

## **BaP Updates-March 12, 2009**

### **General**

#### **Building a Presence**

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##### **Our Name will be Changing**

The National Science Teachers Association has recently announced a name change for Building a Presence. It soon will be known as Science Matters or something like this that includes the words Science Matters. Details are not available at this time.

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##### **Changes in the NSTA / BaP Reception at NSTA**

Are you attending the NSTA Conference in New Orleans? If so, there will be a reception on Friday, March 20 from 6:00 pm – 8:00 pm at the Hilton New Orleans Riverside, Versailles Ballroom. RSVP is not necessary. This is a change from earlier information, so please note these changes if you are planning to attend the reception.

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##### **NSTA book suggestions**

The following site <http://www.nsta.org/publications/ostb/> is a compilation of science books recommended by NSTA and the Children's Book Council (CBC) Committee for books published in 2008. The books listed represent all of the sciences and range in grades K-12.

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##### **Oneonta list serve sign up and remove site**

<http://external.oneonta.edu/mentor/listserv.html>

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##### **Statistics**

Here is a website with links to useful resources for teaching statistics to K-12 students.

<http://www.amstat.org/education/usefulsitesforteachers.cfm>

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## **On line degrees**

Check out University of Maryland, College Park – they have a great biology and chemistry masters program. I graduated from the program with my second masters degree a little over a year ago and I cannot speak highly enough about the courses and the professors! Here is a link to the site...

<http://oes.umd.edu/pp/>

Click on “Master of Chemical and Life Sciences”

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## **Philosophy of Education**

Professional Portfolio Development for Teachers

<http://www.edulink.org/portfolio/>

Writing a Philosophy Statement

[http://homepages.wmich.edu/~cummings/Philosophy\\_State.html](http://homepages.wmich.edu/~cummings/Philosophy_State.html)

Suggestions for Writing a Philosophy Statement

<http://oregonstate.edu/instruct/ed416/suggestions.html>

Developing a Teaching Portfolio: Writing a Philosophy of Teaching Statement

<http://ftad.osu.edu/portfolio/philosophy/Philosophy.html>

Educational Philosophy

<http://www.teach-nology.com/teachers/methods/philosophy/>

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## **Elementary**

### **Middle**

### **Earth Science**

### **Tests**

There are great questions & graphics listed online from the NY Earth Science Regents Exams. <http://www.nysedregents.org/testing/scire/regentearth.html> You can view old tests & pick out questions to make your own pretest. They have Earth Science Reference Tables as well that are used for the tests.

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Mosart tests misconceptions in different subject areas. They have a test for earth science.

<http://www.cfa.harvard.edu/smgphp/mosart/>

## Rock Cycles

- Rock Cycle powerpoint  
<<http://stevekluge.com/geoscience/ppts/rockcycleweb.ppt>> and worksheet <<http://stevekluge.com/geoscience/ppts/rockcycle.pdf>> (with key)

Here's some of the other stuff I used.....

- Mineral Intro <<http://stevekluge.com/geoscience/ppts/mineralsk.ppt>> powerpoint
- Tetrahedron Cutouts  
<<http://stevekluge.com/geoscience/regentses/tetrahedrons.pdf>> and silicate structure diagrams  
<<http://stevekluge.com/geoscience/regentses/silicatestructure.pdf>> Know the Igneous Rocks  
<<http://stevekluge.com/geoscience/regentses/labs/igneousrx.pdf>>
- Know the Sedimentary Rocks  
<<http://stevekluge.com/geoscience/regentses/labs/sedimentaryrx.pdf>>
- Know the Metamorphic Rocks  
<<http://stevekluge.com/geoscience/regentses/labs/metamorphicrx.pdf>>
- I Know This Rock Is..  
<<http://stevekluge.com/geoscience/regentses/labs/esriknowarockis.pdf>> (how to identify a rock)
- Rock Characteristics  
<<http://stevekluge.com/geoscience/regentses/labs/rockcharacteristics.pdf>> (a supplement to the ESRT)
- Rock ID Practical  
<<http://stevekluge.com/geoscience/regentses/labs/rockid.pdf>>

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## Biology

### Brain Awareness Week Prepare Your Neurons for Brain Awareness Week

Do you want to get your students to think with about their brains? Celebrate [Brain Awareness Week](#) with the [Society for Neuroscience \(SFN\)](#) March 16-20. Free Resources are available online at SFN including [Neuroscience Core Concepts: The Essential Principles of Neuroscience](#) and the [NERVE Web site](#).

