Planetarium and shop in the OMSI Science Store, where you will receive a 10% educators' discount. Tour the USS Blueback, a decommissioned military submarine. Discuss with OMSI educators how to connect your classroom to the museum using reserved labs, field trips, and distance learning. This ticketed NSTA social event, called Sustain Your Brain, An Evening at OMSI, is

scheduled for Friday, November 21, 6:00-9:00 PM.

<http://www.vernier.com/e-news/2008-10-09/omsi/>

4. Vernier-NSTA Technology Award Deadline Extended

Were you planning to submit your innovative use of data-collection technology for this year's Vernier-NSTA Technology Award? Don't worry, you still have time. NSTA has moved back the deadline for submission of applications to November 30th. Seven \$3,000 awards are presented to educators, with projects judged to be the best use of data-collection technology in their respective categories. Enter your high school, middle school, elementary, or college project for your chance to win. Awards will be presented at the 2009 NSTA National Conference and Exposition in New Orleans.

<http://www.vernier.com/e-news/2008-10-09/nsta-award/>

5. Upcoming Vernier Workshops

Join us for one of our free, 4-hour, hands-on workshops to learn how to integrate our data-collection technology into your biology, chemistry, physics, math, middle school, physical science, and Earth science curriculum. Sign up for a workshop near you.

<http://www.vernier.com/e-news/2008-10-09/workshops/>

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Online Resources from the American Museum of Natural History

The Museum's free online materials will help you meet national science, social studies, and global studies standards as well as keep your curriculum up-to-date.

<<http://amnh.org/ology/>>

OLogy <<http://amnh.org/ology/>>

Invite your students to visit the Museum's science-rich website for kids. They'll find interactive games, hands-on activities, and scientist interviews. Students can also collect and make projects with virtual cards.

<<http://amnh.org/sciencebulletins/>>

Science Bulletins <<http://amnh.org/sciencebulletins/>>

Bring cutting-edge, real-world science to your classroom through videos of scientists at work and compelling satellite imagery and animations. You'll also find an Educator's Guide, essays, and glossaries.

<<http://amnh.org/learn/>>

Seminars on Science <<http://amnh.org/learn/>>

Take a six-week online course co-taught by an experienced classroom teacher and a world-class research scientist. Sessions are offered year-round, and courses can be taken for graduate credit.

Resources for Learning <<http://amnh.org/resources/>>

Looking for an activity, an interactive, or an essay? Search for it using this online catalog of the Museum's collection of scientific and cultural educational materials.

Thank you for subscribing to the Museum's Newsletter for Educators. To unsubscribe, see the bottom of this email.

Museum Programs

Plan Your Visit <<http://amnh.org/education/plan/>>

Bringing a school group on a field trip? The Museum's halls are rich in scientific and cultural content. We offer permanent and special exhibitions, IMAX films, and planetarium shows. Download Educator's Guides <<http://amnh.org/education/guides/>> to prepare for your visit.

Moveable Museum

<<http://amnh.org/education/moveable/>>

The Moveable Museum is a great way to bring exhibitions to your school. Fall 2008 reservations are filled. Spring 2009 registration is January 2009 (date pending). Climate Change Educator Evening

<<http://amnh.org/education/climatenight/>> Meet the curator and get relevant resources for this new exhibition on October 23 (4-7pm). To register call 212-769-5200.

Young Naturalist Awards <<http://amnh.org/yna/>>

Engage your students in scientific inquiry! Winners receive cash awards and a paid trip to New York City. Deadline is March 2, 2009.

More museum programs...

<<http://amnh.org/education/>> current exhibition.

When Your Students Think 'Green' Your School Can Win BIG! REMINDER! YOU CAN WIN A "GREEN COMPUTER LAB" FOR YOUR SCHOOL!

