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Subject: Links for Feb for HaSTA
Date: February 1, 2009 11:51:54 AM HST
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EarthScience

Historyof Life

<http://www.humboldt.edu/~natmus/lifeThroughTime/Mural.web/MurIndex.htm>

At the Humboldt StateUniversity (California) Natural HistoryMuseum - as you scroll over the mural,there are hotlinks to images and brief descriptions of real fossils. Itmay be a little simplistic for many of you, but you might want to share it withyour elementary colleagues or perhaps it could inspire your students to createa more detailed version.

GeologicalTime Scale Acronym

Here's oneof my favorites, from Wikipedia:

- http://en.wikiquote.org/wiki/List_of_first-letter_mnemonics#Geology

but I've seen it on another website of mnemonics I can'tfind now. I would also include, somehow, the Precambrian Era, includingthe Hadean and Archaen, but that's because I'm more of a planetary scientistthan a solely Earth geologist!

- **Camels Often Sit Down Carefully Perhaps Their Joints Creak Possibly Easing Oils May Prove Positively Helpful.**
- Paleozoic<<http://en.wikiquote.org/w/index.php?title=Paleozoic&action=edit&redlink=1>>
 - **Camels Often Sit Down Carefully Perhaps**

- Cambrian<<http://en.wikiquote.org/w/index.php?title=Cambrian&action=edit&redlink=1>> , Ordovician <<http://en.wikiquote.org/w/index.php?title=Ordovician&action=edit&redlink=1>> , Silurian <<http://en.wikiquote.org/w/index.php?title=Silurian&action=edit&redlink=1>> , Devonian <<http://en.wikiquote.org/w/index.php?title=Devonian&action=edit&redlink=1>> , Carboniferous <<http://en.wikiquote.org/w/index.php?title=Carboniferous&action=edit&redlink=1>> , Permian <<http://en.wikiquote.org/w/index.php?title=Permian&action=edit&redlink=1>> .
- Mesozoic<<http://en.wikiquote.org/w/index.php?title=Mesozoic&action=edit&redlink=1>>
 - **Their Joints Creak**
 - Triassic<<http://en.wikiquote.org/w/index.php?title=Triassic&action=edit&redlink=1>> , Jurassic <<http://en.wikiquote.org/w/index.php?title=Jurassic&action=edit&redlink=1>> , Cretaceous <<http://en.wikiquote.org/w/index.php?title=Cretaceous&action=edit&redlink=1>> .
- Cenozoic<<http://en.wikiquote.org/w/index.php?title=Cenozoic&action=edit&redlink=1>>
 - **Possibly Easing Oil May Prove Positively Helpful.**
 - Paleocene<<http://en.wikiquote.org/w/index.php?title=Paleocene&action=edit&redlink=1>> , Eocene <<http://en.wikiquote.org/w/index.php?title=Eocene&action=edit&redlink=1>> , Oligocene <<http://en.wikiquote.org/w/index.php?title=Oligocene&action=edit&redlink=1>> , Miocene <<http://en.wikiquote.org/w/index.php?title=Miocene&action=edit&redlink=1>> , Pliocene <<http://en.wikiquote.org/w/index.php?title=Pliocene&action=edit&redlink=1>> .

[title=Pliocene&action=edit&redlink=1](http://en.wikiquote.org/w/index.php?title=Pliocene&action=edit&redlink=1) > , Pleistocene
<<http://en.wikiquote.org/w/index.php?title=Pleistocene&action=edit&redlink=1>> Holocene
<<http://en.wikiquote.org/w/index.php?title=Holocene&action=edit&redlink=1>> .