**Brain Awareness Week is March 16th-20th, 2009**

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### **Chemistry**

Money is obviously tight with all the education cuts however, the ACS is now offering a \$1500 High School Chemistry Grant with a simple application and not a lot of red tape. The application deadline is April 1st. For more information go to:

<http://portal.acs.org/portal/PublicWebSite/funding/grants/hachhighschool/index.htm>

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J. Flint Baumwirt

Project Director

CSUN High School Chemistry Teacher Support Group Resource Website and Listserv

[www.csun.edu/chemteach](http://www.csun.edu/chemteach) <<http://www.csun.edu/chemteach>>

[www.hschem.org](http://www.hschem.org) <<http://www.hschem.org>>

### **Chem Matters**

I ran across the ChemMatters site on the ACS website today. It highlights the latest issue and now has links to pdf files of three of the articles. Also, toward the bottom of the page are links to 'Archives' with files of issues back to '01, 'How to Use ChemMatters', and 'Subscribe to ChemMatters.'

Here's the URL:

[http://portal.acs.org/portal/acs/corg/content?nfpb=true&pageLabel=PP\\_TRANSITIONMAIN&node\\_id=1090&use\\_sec=false&sec\\_url\\_var=region1&uuid=b47ce3ca-1b8e-45b5-a520-0b186bc7fba5](http://portal.acs.org/portal/acs/corg/content?nfpb=true&pageLabel=PP_TRANSITIONMAIN&node_id=1090&use_sec=false&sec_url_var=region1&uuid=b47ce3ca-1b8e-45b5-a520-0b186bc7fba5)

<[http://portal.acs.org/portal/acs/corg/content?nfpb=true&pageLabel=PP\\_TRANSITIONMAIN&node\\_id=1090&use\\_sec=false&sec\\_url\\_var=region1&uuid=b47ce3ca-1b8e-45b5-a520-0b186bc7fba5](http://portal.acs.org/portal/acs/corg/content?nfpb=true&pageLabel=PP_TRANSITIONMAIN&node_id=1090&use_sec=false&sec_url_var=region1&uuid=b47ce3ca-1b8e-45b5-a520-0b186bc7fba5)>

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### **K-12 Science**

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#### **The Year of Science—March, 2009—Physics and Technology**

Please visit the Year of Science, 2009 website at:

<http://www.yearofscience2009.org/home/>

The focus for March 2009 is Physics and Technology. Physics helps us to understand the universe and studying physics is kind of like having

a conversation with nature. Physicists ask questions through experiments and models, and nature responds. When the question is a particularly good one, the answer can be unexpected and lead to totally new ideas about how the world works.

How did the universe begin?

Is it possible to create a real invisibility cloak?

What is dark matter?

How does popcorn pop?

How does radiation therapy help cancer patients?

But physics is more than a conversation - your day is astonishingly reliant on the findings of physics. A day without physics would be a day without cars, ipods, and even chocolate cookies! Cars, ipods, and ovens would be impossible to build without a basic understanding of how the universe works. Can you imagine trying to design an oven without knowing how electricity travels? Or trying to design an ipod without knowing what sound is? These and most of the devices we rely on today are the result of decades of study about how the universe works. Physics and technology go hand-in-hand.

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### **Understanding Science One Website at a Time**

A new website funded by the National Science Foundation offers a window to a better understanding about how dynamic and creative the scientific process really is. Understanding Science is a "fun, accessible, and free resource that accurately communicates what science is and how it really works." The site, intended for both the general public and K-16 teachers, draws students into real-life examples and looks at the social side of science, science and society, and asks, "What has science done for you lately?" It also provides users with a comprehensive science toolkit. Teacher resources are targeted to specific grade bands.

