

In this issue please find:

1. Upcoming Water Education Events
2. Don't forget the Science Fair
3. Take Your Students to the Lewis & Clark Interpretive Center
4. Hot Science
5. SpectrUM
6. DNA Essay Contest:
7. Snow Science Workshop
8. Girls for a Change 2008 Conference
9. Travelers' Checks: Teacher-Tested Travel Grants
10. Science Educators' Latest Opportunities from AAAS and Project 2061
11. Stockholm Junior Water Prize
12. 17th Annual MEEA Conference:
13. Tips to Help your Students with Stronger Writing
14. Present at MEA next year

1. Upcoming Water Education Events

A. Get Your Creative Juices Flowing! - River of Words Watershed Art & Poetry contest entries are due February 15, 2008.

For more information, visit: www.riverofwords.org or contact Kelly Hayden at Montana Watercourse: kelly.hayden@montana.edu ñ 994 ñ 6425

B. Calling for 2008 Water Teacher of the Year Nominations. This award is intended to recognize formal and non-formal educators who help young people learn about and appreciate Montana's water resources. Nominations will be accepted for outstanding educators who foster a sense of wonder about water and its unique qualities, promote awareness of scientific, political, historical or economic watershed issues, educate students on aquatic life, facilitate an understanding of water quality, or help students understand how to prevent water pollution. Award: \$100 to the educator and \$100 to their school or appropriate education program. To nominate an educator, visit www.mtwatercourse.org to download a nomination form. If you have questions, Contact: Kelly Hayden at Montana Watercourse: kelly.hayden@montana.edu or 994-6425. All nominations must be received by February 22, 2008. Awards will be presented at the MEEA conference in Helena on March 13-15th, 2008.

C. SAVE THE DATE - UPPER MARIAS WATERSHED TOUR FOR EDUCATORS - Using local insights of the Marias to connect students and teachers to their watershed. - June 24, 25, 26 ñ 2008. Spend three days exploring the historical, cultural, and scientific aspects of the river and its tributaries by foot, by van and by raft. Based out of the Boone and Crockett Club: the course will begin at the headwaters of the Marias located at the intersection of Cut Bank Creek and Two Medicine River and end at Williamson Park in Shelby. 22 OPI renewal units and 1 graduate credit from MSU-Northern will be offered. Contact Kelly Hayden at Montana Watercourse if you are interested in attending: kelly.hayden@montana.edu or 994-6425

D. Montana Watercourse Presents - The 10th Annual Water Summit for Teachers and Students - May 5th and 6th, 2008 at Lubrecht Experimental Forest in Greenough, Montana (40 minutes southeast of Missoula). Middle School and high school students and teachers are invited to spend two action packed days expanding their water quality monitoring knowledge, and exploring water quality issues that threaten the health of Montana's waters. Don't miss out on this excellent opportunity to turn your water concerns into action! OPI credits are available to participating teachers.

Registration information will be available on-line in early February:

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

Space is limited, so sign-up early!

For more information, please contact:

Kelly Hayden ñ Montana Watercourse

Email: kelly.hayden@montana.edu

Phone: 994-6425

2. Don't forget the Science Fair

If you haven't started already, there is still time to get your students started on the science fair. There are four regional science fairs held throughout Montana plus the main science fair held in Missoula. To get more information on the regional fairs and the state science fair, visit the website: <http://www.mtsciencefair.org/>. We hope you'll utilize science fairs as part of your curriculum this year.

3. Take Your Students to the Lewis & Clark Interpretive Center

A wonderful tour for your students is to take them to the Lewis & Clark Interpretive Center in Great Falls. The center has programs for Primary, Intermediate, Middle School and High School. They have fee provisions if finances are a challenge in your school. An overview of the Center can be found at www.fs.fed.us/r1/lewisclark/lcic. For help in putting together your tour and for financial help, contact Jay Russell at (406) 791-7733.

