



SCIENCE NEWS

September, 2010

Welcome back, Educators! I hope you had a good summer and are ready to go for a great new school year. There are several things happening in science right now and I want to keep you informed throughout the year. This past Legislative session brought some interesting changes to education including a bill that suspends Textbook adoption for the next two years. That means that science materials will not be ordered beginning July 1, 2012. Science materials would not be ordered until July 1, 2014, unless the law changes.

The other big initiative is the start of writing national science common standards. These standards are titled the Next Generation Science Standards and the release date is projected to be early 2012. This process is just starting, so I will keep you informed as I receive information.

Contact me if you have questions or concerns throughout the school year. I know this is a difficult year for you and I want you to know how much I appreciate your dedication to quality science education for our students!







Best wishes,
Jana

Congratulations to all Oklahoma Science Teachers!

ACT and state assessment scores have just been released and science scores increased in every category except OMAAP grade 5!

I am proud of each one of you as I know the pressure you are under with budget concerns, time issues, and increased expectations. I have always known that Oklahoma has outstanding science educators and I thank you for all your hard work on behalf of your students. I will send more detailed information out on state scores as soon as I complete the analysis. Keep up the good work!

ACT – 20.1  .1

2010 OSTP Science Results Total Tested Winter + Spring				
Total Tested (FAY + NFAY)	Test and Grade	% Proficient 2010	Change in % Proficient from 2009	
43,457	OCCT Grade 5	87%		+3 %
3,320	OMAAP Grade 5	75%		-3%
41,109	OCCT Grade 8	88%		+2%
2,931	OMAAP Grade 8	92%		+1%
41,710	OCCT Biology I	75%		+3%
3,942	OMAAP Biology I	72%		+7%

Oklahoma Robotics Grants 2010-2011

The application window is now open for the Oklahoma Robotics Grant program. Funding will be awarded to student teams that enter remote-controlled robot competitions during the current school year. Awards of \$5,000 will go to first-year teams and the remaining funds will be awarded to second and third-year teams (not to exceed \$3,000). Applications must be received by **Sept. 27, 2010**. More information and the application form can be found at <<http://sde.state.ok.us/Services/GO/default.html>> or contact Jana Rowland at <Jana_Rowland@sde.state.ok.us> or (405) 522-3524.

Oklahoma Energy Resources Board (OERB) Teacher resources

The Oklahoma Energy Resources Board is primed to begin another year of educator workshops, designed to empower Oklahoma educators to teach oil and natural gas science, as well as the industry's impact on history, literature, and culture. Teachers in any discipline can attend these one-day seminars and receive valuable information and resources to bring this curriculum into their classrooms. Educators that attend will also receive a field trip grant to one of several museums across the state.

For more information, go to <<http://www.oerb.com/>> or email <teachers@oerb.com>.

Field Trip Funding Available from Target!

Deadline Date – September 20, 2010

Description – The program will award five thousand grants of \$700 each to schools across the United States for the upcoming school year. Teachers can use a grant to fund a school field trip that connects their curriculum to out-of-school experiences.

Education professionals who are at least 18 years old and are employed by an accredited K-12 public, private, or charter school in the United States that maintains 501(c)(3) or 509(a)(1) tax-exempt status are eligible to apply. Educators, teachers, principals, paraprofessionals, and classified staff at these institutions must be willing to plan and execute a field trip that will provide a demonstrable learning experience for students. Grant funds are best used for visits to art, science, and cultural museums; community service or civic projects; career enrichment opportunities; and other events or activities away from the school facility. Funds may be used to cover field trip-related costs such as transportation, ticket fees, food, resource materials, and supplies.

Size of Grant - \$700

Cost Sharing or Match – No

Web - <<http://sites.target.com/site/en/company/page.jsp?contentId=WCMP04-031880>>

Environmental Education Grants

Once again, Department of Environmental Quality (DEQ) is offering funding to Oklahoma schools for simple, student-led environmental based projects. The grant is very easy to submit!

Applicants may apply for amounts from \$100 up to \$1,000 per grant. A total of \$14,000 will be awarded in early 2011 to winning applicants. Eligible categories include:

environmental club projects, green school efforts, edible school gardens, environmental education projects, outdoor classroom revitalization, and recycling and composting programs. Deadline for submission of grant applications is December 1, 2010.

Recipients will be selected by December 31, 2010 and the funding should be received no later than March, 2011.

Visit <www.deq.state.ok.us> and click on 'Environmental Education'.

OKSDE Technology Training Days

The OKSDE technology training 2010 fall schedule has been posted. To view the lineup, click on the "Events" tab at the top of the homepage listed below. These training opportunities are offered FREE of charge to Oklahoma educators.

New training opportunities are being offered for the first time.

