



# SCIENCE BYTES

AUGUST 13 , 2009 VOLUME 1

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

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#### Free Science Education Materials from NIH

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.

#### Moon Munchies Educator Guide -- Grades K-4

Plant growth will be an important part of space exploration in the future as NASA plans for long-duration missions to the moon. NASA scientists anticipate that astronauts may be able to grow plants on the moon, and the plants could be used to supplement meals.

In anticipation of the need for research into lunar plant growth, NASA and the International Technology Education Association, or ITEA, present the NASA Engineering Design Challenge. Students design, build and evaluate lunar plant growth chambers -- while engaging in research- and standards-based learning experiences. The lesson plans in this guide encourage students to participate in the engineering design process and learn how to conduct a scientific experiment.

The Moon Munchies Educator Guide is available as a complete guide or can be downloaded in easy-to-use individual lesson plans.

[http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Moon\\_Munchies.html](http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Moon_Munchies.html)

#### Ares: Launch and Propulsion Educators Guide -- Grades 5-12

The fifteen lesson plans in this guide help students learn about the science of rockets, principles of rocketry and the laws of motion. Student texts are included so that students may read about variables, forces and motion, and NASA's history and future. Students learn which variables affect the performance of a rocket. In the assessment, students engage in a competition wherein they apply what they have learned about rockets to build a launch vehicle that flies as high as possible.

[http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Ares\\_Educator\\_Guide.html](http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Ares_Educator_Guide.html)

#### Top Stars Bookmark -- All Grades

This downloadable bookmark includes dates for educators to submit their best examples of how to use the Hubble Space Telescope to teach science, mathematics, engineering or technology. Participants selected as Top Stars will receive national recognition and awards.

[http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Top\\_Stars\\_Bookmark.html](http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Top_Stars_Bookmark.html)

## **The Courage to Soar Higher Educator Guide -- Grades 4-6**

This integrated unit allows students to launch pop rockets; create a pop-up book about the solar system; build Mars colonies; and learn about the history of NASA and space exploration. Some activities include vocabulary lists and reading selections. Each of the 20 lessons in this guide support national mathematics, science, technology, geography and language arts standards.

[http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Courage to Soar Higher.html](http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Courage%20to%20Soar%20Higher.html)

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## **Earth Science Week 2009 “Understanding Climate” Contests**

The American Geological institute (AGI) is sponsoring three national contests in conjunction with Earth Science Week 2009, “Understanding Climate,” October 11–17. All U.S. residents are encouraged to enter “How Climate Shapes my World” – this year’s Earth Science Week photography contest. Entrants should use their cameras to capture an image that best represents the climate in their local environs.

Students in grades K-5 are eligible to enter the visual arts contest, “The Climate Where I Live.” Submissions should illustrate not only what the climate is like today in your town, but what it was like 100,000 years ago. The essay contest “Climate Connections,” is open to students in grades 6–9. Submissions should focus on how climate interacts with all of the earth systems in their community and how those earth systems in turn influence climate.

To learn more about Earth Science Week and these contests, visit [www.earthsciweek.org/contests](http://www.earthsciweek.org/contests).

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## **EARTH SCIENCE WEEK UPDATE**

*American Geological Institute*

*Vol. 7, No. 6: June 2009*

### **Online Report Answers Your Climate FAQs**

The U.S. National Oceanographic and Atmospheric Administration (NOAA) is shining a spotlight on a major resource for Earth science teachers: The “Climate Change: Frequently Asked Questions” (FAQs) report, now available online, presents highlights from the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report.

Designed for teachers and others seeking broad information on climate, the FAQs report answers 19 key questions ranging from “What factors determine Earth’s climate?” to “How do human activities contribute to cli-

mate change, and how do they compare with natural influences?”

The FAQs document summarizes findings from a nearly 1,000-page 2007 report, a comprehensive assessment of the physical and biogeochemical sciences relevant to climate and its sensitivity to greenhouse gas increases. The IPCC report was written by 152 authors and from over 30 countries and was reviewed by over 600 experts as well as government reviewers.

The FAQs report may be viewed online as a single PDF file

([http://ipcc-wg1.ucar.edu/wg1/FAQ/docs/AR4WG1\\_FAQ\\_Brochure\\_LoRes.pdf](http://ipcc-wg1.ucar.edu/wg1/FAQ/docs/AR4WG1_FAQ_Brochure_LoRes.pdf)) or a series of links to FAQs ([http://ipcc-wg1.ucar.edu/wg1/FAQ/wg1\\_faqIndex.html](http://ipcc-wg1.ucar.edu/wg1/FAQ/wg1_faqIndex.html)).

