JAN EBLAST 2007

Hi Everyone: ?Welcome to our Jan. BaP! We appreciate that you are sharing this information with other teachers of science and math in your building. A special thanks to Alyson Mike (MT) and Sharla Dowding (WY) for contributing many events and activities to our BaP eblast.

??Upcoming events in Montana Math and Science include:??
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Jan 12 – 13 – 2007 Leadership Conference – Bozeman
Feb. 2 – Paper Car Race - Bozeman
Feb 28 & March 6 – Montana Tech Science Fair – Butte
March 6 – Hi-Line Fair- Havre
March 14 – Great Falls Fair – Great Falls
March 18 – 20 – Montana Science Fair - Missoula
March 23 – 24 – Science Bowl and Research Expo - Billings
March 21 – 24 – NCTM National Conference – Atlanta, GE
March 29 – 31 – NSTA National Conference – St. Louis?

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1. Paper Car Challenge

If you and your students haven't tried this event, you should. Open to students from grades 4 – 12 it basically has students building a paper car from 3 sheets of typing paper, glue and metal axles. Even if your curriculum doesn't have time to fit this in, you might copy the rules and pass them out to any interested students. You would then have a school race off and send the cars to Monforton School. The deadline is Jan 31 and you can find a copy of the rules on the Montana message board at http://ecommerce.nsta.org/bap/.

2. Science Bowl and Research Center Expo

The National Middle School Science Bowl is a tournament-style academic competition which also combines a hydrogen fuel cell car race. There is a limit of 10 teams so go to www.scied.science.doe.gov/nmsb/ to register. Each of the teams will receive a free hydrogen fuel cell car kit prior to the competition. There is a general information workshop on Sat. Jan 27 from 9 – noon and more info can be obtained by contacting Rich Jones at (406) 690-3927. Your students can also participate in the Science Expo by entering a science fair project. Find out information at www.billingsclinic.com/research/scienceexpo

3. Montana Science Fair

The state science fair will be held in Missoula, MT on March 18th-20th. This event is for students grades 5 – 12, and information can be found at http://www.mtsciencefair.org. In addition to the state event there are also a number of regional fairs. The Montana Tech Fair is Feb 28 for grades 9 – 12 and March 6 for grades 5 – 8. Information on this

fair can be found at http://www.mtech.edu/technical_outreach/public_service/service/science_fair/science_fair.html.
The Great Falls science fair is held March 14th at the college of technology and information can be obtained from Kathy Rankin (krankin@northerntel.net.)
The Hi-Line fair is held in Havre on March 6 at the MSU Northern Gym and information can be obtained from Melanie Schwarzbach at melanieschwarzbach@hotmail.com.
You might take a local rules sheet from your area science fair and make it available to students in your school who may wish to try this out.

4. Nominate Your Colleague for a Presidential Award.
As a Point of Contact in your school, what a wonderful tribute you can make by nominating one of your colleagues for this $10,000 award. The fact that you thought enough of them to make the nomination speaks volumes. Go to http://www.paemst.org and check out this information, and make a nomination today.

5. Pass and Go Activity
Those science conferences do pay us benefits in terms of ideas (hint: don't forget NSTA in St. Louis), and one idea is a Pass and Go. The idea is that we often do formative assessments where we might have students write on a piece of paper the answers to some of our questions. For example, we might have just taught a lesson on lunar phases so the next day as a formative assessment we ask students to explain in one sentence what causes the lunar phases. Since often we want formative assessments to be anonymous, we don't have students put their names on the paper but rather they fold the paper in half and pass it to a different student who in turns keeps passing it to another student until we say 'stop.' In this fashion the papers get mixed up in the room and it becomes a fun motivational activity. As a teacher, we ask the students to read their new paper and see if the answer agrees with what their answer was. This high level thinking order skill of evaluation is also a strong formative learning technique. As the teacher, we follow up by going over the right answer. Hopefully you'll find a use for 'pass and go' in your tool kit of teaching techniques.

6. K-12: Space Day!
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.
In honor of President George W. Bush's commitment to human exploration of the moon, this year's theme is: "Space Day 2007 50 Years In Space
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.