4. Hot Science

The Thermal Biology (TBI) folks are doing a marvelous job helping the K-16 educator with science resources. They have some excellent lesson plans posted on Earth and Life science topics. These lessons include pdf files of the teacher and student versions of the labs. Have your students get into geyser eruptions, measure very small critters, look at photosynthesis and even combine science and art with a Batking activity. We all study classification, but not through the eyes of very small creatures. There are some wonderful lab activities and please check these out at <http://www.tbi.montana.edu/outreach/hotscience/index.html>. We also thank the TBI folks for the fantastic support, lab activities, field trips and everything else you continue to do for the teachers of science in Montana.

5. SpectrUM

The spectrum Discovery Area is located on the University of Montana campus in Missoula. This area features super-fun, hands-on science activities, exhibits and demonstrations for kids of all ages. They feature permanent exhibits plus traveling exhibits from the Exploratorium (one there currently explores magnetism and electricity). They also have a team of dynamic educators, the Super Science Squad who offers field trips and interactive workshops and demonstrations for your classroom. Check this out at

www.mtnsfepscor.org and to set up a trip or find out more information contact Holly Truitt at (406) 243-4828, Holly.Truitt@umontana.edu

6. DNA Essay Contest:

Get your students involved in the DNA contest. There is \$2000 in equipment for teachers, and cash for student winners! The American Society of Human Genetics Announces the 3rd Annual DNA Day Essay Contest open to Middle and High School Students. Visit http://genednet.org/pages/k12_dnaday08.shtml for complete information. Teachers of first place winners receive \$2,000 to purchase classroom equipment! This year there are separate contests for middle and high school students. The questions are as follows:

MIDDLE SCHOOL (7th & 8th Graders):

A. Why is it important for us to discover the patterns of genotypic and phenotypic similarity and difference in living things and why should we understand the theories that describe the importance of genetic diversity for species and ecosystems?

B. Why is it important for us to learn about our family health history? What can our family health/medical history tell us? What doesn't it tell us?

HIGH SCHOOL (9th through 12th Graders):

C. Discuss the practical implications that genetics research is playing in our lives today. Discuss where it might lead us in the next 10 years.

D. If you could be a human genetics researcher, what would you study and why?

Winning students in both contests receive:

First Place Winners: \$350.00; Second Place Winners: \$250.00; Third Place Winners: \$150.00

Essay submission deadline is March 17, 2008 at 5:00 PM EST.

7. Snow Science Workshop

Workshop Description:

While days may be short and nights long, winter time presents a whole new world to explore and engage students in the study of science. Classroom and field sessions led by high school teacher Aaron Nydam and outdoor instructor Steve Alexander will introduce the foundations of snow science while highlighting the ways in which it can be used to explore and introduce concepts in physics, chemistry, ecology, and earth science. Participants will take part in a variety of hands-on, inquiry-based activities that can be integrated into their curriculum. This workshop is developed by teachers for teachers, administrators, non-traditional educators, and life-long learners. Graduate credits available.

Workshop Objectives

1. To provide participants with a sound understanding of the foundations of snow science
2. To explore the integration of snow science into science curricula including physics, chemistry, ecology and earth science
3. To engage participants in the discussion and practice of field-based inquiry activities
4. To construct a collection of practical tools and resources including units, lessons, or activities that can be implemented into classrooms

To register, please call 307-734-3767 or e-mail Cynthia.Millard@tetonscience.org and remember space is limited!

8. Girls for a Change 2008 Conference

"Picture Your Potential" Conference

March 22, 2008

9:00AM to 4:00PM

Montana State University

Open to girls from grade 8 to grade 12

Girls for a Change Mission

To empower girls to embrace their future - confident about their individuality, supported by friends, parents, and mentors and secure in their ability to lead and achieve success and financial independence.

The Girls for a Change Conference gives participants the opportunity to participate in four of our twenty-three offered workshops and listen to Keynote Speaker, Anne Sherwood, over lunch. Workshops are categorized into four themes: Women in Science, International Awareness, Stress Busters and Art and Movement.