Please visit:

<http://undsci.berkeley.edu/>

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### **Polar Research Opportunity Extended to March 13**

Student Polar Research with IPY National Teacher Training (SPRINTT), a climate change research program, establishes a balance of authentic Western and Indigenous Scientific Data/Knowledge. Feedback is excellent so far (authentic student investigations, 'Build-your-Own Research Paper'--'Microsoft Excel' is bypassed, for instance in analysis). Hundreds of teachers will be trained in science content and pedagogy through 5 - 75-minute sessions, which are delivered ONLINE

(LIVE). Then teachers will implement SPRINTT into their classrooms. This award-winning, 6-8 week (or semester long) curriculum engages thousands of students in authentic climate change investigations around the world. As part of the program, students look at changes in climate with the lens of Indigenous peoples who live in the North and are affected by climate change.

They are accepting (simple online) applications as late as Friday, March 13, even though the deadline says March 12. Kindly visit: <http://www.us-satellite.net/spritt>

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### **GLOBE at Night**

Once again, the educational community is invited to participate in the annual global sky observation known as GLOBE at Night. GLOBE at Night brings people outside to observe the constellation Orion from March 16-18 2009. Participants simply choose a clear night on which stars are visible, take measurements of stars in this portion of the sky using GLOBE's Magnitude Charts, and enter observations into the GLOBE at Night Web site. Students — alongside teachers, parents and community members-- amass a data set from which they can begin to explore the concept of light pollution and to research the patterns of light pollution across the globe.

Participation in GLOBE at Night is open to anyone who lives or works in one of the 110 GLOBE countries and can get outside and look skyward during March 16-18. You can enter your observations on the GLOBE at Night Report web page from March 6 – April 7. For full information, please visit:

<http://www.globe.gov/GaN>

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### **100 Hours of Astronomy**

The 100 Hours of Astronomy Cornerstone Project is a worldwide event consisting of a wide range of public outreach activities, live science center, research observatory webcasts and sidewalk astronomy events. One of the key goals of 100 Hours of Astronomy is to have as many people as possible look through a telescope as Galileo did for the first time 400 years ago. 100 Hours of Astronomy will take place from April 2-5, 2009 when the Moon goes from first quarter to gibbous, good phases for early evening observing. Saturn will be the other highlight of early evening observing events. For more information including a list of events, visit:

<http://www.100hoursofastronomy.org/>

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## **First Day of Spring March 20**

Join NASA in celebrating Sun-Earth Day on March 20, 2009. Sun-Earth Day is comprised of a series of programs and events that occur throughout the year culminating with a celebration on or near the Spring Equinox. For Sun-Earth Day 2009, NASA will engage a worldwide audience in the celebration of the International Year of Astronomy, with an emphasis on daytime astronomy. Tremendous strides have been made as satellites and ground-based observatories attentively monitor the sun to understand the processes that govern the sun's influence on the solar system. NASA will offer a series of coordinated events to promote and highlight the sun and its connection to Earth and other planets. The events will support the spirit of international collaboration.

On March 20, 2009, at 1:00 p.m. EST, join a panel of scientists for a live Sun-Earth Day Webcast. During the webcast, scientists Eric Christian, Nicky Fox, Terry Kucera and Sten Odenwald will share discoveries about the sun, while students monitor the sun and prepare their own space weather forecast. Students from Houston will demonstrate their own sundials. New and exciting images and visualizations will be shared during the program. For more information and educational resources, including posters, fliers, postcards and an educator kit, visit the Sun-Earth Day Web site at:

<http://sunearthday.nasa.gov/2009/index.php>

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## **Middle School Science**

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### **Earth Science Middle School Teacher Leadership Academy**

British Petroleum Exploration and the American Geological Institute are pleased to announce that they will be holding the third annual Leadership Academy for middle school teachers of Earth science in Houston, Texas, July 26-31, 2009. The Academy will provide teachers with Earth science content, activities and field experiences that they can use with their students in the classroom and with their colleagues in professional development settings. The program will be residential at the Omni Houston Hotel Westside, and all travel, lodging and subsistence costs will be covered by a grant from BP. They have space for 28 participants this year.

