

Upcoming events in Montana Math and Science include:
Oct. 16 – 17 – MEA-MFT Professional Conference – Missoula, MT
Nov. 6 – 7 – MCTM Regional Conference – Reno, NV
Nov. 20-22 – NSTA Regional Conference – Portland, OR
Nov. 25 – Science Olympiad – MSU, Bozeman
Jan 30 – 31 – Math Science Leadership Conference – Boz.
March 19-22 – NSTA National Conference – New Orleans, LA
April 22-25 – MCTM National Conference – Washington DC

In this Eblast, please find:

Eblast Announcement – eMSS still accepting mentees

1. Plan to Attend the MEA-MFT Educators Conference
2. Montana Science Olympiad
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Eblast Announcement – We find out that there are some additional spots for new mentees to join the e-mentoring program for math and science. Do you have any new math or science teachers in your building (anyone from 1st to 3rd year qualify). Please have them, or better yet help them apply for this e-mentoring program. Information can be found at: <http://emss.nsta.org/Content/Applications/NewTeachers.aspx>. If you have questions, please contact:

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1. Plan to Attend the MEA-MFT Educators Conference

This should be a wonderful conference with many math and science curriculum ideas. This year, it will be held in Missoula on Oct. 16-17, and you can register on line at www.mea-mft.org. The Montana Educators Conference compares to a regional conference held by MCTM and NSTA and can save you a thousand dollars. Make plans now to attend.

2. Montana Science Olympiad

If you haven't done this activity, you'll want to get your school involved (there is a special fee structure for schools who haven't attended). Hundreds of students descend upon MSU on Nov. 25 for a day of science activities. Some of the best reasons for planning to attend might be the preparation in the weeks prior to the Olympiad. You can engage your students in doing some high level inquiry-based science that is full of activity. Then your top students in each event can go on to the state competition at MSU.

Go to <http://www.montana.edu/wwwmtso/> to find out information, get an application form, etc. This will be a fun event for your students.

3. Partners in Science Program

This is a great program which many times doesn't have enough applicants to fill the spots. This might be a wonderful goal for you this year to apply so be sure to check out the information.

Montana State University has received information regarding a generous grant program from the M. J. Murdock Charitable Trust called "Partners in Science." The grant provides \$15,000 of funds for high school science teachers to do research for two summers under the guidance of a research mentor. It is open to various science fields such as biology, chemistry, physics, environmental science, etc.

If you are a natural sciences teacher who would be interested in learning more about this program or are seeking a research mentor, please contact Audrey Thurlow, Pre-Award Services, Office of Sponsored Programs, Montana State University, Bozeman, MT, (406) 994-6240, athurlow@montana.edu

The "Partners in Science" web site has application materials at <http://www.murdock-trust.org/> ("How to Apply", then "Formal Program Grants in Science")

Deadline for receipt of applications is December 1, 2008. Submission must be made through an institution.

4. Thacher Scholars Award

The Institute for Global Environmental Strategies (IGES) announces the 2009 Thacher Scholars Award, to be given to secondary school students (grades 9-12) demonstrating the best use of geospatial technologies or data to study Earth.

Three cash awards will be given: 1st place -- \$2,000; 2nd place -- \$1,000; and 3rd place -- \$500. Entries can be submitted by individuals or teams. In the case of team entries, the cash award will be split equally among the winning team members.

In addition to prizes for the winning students, the teachers of the first, second- and third-place students or teams will receive a \$200 amazon.com gift card. If participation is part of an after-school club or other activity independent of school, the student or team must identify an adult "coach" who would be eligible for this award (e.g., a parent, club leader, etc.).

Entries must be postmarked April 6, 2009. IGES plans to announce the winning entries by May 12, 2009. Entries will be judged by IGES staff.

Eligible geospatial tools and data include satellite remote sensing, aerial photography, geographic information systems (GIS), and Global Positioning System (GPS). The main focus of the project must be on the application of the geospatial tool(s) or data to study a problem related to Earth's environment.

Geospatial technologies and data have numerous uses in science research, ranging from climate prediction to archaeology. They can be used to improve our understanding of the Earth system, including interactions among the atmosphere, biosphere, geosphere and hydrosphere. They can also be used to improve the quality of our lives by supporting weather prediction, natural hazards monitoring, agriculture, land-use planning, coastal management, transportation, public health emergency response and other fields.

The Thacher Scholars Award was founded in honor of former IGES board member Peter Thacher, who died in 1999. Peter Thacher was former deputy executive director of the United Nations Environment Program, NASA advisor and, at the time of his death, president of the Earth Council Foundation/U.S. He was a leader in promoting the use of satellite remote sensing.

For more information on the Thacher Scholars Award, please visit <http://www.strategies.org/ThacherScholars>.

5. What do Science Teachers do the First day of school?

The advantage of becoming a part of some of the grants, opportunities, and science organizations that we list in the eblast, are the networking opportunities. Through these experiences we talk with other highly motivated teachers and glean many resources and ideas. Last month we posted for an e-mentoring program (eMSS), and through this marvelous program experienced and inexperienced math and science teachers are brought together in the on line environment. In one Earth Science section, the question was posted, "what is your favorite first day activity to do with your students?" We had quite a list of responses and thanks to facilitator Mez Chafe we have a list of some of these.

*Weather - because it's a great topic for student interest

*Going with a District's curriculum design - several reasons ie: student demographics; school needs

*Scale and Measurement - using "Powers of Ten" concept - for use in ES topic referencing

*General inquiry topics - to encourage student questioning techniques

*Data collection and graphing using drops on a penny

*Nature of Science and what scientists do

*Scientific Method and the importance of sharing information

*Inquiry activity - Outdoor Solar

*'Eating a Candle' demo – for discussing the difference between Observation and Inference.

Sewer Lice!

- *Diffuse stereotyping ?! ? Who is a scientist, what does 'he' look like
- *Inquiry activity – Blow up a balloon in a flask
- *Inquiry activity – floating a paper clip on water
- *Birthday Circle – getting students to know one another
- *Classroom procedures then activity – inference lab – pennies in jars/ mass graphing
- *Observation – UV Beads

6. Exploratorium Website

One of my all time favorite websites is the Exploratorium. They have everything all presented in some very moving ways. For example, “Why are bubbles round?” “Why do people sound better when they sing in the shower?” How can doubling pennies over just 14 days turn into a small fortune?” “Why do you always hear about curved lenses, I have a magnifying glass that is flat. Explain that!” “Why do dogs sniff their owners?” go to <http://www.exploratorium.edu/exploratopia/activities.html> in order to answer these questions and more. The Exploratorium has hundreds of on line museum exhibits that you can share with your students in your classroom. For example if you are talking about physical science and the impacts of what happens when you get off a Merry-Go-Round or if you are talking about human biology and working through items of visual perception, a perfect Exploratorium exhibit might be the depth spinner. You can go out to the website, and project this special spinning disk on your classroom projection screen. Your students can stare at it for 30 seconds then look away. The effects are amazing (try it and see?). Go to http://www.exploratorium.edu/exhibits/depth_spinner/ to see what we mean.