### **Discovery Earth Website Tackles Hot Topics**

The U.S. National Committee of International Year of Planet Earth (IYPE) has teamed up with The Discovery Channel to launch the new Discovery Earth website. IYPE is providing content for the website’s “Earth Top 10” feature, including detailed information and stunning images, on a regular basis.

Topics covered so far include climate change, environmental preservation, earthquakes, ocean movement, acid rain, and extinct creatures - and more are coming up. Check out Discovery Earth at <http://www.iype-usa.org/discoveryEarth.htm>.

### **Geology.com Offers News And Info on Earth Science**

Geology.com, a new Earth Science Week partner, provides a variety of geoscience materials including daily Earth science news, maps, an online dictionary of Earth science terms, and information on geoscience careers.

Also on Geology.com (<http://geology.com>) are resources for teachers, including links to lesson plans from major Earth science organizations such as the U.S. Geological Survey, the Geological Society of America, and NASA. To view the teacher page, visit <http://geology.com/teacher/>.

### **Watch NASA eClips for Educational Videos**

Just go online for NASA eClips, short educational video segments designed to inspire and engage students. “Mapping the Boundaries of Our Solar System (IBEX),” for example, answers big questions. What is the shape of our heliosphere? What lies beyond? How does interstellar medium affect the heliosphere? To find out, NASA launched the Interstellar Boundary Explorer, or IBEX, to map the boundaries of our solar system.

Another video, "The Fermi Gamma Ray Space Telescope," provides an overview of the electromagnetic spectrum and how scientists are using the new Fermi Gamma Ray Space Telescope to look at the inconceivable amounts of energy produced by phenomena in space. To watch, see

<http://www.nasa.gov/audience/foreducators/nasaclips/launchpad/universe.html>

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**from ANROE electronic newsletter (Alaska Natural Resources and Outdoor Education Association) 6/09**  
**RESOURCES**

**Ecological Impacts of Climate Change** - The booklet explains general themes about the ecological consequences of climate change and identifies examples of ecological changes across the United States. The website also offers downloadable Powerpoint presentation modules on ecological impacts, developed to assist educators in sharing information about the ecological impacts of climate change. The presentations are offered for different geographic region, and presenter notes are embedded in the files.

<http://dels.nas.edu/climatechange/ecological-impacts.shtml>

<<http://dels.nas.edu/climatechange/ecological-impacts.shtml>>

**Media College-** is about all forms of electronic media. Topics include video and television production, audio work, photography, graphics, web design, and more. The website offers hundreds of tutorials with supporting illustrations, videos, sound bytes, and interactive features. You'll also find reference material, utilities, and other useful tools, as well as a helpful forum.

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

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

**Voices in the Sea-** The Whale Acoustics Lab at the Scripps Institute of Oceanography is continuing to support and update the Voices in the Sea website. Teaching resources include a student journal and grading rubric for each of the lessons, while the Kids Page offers interactive games. There are videos, interviews with experts, and a special edition section for IPY and commercial vs subsistence whaling.

[http://cetus.ucsd.edu/voicesinthesea\\_org/Flash/](http://cetus.ucsd.edu/voicesinthesea_org/Flash/)

<[http://cetus.ucsd.edu/voicesinthesea\\_org/Flash/](http://cetus.ucsd.edu/voicesinthesea_org/Flash/)>

## **YOUTH OPPORTUNITIES**

**Earth Science Week Student Contests** Entry deadline- October 16

Photography, all ages, How Climate Shapes My World Visual arts, grades K-5, The Climate Where I Live Essay, grades 6-9, Climate Connections

<http://www.earthsciweek.org/contests/>

<<http://www.earthsciweek.org/contests/>>

**Teens for Planet Earth Social Networking Site** offers ways to help teens (and adults who work with teens) carry out environmental service-learning projects. Members can connect with other members, share photos and videos of their projects; post upcoming events related to their projects; find resources to help carry out a successful project; receive advice on conducting service-learning projects; and much more. <http://www.teensforplanetearth.org>  
<<http://www.teensforplanetearth.org>>

## **FUNDING OPPORTUNITIES**

**Big Green Grants from Nickelodeon-** Provides resources to schools and community-based organizations to support environmentally friendly projects that educate and inspire kids to: take care of the environment, be active, live healthily, and engage in community service. Applications are accepted and reviewed on a rolling basis throughout the year. <http://bghevent.com/grant/index.htm>  
<<http://bghevent.com/grant/index.htm>>

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**from Project 2061 Connections newsletter**

**National Sample Puts Assessment Items to the Test**

National field tests provide the latest findings from Project 2061's development of assessment items linked to middle school science learning goals. In two papers presented at the 2009 NARST Annual Conference, Project 2061's assessment experts discuss their item development process and what they are learning about student understanding. Read more

<<http://www.project2061.org/090629/publications/2061Connections/2009/2009-03c.htm>> .

