

MARCH SCIENCE NEWS

2010

Join National Lab Day

National Lab Day is a nationwide initiative to build local communities of support that will foster ongoing collaborations among volunteers, students and educators.

Volunteers, university students, scientists, engineers, other STEM professionals and, more broadly, members of the community are working together with educators and students to bring discovery-based science experiences to students in grades K-12. When an educator posts a project, the system will help them get the resources needed to bring that project to fruition. The first week of May, 2010 this collaboration will be celebrated across the country with National Lab Day activities.

NLD is already underway! There are projects throughout the country; view an Interactive Map at <http://www.nationallabday.org/projects_map>. Oklahoma only has two posts right now, so join in with your project.

Check out the web site at <<http://www.nationallabday.org/>>.

Energy Lessons for grades K-12

The U.S. Department of Energy (DOE), a major Earth Science Week partner, provides learning opportunities for teachers and students at all levels. For example, the DOE Energy Efficiency and Renewable Energy website offers over 350 K-12 lesson plans. For activities aligned with national science standards and covering topics from energy basics to biofuels, see <<http://apps1.eere.energy.gov/education/lessonplans>>.

The annual National Science Bowl <<http://www.scied.science.doe.gov/nsb/default.htm>> tests middle and high school students' science knowledge. The Real World Design Challenge <<http://www.scied.science.doe.gov/RWDC/index.html>> invites high school students to team up to solve real engineering problems.



Summer Science Institute at OSSM

June 6-11, 2010

(Sunday Evening—Friday)

A science program for middle school teachers – grades 6, 7, and 8.

Come and join us for a five-day learning experience, full of fun and excitement at the OSSM campus in Oklahoma City. ConocoPhillips Inc. and the Oklahoma School of Science & Mathematics sponsor the ConocoPhillips Summer Science Institute for the 13th consecutive year. The Institute is aimed at providing science teachers at the 6th, 7th, and 8th grade levels with knowledge and hands-on experience in Geoscience, Life and Physical Sciences. Teachers can enhance their science background while being offered new opportunities to transfer knowledge and skills to classroom instruction.

Four OSSM faculty members experienced in science education will conduct the Institute. Activities include lectures, experiments in the well-equipped OSSM laboratories, demonstrations, discussions, a field trip to FAA Oklahoma City facility, and a guest speaker at the closing luncheon. Institute topics are selected according to the middle school science curriculum from the fields of biology, chemistry, geoscience and physics. All participants will also receive a \$300 stipend for successfully completing the Institute.

The deadline to receive your registration form by email or fax is **April 30, Friday** or your mail should be postmarked by **April 30, Friday**. Complete the registration form below and e-mail to <sbrother@ossm.edu> or FAX to 405-521-6442, Attn. Ms. Sena Brothers.

THE ConocoPhillips SUMMER SCIENCE INSTITUTE

REGISTRATION FORM

FEEL FREE TO DUPLICATE AS NEEDED.

Name: Mr./Ms./Mrs./Dr. _____

Grade(s) taught: _____

School Address: _____

Subject(s) taught: _____

Areas I would like to enhance: _____

County and/Sch. District: _____

School Phone: _____

Summer Address: _____

Home Phone: _____

E-Mail Address: _____

Highest Degree: _____ In the area of _____

Science Hours in College: Chemistry: _____ Physics: _____ Biology: _____

Have you ever attended this program during the last three years? Yes ___ No ___

Periodic Table videos

Chemistry and Physical science teachers, check out this web site featuring the period table and short videos for each element. Click the symbol for potassium and see a demo of the properties of the element. The videos are produced by the University of Nottingham, England. These are short videos, most no more that 3-4 minutes. See <<http://www.periodicvideos.com/#>>.

Windows on the Universe web site

Explore the science of our planet and its changing environment, our solar system, the Universe, and the ties between science and the human experience. Lesson plans, newsletters, and activities are available to teachers along with content information and graphics. Information is available in both English and Spanish and interdisciplinary ties are targeted.

Check out <<http://www.windows.ucar.edu/>>.

Teaching the Five Senses lessons

This web site has lessons ideas and resources for use in the classroom when teaching the five senses. The links Optical Illusions and the VSP Teachers Lounge have interesting resources – some of the optical illusions are for older students.

See <http://www.educationworld.com/a_lesson/lesson/lesson183.shtml>

Hands on the Land

Hands on the Land connects students, teachers, and parents to public lands and waterways. Partners in Education specialists work closely with local teachers to develop programs that meet state education standards and engage students in hands-on activities. Technologies such as the project website <<http://handsontheland.org>> and distance learning enable students to participate in environmental monitoring and other activities.

Pollinator Lessons and Info – Grades K-12

A new project, PollinatorLIVE Distance Learning Adventures, shines a spotlight on the major role that various pollinators play in production of food, the future of wildlife, and the health of flowering plants. For information on teacher and student webinars, a student satellite broadcast, live electronic field trips, and live interaction with scientists, visit the project online <<http://pollinatorlive.pwnet.org/>>.

