Hi Everyone:
Welcome back to a new school year! We hope you are ready to go, and have all kinds of great plans for this year with your students. For those who are new to Building a Presence in Science (BaP) (Science Matters), our goal in these monthly eblasts is to get information to other teachers of science in your building. So if you would pass the below on to other teachers, that would be wonderful. If you ever have anything to share, please send it, we always send these eblasts out the first of every month.

Upcoming events in Montana Math and Science include:
Oct. 15 – 16 – MEA-MFT Professional Conference – Billings, MT
Oct. 29-31 – Regional NSTA – Minneapolis, MN
Nov. 4 – 6 – NCTM Regional Conference – Minneapolis, MN.
Nov. 23 – Science Olympiad – MSU, Bozeman
Dec. 3 – 5 – Regional NSTA – Phoenix, AZ
March 18-21 – NSTA National Conference – Philadelphia, PA
April 21-24 – NCTM National Conference – San Diego, CA

In this Eblast, please find:

1. Plan to Attend the MEA-MFT Educators Conference

This Conference promises to be a tremendous success with numerous sessions for teachers of math and science. This year, it will be held in Billings on Oct. 15 and 16 and you can register on line at www.mea-mft.org The Montana Educators Conference compares to regional conferences held by MCTM and NSTA and saves you a lot of money. Make plans now to attend.

2. Make it a Goal this Year to Join a Professional Science Organization.

These would include the Montana Science Teacher's Association (MSTA) and/or the National Science Teacher's Association (NSTA). The advantages are numerous. MSTA is an active state group with a web site, an electronic newsletter and many eblasts throughout each month, plus the opportunities to help and network within the state. NSTA has four monthly journals to select from, access to an extensive website with many different resources. MSTA is one of the sponsors of the MEA-MFT conference, and NSTA sponsors three regional conferences, one national conference and a summer congress session. Plus, check out Sharla Dowding's below report for even more advantages to being a member of NSTA. This year's NSTA regional conference is in Phoenix, AZ and the national conference is in Philadelphia, PA. Check out the NSTA website at http://www.nsta.org for more information.

3. Montana Teachers Eligible for free MSU Online Robotics Course

Montana science and technology teachers can apply for "Using Robots to Learn about Unmanned Exploration of the Moon" (Physics 580), a new online course offered by MSU. Tuition is free, covered by a grant to MSU Extended University from the Aerospace Education Foundation and NASA.

--six week online course, Oct. 5-Nov. 13

--earn one MSU graduate credit

--participants are loaned a LEGO Mindstorm robotics kit (refundable deposit required)

--personal interaction with NASA science educator

--opportunity to attend the Montana FIRST Robotics Regional Tournament (MSU, Feb. 2010)

-- two interactive Webcasts with NASA educational specialists, MSU faculty and other course participants

--instructors: Brock LaMeres and Hunter Lloyd at MSU with assistance from Tony Leavitt of the Aerospace Education Foundation

Applications due Sept. 8; available to all Montana teachers who are currently teaching science or technology at the middle or high school level.

The course is offered through Extended University's National Teachers Enhancement Network (NTEN), a program that has offered online resources for K-12 science teachers since 1993.

Visit http://eu.montana.edu/NTEN/robotics/ or contact Lisa Brown at (406) 994-3062 or lisa.brown@montana.edu

4. High School – College/University Research Partnership Opportunity

The M. J. Murdock Charitable Trust is again offering a generous grant program 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

Information is also available via the M.J. Murdock website at http://www.murdock-trust.org under How to Apply; the Formal Program Grants in Science. The application is on the left side of the page under Partners in Science Program, and the guidelines and required attachment list are in the center of the page under Partners in Science Program.

Deadline for receipt of applications is December 1, 2009. Submission must be made through an institution.

Please also share this email with others in your school who might qualify.