### **Improving Online Resources for K-12 Teachers**

Collection developers from the National Science Digital Library gathered at Project 2061 to learn about tools for evaluating the quality of online K-12 resources. Read the full story

<<http://www.project2061.org/090629/publications/2061Connections/2009/2009-03b.htm>> .

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# 2009 Alaska Miners Association Annual Convention

## Nov 2, - Nov 8, 2009

### Sheraton Hotel Anchorage

*Short Courses ~ Technical Sessions ~  
Trade Show ~ Rock and Mineral Show*



Alaska Miners Association  
3305 Arctic Blvd., Suite 105  
Anchorage, AK 99503  
Tel (907) 563-9229 / Fax (907) 563-9225  
Email: [ama@alaskaminers.org](mailto:ama@alaskaminers.org)  
Web: [www.alaskaminers.org](http://www.alaskaminers.org)

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### **“Capture the Colorful Cosmos” Astrophotography Project**

Students, teachers, individuals and families can “Capture the Colorful Cosmos” this summer. From July through September, participants can use MicroObservatory, an online network of robotic telescopes controlled over the Internet.

NASA and the Harvard-Smithsonian Center for Astrophysics invite the community to share views of the universe in this exciting astrophotography project. The images taken using online robotic telescopes will be featured on the NASA and International Year of Astronomy Web sites.

Anyone with an e-mail address can use the MicroObservatory robotic telescopes to request electronic images of astronomical objects. Participants 13 or younger will need a parent or guardian to enter their photos for them. Photos can be taken all summer long. Images must be submitted by Sept. 30, 2009, to participate in the project.

Select photos from the project will be featured on the NASA and International Year of Astronomy Web sites beginning on Labor Day.

For more information, visit  
<http://www.cfa.harvard.edu/seuforum/iyacosmos/individual.htm>.

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### **“From Earth to the Universe” Exhibit on Display Worldwide**

“From Earth to the Universe” is a collection of astronomical images that showcase the most dramatic views of the universe. The images represent the incredible variety of astronomical objects that are known to exist -- planets, comets, stars, nebulae, galaxies and the clusters in which they congregate -- and are being exhibited in over 250 locations throughout the world in 2009 and 2010. These exhibits, held in public parks, airports, art centers and at other unique sites, will bring the wonders of the universe right to you.

Over 60 countries are scheduled to host a FETTU exhibit. To find dates and locations for the exhibit, visit [http://www.fromearthtotheuniverse.org/table\\_events.php](http://www.fromearthtotheuniverse.org/table_events.php).

The goal of FETTU is to engage the public -- especially those who might think they are not interested in astronomy or science -- through the stunning beauty of astronomical images. Short and informative captions on the panels, as well as a comprehensive Web site, are available to help introduce the viewer to the science behind the aesthetics.

More information on FETTU, a project produced and directed by the Chandra X-ray Center at the Smithsonian Astrophysical Observatory, may be found at [www.fromearthtotheuniverse.org](http://www.fromearthtotheuniverse.org).

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### **MyMoon - New Interactive Outreach Site**

Greetings, scientists, faculty, educators, and those generally interested in planetary science!

We wanted to share the Lunar and Planetary Institute’s new outreach site, MyMoon with you; this is geared toward undergraduate students and young professionals, but everyone is welcome. MyMoon was created to involve young adults, ages 18-35, in the science and exploration of the Moon. It will grow over time to include more content. Please check it out at <http://mymoon.lpi.usra.edu> <<http://mymoon.lpi.usra.edu/>> We’d love to hear what you think!

**Here’s an announcement we’d love to have you share with your students or audiences if appropriate:** MyMoon is an evolving site created for the Net Generation, by the Lunar and Planetary Institute (LPI). We’re collaborating with lunar scientists, engineers, artists, storytellers, and with you to share interactive information about the Moon and opportunities for you to be involved.