INSPIRE your middle and high school students to be leaders in the Green Schools movement--and your school could win a state-of-the-art computer lab! The "Green Light Contest" essay competition, sponsored by PC Mall Gov, in partnership with HP, InFocus and T.H.E. Journal, is seeking entries from students in two categories: grades 5 - 8 and 9 - 12. In essays of 1,000 words or less students are asked to describe how they and their teachers can utilize technology to protect the environment, with the grand-prize-winning composition being awarded a 30-seat "green" computer lab for the author's school. Two additional first place winners (one from each

grade-level category) will each receive a "green" laptop. Winning essays will be published in T.H.E. Journal and winners will be recognized at FETC, January 21 - 24, in Orlando, FL.

***APPLICATION DEADLINE is December 1, 2008. Winners will be announced at FETC, January 21 - 24, 2009, and notified by mail no later than January 31, 2009.

***Complete essay and submission criteria are available online at:

<http://www.1105info.com/t.do?id=1749005:638210>

EXPLORAVISION AWARDS 2009

Tomorrow's innovations come from today's young minds.

Have your students started their ExploraVision project yet? Now in its 17th year, ExploraVision is a science competition that encourages K - 12 students to create and explore visions of future technology. Working on an ExploraVision project is an exciting learning experience, and winning students receive \$10,000 savings bonds! The competition is sponsored by Toshiba and administered by the National Science Teachers Association. [Download the entry kit here.](#)

As a resource for teachers getting their classes started in ExploraVision, we're offering our first free Web seminar via the NSTA Learning Center on October 23rd from 6:30 - 8:00 p.m. Past winning coaches will address the benefits for utilizing the ExploraVision program in your classroom, how you can use ExploraVision to put into practice many of the National Science Teachers Association standards, and the prizes that you, your students and your school can win. [Register for the Web seminar here.](#)

We hope this tool is helpful as you consider your ExploraVision project. And, most of all, we hope you have fun!

Good luck!

The ExploraVision Team

NASA Education

The Educational Materials section of NASA's Web site offers classroom activities, educator guides, posters and other types of resources that are available for use in the classroom. Materials are listed by type, grade level and subject. The following items are now available for downloading.

Celebrate Solar Week -- Oct. 20-24, 2008

Solar Week provides a weeklong series of Web-based educational classroom activities and games geared for upper elementary, middle and high school students, with a focus on the Sun-Earth connection. Students learn about solar eclipses, sunspots and solar storms through a

series of activities, games and lessons.

Solar Week is ideal for students studying the solar system, the stars and astronomy in general. Students will also learn about solar scientists and other science career choices. The Web site is for all students, but it is especially designed to spark the interest of pre- and early-teen girls with activities and interaction with leading scientists at the forefront of Sun-Earth research. To learn more and to register to participate, visit <http://www.solarweek.org>.

ISS EarthKAM Fall 2008 Mission

Middle school educators are invited to join NASA for the International Space Station EarthKAM Fall 2008 Mission on Oct. 28-31, 2008. Find out more about this exciting opportunity that allows students to take pictures of Earth from a digital camera on board the International Space Station.

ISS EarthKAM is a NASA-sponsored project that provides stunning, high-quality photographs of Earth taken from the space shuttle and International Space Station. Since 1996, ISS EarthKAM students have taken thousands of photographs of Earth by using the World Wide Web to direct a digital camera on select spaceflights and, currently, on the International Space Station.

For more information about the project and to register for the upcoming mission, visit the ISS EarthKAM Home Page: www.EarthKAM.ucsd.edu.

If you have questions about the EarthKAM project, please e-mail ek-help@earthkam.ucsd.edu

Send your Name into Space on the NASA Glory Mission

NASA invites you to submit your name to be included on a microchip that will be rocketed into space as part of NASA's Glory Mission, scheduled to launch in June 2009. Glory is the first mission dedicated to understanding the effects of particles in the atmosphere and the sun's variability on Earth's climate.

The "Send Your Name Around the Earth" Web site enables anyone to take part in the science mission and place his or her name in orbit for years to come. Participants will receive a printable certificate from NASA.

****The deadline for submitting names is Nov. 1, 2008.

****To submit names, visit

<http://polls.nasa.gov/utilities/sendtospace/jsp/sendName.jsp>.