. Here's a good website for them all:

. <http://www.ucmp.berkeley.edu/help/timeform.html>

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Try Dr. Bob's Geological Time Page (scroll down for an assortment of acronyms) <http://www.ux1.eiu.edu/~rbjorstad/geoltime.html>

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To see the latest Geological Time Chart (American Geological Institute), go to <http://www.earthscienceworld.org/timescale/timescale.html?Time=> (the equals sign is part of the address).
or <http://www.earthscienceworld.org/timescale/>

And to see the superduper detailed info that underlies and supports the time chart, go here:

<http://www.stratigraphy.org/>. Click on the links in the chart to see detailed maps and geologic sections that serve as reference points for the geologic time chart, around the world.

And if you want an interactive time chart quiz, see this one on my page <http://facstaff.gpc.edu/~pgore/geology/geo102/updated2003javatimechart.php>

The javascript program behind this interactive quiz was written by one of my students back in 1998.

Correct answers are here:

<http://facstaff.gpc.edu/~pgore/geology/geo102/javacorrecttimechart.php>

Fossils

see fossil id cards at this site. Powerpoint by Allman and Ross or PRI

http://fli.hws.edu/myplace/lessons_HS.html

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The New York State Museum has a number of educational leaflets that contain wonderful pen-and-ink drawings of fossils that you could use.

Try this site:

<http://www.nysm.nysed.gov/pubsforsale/index.cfm?typeID=54>

Try Leaflets 19, 19r, 28 and 35.

NASA Earth and Science Newsletter---sign up to receive your own

NASA Earth and Space Science Education E-News

February 2009

<http://science.hq.nasa.gov/education/edreports/index.html>

<<http://science.hq.nasa.gov/education/edreports/index.html>>

This monthly broadcast includes upcoming educational programs, events, opportunities and the latest resources from NASA's Science Mission Directorate.

To SUBSCRIBE –e-mail ese_ed_newslist-subscribe@lists.hq.nasa.gov with 'Subscribe' as the subject.

To UNSUBSCRIBE –e-mail ese_ed_newslist-unsubscribe@lists.hq.nasa.gov with 'Unsubscribe' in the subject.

Manage your settings at:

https://lists.hq.nasa.gov/mailman/listinfo/ese_ed_newslist<file://localhost/mailman/listinfo/ese_ed_newslist>

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Questions or comments? Email them to esenewsletter@strategies.org.

GoogleEarth resources

<http://earth.google.com/userguide/v4/>

<http://www.eastchester.k12.ny.us/schools/hs/teachers/fermann/GE.htm> (there is even a link herefor a manual for earth science teachers)

designing and creating earth science lessons with google earth

<http://stevekluge.com/projects/dlesege/dlesegemannual/manual.html>

In the coming weeks we are going to try this one on sea floor spreading

http://www.oceanleadership.org/classroom/seafloor_expedition

Google Lit Trips

<http://www.googlelittrips.org/>

Have you tried SERC? I searched on the home page for google earth plate tectonics and came up with a number of activities. I have not looked at them to know if they meet your criteria.

http://serc.carleton.edu/serc/search.html?search_text=google+earth+plate+tectonics

Aerial views

Check NSTA's CBC Selections (Children's Book Council), specifically Awardees of 2008. See Selector's Choice in Environmental Category- Over the Mountains: An Aerial View of Geology, Michael Collier, 2007.....

<http://www.nsta.org/publications/ostb/ostb2008.aspx>
<<http://www.nsta.org/publications/ostb/ostb2008.aspx>>

Mr. Collier also has a 2008 Over the Rivers: An Aerial View of Geology, 2008

TopoMaps

You can download topo maps as well - look for Maps Locator when you scroll down. It has an interactive map like mapquest where you click on a location (or type in your town name) and the topos for that location pop up - you can download or order hard copy.

http://store.usgs.gov/b2c_usgs/b2c/start.do

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You can order them online from the USGS (and other places too):

<http://topomaps.usgs.gov/>

See the order link on the right. The map locator's kind of cool too.

Biology

CarbonFootprint

I like this one: <http://www.breathingearth.net/> since you can get some global comparisons easily. Scroll down for an ecological footprint calculator.