Through the MyMoon groups on facebook, YouTube, and flickr, we invite you to share your thoughts, your creations, and your experiences. We will host contests, discussion groups, and live Web-conferenced presentations.

Come join the lunar scientists, lunar artists, and lunatics! <http://mymoon.lpi.usra.edu>  
<<http://mymoon.lpi.usra.edu/>>

We're grateful (thrilled, in fact) to report that this project is funded by NASA's Science Mission Directorate.

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### Free Water Quality Test Kits

World Water Monitoring Day (WWMD, September 18, 2009) and National Public Lands Day (September 26, 2009) are teaming up to provide volunteers with free water quality test kits. The test kit includes everything necessary to test for temperature, pH, turbidity, and dissolved oxygen, and is ideal for use with elementary and middle school students. To receive a free test kit you must be one of the first 100 groups to register to participate in WWMD and indicate your participation in National Public Lands Day. <http://www.publiclandsday.org/>  
<http://www.worldwatermonitoringday.org/>

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### from ANROE electronic newsletter (Alaska Natural Resources and Outdoor Education Association) 7/26

#### September 8 – November 25, 2009 EETAP Fundamentals of Environmental Education

A 12-week online course about the fundamentals of environmental education is appropriate for both classroom teachers and for non-formal educators who work with students and/or teachers. Participants may obtain three undergraduate or graduate credits from the University of Wisconsin-Stevens Point. All students, regardless of location, are eligible for the in-state tuition rate. The course is also offered at a reduced cost for those who are not interested in obtaining college credit.

<http://www.uwsp.edu/natres/eetap/index.aspx>  
<<http://www.uwsp.edu/natres/eetap/index.aspx>>

#### Climate Change Wildlife and Wildlands Toolkit

The Climate Change, Wildlife and Wildlands Toolkit for formal and informal educators is designed for classroom teachers and informal educators in parks, refuges, forest lands, nature centers, zoos, aquariums, science centers, etc., and is aimed at the middle school grade level. The U.S. Environmental Protection Agency, in partnership with six other federal agencies (National Park Service, U.S. Fish and Wildlife Service, National Oceanic

and Atmospheric Administration, National Aeronautics and Space Administration, USDA/Forest Service, Bureau of Land Management), developed the kit to aid educators in teaching how climate change is affecting our nation's wildlife and public lands, and how everyone can become "climate stewards."

<http://www.globalchange.gov/resources/educators/toolkit>  
<<http://www.globalchange.gov/resources/educators/toolkit>>

#### Ecolibrary

The EcoLibrary is a source for free photographs useful for illustrating concepts in ecology, conservation biology, and the environment. The website currently contains several hundred annotated photographs that illustrate key concepts and as the site grows, maps, sounds, panoramas, and interactive exercises will be added. Check out the pictures associated with the themes under Lessons.

<http://ecolibrary.cs.brandeis.edu/index.php>  
<<http://ecolibrary.cs.brandeis.edu/index.php>>

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### from NASA Earth and Space Science Education E-Newsletter August 2009

**The NASA Endeavor Science Teaching Certificate** is accepting applications through Sept. 30, 2009. The program awards one-year fellowships each year to over 40 current and prospective teachers. Endeavor Fellows take five graduate courses in an innovative, LIVE (online) format from the comfort of their home or school and learn to apply research-based pedagogical strategies and cutting-edge STEM (Science, Technology, Engineering and Mathematics) content to their classroom contexts. For more information, visit:

<http://www.us-satellite.net/endeavor/index.cfm>

#### SEAICEBOX Interactive Sea Ice Explorer

SEAICEBOX lets users view and measure changes in monthly sea ice concentration since 1979 in the Arctic and Antarctic regions. The tool runs in a Web browser, so there is no need to download anything to use SEAICEBOX. Users can view the latest daily image of sea ice concentration and compare changes in sea ice over time. The First Time Users tutorial includes background information on sea ice and its importance to climate and also has student activities for exploring sea ice.

