



# SCIENCE BYTES

SEPTEMBER 22, 2008 VOLUME 6

**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. NASA Intern't'l Year of Astronomy SA Program**
- 3. NASA eClips - Web Based Educational Project**
- 4. FLINN Physical Science Activities**
- 5. NASA's Digital Learning Network**
- 6. NASA "Kids Science News Network"**
- 7. EXPLORAVISION Awards 2009**
- 8. ECO-CHALLENGE**
- 9. NASA Education: Join the Celebrations**
- 10. From ANROE Newsletter (8 offerings)**

## **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**

---

## **NASA's International Year of Astronomy Student Ambassadors Program**

Application Deadline: Sept. 29, 2008

NASA's International Year of Astronomy Student Ambassadors Program is intended to encourage undergraduate and graduate students to participate in NASA's IYA activities and to help generate excitement about NASA scientific discoveries in astrophysics, planetary science, and solar physics within their local communities and beyond. These students will serve as role models to others in the community.

Up to 52 students will be selected for a one-year award of up to \$2,700. Students will receive a \$2,000 stipend and up to \$700 for reimbursement of materials, supplies and travel expenses for the execution of their activities.

Two NASA IYA Ambassadors will be selected to participate in the IYA Opening Ceremony in Paris, France, January 2009, and each will receive a travel allowance of up to \$5000. Only undergraduate students are eligible for this component.

Participation is limited to U.S. undergraduate and graduate students who are attending institutions that are current members in good standing of the National Space Grant network.

Full details and instructions, including an online application form, are available at <http://www.spacegrant.org/niya>. The National Space Grant Foundation administers this program under a grant from NASA.

Applications are due Sept. 29, 2008.

Questions about this opportunity should be directed to [webmaster@spacegrant.org](mailto:webmaster@spacegrant.org).

---

## **NASA eClips - Web Based Educational Project**

NASA announces a new Web-based educational project offered free to every student and educator in the country, from kindergarten level through lifelong learners.

Capitalizing on today's technology, NASA eClips are short, five- to 10-minute video segments available on-demand via the Internet for the 2008-2009 school year. Over 220 video segments are projected to be available. This project highlights NASA's commitment to providing important science, math and engineering educational materials in a useful video format that can be used in the classroom, at home, and by informal education institutions such as museums, Boys and Girls Clubs, and scouts.

With a goal of increasing science literacy, NASA eClips are designed to inspire students to learn more about science, technology, engineering and mathematics

and to understand the application of these subjects in the real world -- all in an accessible, on-demand way.

Additionally, the K-12 (K-5, 6-8, 9-12) NASA eClips project is separated into grade-appropriate topics that tie into standards-based instruction. Each level is designed as a resource for classroom teachers; downloadable video segments and teacher guides illustrating effective instruction in the 21st-century classroom provide valuable enhancements to teacher lesson plans.

Students, teachers and the public can look forward to new video and educational content highlighting current research and innovations throughout the school year. The video clips are available for streaming on the NASA Web site at <http://www.nasa.gov/education/nasaclips>.

The NASA Web site permits educators and the public to download and save the video clips as well as stream them. In addition, the NASA Web provides lesson plans and instructions for educators on how to use these videotapes in the classroom.

---

### FLINN- Physical Science Activities

Your students will look forward to the excitement of learning science all year long when you share these two activities at the beginning of the school year.

Once your students get a whiff of this month's fun life science activity, "Smelly Balloons," the concept of diffusion will make more "scents!" You can't see molecules diffusing through a cell membrane, but in this activity you can smell them! The cells are big, bright balloons and the diffusing molecules are some of your favorite fragrances, like lemon, vanilla, peppermint, and strawberry.

It's more than just a trick--there's science involved when a flame "jumps" from one candle to another when you demonstrate this month's physical science activity, "The Jumping Flame." All you need are two large candles, some matches and wax paper to capture your students' attention and ignite their interest with this simple chemical reaction.

You can always depend on Flinn for tested lab activities, innovative lab kits, low prices on top-quality products, and friendly, helpful service. Teachers nationwide confirm it!

"Your service and products have always been superior to any other company that I have ever worked with."

-Greg Russell, Whitehall Middle School, MI

You and your students deserve the best . . . order all your science supplies from Flinn!

To print "Smelly Balloons" and "Jumping Flame" please go to:

[http://www.flinnsci.com/Sections/MS/Activities/MS\\_act.a](http://www.flinnsci.com/Sections/MS/Activities/MS_act.a)

sp

---

### NASA's Digital Learning Network

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.

The following topics will be covered:

**Hubble Space Telescope: Sept. 24, 2008, 4-5 p.m. EST**  
With the completion of the recent shuttle mission to the International Space Station, the Mission to Hubble is next in line. Find out more about what is available to educators about this mission from Hubble's home base at Goddard SpaceFlight Center.

