

June Eblast 2007

Hi Everyone: Welcome to our final eblast for the year - June BaP eblast! This is our last eblast for the year (where does the time go), so we wish all of you a restful, happy summer filled with all types of family time and new learning adventures. We hope to have you back next year rested and ready for a new year. On behalf of your community, administrators, other professionals in the field and most of all your students, thanks for a wonderful year of work. We'll look forward to more.

Upcoming events in Montana Math and Science include:

June 10 – 15 – Peaks & Potential – Bozeman, MT.
June 11 – 14 – Moving with Skimmers, Gliders and Gears Workshop – Canyon Ferry
June 18 – 19 – Montana Gifted and Talented Workshop. – MSU- Billings
August 8 – 10 – Chemistry Workshop – Canyon Ferry
August 10 – 12 – Mentoring Workshop – Bigfork, MT
August 13 – 15 – Watershed Tour – Boone & Crockett Ranch

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1. Please let us know if you are leaving your school next year!

If you think you might be leaving your school next year, we would appreciate it if you would find someone in your school who might be willing to share these eblasts. Please send Walt (walter@montana.com) the name of the school, the person's name and their email address and we'll take it from there. We don't want to lose your school from this system. Thanks for doing this, and thanks for all your service in helping to get teachers of science and math this information. We appreciate that you are sharing this information with other teachers of science and math in your building, and as always, be sure to drop us an email if we can ever help you.

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2. MEEA 2007 Summer Camps and Workshops

The Montana Environment Education Association hosts a series of summer camps and workshops for teachers and students. Programs are on a variety of topics from Ceramic arts to Innovations in Math and Science. Programs are offered most every week of the summer all over Montana. Their complete guide is found on the Montana Message board at <http://ecommerce.nsta.org/bap/>. More information can be obtained from Kari Gunderson at cnd2543@blackfoot.net.

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3. Chemistry or Biology Teaching Resources

There is a Web page for chemistry that comprises documents that can be copied. The biology section can be accessed from this Web site or separately. All the teacher documents were created on Microsoft WORD. There are sections on management of the resources, tips, games, puzzles, lesson plans, links and references, labs, and national standards. Go to <http://www.nclark.net/Chemistry> for chemistry and to <http://www.nclark.net/Biology> for biology.

4. Laboratory Action Videos

Watch videos of biology in action. See clips of T-cell invasion, electroplating, SDS separation of proteins, agarose gel electrophoresis for separation of DNA and RNA. What does PCR detect? Learn the process of PCR (polymerase chain reaction). What do you do in a darkroom? Go to <http://www.labaction.com>. For more advanced topics, such as bacterial infection of fruit flies, or isolation and transplantation of stem cells in mice, go to <http://www.jove.com> and watch the demonstrations with audio.

5. Science Teacher Trainers Needed for New Technology Cohort

Great Opportunity for Secondary Science Teachers to Train with Expert TI Trainers

Applications are available for the TI - Teachers Teaching with Technology program for 8 days of expert training beginning on Monday, June 25 to July 2 in Monterey, California. Focus will be on use of instructional technology in the physical science or physics classroom and instructional technology leadership. Registration is \$500 and qualifies for NCLB Title II support.

Each participating Trainer candidate will receive:

- *Lodging at Embassy Suites Monterey Bay and Asilomar Conference Center
- * TI-84 Plus calculator and calculator based Ranger (CBR2)
- * Instructional materials, probes, software
- * Leadership training

Upon successful completion of training each participant will:

- * Supported to attend National Science Teacher Conference to conduct trainings,
- * Stipends for trainings completed
- * Opportunities for continued professional development.

Applications are available on the NSELA website, <http://www.nsel.org/calendar/calendar9.html>

6. Ravenwood Mentoring Workshop

Summary of what the camp/workshop offers? - This three-day workshop presents new ways to support the growth of the mentor and the student. Our unique curriculum model helps participants create powerful learning environments for students of all ages and across all disciplines. Learning by doing is at the core of our approach to education.

Workshop trainees walk away with a bundle of tools that can truly ignite their students' burning desire to learn, helping them light the path toward their own greatest gifts.