SEAICEBOX was created through a National Science Foundation grant to the University of New Hampshire for the International Polar Year. SEAICEBOX uses the ICE tool from NASA's Earth Observatory

and satellite images of average monthly sea ice concentration from NASA's National Snow and Ice Data Center. The SEAICEBOX is accessible through <http://iceplanetearth.org/resources.jsp>

### **Windows to the Universe Web site: New "Poles in Space" Section**

The NASA-funded Windows to the Universe Web site provides students, educators, and the public with more than 7,000 pages of content on a wide range of Earth and space science topics (in English and Spanish). The new "Poles in Space" section features information and stunning images from NASA missions of poles around the solar system, including: the double polar vortex on Venus, Saturn's northern polar hexagon and southern polar vortex, methane lakes around Titan's North Pole, auroral lights at the poles of Jupiter and Saturn, the "sideways" poles of Uranus, the ice geysers at the South Pole of Enceladus, and more!  
[http://www.windows.ucar.edu/poles\\_in\\_space.html](http://www.windows.ucar.edu/poles_in_space.html)

### **What is a Planet? Student Activity for Grades 9-12**

In 2006, astronomers at a meeting of the International Astronomical Union, known as the IAU, debated the definition of a planet. In the "What is a Planet?" activity, targeted for grades 9-12, students take part in a debate similar to the one held by the IAU. They debate whether "Pandora," a fictional solar system object discovered by NASA's New Horizons spacecraft, is a planet. Read more on the NASA portal:  
<http://www.nasa.gov/audience/foreducators/9-12/features/what-is-a-planet.html>

### **Astronomy Activity for Grades 8-12: Vegetable Light Curves**

In the Activity, "Vegetable Light Curves," students will observe the surface of rotating potatoes to help them understand how astronomers can sometimes determine the shape of asteroids from variations in reflective brightness. When astronomers graph data relating to reflective brightness as a function of time, the resulting graph is called a "light curve."  
[http://dawn.jpl.nasa.gov/DawnClassrooms/light\\_curves/index.asp](http://dawn.jpl.nasa.gov/DawnClassrooms/light_curves/index.asp)

### **Space Weather Action Center & Media Viewer: Students Use Data to Track Solar Storm**

Space Weather Action Center is now the easiest way to have students use near real-time data and track a solar storm. By following the basic steps in the Instructional Guide students can access, analyze and record NASA sat-

ellite and observatory data. There is a downloadable step-by-step educators setup guide with a variety of recommendations and diagrams showing you how to construct a fully functional SWAC while keeping potential limitations on space and technology in mind. Flip charts provide the step-by-step data use and there are also instructions for using greenscreen technology. Access all materials online at <http://sunearthday.nasa.gov/swac>.

**The Space Weather Media Viewer** was created to work with the Space Weather Action Center to see near-real time data and have additional images and resources available for educational use. It includes easy downloads that can also be added to news reports and space weather reports and was designed for ease in adding any media - videos, images - and data.  
<http://sunearth.gsfc.nasa.gov/spaceweather/FlexApp/bin-dbug/index.html>

### **Earth Observatory Feature Article: Planetary Motion-The History of an Idea that Launched the Scientific Revolution**

Attempts of Renaissance astronomers to explain the puzzling path of planets across the night sky led to modern science's understanding of gravity and motion.  
<http://earthobservatory.nasa.gov/Features/OrbitsHistory/>

### **Hubble Space Telescope Captures Rare Jupiter Collision**

July 24 - NASA's Hubble Space Telescope has taken the sharpest visible-light picture yet of atmospheric debris from an object that collided with Jupiter on July 19. Discovered by Australian amateur astronomer Anthony Wesley, the spot was created when a small comet or asteroid plunged into Jupiter's atmosphere and disintegrated. To view the image and obtain more information about Jupiter's new spot, visit:  
<http://www.nasa.gov/hubble>.

### **NASA Airborne Expedition Chases Arctic Sea Ice**

July 16 - NASA's Characterization of Arctic Sea Ice Experiment, known as CASIE, began a series of unmanned aircraft system flights in coordination with satellites. Working with the University of Colorado and its research partners, NASA is using the remotely piloted aircraft to image thick, old slabs of ice as they drift from the Arctic Ocean south through Fram Strait - which lies between Greenland and Svalbard, Norway - into the North Atlantic Ocean. The CASIE expedition is providing mission updates online at: <http://blogs.nasa.gov/cm/blog/CASIE>

## **New NASA Satellite Survey Reveals Dramatic Arctic Sea Ice Thinning**

July 7 - Arctic sea ice thinned dramatically between the winters of 2004 and 2008, with thin seasonal ice replacing thick older ice as the dominant type for the first time on record. For images of the Arctic sea ice decline, visit: <http://www.nasa.gov/topics/earth/features/icesat-20090707.html>

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## **Disney's Planet Challenge**

Dear Reader,

I'm pleased to tell you about an exciting new learning opportunity from The Walt Disney Company called Disney's Planet Challenge, a project-based environmental competition for students in grades 4-6. With collaboration from curricular experts at the K-12 Alliance and the National Science Teachers Association, Disney's environmental team has crafted a program that gets children to think and act environmentally at school and at home.