5. SpectrUM Discovery Area is Looking for a Certified Science Teacher for it's Traveling Science Program MosSE.

MosSE (Montana spectrUM Science Experience), a mobile science center of the University of Montana is touring Montana and Idaho in October and November. MosSE is touring the popular Motion exhibition, a set of exhibits and activities exploring the physics of motion. We take over school gymnasiums, hosting school groups and a Family Science Night. We're looking for an enthusiastic physics-lover to serve as the primary science educator on tour, and host an hour-long professional development training at each site. Must have prior experience providing teacher professional development courses. We'll be visiting 6-8 sites this fall which span approximately 4-5 weeks, with potential for more opportunities in the future. We traveled Motion to Libby and Ronan last spring and had a blast! This is a contracted position with spectrUM Discovery Area and the University of Montana and pays $600/week. Contact Holly Truitt for more details, (406) 243-4323, holly.truitt@mso.umt.edu

6. Montana Standards-based Education Online Presentation

The Office of Public Instruction invites you to learn more about Montana Standards-Based Education and its importance for Montana schools through an online presentation.

The presentation will be offered September 15, 2009, from 3:30 – 4:30 p.m. by the Curriculum and Instruction Unit to provide an explanation of:

- the Standards-Based Education Framework, and
- the current standards-based projects that serve to guide district's implementation of Montana Content Standards and Performance Descriptors.

To join the presentation:
http://connect.opi.mt.gov/c&i1/

You should have Flash version 8 or higher installed on your computer and a set of speakers connected. If you have never attended a Connect Pro meeting before:

Test your connection:
http://connect.opi.mt.gov/common/help/en/support/meeting_test.htm

Get a quick overview: http://www.adobe.com/go/connectpro_overview

If you have questions regarding this presentation please contact: Katie Burke, Science Curriculum Specialist, at kburke@mt.gov

7. Teachers' Domain website a "one stop place."

If you only wanted to book mark one site, you might make that the Teachers' Domain site, that one site. The site contains lesson plans, professional development strands and a host of other materials. For example, the August, 2009 issue contains over a thousand lesson plans broken out into categories and descriptions in life, earth, physical and chemical science. One lesson in the engineering strand has students designing and constructing a road sign support. This 6-12 grade lesson has students using simple materials to design, build and test a model of a free-standing structure used to support overhead road signs. Check the Teacher Domain site out at:
http://hosted.vresp.com/235290/3f561717aa/551000789/e0b8d11e30/

8. Superintendent Denise Juneau congratulates Montana Finalist in Young Scientist Challenge

Superintendent of Public Instruction Denise Juneau congratulates Marina Dimitrov, Sacajawea Middle School student in Bozeman Montana, on her selection as one of ten finalists in the 11th annual Discovery Education 3M Young Scientist Challenge.
The Discovery Education 3M Young Scientist Challenge targets students in the years when research indicates their interest in science begins to fade and encourages them to explore scientific concepts and creatively communicate their findings. Students nationwide were asked to create a one- to two-minute video about a specific scientific

concept that relates to innovative solutions for everyday life. In Dimitrov's video submission she applied the concepts of heat conduction and convection to design a way to conserve heat from a wood stove. "We are proud to recognize Marina for her ability to apply scientific concepts to design a solution to an everyday problem," said Superintendent Juneau.
Through the Montana content standards for science, educators strive to engage students in inquiry-based learning. "Marina exemplifies those students who connect science to their world and apply the critical thinking and problem solving skills of inquiry-based learning," said Superintendent Juneau.
Each finalist will be awarded an all-expenses paid trip to New York City to compete in the Young Scientist Challenge finals on October 6, 2009. Students will demonstrate their scientific innovation and creativity in a series of individual challenges focused on "The Science of Everyday Life." The winner will receive $50,000 in U.S. Savings Bonds ($25,000 cash value) and the title of "America's Top Young Scientist."
"We are pleased Marina will be representing Montana at this national competition," said Superintendent Juneau.
For more information about the Young Scientist Challenge please visit http://www.youngscientistchallenge.com/

9. Participate in an Artic Research Expedition

PolarTREC (Teachers and Researchers Exploring and Collaborating) is currently accepting applications from teachers for the fourth year of teacher research experiences. Teachers are invited to submit an application to participate in field research learning experiences during the 2010 (Arctic) or 2010-2011 (Antarctic) field seasons. More information and application forms are available at: http://www.polartrec.com
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ABOUT PolarTREC:
PolarTREC - a program of the Arctic Research Consortium of the U.S. (ARCUS) - pairs K-12 teachers with researchers for professional development through authentic polar research experiences. The program integrates research and education to produce a legacy of long-term teacher-researcher collaborations, improved teacher content knowledge, and broad public interest and engagement in polar science.