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This is a nice animated site to keep students engaged. It's probably most appropriate for high school and college level. There are two ways to take

thequiz; 1) general questions, and 2) more detailed questions.

<http://www.earthday.net/footprint/flash.html>

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

This site asks visitors to pledge to reduce their impact on the Earth by reducing their use of plastic bottles. You can pledge to give up a certain amount, and it will tell you how many your community has pledged.

<http://www.bottlebill.org/about/mythfact.htm>

This site has myths and facts about water bottles and different bills presented to Congress.

<http://www.container-recycling.org/?gclid=CLv9jJez5JcCFRIMDQodeEG-Cg>

This site has many resources about recycling and has stats about the recycling rates of the countries.

Polar bears

Along the same lines of the color of ice and snow, did you know that polar bear fur is actually clear and not white?

<http://www.polarbearsinternational.org/bear-facts/polar-bear-fur/> Polar Bears International website

<http://www.loc.gov/rr/scitech/mysteries/polarbear.html>

Chemistry

Excellent Website for things Chemical.

There are a lot of great animations and simulations on this site. It is a subscribe site but you can simply "x" out the overlay and use the material. I suggest you use the A-levels which matches our Regents fairly well.

http://yteach.co.uk/page.php/resources/view_all?id=equation_formule_molar_volume_stoichiometric_substance_reaction&from=search

Physics

Waves

You can get information about waves to link on your web worksheet at the following:

TeacherTube <http://www.teachertube.com/> search specific wave information, as well as, general topic of waves.

<http://www.sciencejoywagon.com/physicszone/09waves/>

<http://www.nationalgeographic.com/xpeditions/lessons/07/g912/wavesproperties.html>

<http://www.glenbrook.k12.il.us/gbssci/Phys/Class/waves/u10l1a.html>

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A potential sequence I could envision would be

- Using the earthquake machine to model EQs as the transfer of potential to kinetic energy

http://www.iris.edu/hq/resource/redefining_an_earthquake_v12

http://www.iris.edu/hq/programs/education_and_outreach/aotm/1

- Using slinkies to show energy transfer and to allow students to measure wave properties (laid out on the floor with some masking tape and meter sticks etc.)

<http://web.ics.purdue.edu/~braile/edumod/slinky/slinky.htm>

- Concepts such as frequency etc could be explored by linking the slinkies to building response.

http://www.iris.edu/hq/resource/boss_lite_building_resonance

http://www.iris.edu/hq/programs/education_and_outreach/aotm/6

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Forces and Diagrams

Another place to look is

<http://www.slideshare.net/>

LOTS of great ppts from everywhere about everything!

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Go to

<http://modeling.asu.edu/R/Research.html>

<<http://modeling.asu.edu/R&E/Research.html>>

You can download what you want and then request the password

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Calendar: Upcoming Events/Opportunities/Deadlines

January 1 – December 31, 2009: The Year of Science.

For more information, please visit:

<http://www.yearofscience2009.org>

K-12: Travel to Costa Rica this summer with the NSTA International Committee

<http://www.holbrooktravel.com/nsta>

The NSTA International Committee has an opportunity for you to join them for an Introduction to Global Inquiry and Investigation: A Costa Rican Field Study, July 19 - 28th, 2009. This 10 day professional development workshop offers NSTA members and others an exceptional opportunity to explore key themes of science, education, government and culture through hands-on practice and experiential design.

Participants will:

- Gain experience in applied field research and observation in the tropics
- Build knowledge through comparative ecosystem analysis
- Analyze educational practices within urban and rural education systems
- Network with individuals and organizations focusing on conservation and sustainable development
- Challenge perspectives through cultural exchange

Working with top officials in education, research and government, participants will meet:

- President Dr. Rodrigo Carazo (Former President)

- Director of the Organization for Tropical Studies (Duke University)
- Dr. Brady Barr (National Geographic –Dangerous Encounters)
- Dr. Sherman Thomas Jackson (Professor and Costa Rican Textbook Author)
- Erick Vargas – Costa Rica National Biodiversity Institute

The National Science Teachers Association affirms the importance of international collaboration and encourages professional development opportunities for science educators to experience local culture first-hand and related sciences found in other parts of the world. Join them to celebrate global literacy in science education!