Until now, Disney's Planet Challenge was available in the United States only to schools in California and Florida, but the program has been expanded to school districts nationwide this year to address growing demand.

Hailed as an empowering, one-of-a-kind experience by participating educators from previous years, this is one of the most significant initiatives of its kind ever to be offered to K12 schools. My colleagues at District Administration and I are proud to be working with Disney on this project, helping to inform school leaders like yourself about this valuable program. In fact, you may already have seen information about Disney's Planet Challenge in the pages of our magazine and on our Web site. I encourage you and your faculty to get involved with this important program. To learn more about it, please visit [www.districtadministration.com/disney](http://www.districtadministration.com/disney)

Sincerely,

Daniel E. Kinnaman

Publisher, District Administration

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## **High School and Middle School Field Test Teachers Needed February and March 2010**

BSCS is currently developing two science education supplements with funding from the National Institutes of Health. The middle school supplement, Rare Diseases and Scientific Inquiry, focuses on how scientists use scientific inquiry to learn about rare diseases and how learning about rare diseases helps us understand human systems. The high school supplement, Evolution and Medicine, focuses on how evolutionary principles inform medical practice and our understanding of human health and disease.

Field-test teachers will attend a two-day orientation workshop at BSCS (Colorado Springs, Colorado) in January 2010. BSCS will pay all lodging, travel, and meal expenses and teachers will receive a stipend after completing the field-test process. BSCS staff will make site visits to selected schools to observe the field-testing process.

If you are interested in learning more about participating in either of these field test opportunities, please let us know by completing a brief [form](#) on the following website [http://www.bsccs.org/nih10\\_request.html](http://www.bsccs.org/nih10_request.html) You'll be contacted shortly with more information. Please forward this message to anyone who might be interested in this opportunity.

If you have questions [email](#) or call BSCS Science Educator Paul Beardsley at 719.219.4177 or BSCS Science Educator Mark Bloom at 719.219.4167.

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## **Opportunities from NAAEE (North American Association for Environmental Education)**

### **Awards, Grants, Contests**

#### ***Trip to Antarctica for Teachers Contest Deadline: September 4, 2009***

Teachers can win a free trip to Antarctica this November with author and environmentalist, Robert Swan, aboard his International Antarctic Treaty Expedition (IATE), November 16-30, 2009. Cruise along the Antarctic's spectacular ice cliffs. Follow whales while they're feeding. Visit one of the largest gatherings of Gentoo Penguins. Sail past the infamous Cape Horn and take part in Robert Swan's Leadership on the Edge program. Visit the Web site for complete details and enter today! <http://www.antarctica2041.com/teacherscontest>

### **Diversity and Environmental Justice Highlights**

#### ***Leave No Trace Connect Grants for Culturally Diverse Communities Deadline: August 15, 2009***

The Leave No Trace Center for Outdoor Ethics Connect Grants provide direct support, training, and educational materials for organizations and people that serve culturally diverse communities.

[http://lnt.org/programs/connect\\_grants.php](http://lnt.org/programs/connect_grants.php)

### **Resources for Students and Educators**

#### ***Conservation and Humane Education Take Flight with Lucky***

Based on a true story, this children's book tells the story of Lucky, a parrot who is captured in the wild and eventually regains his freedom with the help of a young Indonesian boy. The book teaches children to be kind to animals and is a natural fit for wider educational curriculum including geography and culture of Indonesia, the

natural history, behavior, and physical characteristics of parrots and tropical forest ecosystems, as well as real-life conservation efforts.

The Web site incorporates all these topics with sample lesson plans and class activities, and includes a narrated documentary video clip of the real Lucky.

For more information about bringing Lucky to your school or classroom at the special discount rate, contact the Avian Welfare Coalition at [info@avianwelfare.com](mailto:info@avianwelfare.com)<<mailto:info@avianwelfare.com>> <http://www.luckytheloriqueet.com/>

### **Solar Activity & Potential Impact on Climate**

This National Geographic News article, by Anne Minard, discusses astrophysicists study of the activity, or inactivity of the sun and its potential impact on the Earth's climate.

<http://news.nationalgeographic.com/news/2009/05/09...<http://news.nationalgeographic.com/news/2009/05/090504-sun-global-cooling.html>>

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