These new trainings include:

Edmodo, Google Tools, Intermediate Level Promethean and Beginner Level Mimio Interactive Whiteboard, SMART Sync and LanSchool Classroom Management Software, and finally Learning with iPad, iPod Touch, and iPhone apps trainings. Training sessions are limited to the **first 25 people** who sign up, however, we do offer free web conferencing for most of our trainings. Please sign up using the appropriate link for either attending in person or over the web.

If you choose to sign up for multiple sessions, you will need to keep record of that information. If you cannot make the session, please call or email us so that we may have another teacher fill the spot.

Visit 21st Century Learning Lab at the OSDE at: < <http://osdetraining.ning.com>>.

Buy, Use, Toss? A Closer Look at the Things We Buy Lessons

Buy, Use, Toss? A Closer Look at the Things We Buy is an interdisciplinary unit that includes ten fully-planned lessons. This unit will lead your students through an exploration of the system of producing and consuming goods that is called the materials economy. Students will learn about the five major steps of the materials economy; Extraction, Production, Distribution, Consumption, and Disposal. Lessons can be downloaded free of charge at <

<http://www.facingthefuture.org/Curriculum/BuyUseToss/tabid/469/Default.aspx?utm_source=BUT+launch&utm_medium=email&utm_campaign=BUT+Launch>.

Wes Watkins New Products Fair

The fair committee said that they would be willing to pay a stipend to teachers who have 5 or more students enter the fair to cover the cost of supplies needed to build the inventions (up to \$500).

Anatomy/Physiology – Upper Biology website

Fly among the molecules!

You must navigate a nanobot through a 3D environment of blood vessels and connective tissue in an attempt to save an ailing patient by retraining her non-functional immune cells. Along the way, you will learn about the biological processes that enable macrophages and neutrophils – white blood cells – to detect and fight infections.

Developed by the Federation of American Scientists.

Check it out at <<http://www.fas.org/immuneattack/>>.

Sky and Telescope Resources

This is an interesting web site for maps and comments about night sky on nightly and weekly basis. Visit <<http://www.skyandtelescope.com/observing/ataglance/>>.

Earth and Sky Website

This is another good site for classroom resources and sky maps. This site also features short video clips, articles and interviews, and featured scientists in the following science areas:

- Water
- Energy

- Health
- Food
- Biodiversity
- Earth
- Space
- Human World
- Tonight

A couple of the titles of videos in the biodiversity page are “Blue whale songs’ lower pitch”, “Inside a Moth’s Brain”, and “Evacuating sea turtle eggs from Gulf region”. See the links at <<http://earthsky.org/>>.

How Much Is an Ecosystem Worth?

This lesson engages students in critical thinking about the value of ecosystems. Students assess ecosystem services, consider the benefits of biomonitors, explore ecosystem databases, brainstorm “What if?” scenarios...and more!

Lesson available at <<http://actionbioscience.org/environment/lessons/esalemons.pdf> >

Garden Grants Available

In partnership with Project Learning Tree® (PLT), an award-winning national environmental education program, GreenWorks! pollinator garden grants of up to \$500 are being offered through PollinatorLIVE.

For more information and the requirements, go to <<http://pollinatorlive.pwnet.org/gardening/grants.php>>. The deadline to apply is **December 3, 2010.**

It’s Oklahoma Science Teachers Association Fall Conference Time!

In a time of budget cuts and slashed staff development budgets, how will you get the quality professional growth and development that we all need every year? The best one-day science teacher staff development program in Oklahoma makes even more sense in light of today’s budget realities.

The OSTA Fall Professional Development Conference, Saturday, November 6th at UCO in Edmond.

It’s time to register for the conference. Registration can be made today and payment can be made securely, online with your credit card. Or you can use the same on-line registration link to enter your conference registration information to print and send in to OSTA with your Check or Purchase Order.

Your Early-Bird Registration includes lunch and complimentary OSTA membership for 2011. Early-Bird Registration is up NOW at

http://www.oklahomascienceteachersassociation.org/?page_id=42

After October 15th, the cost goes up to \$55. Save \$\$\$\$\$ and register today!

In addition to your registration, we invite you to download and send in a proposal to present to the conference. The big attraction in the OSTA Conference is the staff development that comes about when you share your great ideas with the rest of the science teachers in Oklahoma at the Fall Conference. The deadline is **Friday, October 1st** and NOW is the time when the conference committee is formulating the program. Go to www.oklahomascienceteachersassociation.org for more information and to register!

Project WILD workshops

When: September 18, 2010 from 9 AM to 3 PM

Where: UCO Center for Outdoor Adventure Recreation, Edmond

Cost: \$15 (Includes Project WILD guides and WILD about READING supplement)

Facilitators: Dr. Adeana Sallee, Dr. Suzanne Spradling and Dr. Liz Willner

Who Should Attend: Any educator who wants to teach students in and about the outdoors and make a literature connection while doing so.