MEDUC Graduate Credits and National Science Teaching Correlations are available upon request. Grant eligibility may be available for participation.

K-12: Information on grant opportunities

Asbury-Warren Foundation

<http://asburywarren.org/>

This group funds educational projects for public as well as religious schools. Their projects lean toward the Appalachian region of the country.

Arthur Vining Davis Foundations

<http://www.avdf.org/>

These foundations encourage sustained partnerships between the faculties of colleges (e.g. arts and sciences and education) and school districts.

Gannett Foundation

<http://www.gannettfoundation.org/>

The foundation values projects for educational and neighborhood improvement.

Heineman Foundation

http://www.heinemanfoundation.org/application_process

Heineman supports programs that enable youth to think creatively and communicate effectively.

Ewing Marion Kauffman Foundation

<http://www.kauffman.org/>

The Kauffman Foundation promotes positive education and seeks a return on the grant investments they make.

Henry Luce Foundation

<http://www.hluce.org/Home.aspx>

Emphasis is on higher education, but a few grants are made to secondary schools.

Dollar General Foundation

<http://www.dollargeneral.com/Pages/index.aspx>

Dollar General provides grants seeking advancement of literacy and basic education, geared specifically toward teachers' smaller projects!).

K-12: Enter to Win a Wireless Computer Lab from Discovery Education

<http://cdwg.discoveryeducation.com/1208/>

Think about how The 21st Century Classroom - interactive whiteboard, notebook computers, wireless cart, projector, printer and document camera - could extend your teaching power.

Enter once per day for your chance to win one of five Grand Prize packages including a 21st Century Classroom and a \$5000 digital media grant from Discovery Education. In this 7th annual Win a Wireless Lab Sweepstakes you could win one of five grand prize wireless computer labs for your school, including 20 laptop or notebook computers, interactive whiteboard, mobile cart, projector, printer, wireless access points, portable document camera, digital camcorder, and a \$5,000 digital media grant from Discovery Education.

In addition to the five grand prizes, Discovery is giving away 30 additional prizes, including projectors, notebook computers, and digital camcorders!

Enter once per day until May 1, 2009 to improve your chances! Be sure to read the rules, but this could be the perfect ticket for a lucky Ohio teacher - or two!

K-12: Is it cold enough for you? Maybe now is the time to study snowflakes!

<http://www.its.caltech.edu/~atomic/snowcrystals/>

Kenneth G. Libbrecht, of Caltech has posted an enormous collection of snowflake photos (photomicrographs) on his SnowCrystals.com website. He

also has tips for photographing snowflakes and a few activities that would be appropriate for K-12 students. You will be amazed at how many different shapes there are, and how many different ways there are to classify snowflakes.

K-12: More snow and ice from the National Snow and Ice Data Center

http://www.nsidc.org/pubs/education_resources/

and

<http://www.nsidc.org/data/arcss069.html>

The National Snow and Ice Data Center has some cool resources, including lots of current data for teachers and educators. If you want archived data they will send you "Into the Arctic" CD for free that has educational activities and ice core data from Greenland ice sheet prior to 1998).

K-12: New NIH Curriculum with a Focus on Diabetes Available for Free

<http://www3.niddk.nih.gov/fund/other/dets/>

Schools across the country now have free access to an innovative set of teaching tools designed to increase the understanding of science, health and diabetes among American Indian and Alaska Native students from kindergarten through the 12th grade. The comprehensive new curriculum, called "Health is Life in Balance," was launched Nov. 12 at the Smithsonian's National Museum of the American Indian in Washington, D.C.