Keynote Speaker Anne Sherwood is a freelance photojournalist based in Bozeman, Montana covering stories that range from the civil war in Liberia to the bison cull in Yellowstone National Park, Sherwood has traveled to all 50 states, and more than 50 countries on six continents. Her work regularly appears in such publications as the New York Times, National Geographic Adventure, and Smithsonian. Sherwood has been awarded a prestigious Pew Fellowship in International Journalism.

Learn more by visiting www.girlsforachangebozeman.org or call Jammie or Vanessa at 406-587-3840

>From NSTA Representative, Sharla Dowding comes some more great information.

9. Travelers' Checks: Teacher-Tested Travel Grants

<http://www.edutopia.org/travel-grants>

Educators enrich their profession with globe-trotting experience -- and get funding to do it.

Teachers who travel bring back to their classrooms all of the experiences they had and passions they felt to inspire students and make global content come alive. By applying for grants, teachers can get these unique globe-trotting learning opportunities partially or fully funded. Edutopia has gathered stories and snapshots from teachers who have received such grants to travel.

http://www.hp.com/hpinfo/grants/us/programs/tech_teaching/

Teaching and Learning Through Technology

The Hewlett Packard (HP) Technology for Teaching Grant Initiative is designed to support the innovative use of mobile technology in K-16 education, and to help identify

K-12 public schools and two- and four-year colleges and universities that HP may support with future grants. Based on the outcomes of the projects funded through this initiative in 2008, HP may offer some grant recipients additional, higher-value grants. In 2008, HP will award nearly \$7 million in cash and equipment to K-12 schools and higher education institutions in the United States and Puerto Rico. The deadline for application is February 14, 2008. The Web site includes proposal details and application procedures.

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

Teachers' Domain is an online library of free multimedia resources as well as professional development courses developed by WGBH - Boston's PBS station - that help teachers enhance their students' learning experiences and advance their own teaching skills using media from NOVA, Frontline, American Experience, and other public broadcast programming.

10. Science Educators: Latest Opportunities from AAAS and Project 2061
Call for Nominations: 2008 AAAS Leadership in Science Education Prize. Help spread the word about an outstanding science teacher in your school or district. AAAS is now accepting nominations for the 2008 AAAS Leadership in Science Education Prize for High School Teachers. This \$1,000 prize honors a high school science teacher who has contributed to the AAAS goal of advancing science education by developing an innovative and effective strategy, activity, or program.

Get more information and download the nomination and application forms. Deadline: 2 March 2008.

11. Stockholm Junior Water Prize

We have some information about a youth award for water-related science projects for high school students in Montana that our association sponsors

The Stockholm Junior Water Prize (SJWP) taps into the unlimited potential of today's youth as they seek to address our water challenges. Created in 1997 by the Stockholm Water Foundation, the prize was established to mirror the adult Stockholm Water Prize. The Stockholm International Water Institute facilitates the international competition. The youth prize is a highly visible initiative that demonstrates WEF's commitment to promoting water environment research and careers, and it raises the Federation's profile as a leader in the international water and wastewater community.

The competition is open to projects aimed at enhancing the quality of life through improvement of water quality, water resource management, or water and wastewater treatment. High School students (grades 9-12) who enter a water-related project in a regional science fair, such as those affiliated with the International Science and Engineering Fair (ISEF) are eligible to participate in the SJWP competition.

Theoretical and applied science projects are welcome, as well as research aimed at solving community water problems. Projects may focus on local, regional, national, or global issues. It is essential that all projects use a research-oriented approach, which means they must use scientifically accepted methodologies for experimentation, monitoring, and reporting, including statistical analysis.

In the Montana, our committee members will attend the five regional science fairs (Havre, Great Falls, Butte, Billings and state in Missoula) held across the state. Regional winners will be selected from each of these fairs and a state winner will be chosen from the regional winners. The state winner and their science teacher will receive an expense-paid trip to the National competition. This year's competition will be held in Orlando, Florida, June 19-21, 2008. In addition, the state winner's school receives a framed certificate recognizing their contribution to water environment research.

For more information please go to <http://www.wef.org/AboutWater/ForStudents/SJWP/> and check out further information about this prize!

