

# Secondary Science Bytes

*A newsletter for secondary teachers of science*

January 12, 2007



**What is it? For other fun photo brain teasers visit**

<http://www.mysteryphotos.com/> where you can find a new photo puzzle for each week as well as past photos, wallpaper and more. The answer to this photo puzzle is found at the end of the Bytes.



**NOAA'S TEACHER AT  
SEA PROGRAM: A  
FREE TEACHER RE-  
SEARCH EXPERIENCE**

**Applications due:  
Jan. 31, 2007**

Gain first-hand research experience on a government ocean research vessel - explore the opportunities offered by the National Ocean and Atmospheric Administration's (NOAA) Teacher at Sea program, now accepting applications until January 31, 2007. The mission of NOAA's Teacher at Sea program is to give teachers a clearer insight into our ocean planet and a greater understanding of maritime work and studies,

and to foster an interdisciplinary educational experience that provides a unique environment for learning and teaching. Since 1990, NOAA's Teacher at Sea Program has enabled more than 460 teachers to gain first-hand experience of science and life at sea. Teachers have enriched their classroom curricula with a depth

of understanding made possible by living and working side-by-side, day and night, with those who contribute to the world's body of scientific knowledge. For more information, visit <http://teacheratsea.noaa.gov> .

## THE FEDS ARE HERE TO HELP YOU -- WITH FREE STUFF!

Middle-school reform expert John Norton writes that he is pretty impressed with the re-design of the U.S. Department of Education's FREE website, which serves as a repository of school-related resources from agencies across the spectrum of federal government. FREE stands for "Federal Resources for Educational Excellence" and has been around since 1998, but has always needed a better organizational structure and search engine. The new design, launched in December, has improved navigation and images throughout the site. Click on the link for the new subject map (upper left corner) and you'll find a list of more than 100 topics and the number of resources for each. Example: U.S. History/Famous People/Inventors (36). There's an RSS feed so savvy web-surfers can receive updated information without revisiting the site. Subjects covered include social studies, US and world history, science, math, health and physical education, arts and music and language arts. Well worth investigating!

<http://free.ed.gov/>



For Middle School Teachers/  
Classrooms

### Classroom Competition to Learn About the Upper Ozone Layer

The CAPCO Science Class

Challenge is a classroom competition that encourages students and teachers to learn about the Earth's protective upper ozone layer, CFCs, and the environment by using the provided activities or their own creative methods. Maximum Award: \$5,000. Eligibility: teachers grades 4-6; **teachers grades 7-9**. Deadline: May 14, 2007.

<http://www.nocfcs.org/scc/rulesregs.htm>

## NASA EARTH EXPLORERS SERIES: THE HUNT FOR THE IVORY-BILLED WOODPECKER

This month in NASA's Earth Explorers Series: NASA scientists are using laser technology to help find the majestic ivory-billed woodpecker, a bird once thought extinct. According to NASA scientist Woody Turner, finding the ivory-billed woodpecker would be exciting and important in more ways than one.



Anyone can be a scientist, no matter the challenges that may stand in the way. That's the message NASA communicates through its Earth Explorers and Space Science Explorers series, both of which appear on the NASA Web site. In an effort to show that a science career is a worthy and attainable goal, both series profile real-life scientists, young and old, with a variety of backgrounds and interests.

Most articles are presented in three different versions according to reading level--one for grades 9-12 and up, one for grades 5-8, and one for grades K-4.

Earth Explorers

[http://science.hq.nasa.gov/education/earth\\_explorers](http://science.hq.nasa.gov/education/earth_explorers)

Space Science Explorers

[http://science.hq.nasa.gov/education/space\\_explorers](http://science.hq.nasa.gov/education/space_explorers)

For High School Teachers/Classrooms  
**Grants to Foster Inventiveness**

<http://web.mit.edu/inventteams/about.html>

Lemelson-MIT InvenTeams grants foster inventiveness among high school students. InvenTeams 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 extra-curricular project.

Maximum Award: \$10,000.

Eligibility: High school science, mathematics and technology teachers -- or teams of teachers -- at public, private and vocational schools; intra- and inter-school collaborations are welcome. **Deadline: April 27, 2007**

**K-12: Space Day is coming:**

<http://www.spaceday.com>

Space Day is an educational initiative that inspires young people to

explore careers in mathematics, science, engineering and technology and to realize the vision of our space pioneers. The first Friday in May has been designated Space Day, and people of all ages in the U.S. and around the world will come together to advance education in these areas.

This year's theme is: "Space Day 2007 50 Years In Space And Still Havin' A Blast!"

In 2007 Space Day will take place on May 4, and offers a variety of educational programs to inspire the 21st century space explorers, scientists and inventors.

For more information please visit the web site, which serves as mission control for Space Day activities. This site links to

educational resources, space-related information sites and provides the details about Space Day educational programs and events that will be taking place across the country.