****To learn more about the Glory mission, visit

<http://glory.gsfc.nasa.gov/>.

Adventures in Rocket Science Educator Guide -- Informal Education

This guide contains 25 activities designed for 4-H Clubs, Boys and Girls Clubs, Boy Scouts, Girl Scouts, after-school programs, and other informal education venues. Participants learn about the history and principles of rocketry and NASA's newest rockets -- Ares I and Ares V. While doing these hands-on activities, participants also learn about Hero Engines, parachutes and surface area, altitude tracking, and Newton's Laws Of Motion. Learners can also build four types of rockets and two types of egg drops.

http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Adventures_in_Rocket_Science.html

Environmental Control and Life Support Systems Water Filtration Challenge Educator Guide -- Grades 5-8

Earth provides the air we breathe, the water we drink, and other conditions that support life. Earth is a natural life support system. On the International Space Station, the Environmental Control and Life Support System provides these needs. The functions of an ECLSS include atmosphere revitalization; atmosphere control and supply; temperature and humidity control; water recovery and management; waste management; and fire detection and suppression. The activities in this guide focus on water recovery and management.

The challenge is to design and build a water filtration device using commonly available materials. To meet this challenge, students build, test and measure the performance of the filtration device, analyze the data collected, and use this information to work towards an improved filtration design.

http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Water_Filtration_Challenge.html

Mapping Alaska Communities Workshop: An Introduction to GIS & Community Analysis

January 8th and 9th, 2009

8:30 am to 4:30 pm

University of Alaska Anchorage

3801 Old Seward Hwy. Rm 149

Anchorage, AK 99501

More Info/Registration:

<http://www.urban-research.info/workshops/alaska-gis.htm>

Audience: Beginners, anyone interested in mapping their community

Participants will learn to use ArcGIS 9.3 to do the following:

Create thematic maps

Participants will learn to create thematic maps of their

own data, and display spatial trends in information.

Address mapping (geocoding)

Participants will learn to map addresses of their clients, their projects or incidents such as crime and disease.

Download and map Census & American Community Survey data

Participants will learn to extract and map current Census data such as poverty, race, language, population, transportation, education and workforce characteristics.

Participants will also learn to:

****Conduct spatial queries

****Download free shapefiles

****Create well-designed maps

Mapping techniques transferable to all other communities. Exercises are designed for beginners. Intermediate Excel skills required.

FLINN Scientific - Middle School Science

Share these two free middle school science activities with your students, compliments of Flinn Scientific.

How many students will be "contaminated" by the mysterious "germ" in your classroom? Use our fun activity titled "Glowing Germ" to demonstrate the importance of washing your hands and wearing gloves to reduce the unwanted spread of substances in the laboratory. Students will be amazed to discover how the invisible "germ" travels around the room. In addition to teaching laboratory hygiene, you can also use this activity to remind students to wash their hands as a routine sanitary practice to reduce the spread of illness-causing germs--cold and flu season is almost here!

Isaac Newton would love this physical science activity--and your students will too! This easy-to-do demonstration entitled "Center of Gravity Toss" confirms his prediction! Just toss an irregularly shaped sheet of foam or cardboard into the air to create visual proof that the center of mass follows a simple curved trajectory, obeying Newton's laws of motion.

Our customers love receiving these free lab ideas sent every month. It's just one of the many benefits of ordering from Flinn. In addition to receiving great teaching ideas you will enjoy our low prices, fast delivery, and unbeatable service. Don't take our word for it. Read what middle school science teacher Catherine Grieve has to say: "Thanks for your speedy and dependable service. I always go to your catalog first--my mentor teachers felt there was none better and experience has proven them correct."

--Catherine Grieve, Maltby Middle School, MI
Enjoy the benefits of being a Flinn customer. Send your order to Flinn today!

To print "Glowing Germ" and "Center of Gravity Toss" please go to:
http://www.flinnsci.com/Sections/MS/Activities/MS_act.asp