12. 17th Annual MEEA Conference:

http://montanaeea.org/conference/images/clip_image002.gif
Education and Environment,
Energy and Economics
Where: Best Western Great Northern . Helena, MT
When: March 13th - 15th, 2008

Participant Registration, Scholarship Forms, Award Nominations and Draft Schedule available online at:
<http://montanaeea.org/conference/index.html>
<http://montanaeea.org/conference/index.html>
Register by February 15 to receive the Early Bird Discount!
OPI and PIR credit available.

13. Tips to Help your Students with Stronger Writing

We are again fortunate to have professional author Carolyn White give us some ideas on how we might help our students write better. Be sure you check out Carolyn's materials at www.snowoff.com We asked Carolyn how we might get students to make their writing interesting and fun to read. Here are her valuable comments.

"WATCH OUT!" hollered my father in an uncharacteristically terse, tone of voice. A giant of a man, a true veteran of the forest, he traversed the ground with the seasoned, lumbering, gait of a lumberjack .
But suddenly, his gait quickened - broke into a run - his eyes wide with fear. It was then, that I too, heard it, saw it- headed straight for us!
My father and I, soon after the sad and untimely passing of my mom, had moved to a small town in South Dakota. The economy of the town centered around the sawmill. But Dad, a true mountain man, disliked being in town - a town of any size. "Son," he said, "we ain't settled in as- a - yet - let's move deeper into the forest." Grabbing the still unpacked boxes, we tossed them into the rusty back of Dad's ancient pickup truck. Puffing blue smoke, the old pickup's chug-chug, echoed though the towering trees of the roadless forest. Now, in the late afternoon, only slivers of sun reached all the way to the spongy

floor of the forest and dark twilight wrapped around us. "This is it!" boomed Dadës low, resonant voice - "We'll setup camp right here. I can walk to work from here - close enough - I can even carry my chain saw."

We'd known from the rumor-mill in town, about the hermit who lived only a short way through the trees. But, no one worried much about him - the general consensus of opinion being that he was harmless. Occasionally, long tangled beard and stumbling gait, he roamed about town gathering groceries and other commodities. But, recently, rumors had started to grow - several missing folks about town - they said..

Hopefully , the expletive, "WATCH Out! "hijacked your attention and along with the following sentences, "grabbed" your curiosity. The next paragraphs, while still holding your curiosity, fill in needed background information while not divulging the mystery of what the story characters had seen there in the deep, dark forest.

A basic fact of communication, (either verbal or written), is that one must first gain the attention of the listener. You cannot communicate effectively without first having their attention.. Verbal communication has a definite advantage as the speaker has, not only the choice of words, but tone of voice and body language - the physical presence. With the written word, the physical presence is absent. Because of that, the choice of words, becomes just that much more important. - especially the first word or first few sentences. So, how does a writer effectively "grab" a listeners attention and keep it? A good writer will choose a word/words that immediately pique the readerís curiosity - leaving them helpless in their desire to know more of what will happen.

When instructing children about a creative writing assignment (or for that matter, any type of writing assignment), suggest ways for them to engage and keep the readerís curiosity such as the following

Start the story or article with something intriguing:

Exciting words

Mysterious words

Spooky sounds

Scary words, scary sounds

Anything that will engage the readerís curiosity.

How does the writer keep the readerís interest?

Don't give into satisfying the readerís "hunger" - curiosity. Keep information away from them. Before answering their curiosity, side-track the reader into some other part of the story. Through interest and curiosity, create within them the desire to read the story/article all the way through, before satisfying their "hunger" - curiosity.

Letís put it like this: First off, give them a whiff of pumpkin pie (your first words/sentences to make them curious/hungry), then the basics of the story/article (the main course and veggies) and save the DESSERT till last!

Happy Valentines!!!

14. Present at MEA next year

We'll write more about this next month, but here is an advanced organizer for MEA in Missoula next year. The on-line application for presenting sectionals at the fall conference is now open. There's a link off the MSTA home page.
<http://montanascience.org>