The curriculum integrates science and Native American traditions to educate students about science, diabetes and its risk factors, and the importance of nutrition and physical activity in maintaining health and balance in life. Applying an inquiry-based approach to learning, the curriculum builds

research skills in observation, measurement, prediction, experimentation, and communication. Furthermore, the curriculum has healthy lifestyle messages and innovative science activities for all students, not just Native Americans.

K-12: Do you teach environmental education? Do you use research?

The Pacific Education Institute is asking for your input on a quick 5-10 minute survey. This survey will gather information about how teachers and administrators use environmental education research to enhance their work in the classroom. We seek input both from environmental education practitioners as well as those who are not involved in environmental education.

The survey can be accessed through the link below.

[http://www.surveymonkey.com/s.aspx?
sm=3ygdSjO7egDjAcsiHgV4eA_3d_3d](http://www.surveymonkey.com/s.aspx?sm=3ygdSjO7egDjAcsiHgV4eA_3d_3d)

Those who complete the survey and provide contact information will receive the Pacific Education Institute's Field Investigation Guide and/or the "Washington Wetlands" Guide.

The survey will be opened until March 1, 2009.

Submitted by Oksana Bartosh, Pacific Education Institute

GrPK-3: Enchanted Learning has multiple resources for science (and more)

<http://www.enchantedlearning.com/Home.html>

EnchantedLearning produces children's educational web sites which are designed to capture the imagination while maximizing creativity, learning, and enjoyment.

The site is easy to navigate, with text and graphics to make finding what you need easier. Their mission is to "produce the best educational material, emphasizing creativity and the pure enjoyment of learning." Check it out and see if you agree that the site has much to offer!

Gr5-12: Nominate an Educator for the Bartlett Environmental Education Award

<http://neefusa.org/bartlettaward.htm>

The Richard C. Bartlett Environmental Education Award is awarded annually by the National Environmental Education Foundation to an outstanding educator who has successfully integrated environmental education into his or her daily education programs. The award is given to a 5th-12th grade educator who can serve as an inspiration and model for others. A \$5,000 cash award is provided for the recipient to continue his or her work in environmental education.

Do you know a teacher who stands out among the rest? If so, please nominate him or her for the 2009 Richard C. Bartlett Award. Nominations are due by February 13, 2009.

Gr9-12: Announcing: the Society for Science & the Public (SSP) Fellow Program

<http://outreach.societyforscience.org/>

Society for Science & the Public (SSP), with generous support from Intel, is pleased to announce the launch of its Fellows Program. The SSP Fellows Program provides funds and training to selected U.S. science and math teachers who serve under-resourced students, to enable interested and motivated students to perform high-quality independent scientific research.

The SSP Fellows Program will attract the most creative and motivated high school science and math teachers in the country. Through a competitive selection process, the Program will provide teachers the financial and training resources necessary to support and inspire the success of their most enthusiastic science students. Fellows may serve for up to four years. The goal is to enable Fellows to guide students to produce project-based research of the highest quality, such as is selected for SSP's premiere science competition, the Intel Science Talent Search.

ELIGIBILITY:

- * Demonstrated interest in research but actual research experience not required.
- * Active engagement in 9-12 grade science or if not actively teaching at this time, must demonstrate access to students to mentor.
- * Teaching credential.
- * Must be from a school that has enrollment that is at least 40% underrepresented minority and/or with at least 30% of students qualified for free or reduced rate lunches.
- * Demonstrated evidence of engagement with students (e.g. participation in field trips, science clubs, science fair, mentorship activities; support of independent research).
- * Excellent written and oral communication skills.
- * Must be able to attend Fellows Institute in Washington DC – July 27 through

July 31,2009.

STIPEND:

Fellows receive a stipend of up to \$8500/year depending on proposed budget, demonstrated need, support of the school and needs of the student population.