**Outdoor Classroom Grant Program for the Natural Sciences**



<http://www.lowes.com/lowes/lkn?action=pg&p=AboutLowes/outdoor/index.html>

Lowe's Charitable and Educational Foundation, International Paper and National Geographic Explorer! Magazine have teamed up to create an outdoor classroom grant program whose focus is to engage students in hands-on natural science experiences and allow enrichment opportunities across the core curriculum.

Maximum Award: \$2,000.

Eligibility: K-12 public schools in the US



**For those of you attending the NSTA  
National Conference in St. Louis**

## **National Science Education Leadership Association (NSELA)**

**Professional Development  
Institute**

**Wednesday, March 28, 2007**

**Renaissance Grand Hotel  
800 Washington Avenue  
St. Louis, Missouri  
8:00 a.m. – 5:00 p.m.**

### ***Leading Professional Development in Science Education***

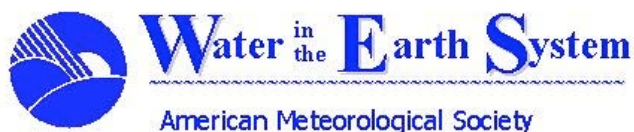
The NSELA Professional Development Institute features sessions for both experienced leaders and emerging teacher leaders in science education. The Institute includes two full-day stands and eight 3-hour sessions. All sessions are designed to provide a rich learning environment that engages participants and provides them with research-based tools and resources to support professional development in science education. Presenters include national experts in teacher professional development, research in science education, and state-of-the-art professional development strategies.

#### **Institute strands include:**

- **Facilitating Professional Development using Curriculum Topic Study**
- **Using Student Achievement Data to Inform Professional Development**
- **Designing and Monitoring Professional Development Programs**
- **Supporting Professional Development through Research**
- **Teacher Professional Development and Content Knowledge**
- **Assessment and Professional Development**

The NSELA Professional Development Institute provides a unique networking opportunity for science leaders throughout the day and features national

experts and practitioners in professional development for science reform. Advance registration is \$135.00 for members (\$180.00 for non-members) and includes breakfast and lunch. On-site registration is \$175.00 for members (\$215.00 for non-members) The Institute qualifies as NCLB, Title II - Part A, Professional Development. **For registration and program information, go to [www.nsela.org](http://www.nsela.org).**



### **DATASTREME WATER IN THE EARTH SYSTEM (WES) ONLINE DISTANCE LEARNING COURSE**

The DataStreme Water in the Earth System (WES) Online is an online course directed towards middle-school teachers, but open to all K-12 teachers. The course incorporates inquiry-based instructional strategies and a holistic concept of Earth from oceanic, atmospheric, and terrestrial water and problem-focused perspectives. The 13-week course is offered twice a year to selected participants. It investigates the mass and energy flows associated with the global water cycle, and related issues through the use of electronically transmitted environmental data and learning materials combined with Text and Study Guide readings and investigations. Course participants will be prepared as WES resource teachers. Through investigations of the global water cycle, they will demonstrate the value of Internet access to environmental information in classroom applications. All teachers involved will be prepared to promote Earth system studies across the school curriculum in support of the National Science Education Standards. For more course information, visit <http://www.ametsoc.org/amsedu/WES/index.html>.

# ALPHA DELTA KAPPA

## IRENE CLAPP EDUCATION SCHOLARSHIP

An opportunity for former students/  
offspring/friends

Alpha Delta Kappa is an international organization for women educators. Founded in 1947, Alpha Delta Kappa now has chapters in 50 states, Puerto Rico, Australia, Canada, Jamaica, and Mexico. The organization has many purposes; one states "to promote educational and charitable projects and activities, to sponsor scholarships, to further and maintain worthy standards in the field of education, and to cooperate with worthy community programs relating to education and charities."

This Alpha Chapter scholarship is dedicated to the memory of Irene Clapp, long-time Alaskan resident, educator, and former Nunaka Valley Elementary teacher. Irene served as Alpha Delta Kappa Alaska State President from 1984-1986 and as her chapter president from 1970-1972.

The scholarship selection committee will consist of Alpha Delta Kappa members from Alaska Alpha Chapter. The annual scholarship award will be \$500 (\$250/semester).

### *Scholarship Award Criteria:*

- Applicants must be accepted into a graduate degree program in education.
- Recipient must maintain at least a 3.0 GPA and be in good standing in the education program.

### *Application Process:*

- Applicants must include a letter summarizing academic background, teaching experience, and professional goals.
- Applications must include two letters of recommendation that support the applicant's professional experience and potential for future success. One letter should be from an immediate supervisor, director, associate superintendent, superintendent or equivalent.
- All required documentation must be submitted to the Scholarship Committee and received by February 1, 2007.

Renewal of the scholarship is contingent on criteria being met each semester. Verification must be submitted to the Scholarship Committee.