7. Gr 4-8: The 2007 Design Challenges
These offer real opportunities for your students to be involved and engaged. Organize your students into teams and have them enter the appropriate grade level challenge to win recognition as "Stellar" Design Challenge Teams in Washington, D.C. on Space Day. Submit your students' Design Challenges by February 1, 2007. Check out the website http://www.spaceday.com

8. BioGENEius Challenge.
This is an exciting opportunity for HS students who are working on projects
in Biotechnology.
The application deadline is January 31st, 2007
There is recognition for the student at every level (good for college
applications!) and it's a great opportunity to meet students from other
States.
If you have any questions please make contact at wignallj@earthlink.net or call

(206) 297-3141

9. Earth Expeditions Global Conservation Program
Approximately 120 educators will be selected to participate in summer research and conservation experiences in Africa, Asia, and the Americas. Successful candidates also earn seven hours of graduate credit from Miami University. The deadline for applications is February 1. For more information visit www.EarthExpeditions.org.

10. Touch the Past: Archaeology of the Upper Mississippi River Valley
Walking through a thousand-year old stockaded village, visiting on-going archaeological excavations, making stone tools, learning how people have lived for the past 12,000 years, and creating ways to bring this back to your classroom - all of these are part of our summer institute on the archaeology of the Upper Mississippi River Valley. This summer the Mississippi Valley Archaeology Center at the University of Wisconsin - La Crosse will be offering a National Endowment for the Humanities Summer Institute for School Teachers. The Institute will run from July 9 through 27, 2007 and will be held on the University of Wisconsin - La Crosse campus, with field trips scheduled to archaeological sites across the state. The Institute will provide twenty-five K-12 teachers with three weeks of study of the process of archaeology and the major cultures of the Upper Mississippi Valley, including how these societies adapted and evolved over the past 12,000 years.
Although the institute will be based in Wisconsin, teachers around the United States would greatly benefit from this opportunity. Participants will explore the rich archaeological record of the Upper Mississippi Valley and the indigenous cultures as well as the process of archaeological discovery and interpretation. Besides being a fascinating story, the archaeological record of the Upper Mississippi Valley provides a laboratory within which to examine how we have come to know what we do about the past, and how archaeologists move from potsherds and projectile points to insights into how people lived, adapted to their surroundings, and changed through time. Participants will learn about the nature of the archaeological record, including its strengths and limitations, through exposure to actual archaeological excavations and laboratory work, and discussion of how we can infer information from cultural remains. Through authentic research experiences and inquiry-based projects, teachers will learn to make relevant connections between in-depth archaeological, anthropological, historical, literary, and cultural content and their classroom teaching.
More information about the Institute and registration can be found on-line at: http://www.uwlax.edu/mvac/neh.htm. The deadline for applications is March 1, 2007. For additional information please contact Bonnie Jancik at janck.bonn@uwlax.edu.

11. Journey North Online Seasonal Curricula
Journey North is a free, Internet-based program that explores the interrelated aspects of seasonal change with online programs about the natural world. "Gray Whales," "Bald Eagles," and "Hummingbirds" begin in February. For more information visit www.learner.org/jnorth/orientation/Overview.html.

12. Amgen Award for Science Teaching Excellence
Thirty science teachers (including six from California) will receive a $5,000 cash grant, while their schools receive $5,000 to be used to enhance the school's science program; the deadline for nominations is January 31. For more information visit www.amgen.com/citizenship/aaste.html.

13. Summer Institute in Physics and Physical Science for Teachers
June 25-August 2, 2007 (dates tentative)
Department of Physics, University of Washington, Seattle
The Center for Physics Education in the University of Washington Physics Department offers a six-week, 10-credit summer institute in physics and physical science for full-time inservice teachers.? The 2007 institute is tentatively scheduled for June 25-August 2 at the UW in Seattle.? Classes meet from 9 a.m. to 3:30 p.m. Monday-Thursday (with 2 Friday classes to make up for the 4th and 5th of July holidays). Directed by Professor Lillian C. McDermott and supported by the National Science Foundation, the institute is tuition-free and a $1200 stipend is offered on successful completion of the course work.? Additional money is available if needed to help defray the cost of lodging for persons from outside the Seattle area.
The Physics by Inquiry curriculum used in the course has been especially designed to strengthen the subject matter background of teachers in topics typically covered in precollege physics and physical science using a hands-on,

inquiry-oriented method of instruction. The materials emphasize the development of fundamental concepts and reasoning skills through laboratory experience. The class is divided into two sections: one for elementary-middle school teachers with little or no background in physics; the other for high school teachers of physics, physical science, and mathematics.
The application deadline is February 28, 2007.
Additional information is available on our website http://www.phys.washington.edu/groups/peg.