Deadline for application to the 2009 Fellows Program will be February 15, 2009 at 5:00pm EST. Successful applicants will be notified on March 5, 2009.

For questions please contact

Jennifer A. Carter, Director of Outreach, Society for Science & the Public

1719 N Street NW, Washington, D.C. 20036-2801

202.872.5140(phone), 202.822.3922 (fax)

jcarter@societyforscience.org

www.societyforscience.org

<http://outreach.societyforscience.org>

Gr9-12: Planet Connect Grant Program

<http://www.planet-connect.org>

Deadline extended to February 1, 2009

Do your students have an innovative solution to protect the environment? Planet Connect can help make it happen! Planet Connect is a new online network for High School students to learn about the environment while exploring green college and career options. We're looking for students'

creative ideas to fix an environmental problem at their school or in their community. Planet Connect is offering grant winners \$1,000 awards to support their ideas and provide them with local environmental internships. Encourage your students to make a difference by applying for a grant today. Visit the web site for a grant application and more information.

This is a program of the National Environmental Education Foundation made possible by The Weather Channel.

Gr9-12: NASA Students is now on Facebook

Search for NASA Students at:

<http://www.nasa.gov>

or visit:

<http://www.facebook.com/home.php?#/group.php?!gid=34760681199>

NASA has a Facebook page designed for students in grades 9-12 and higher education. The page is updated daily, excluding weekends and holidays. It features information for students regarding competitions, feature articles, podcasts, videos and more. Information is also posted to update students on opportunities that have an upcoming deadline, when the space shuttle is preparing for a launch or a landing, and other significant NASA events. Facebook members can join.

Calendar: Upcoming Events/Opportunities/Deadlines

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2009

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2009: The Year of Science

<http://www.yearofscience2009.org>

January 30: Register today for National Environmental Education Week April 12-18, 2009

<http://www.EEWeek.org>

January 31: Deadline for the 2009 Richard C. Bartlett Environmental Education Award

<http://neefusa.org/bartlettaward.htm>

February 1: Deadline for Planet Connect Grant Program

<http://www.planet-connect.org>

February 9: Deadline for entries in the Christopher Columbus Awards for Middle School Science

<http://www.christophercolumbusawards.com>

February 9: Deadline to apply for the ARMADA Project

<http://www.armadaproject.org>

February 11: ORC's SIS: science webcast on real-world connections

<http://www.ohiorc.org/for/science/ogt/default.aspx>

February 12: Charles Darwin Bicentennial Day. For more information, please visit:

<http://darwinday.org/englishL/assistevent/index.html>

February 15: Application deadline for the Society for Science & the Public (SSP) Fellowship

<http://outreach.societyforscience.org/>

February 15-21: National Engineers Week

<http://www.eweek.org/Home.aspx>

March 1: Write On! Wetlands Challenge

http://www.wetland.org/education_writeon.htm

March 13: Deadline for the Igniting Creative Energy competition

<http://www.ignitingcreativeenergy.org>

March 13: Deadline for the Earth Day T-shirt Contest

<http://www.nesecenter.com>

March 15: Deadline to submit "Green Solutions" in Siemens Sustainability Challenge (gr 6-8) <http://www.wecanchange.com>

March 20: Deadline for High School Invent Teams

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

March 20: Deadline to apply for ODE's "goglobal"

<http://www.ode.state.oh.us/GD/DocumentManagement/DocumentDownload.a>

[spx?DocumentID=62077](#)

April 6: Deadline to submit student entries for the 2009 Thacher Scholar Awards

<http://www.strategies.org/ThacherScholars>

April 30 – May 3: 2009 EECO Annual Conference, Deer Creek State Park

<http://www.eeco-online.org/>

May 15: Deadline to apply for the HS Nanotechnology workshop

http://www.nsec.ohio-state.edu/2009_teacher_workshop_application.html

June 15-19: Math Machines workshop for high school teachers in Gahanna

<http://www.mathmachines.net>