Target Audience and age group the course content is directed to:

Teachers, parents, coaches, counselors

Prerequisites: N/A

Level of physical activity required: Easy

Location: Bigfork, MT (site directions provided upon registration); Camping or bunk lodging available on site

Dates: August 10-12 (9am Friday through 1pm Sunday)

Associated costs: \$150 (kitchen provided, food on your own)

Is the workshop/camp offered for academic credit and/or OPI Renewal credits? Yes! 20 OPI, 2 semester credits

Application deadline: Open until filled (16 max)

Contact person (name, phone, e-mail, website): Brett Holmquist, 406 837 7279, brett@ravenwoodnsc.org,
<http://www.ravenwoodnsc.org>

7. Mitochondrial Mysteries Demystified

These programs address the dynamic processes of cell respiration found in the Mitochondria; the TCA cycle (Krebs cycle or Citric Acid cycle) and the Electron Transport System (Electron transport, proton translocation, and Chemiosmotic Phosphorylation).

Structure of the mitochondria and functions of Coenzymes (NAD+) are provided in dynamic form. Glycolysis is included as a separate process in respiration found outside of the mitochondria. Images and flash movies are provided as downloadable files.

<http://www.taylor.edu/academics/acaddepts/biology/energetics/powerpage.shtml>

8. Photosynthesis Revealed

These programs address the dynamic processes of photosynthesis that are found in the chloroplast: The light reactions (cyclic and non-cyclic of Photosystems I & II) and the non-light limited reaction of the Calvin Cycle.

Structure of the chloroplast is included and the many images and flash movies are provided as downloadable files.

<http://www.taylor.edu/academics/acaddepts/biology/energetics/photo.shtml>

9. Top 10 Items to do This Summer

10. Take a class that will help your teaching next year.

9. Find a new resource, website, lab or activity that you can do next year.

8. Find a new workshop to attend.

7. Plan on joining a professional group like MSTA or NSTA

6. Have a science camp for students in your community

5. Plan to attend the professional conference next year in Belgrade

4. Make it a point to do a new recreational activity with your family each week.

3. Read a good book.

2. Learn a new hobby

1. Take time to rest so you're ready for next year.

10. Discover the Wetlands and Waterways of Yellowstone

A hands-on workshop for formal and non-formal educators

Date: June 16, 2007

Location: West Yellowstone - New Community Center

Time: 9am – 4pm

Cost: \$25.00 (covers the cost of curriculum guides)

Description: This hands-on / interdisciplinary workshop is intended to increase your local watershed knowledge and help you connect the following science concepts across the curriculum: the water cycle, ground water, plants and animals within water habitats, water ecology, water chemistry and water conservation. Walk away with three interactive curriculum guides for students of all ages and learning styles. All activities meet the MT Science Content Standards. Certified teachers can receive six OPI renewal units.

To register, please contact: Kelly Hayden – Education Outreach Coordinator, Montana Watercourse: Phone: 994-6425 email: kelly.hayden@montana.edu

11. Forensic Science Educational Conference

WHAT: The 14th Forensic Science Educational Conference: "Teaching Forensic Science: Behind the Scenes" presented by: The American Academy of Forensic Sciences, Court TV, VCU, VA Department of Forensic Science.

WHEN: July 19-21, 2007

WHERE: Virginia Commonwealth University, Richmond, VA

TOPICS: General Forensic Science, Law, Forensic Biology, and Forensic Chemistry presented by AAFS members.

For applications/info: www.aafs.org or jhurley@aafs.org.

12. NSTA and the Amgen Foundation Introduce the New Science Teacher Academy

On Wednesday, May 23, NSTA and the Amgen Foundation launched the NSTA New Science Teachers Academy for middle and secondary school science educators. This professional development initiative will help strengthen quality science teaching, enhance teacher confidence and classroom excellence, and improve teacher content knowledge. There are two tiers of participation in the Academy: NSTA Fellows and Associate Fellows. Both fellowship programs will include a year-long immersion in a host of science-related activities and professional development opportunities. In addition, NSTA Fellows and Associate Fellows will receive a comprehensive NSTA membership package and financial support to attend and participate in NSTA's National Conference on Science Education. NSTA Fellows will also receive online mentoring with trained mentors who teach in the same discipline. Each year, the 200 Fellows supported by the Amgen Foundation will be named Amgen-NSTA Fellows and Amgen-NSTA Associate Fellows. A selection committee, comprised of NSTA leaders, will choose the 2007 Amgen-NSTA Fellows and Associate Fellows to participate in the 2007-2008 Academy. For more information, visit the NSTA New Science Teacher Academy online, <http://www.nsta.org/academy/>