The application in its entirety should be mailed to the following address:

Alpha Delta Kappa  
Irene Clapp Education Scholarship Committee  
Sallie Long, Chairman  
5161 Metz Ct.  
Anchorage, Alaska 99516

## 2007 ERNEST F. HOLLINGS UNDERGRADUATE SCHOLARSHIP PROGRAM

Applications due: Feb. 9, 2007

NOAA is accepting applications for a scholarship program in honor of retired South Carolina senator Ernest F. Hollings, who promoted ocean and atmospheric study and research throughout his career. This is the third year the scholarship is being made available to students interested in pursuing degrees in ocean and atmospheric sciences and education. The 2007 NOAA Ernest F. Hollings Scholarship Program will provide approximately 100 college undergraduates up to \$29,000 to further their academic studies related to NOAA science, research, technology, policy, management and education activities; and to offer a related summer internship designed to provide "hands-on" multi-disciplinary training. For complete information, visit

[http://www.oesd.noaa.gov/Hollings\\_info.html](http://www.oesd.noaa.gov/Hollings_info.html)

## ANSMET - The Antarctic Search for Meteorites

<http://geology.cwru.edu/~ansmet/>

Check out the ANSMET website. They post blogs, and have online activities and pictures.

Recommended by Debbie Soltis from Chugiak High - thanks Debbie!

## An opportunity for high achieving HS Seniors National Youth Science Camp

Each year, the governor of West Virginia issues an invitation to the governor of every other state to initiate a process to select delegates to attend the NYSC.

Alaska has been invited to send two of its most outstanding science students – currently in their senior year of high school - to attend the nationally recognized, June 27 – July 23, 2006 National Youth Science Camp honors program held annually in West Virginia, all expenses paid. The program seeks to inspire and encourage our youth in pursuing high-level scientific leadership for our nation's future.

The NYSC is one of the nation's premier programs in secondary science education. Since its inception in 1963 as part of West Virginia's Centennial Celebration, the residential summer program has offered educational forums and recreational activities that encourage the development of thoughtful scientific leadership. Participants must graduate from high school between July 2006 and June 2007 for the summer of 2007 camp.

The [National Youth Science Foundation](#) funds the National Youth Science Camp. It is offered at NO COST to its participants, so that selected delegates may attend regardless of their financial status. Educational and recreational programming, as well as meals, lodging, and round-trip air passage on scheduled airlines are provided free of charge to the delegates. **Please encourage your top graduating**

**senior students to apply.** The NYSC flyer and the student application packet along with a copy of the evaluation rubric used to select the applicant winners can be emailed to you by Robby Bear on request.

\* Deadline for submission of the application to the state selection coordinator is February 16, 2007;

\* Announcement of the two Alaskan delegates and four alternates selected: March 16, 2007.

To apply, please

1. Download the application at <http://www.eed.state.ak.us/recognitionprograms/NYSC/>

2. Submit your completed application directly to

Chip McMillan

Department of Education & Early Development

801 W 10<sup>th</sup> St, Ste 200

Juneau, AK 99801-1878

**For those of you who have been following the NSTA/Inconvenient Truth “controversy” - please take the time to read the following:**



**NSTA Statement on the Distribution of "An Inconvenient Truth" at:**

[http://www.nsta.org/pressroom&news\\_story\\_ID=52977](http://www.nsta.org/pressroom&news_story_ID=52977)

For your blind or low vision students  
THE NATIONAL FEDERATION OF THE BLIND  
YOUTH SLAM: A 2007 STEM LEADERSHIP ACADEMY  
Applications due: April 1, 2007

From July 30-August 4, 2007, two hundred blind and low vision high school students will stay at the Johns Hopkins University in Baltimore, Maryland, to be mentored by blind role models during fun and challenging activities meant to build confidence, expand leadership and advocacy skills, and increase science literacy. Participants will also attend various social events as well as workshops on topics such as leadership, career preparation, and advocacy. The NFB Youth Slam will culminate in a rally at Baltimore's Inner Harbor and a celebration at the center of innovation in the field of blindness-the NFB Jernigan Institute.

Those interested in participating as students or mentors should complete an application by April 1, 2007. Candidates are encouraged to complete their applications early, as qualified participants will be selected on a first-come-first-serve basis. Students and mentors need not have a strong interest in science, technology, engineering, or math (STEM) in order to participate, enjoy, and benefit from this academy.

For more information, visit  
<http://www.blindscience.org>.  
Send questions about the NFB Youth Slam to  
[youthslam@nfb.org](mailto:youthslam@nfb.org).



## The 2007 ECOlogical Calendar

This is not your standard grid calendar-instead it is a beautifully illustrated scroll depicting nature's changes

throughout the whole year, season by season.

The ECOlogical Calendar now comes in two different formats, the original WALL CALENDAR and a new WEEKLY PLANNER version. Both feature The ECOlogical Calendar's stunning graphics and observable earthly facts. For more information go to

<http://www.ecocalendar.info/>

Answer to Photo Mystery: a dog nose  
(Kody Bear to be specific)