The program integrates research and education to produce a legacy of long-term teacher-researcher collaborations, improved teacher content knowledge, and broad public interest and engagement in polar science. Through PolarTREC, teachers will spend two to six weeks in the Arctic or Antarctic, working closely with researchers in the field as an integral part of the science team. PolarTREC teachers and researchers will be matched based on similar goals and interests and teachers will be trained to meet the program requirements prior to the field season. While in the field, teachers and researchers will communicate extensively with their colleagues, communities, and students of all

ages across the globe, using a variety of tools including satellite phones, online journals, podcasts, and live events and web-based seminars. Teachers and research projects will be selected and matched to fill the openings available. All major expenses associated with teacher participation in PolarTREC field experiences are covered by the program, including transportation to and from the field site, food, lodging, and substitute teacher costs.

APPLICATION DEADLINE
Teacher Application Deadline: Monday, 5 October 2009

POLARTREC INFORMATIONAL WEBINAR
Interested teachers are encouraged to participate in a PolarTREC informational webinar (web conference), scheduled for Tuesday, 8 September 2009 at 2:30 p.m. Alaska Daylight Time (12:30 p.m. HDT, 3:30 p.m. PDT; 4:30 p.m. MDT; 5:30 p.m. CDT; 6:30 p.m. EDT).

An online webinar registration form is available at:
http://www.polartrec.com/join/informational-webinar/form

Instructions will be sent to all registered participants. Participation in the webinar is free, optional, and is not a prerequisite for applying to the PolarTREC program.

10. NASA Science Experience for your Students

This INSPIRE program is focused on encouraging the future generation of explorers, from the 9th through 12th grades, to pursue an education and careers in the sciences, technology, engineering, and mathematics (STEM) fields. The program consists of two parts, an Online Learning Community, and a summer experience; both which students must apply for. The Online Learning Community is the first step, this offers students unique opportunities throughout the year to learn about NASA funded projects as well as compete in science projects with other Online Learning Community members. The Summer Experience gives 9th grade students an opportunity to visit a NASA facility, 10th graders an opportunity to spend 2 weeks participating in STEM activities at a University, and 11th & 12th grade students an opportunity for a paid internship at the NASA facility, within the students Service Area, for an 8 week time period.

Students must be accepted into the INSPIRE Online Learning Community before they can be considered for any of the summer experiences. To apply for the Online Learning Community students should visit: https://inspire.okstate.edu. NASA is hoping that you will pass this information onto any high school students in your school who are interested in STEM careers. The INSPIRE Program is lacking participation from high school students MT, and thus we have opened up the Online Learning Community to additional applications for two weeks beginning on Thursday August 27, 2009. The last day for applications to be submitted for the 2009-2010 school year is Thursday September 10,

2009 at midnight Central Standard Time.

11. Announcing: 2009 Polyed Award for Excellence in Polymer Education for Middle Level and High School Teachers.

We are now accepting applications for the 2009 Excellence in Polymer Education Award. This national award recognizes innovative and successful contributions to the integration of polymer chemistry into pre-college curricula. The winner must be currently teaching high school (grades 10-12) or middle school (grades 5-9) in a public or private school in the United States. POLYED is sponsored jointly by the Polymer Chemistry, and the Polymeric Materials: Science & Engineering Divisions of the American Chemical Society.

The national awardee receives a plaque, and a $1000 honorarium. The award will be presented by an ACS member at the winner's school in the spring of 2010. The awardee also receives an expense paid trip to the Spring NSTA National Conference and will be paired with a Polymer Ambassador during the days in attendance.

The application form may be downloaded from the POLYED web site: www.polyed.org
The deadline for applications is December 15, 2009.

A special thanks to our NSTA Region XV representative Sharla Dowding for sending the below to us!

12. Think of Applying for an Award Now!

Go to www.nsta.org/awards and check some of them out. Some include: "The VSP Vision of Science Award." This $3000 dollar award is for a creative, innovative science lesson that focuses (pardon the pun) on eye health care. For new teachers (1 – 3 years of teaching) this is the $1000 Maitland Simmons Award. If you are a new teacher who would like money to attend the Philadelphia NSTA conference next year, check this award out. If you have a new teacher in your building, why not go that extra step and nominate them. Think of what that would mean to your fellow colleague! And the Shell Science Teaching Award, $10,000…plus a trip to the National Convention in Philly!
13. Grants you can apply for this Year!