“Teachable Moments” – Seismology Current Events

Want to delve into the science behind current events with your students? Start with a visit to the website of Incorporated Research Institutions for Seismology (IRIS), an Earth Science Week partner.

IRIS offers a set of online resources - “Recent Earthquake Teachable Moments” - dealing, recently, with the catastrophic earthquake that struck Haiti last month. View PowerPoint presentations, animations, and visualizations, as well as links to Spanish-language materials and USGS data. Additional resources address other quakes worldwide.

Founded in 1984 with National Science Foundation support, IRIS is a nonprofit consortium of over 100 universities engaged in the acquisition, management, and distribution of seismological data. To explore “Teachable Moments,” visit <<http://www.iris.edu/hq/retm>>.

Investigating the Climate System WEATHER Global Awareness Tour (Problem Based Labs for Weather)

Browse problem-based classroom modules for grades 5-8 responding to National Education Standards in English, Language Arts, Geography, Mathematics, Science, and Social Studies. The .pdf documents contain exercises in a problem based learning format along with rubrics and a glossary.

View at <http://www.nasa.gov/pdf/62323main_IC_S_Weather.pdf>.

Oklahoma Aerospace Education Fellows

The Oklahoma Aerospace Education and Training Day Committee is now accepting applications for the “*Class of 2010 Oklahoma Aerospace Education Fellows*” (*Fellows*). Oklahoma teachers Grades 3 -12 and school counselors from public, private and Careertech schools are eligible to apply. 100 applicants will be selected to be Fellows and invited to attend the Education and Training Day (ETD) conference.

The 2010 Fellows will receive FREE summit and education training day registration, a FREE hotel stay for the evening of June 3, and a stipend to help cover the cost of travel or to spend as you choose.

The ETD conference will introduce the Fellows to Oklahoma’s aerospace industry with the purpose of achieving the following goals:

- Provide a clear picture of the magnitude of the Oklahoma Aerospace industry and the role it plays in our economy
- Educate teachers and counselors about the employment opportunities for their students in the aerospace industry
- Motivate teachers and students to engage in science, technology, engineering, and math (STEM) education with aerospace applications
- Create partnerships among educators, industry, and government
- Provide teachers with an industry professional as a mentor to use as a resource throughout the school year

REGISTRATION WILL CLOSE ON APRIL 15th or when the number of chosen applicants reaches 100. Interested teachers and counselors need to apply now! You can register at <www.okaero.com/summit>. Click on the tab that says “New Registration,” then click on the option that says “Teacher Registration.” Additional information can be found on the main registration page, on the upper right hand side, under the tab that says “Education & Training Day.”

Solid Waste Management Resource Trunks on Loan

Solid Waste Management Resource Trunks are now available for loan to K-12 educators! Trunks feature a 'Close the Loop' display component with tabletop display and samples of items made from recyclable materials. Also included in the trunks are activities and resources on topics such as: Reduce, Reuse, Recycle; Backyard Composting; Household Hazardous Waste; Illegal Dumping and Littering; and much more. Solid Waste Management Resource Trunks are funded by a grant provided to Oklahoma Cooperative Extension Service by U.S. Department of Agriculture, Rural Development, and are co-sponsored by OKRA.

Description of contents and application for loan is available at <<http://agecon.okstate.edu/wastenew/>>.

Recycling Classroom Curriculum/Activities

Oklahoma Recycling Association (OKRA) makes classroom resources available for download at <<http://recycleok.org/educational-resources.php>>.

Coca-Cola and KAB Announce Grant Program

The Coca-Cola Co. and Keep America Beautiful Inc. (KAB) recently announced a recycling bin grant program, an effort designed to promote and support community recycling. Grant recipients receive both donated recycling bins and expertise on how to set up recycling programs from Keep America Beautiful. The grant program is part of a \$60 million investment by The Coca-Cola Co. in recycling initiatives in the U.S.

The spring 2010 grant cycle is now open. Eligible grant recipients include government agencies, civic organizations, schools and nonprofit groups. For more information or to submit an online grant application through March 12, 2010, interested parties may visit <<http://bingrant.org>>.

Successful applicants will be notified on or before April 22. For more information, contact Sierra E. Fletcher 617-236-4886 (phone) or <sierra@productstewardship.us>

Educational videos website –

Larry Sanger, the co-founder of Wikipedia, has launched Watch and Know, a new website to gather and organize educational videos for students 3-18. The site, funded by the Community Foundation of Northwest Mississippi, already has more than 11,000 videos on math, science, history, and other subjects, and allows for collaboration among users. Videos available at <<http://www.watchknow.org>>.

2009-2010 NASA Education Resource Showcase Series

NASA's Digital Learning Network presents a series of webcasts to assist educators in staying current on NASA education resources and related products. During each event, product producers, authors and experts will demonstrate their materials designed to optimize awareness and understanding of science concepts. Instructional objectives, accessing the materials and primary contacts for the materials will also be discussed. During the webcasts, participants will be able to submit questions to the presenter that will be addressed during the presentation.