**Observing the Moon: Oct. 29, 2008, 4-5 p.m. EST**  
Almost 40 years ago, humans walked on the moon for the first time. Revisit this history and put students in the driver's seat with Lunarnautics and Field Trip to the Moon. These featured products will help to inspire students as NASA plans to go back and explore Earth's satellite.

**Student Observation Network: Nov. 19, 2008, 4-5 p.m. EST**

Discover answers to some of the questions that excite NASA scientists. Students will learn how to make their own observations and how to compare them with NASA data while discovering cutting-edge science. Join the adventure!

**NASA Image Archive: Dec. 17, 2008, 4-5 p.m. EST**  
Explore the history of NASA through multimedia resources. Learn how to leverage these pieces of history to use in classroom presentations and student projects.

**STS-119: Jan. 28, 2009, 4-5 p.m. EST**  
Space shuttle Discovery is set to launch in mid-February 2009, for the STS-119 mission. Learn how spacesuits have changed since the Mercury program. As technology has developed over time, so has the sophistication of these garments used to protect astronauts on spacewalks. Join NASA's Johnson Space Center to learn about the history of the spacesuit, its transformations and the resources available to educate students about this important piece of astronaut couture!

**Chemistry: What Is Your Cosmic Connection to the Elements?: Feb. 25, 2009, 4-5 p.m. EST**

The elements that make up life itself reflect events that take place in the universe. Humankind's very existence is linked to these elements and their cosmic origin. Join in for discussions of the big bang theory, stars, supernovae, cosmic rays and other topics as participants learn more about the cosmic origin of the elements.

**Kepler Mission: March 25, 2009, 4-5 p.m. EST**

The Kepler mission will seek evidence for Earth-size planets in orbit around sun-like stars. For the first time NASA will be able to search the galaxy for Earth-size or smaller planets. With this cutting-edge capability, Kepler may help to answer one of the most enduring questions humans have asked throughout history: Are there others like us in the universe?

**Meteorology: An Educators Resource Guide for Inquiry-Based Learning: April 29, 2009, 4-5 p.m. EST**

Meteorology is one of the oldest observational sciences in human history and perhaps the most relevant to a broad segment of society. Learn how the first early meteorologists used this knowledge for their success and survival. This educator guide covers weather patterns, climate and measurement tools.

**NASA Explores Virtual Worlds: May 27, 2009, 4-5 p.m. EST**

Virtual immersive environments are increasing in popularity in modern America. Explore the virtual world that NASA education is building in Second Life and learn how to become an active citizen of this world.

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](mailto:caryn.long@nasa.gov).

**NASA "Kids Science News Network"**

Here's another neat website with Math and Science Activities.

<http://ksnn.larc.nasa.gov/home.html>

**EXPLORAVISION AWARDS 2009**

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

Your students will invent our future. They'll discover new, improved technologies and scientific advancements that will create tomorrow's world. But how do we encourage them to make these breakthroughs? We challenge them to open our eyes and minds.

You can get your students to start opening their minds by having them compete in the ExploraVision Awards competition

<http://e-news.edweek.org/ct/3463054:3930001506:m:1:296980301:38B0AD4703025C080BCDA41A8475AEB7> > . Sponsored by Toshiba and administered by the National Science Teachers Association, the ExploraVision competition gives students in grades K – 12 the chance to create their own visions of the future.

Student teams select and research a current technology and then explore what it could be like 20 years from now.

Members of the four first-place teams will each receive a \$10,000 US Savings Bond and an expenses-paid trip to Washington, DC to be recognized for their achievements. Big thinking and big stakes — those are great reasons for your students to start imagining the future.

For more information or to obtain entry materials, click here

<http://e-news.edweek.org/ct/3463055:3930001506:m:1:296980301:38B0AD4703025C080BCDA41A8475AEB7> > .

Contact ExploraVision

Mailing Address:

Toshiba/NSTA ExploraVision Awards

1840 Wilson Boulevard

Arlington, VA 22201-3000 Phone:

1-800-EXPLOR9

E-mail: [ExploraVision@nsta.org](mailto:ExploraVision@nsta.org)

**ECO CHALLENGE**

Go to <http://www.wecanchange.com/> to find an ecochallenge for 6 - 8 students. Prizes!

**NASA Education: Join the Celebrations -**

**Celebrate World Space Week -- Oct. 4-10, 2008**

Join educators and space enthusiasts around the world to celebrate World Space Week, Oct. 4-10, 2008. This international event commemorates the beginning of the Space Age with the launch of Sputnik 1 on Oct. 4, 1957.

During World Space Week, teachers are encouraged to use space-themed activities in the classroom to promote student interest in science, technology, engineering and mathematics. This year, \$500 teacher grants will be awarded for the most creative use of space in the classroom during World Space Week.

World Space Week is the largest public space event in the world, with celebrations in more than 50 nations. To learn more about World Space Week, search for events

in your area and find educational materials related to the event, visit <http://www.worldspaceweek.org/index.html>.