Topics covered during the workshop will include:  
Introducing Earth system science to students  
Teaching Earth science as inquiry  
Using learning centers in workshop settings  
Planning, conducting and evaluating successful Earth science workshops  
Troubleshooting in workshop settings  
Hot topics in Earth science  
Using learning objects in teaching Earth science  
Resources for teaching Earth science  
The work of geoscientists in the energy industry (visit to BP Exploration)

They encourage science supervisors and principals to nominate teachers for the training by May 15, 2009. They are looking for teachers who have the potential to become professional development leaders for Earth science in their home school districts. Please send names and contact information for nominees to Dr. Ann Benbow, Director of Education and Outreach, American Geological Institute, at [aeb@agiweb.org](mailto:aeb@agiweb.org). They will be asking the nominees to send them a CV or resume.

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## **Elementary and Middle School Science**

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### **Earth Day Photo Contest**

During the week of Earth Day (April 22), be part of a unique national effort to capture our changing world for students in grades 5-8. Anytime from Wednesday April 22 through Wednesday April 29, students can take a photograph of something that is changing in their local environment. It could be a change occurring in their backyard, outside their school, in a local park, or off in the distance toward the horizon. Then, research and write a scientific explanation (400 words or less) that answers the following questions:  
What is the change, taking place in your photograph?  
What part or parts of the Earth system may be causing the change?  
Was the change expected?  
How might the change impact surrounding areas, including people?  
How might this picture look different in the future?

Prizes include a digital camera and other digital items. Photographs will appear on the Institute for Global Environmental Strategies

website. To enter, please visit:

<http://www.strategies.org/education/index.aspx?sub=education&sub2=earthday&sub3=contest2009>

The deadline is May 9.

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## **Elementary School Science**

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### **K-5 Earth Science Teacher Leadership Academy**

ExxonMobil and the American Geological Institute are pleased to announce that they will be holding the second annual Leadership Academy in Earth science for elementary school teachers in Houston, Texas, June 21-26, 2009. The Academy will provide teachers with Earth science content, hands-on activities, resources and field experiences that they can use with their students in the classroom and with their colleagues in professional development settings. The program will be residential in Houston, and all travel, lodging and subsistence costs will be covered by a grant from ExxonMobil. They have space for 28 participants, and encourage teams of four to attend from each state or school district.

Topics covered during the workshop will include:

Introducing Earth system science to students

Teaching Earth science as inquiry

Using Earth science as a context to teach reading and mathematics

Using learning centers in workshop settings

Planning, conducting and evaluating successful Earth science workshops

Hot topics in Earth science

Resources for learning and teaching Earth science (K-5 GeoSource website and many others)

The work of geoscientists in the energy industry

They encourage science supervisors and principals to nominate teachers for the training by May 15, 2009. They are looking for teachers who have the potential to become science professional development leaders in their home school districts. Please send names and contact information for nominees to Dr. Ann Benbow, Director of Education and Outreach, American Geological Institute, at [aeb@agiweb.org](mailto:aeb@agiweb.org). They will be asking the nominees to send us a CV or resume.

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## **Upcoming Events, Opportunities, and Deadlines**

January 1 – December 31, 2009: The Year of Science. For more information, please visit:

<http://www.yearofscience2009.org>

March 13, 2009: Deadline to apply for the Research Experiences for K-12 Teachers (RET). For more information, please visit:

<http://www.magnet.fsu.edu/education/ret/>

March 13, 2009: Deadline for students to enter the Igniting Creative Energy Competition. For more information, please visit:

<http://www.ignitingcreativeenergy.org>

March 13, 2009: Deadline for students to enter the Earth Day T-Shirt Contest. For more information, please visit:

<http://nesecenter.com>

March 13, 2009: Deadline for 5th – 12th grade teachers to apply to participate in the Student Polar Research with IPY National Teacher Training. For more information, please visit:

<http://www.us-satellite.net/sprintt>

March 15, 2009: Deadline for middle school students to apply for the Siemens We Can Change the World Challenge. For more information, please visit:

<http://wecanchange.com>

March 16, 2009: Deadline for K-12 Teachers to apply for the U.S. Department of Education Teaching Ambassador Fellowship. For more information, please visit:

<http://www.ed.gov/programs/teacherfellowship/index.html>

March 16, 2009: Deadline for students to enter the 4th Annual DNA Day Essay Contest. For more information, please visit:

<http://www.ashg.org/education/dnaday2009.shtml>

March 19-22, 2009: National Science Teachers Association Annual Conference in New Orleans. For more information please visit:

<http://www.nsta.org/conferences/2009new/>

March 20, 2009: First day of Spring!

March 20, 2009: Last day to choose a name for the next space station

module. For more information, please visit:  
<http://www.nasa.gov/namenode3>

March 20, 2009: Deadline to apply for the 2009 High School InvenTeam Competition. For more information, please visit:  
<http://web.mit.edu/inventeams/apply.html>

March 22, 2009: World Water Day. More information will follow.

March 24, 2009: Picture Perfect: Persuasion, Politics, and Prejudice Surrounding the Scientific Image, 1800-2009 by Professor Eric J. Heller of Harvard University, free lecture at the Lear Auditorium on the campus of Lawrence Technological University.

April 2-5, 2009: 100 Hours of Astronomy. For more information, please visit:  
<http://www.100hoursofastronomy.org/>

April 6, 2009: Deadline to apply for the 2009 Thacher Scholars Awards for students in grades 9-12. For more information, please visit:  
<http://www.strategies.org/ThacherScholars>

April 12-18, 2009: National Environmental Education Week 2009: Be Water Wise! For more information, please visit:  
<http://www.eeweek.org>

April 22, 2009: Earth Day. For resources, please visit:  
<http://www.earthday.net/>

April 22, 2009: Deadline for High School Students to enter the Air and Waste Management Association's Essay Contest on Driving Environmental Progress. For more information, please visit:  
<http://www.awma.org/go/essaycontest09>

May 1, 2009: Deadline to apply for the Presidential Award for Excellence in Mathematics and Science Teaching, Grades 7-12. For more information, please visit:  
<http://www.paemst.org/controllers/home.cfc?method=view>

May 9, 2009: Deadline for students in grades 5-8 to enter the Earth Day Photo Contest. For more details, please visit:  
<http://www.strategies.org/education/index.aspx?sub=education&sub2>

[=earthday&sub3=contest2009](#)

May 15, 2009: Deadline for K-5 teachers to be nominated for the 2nd Annual Leadership Academy in Earth Science. Please send names and contact information for nominees to Dr. Ann Benbow, Director of Education and Outreach, American Geological Institute, at [aeb@agiweb.org](mailto:aeb@agiweb.org).

May 15, 2009: Deadline for Middle School Science teachers to be nominated for the 3rd Annual Leadership Academy for Middle School teachers of Earth Science. Please send names and contact information for nominees to Dr. Ann Benbow, Director of Education and Outreach, American Geological Institute, at [aeb@agiweb.org](mailto:aeb@agiweb.org).

May 15, 2009: Deadline for teachers of grades 5-9 to apply to attend the GEMS Space Science Sequence Workshop. For more information, please visit:  
<http://gems.cmich.edu/cohort-application.html>

May 20, 2009: Last day for 5th – 8th grade students to enter the Young Scientist Challenge. For more information, please visit:  
<http://www.youngscientistchallenge.com/>

June 16-17, 2009: Workshop for Middle School Teachers on GEMS Space Science Sequence for Grades 6-8 to be held at Central Michigan University. For more information, please send an email to [gems@cmich.edu](mailto:gems@cmich.edu) or visit:  
<http://gems.cmich.edu>

August 2-6, 2009: ChemEd Conference in Radford, Virginia. For more information, please visit:  
<http://www.radford.edu/chemed2009/>

August 16-22, 2009: World Water Week. For more information, please visit:  
<http://www.worldwaterweek.org/>