NSTA Partners with the Conrad Foundation to Promote and Support Annual Education Competition
NSTA and the Conrad Foundation today announced an agreement to collaborate on the Foundation's Pete Conrad Spirit of Innovation Awards, a program focused on combining science and technology education with innovation and entrepreneurship to solve modern-day problems in four categories: space, oceans, energy, and the environment. Through this partnership, NSTA will serve as the official education advisor to the annual competition, providing guidance on the development of educational resources, long-term goals, and vision for the program.

The Pete Conrad Spirit of Innovation Awards challenges teams of high school students to create innovative products for use in various fields of science and technology, including lunar exploration, personal spaceflight, and renewable energy. Teams vie for more than $100,000 in cash prizes and the opportunity to commercialize their products for general market use. For more information about the program, please visit www.conradawards.org.

Toyota TAPESTRY Grants for Science Teachers

Toyota Motor Sales, U.S.A., Inc., and NSTA are pleased to announce the 19th annual Toyota TAPESTRY Grants for Science Teachers program. This year Toyota will award $550,000 in grants to K-12 teachers of science. A total of 50 large grants of up to $10,000 each, along with 20-30 mini-grants of up to $2,500 each, will be awarded. Categories include environmental science, integrating literacy and science, and physical science. Toyota has awarded 986 grants totaling over $8 million in this premiere nationwide grant program. For further information and to begin the application process online, please visit the Toyota TAPESTRY website. The online applications are now available! Remember that all 50 large grant winners receive an all-expenses paid trip to the NSTA National Conference on Science Education in Philly! The deadline for submission of online entries is Jan. 18, 2010. http://www.nsta.org/pd/tapestry/

14. Free For All from NSTA

NSTA offers many resources and services at no charge—some are available only to NSTA members, but many are available to all. See what NSTA has to offer:

Science Teachers' Grab Bag

Need a classroom resource—at little or no cost? The online NSTA Science Teachers' Grab Bag lists free or inexpensive ones for teachers. From lesson plans to online activities to videos, teachers can find an array of resources for their classrooms. These resources can be searched by keyword, cost, or type, and are listed in the order they are posted. Short descriptions and website links accompany each listing.

NSTA Calendar

If you're looking for science education events or programs, visit the online NSTA Events Calendar. Opportunities can be searched for by date range, ongoing events, location, category, or grade level. Short descriptions accompany each opportunity, with links to the event or program website.

Blick on Flicks

We all love watching movies. But we also love science. And sometimes the two do not mix! To help us sort the good science from the bad in movies and other visual media, Jacob Clark Blickenstaff provides expert commentary, pointing out where the physics is twisted, the chemistry fudged, or the biology stretched on behalf of the story—without losing sight of the fact that movies are meant to entertain. Blickenstaff helps turn "bad science" into teachable science for middle level and high school students.

NSTA Recommends

Read reviews of the latest science-teaching materials, and take the guesswork out of purchasing. NSTA's online review service, NSTA Recommends, helps you find the best supplemental books, videos, DVDs, and computer software on the market. Our reviewers evaluate each product on the basis of classroom applicability, standards connections, and

overall value. Search more than 3,000 reviews by grade level, subject, or keywords.

Evolution Resources

Looking for books and articles on evolution? NSTA has compiled a wealth of print and online resources on this very subject. There is even a Q&A section on teaching evolution in the classroom!

Science Objects

You are teaching a subject for the first time, or for the first time in a long time. You need a content refresher now. Where can you find help that is engaging, high-quality, easy to access—and affordable, too? From NSTA's latest ready resource: Science Objects! Science Objects provide all teachers of science open access to these valuable new resources—at no cost. The resources can be filtered by subject and grade level.

NSTA Press Books

Did you know that you can access a chapter of many new NSTA Press books online for free? Simply click on the book of your choice, and scroll down to the "Read a sample chapter" link.

NSTA Reports

NSTA Reports, NSTA's newspaper published nine times a year as a free member service, is the Association's timely source of news and information for and about science educators of all levels. It includes national news on science education and education in general; information on teaching materials; announcements of programs for teachers; and advance notice about all NSTA programs, conferences, and publications.