### **Celebrate Earth Science Week, Oct. 12-18, 2008**

Earth Science Week 2008 will be celebrated from Oct. 12-18. The theme for this year's celebration is "No Child Left Inside." This celebration encourages young people to learn about the geosciences by getting away from the television, off the computer and out of doors.

During Earth Science Week, educators are encouraged to bring some aspect of Earth science into their classrooms, and to take their classrooms outside! Each year, local groups, educators and interested individuals organize celebratory events. Earth Science Week offers opportunities to discover the Earth sciences and engage in responsible stewardship of the Earth.

The American Geological Society hosts Earth Science Week, in cooperation with sponsors, as a service to the public and the geoscience community. The event is supported by NASA, the U.S. Geological Survey, the National Park Service, the AAPG Foundation and other geoscience groups.

For more information, visit <http://www.earthsciweek.org/>. If you have any questions about this event, please e-mail [info@earthsciweek.org](mailto:info@earthsciweek.org).

---

### **From ANROE Newsletter**

(Alaska Natural Resources and Outdoor Education Association)  
**Workshops and Training Opportunities**

**Anchorage: September 25- Nature Writing Class-** Anchorage nature writer and author Bill Sherwonit will teach a 12-week nature writing class beginning Sept. 25. Participants in this workshop-style class will explore and refine their own writing styles, with an emphasis on the personal essay form. The class will also read and discuss works by some of America's finest nature writers, past and present. The cost is \$200. To sign up for this Thursday night class (7 to 9:30 pm), or for more information, contact Sherwonit at 245-0283 or [akgriz@hotmail.com](mailto:akgriz@hotmail.com).

### **Application deadline: September 29- PolarTREC Program**

Teachers are invited to submit an application to participate in field research learning experiences through the PolarTREC (Teachers and Researchers Exploring and Collaborating) program. PolarTREC pairs K-12 teachers with researchers to improve science education through authentic polar research experiences. The program integrates research and education to produce a legacy of long-term teacher-researcher collaborations, improved teacher content knowledge, and broad public interest and en-

agement in polar science. For more information: <http://www.polartrec.com/>

### **Application deadline: October 24- Ocean Guardian Kid's Club and Contest**

The Hawai'i Ocean Guardians Kid's Club and Contest is part of the 2008 International Year of the Reef. The contest is open to all students in grades K-8 in the United States, and encourages youngsters to express their insights and observations about the ocean and sensitive coral reef ecosystems through the creation of original stories, poetry, or works of art. For more information: [http://www.nmsfocean.org/og\\_contest.asp](http://www.nmsfocean.org/og_contest.asp)

### **Funding Opportunity:**

#### **Application deadline: October 1- Toshiba America Foundation Grants**

Toshiba America Foundation Grants support innovative projects designed by K-6 math and science teachers to make their own classrooms more exciting and successful for students.

<http://www.toshiba.com/tafpub/jsp/home/default.jsp>

### **Programs:**

**Anchorage: September 12- Readings from Crosscurrents North: Alaskans on the Environment** will be held at 7pm at the Anchorage Museum of History & Art. Readers will include Marybeth Holleman, Anne Coray, Alexandra Appel, Mike Burwell, Burns Cooper, Ann Dixon, Jo Going, Kaylene Johnson, Steve Kahn, Joan Kane, Buffy McKay, Sue Pope, Libby Roderick, Eva Saulitis, Bill Sherwonit, and Karen Tschannen. For more information, contact the Museum Shop at 343-6139.

### **Resources for Educators**

#### **The Great Whales Curricula**

The Great Whales curricula for grades 6-9 is available. Funded by the Oregon State University Marine Mammal Institute, this curricula focuses on research efforts to expand our knowledge about marine mammals. Through a variety of activities this curriculum explores whale biology and ecology topics, methods used to study whales, current conservation issues and concerns, as well as exploitation and general information about whales.

Review the curricula at this website: <http://mmi.oregonstate.edu>. Scroll down to find the curricula entry. Cost \$17.00. To order a copy contact Vicki Osis - [vjosis@peak.org](mailto:vjosis@peak.org), and include mailing and billing information.

### **Blick on Flicks- Making bad movie science into teachable science**

To help sort the good science from the bad in movies and other visual media, the NSTA website hosts audio and written reviews by Jacob Clark Blickenstaff, providing expert commentary, pointing out where the physics is twisted, the chemistry fudged, or the biology stretched on behalf of the story, without losing sight of the fact that movies are meant to entertain. Professor Blickenstaff helps make "bad science" into teachable science for middle level and high school students.

<http://www.nsta.org/publications/blickonflicks.aspx>

### **No Student Left Indoors website**

The purpose of this website is to help K-12 teachers, homeschoolers, and other educators to conduct a Field Guide Project, creating a field guide to your schoolyard with a species account, a catalog of the animals and/or plants found in your schoolyard. The website offers lesson plans, resources, and more to help you plan and manage your project.

<http://www.nostudentleftindoors.com/>

---