In the coming months, the following topics will be covered:

-- **NASA eProfessional Development Network -- Robotics Course:** March 31, 2010, 4-5 p.m. EDT

-- **MoonWorld:** April 28, 2010, 4-5 p.m. EDT

-- **On the Moon:** May 26, 2010, 4-5 p.m. EDT

For more information about these webcasts, visit

<<http://dln.nasa.gov/dln/content/webcast/>>.

Questions about these events should be directed to Caryn Long at caryn.long@nasa.gov <<mailto:caryn.long@nasa.gov>>.

McCarthy Dressman Education Foundation Teacher Development Grants

The Teacher Development Grants provide funding to individuals or small teams of teachers in the formation and implementation of groundbreaking k-12 classroom instruction. The grants provide opportunities for teachers to integrate fresh strategies that encourage critical inquiry and to observe their effects on students. Teachers have the opportunity to reflect and write about their projects, as well as to share their results with other teachers. The Foundation awards grants to individuals in amounts up to \$10,000 per year for a maximum of three years, provided the eligibility requirements continue to be met.

CONSIDER APPLYING FOR THIS GRANT IF YOU AND/OR A SMALL GROUP OF YOUR COLLEAGUES...

...are eager to improve your classroom instruction

...are willing to document your new approach in detail

...have an imaginative and well-considered plan for enriching classroom instruction

...are licensed k-12 teachers employed in public or private schools

...have the background and experience to complete the project successfully

...are willing to work in collaboration with the Foundation

Applications are due May 1, 2010.

Visit <<http://www.mccarthydressman.org/teacher.html>> for more information.

Lawrence Foundation Grants

The foundation is focused on making grants to support environmental, education, human services. Both program and operating grants are funded and there are no geographic restrictions on the grants.

Grant Applications are due April 30.

See <<http://www.thelawrencefoundation.org/grants/guidelines.php>>.

Book donations to small rural schools

The Libri Foundation is a nationwide non-profit organization which donates new, quality, hardcover children's books to small, rural public libraries in the United States through its BOOKS FOR CHILDREN program.

Deadline for application is April 15, 2010.

Information is available at <<http://www.librifoundation.org/apps.html>>.

InvenTeam initiative

The InvenTeam initiative is designed to excite high school students about invention through hands-on learning, while encouraging an inventive culture in schools and communities long-term. Each InvenTeam will receive up to \$10,000 in grant funding to invent a practical solution to a real-world problem of their choosing.

Applications are due April 23, 2010.

See <<http://web.mit.edu/inventeams/faq.html>>.

Role of Elements in Life

More than 30 elements have a key function in helping plants and animals live and stay healthy. Elements are the basic building blocks of our lives. Elements combine with one another in different proportions to form everything from the air that we breathe, to the wood that we use to build our homes, to our own bodies. Some of the major elements that our bodies use to function properly are described along with some surprising minor elements.

Find information at <<http://www.mii.org/periodic/LifeElement.php>>.

Invitation for Teachers to Participate in the Field Testing of Middle School and High School Science Assessment Items

AAAS Project 2061 is developing assessment items to measure middle and high school students' understanding of important science ideas from the National Science Education Standards and the AAAS Benchmarks for Science Literacy. We are recruiting middle and high school science teachers willing to field test our multiple-choice test items with their students in April, May or June of 2010. As an incentive, each participating teacher will receive a copy of Volume 2 of the Atlas of Science Literacy or a \$50 gift card from either Borders or Barnes and Noble Bookstore. The assessment should take no longer than 45 minutes to complete, and will cover one of a variety of topics in science. It is not necessary that your students have had formal instruction on any of the topics being tested.

The guidelines for participation are as follows:

You must be a middle or high school science teacher in the United States.

Your students must be in 6th, 7th, 8th, 9th, 10th, 11th, or 12th grade.

You must obtain permission to participate from the appropriate school or district personnel.

You must return all testing materials to AAAS Project 2061. Pre-paid shipping labels will be provided.

This study is not intended to evaluate teachers or students. Individual students will not be identifiable, and teacher information will remain strictly confidential. Our only interest is to learn how students respond to these test items so that we can design test items

that are valid measures of what middle and high school students know about important science ideas.

If you are able to participate, please click the link below and complete the registration form that follows. Participation in this study is limited, so registrations will be accepted on a first-come, first-served basis. If necessary, we will also adjust our selections to achieve representation from urban, rural, and suburban schools from different parts of the country. Teachers who are selected to participate will be notified by email.

2010 Project 2061 Field Testing registration: <<http://register.p2061.org/field>>

The deadline for registration is **April 2nd, 2010**.

If you have any questions, please contact the coordinator of this assessment study by email at 2061assessment@aaas.org or by phone at 1-202-326-6207.

Anyone interested in science education is welcome to join the Science Listserv by contacting Jana Rowland at <Jana_Rowland@sde.state.ok.us>.

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