Lab Out Loud

In this biweekly podcast, hosts and science teachers Brian Bartel and Dale Basler, discuss science news and science education with leading scientists, researchers, science writers, and other important figures in the field. A selection of links and notes accompanies each episode, enabling the listener to dig deeper into the topics discussed.

SciPacks

SciPacks are 10-hour, online learning experiences that you can use to help you better understand the content you teach. SciPacks are aligned with the National Science Education Standards. Each SciPack contains:

- Up to five self-paced interactive online learning experiences called "Science Objects" that use an inquiry-based approach with engaging simulations and embedded questions.
- An e-mail content Wizard to address your individual questions; these knowledgeable content experts respond via e-mail within 48 hours.
- A pedagogical component to assist you in translating the content for your classroom.
- The opportunity to pass a final assessment and print a certificate from NSTA demonstrating your understanding of the content addressed within the SciPack.

Teachers are encouraged to seek approval in advance from their district for continuing education credits that may be ascribed for passing the final assessment. NSTA is establishing relationships with the department of education in states across the United States to formalize the recertification value for completing a SciPack, or series of SciPacks—and select SciPacks are available for free!

NSTA List Server

We want to help you keep in touch with your colleagues. NSTA's lists are group e-mail discussions that allow members to exchange information in a peer-to-peer forum. NSTA members who subscribe (at no extra cost) can now select from 12 topic areas: biology,

chemistry, computer science, Earth science, elementary, environmental science, general science, physical science, physics, technology education, new teacher, and retired teacher. The lists remove geographical boundaries from member communication and are available to NSTA members—right now.

Colleagues on the list server can share ideas, get information, and ask questions on important issues. The list server is quick and simple to use, so you can easily stay current on trends in science education. The lists are available 24 hours a day, 7 days a week, so information from your peers is available when you need it.

Ms. Mentor

Do you have a question you would like to ask a veteran science teacher? Try our newest blogger, Ms. Mentor! Ms. Mentor was a middle school life and physical science teacher for 16 years and a high school computer science teacher for 11. She had a brief stint in higher education and recently retired as a regional administrator. "Retired" is a misnomer, however—Ms. Mentor continues blogging, reviewing technology, and birding wherever and whenever her fancy takes flight. Blog topics have included science kits, writing in science classes, and formative assessments.

SciGuides

NSTA's online resource, SciGuides, will transform the way you use the internet to plan and provide science instruction to your K–12 students. SciGuides enable you to quickly and easily locate targeted science content information and teaching resources from NSTA-approved websites and provide instructional tools and strategies to put them into practice.

NSTA News Digest

Looking for the top stories in science and education? NSTA News Digest has the day's leading news at the click of your mouse! Search by News Categories (i.e., Top Stories, Science, Education, or Legislative News) or Science and Education Topics. Click on a story's link, and it will take you straight to the source for easy printing and class distribution.

SciLinks

SciLinks is an exciting partnership between progressive U.S. textbook publishers and NSTA. If your textbook has SciLinks, you and your students will have the best internet science sources at your fingertips, including

- websites to extend and expand students' understanding;
- science news to add context to classroom learning;
- activities to bring science alive; and
- experts to answer questions and satisfy curiosity.

SciLinks is a free service to those with SciLinks-enabled textbooks and to NSTA members. And SciLinks is easy to use—just log on to the SciLinks site and enter a SciLinks number from the margin of your textbook. You will be offered a smorgasbord of teacher-approved internet resources tied to that specific point in your book.

15. The Teaching Excellence and Achievement Program

The Teaching Excellence and Achievement Program (TEA) reciprocal US teacher exchange, which this year is being expanded to include math and science teachers.

The grant is provided by the Bureau of Educational and Cultural Affairs (ECA), US

Department of State and implemented by IREX. It provides for visa support, round-trip domestic airfare, lodging and meals to attend the TEA U.S. Conference, round-trip airfare from the U.S. to the assigned country, emergency medical evacuation plan, and lodging and a daily stipend in host country for a two week exchange to one of 27 countries. 80 awards will be made.

During the exchange, US teachers will work with their international hosts to conduct professional development workshops for the educational community and co-teach in their area of expertise. It is also a wonderful way to internationalize the US teacher's classroom by creating long-lasting ties to students and teachers on the other side of the globe.

For more information, please see our program flyer at http://eepurl.com/clfC. Applications are available at the TEA website, http://www.irex.org/programs/tea/tea_us.asp.