Project WILD:

- Is an interdisciplinary conservation education program for educators of kindergarten through high school students.
- Is based on the premise that young people and educators have a vital interest in learning about our natural world.
- emphasizes wildlife because of its intrinsic and ecological values, as well as its importance as a basis for teaching how ecosystems function. In the face of competing needs and pressures affecting the quality and sustainability of life on earth, Project WILD addresses the need for human beings to develop as responsible citizens of our planet.

WILD about READING:

- Is a supplemental curriculum to Project WILD authored by Oklahoma educators who will facilitate the workshop. It is founded on the belief that human beings are a part of the natural world and that we have many literary lenses through which to view our interactions and relationships with wildlife.
- offers experiences with a wide variety of literature and opportunities to write, speak and listen that are designed to enhance Project WILD activities. It is full of possibilities for educators to explore connections between WILD activities and literacy.
- Illustrates our hope that teachers will expand their teaching about our natural world through the use of this open-ended curriculum supplement. We want to plant a seed of excitement and watch it grow in your classroom with your students!

To Register Contact (Email Preferred):

Lisa Anderson, OK Project WILD Coordinator at okprojectwild@fullnet.net or (405) 990-1292

Invitation to Regional Meeting on Teacher Ed Programs

The South West Association for Science Teacher Education (SWASTE) is holding a regional meeting on October 15-16 on the campus of Oklahoma State University.

Anyone interested in the **improvement of science teacher education programs** is encouraged to register and attend the meeting. The conference web site is:

<<http://educonf.wordpress.com/>>.

Tamara Lookabaugh Named Oklahoma 2010 Outstanding Biology Teacher

Tamara Lookabaugh, Moore High School Biology teacher, is the recipient of the 2010 Outstanding Biology Teacher Award (OBTA) for Oklahoma. The OBTA is given each year by the National Association of Biology Teachers (NABT) to a life science teacher in each state who demonstrates exemplary practice in the teaching of life science.

Tamara has been a teacher in Moore since 1986 having both high school and junior high teaching experience. She presently teaches Zoology, AP Biology, and pre-AP Chemistry and holds a Bachelor of Science in Secondary Education from Oklahoma Baptist University. To quote Tamara's application essay; "Teaching the biological sciences is my real passion because I believe it crucial for people to understand their own niche in the world and appreciate the amazing diversity of living things."

Ms. Lookabaugh is a member of NSTA, OSTA, OKAEE, NEA, OEA and NABT and serves on the OSTA Board of Directors as Secretary/Historian. She is extremely versatile and seeks out programs and institutes both as a participant and as a presenter to expand her science knowledge and share her expertise with others. Over the years she has received many awards and grants reflecting her deep commitment to teaching.

As she stated in her application essay, "Many years have passed since I began teaching in 1986. I am still as excited, perhaps more so, about exploring the scientific discovers and new techniques which are rapidly emerging in out ever-changing world."

Tamara Lookabaugh's enthusiasm and dedication to teaching biology is further demonstrated in the following quote: "Because active hands-on science is essential to a student's ability to retain information and apply it to a larger world-view, I actively strive to incorporate as many teaching techniques as possible and meet the variety of learning styles in my classroom." She further states: "As a biology teacher, I have a chance to impact the lives of approximately one hundred and thirty students (each year) who are looking to me in anticipation of something significant that will give meaning to them being in my class. I try to meet those student expectations and do my best to provide a meaningful and thoughtful atmosphere for my students to discover themselves and the world around them."

OBTA recipients are honored at a special event during the NABT Professional Development Conference sponsored by Pearson Prentice Hall; microscopes from Leica Microsystems, Inc.; and certificates and a complimentary one-year membership from NABT.

The OBTA is open to current biology/life science instructors (grades 7-12) with at least three years public, private, or parochial school teaching experience. A major portion of the nominee's career must have been devoted to the teaching of biology/life science. NABT membership is not a requirement. Unsuccessful candidates may reapply. OBTA winners are ineligible to reapply for 10 years after selection.

Candidates will complete a form summarizing their professional experience, academic background, and education philosophy and provide four recommendations from

colleagues familiar with their teaching effectiveness. Classroom observations and/or videotapes are also important steps in the evaluation process. Candidates for the OBTA can be nominated for the award by colleagues, administrators, students, teacher/candidates themselves, or anyone competent to judge the candidate's teaching effectiveness.

To participate or nominate someone for the OBTA, fill out the forms found at this website: <http://obtaoklahoma.wikispaces.com/Forms> or request a form from the NABT office, 1313 Dolley Madison Blvd, Suite 402, McLean, VA 22101. The deadline for nominations is March 15, 2011. You can also send the name and contact information of your nominee in an e-mail to Kay Gamble, the Oklahoma OBTA Director or call NABT at (703) 264-9696/ (800) 406-0775 for information.



Keep Students Safe – Join the Schools Chemical Cleanout Campaign!
Schools Chemical Cleanout Webinar (Oklahoma Project is being implemented!)
Wednesday, September 15, 2010, 1:00 PM ET (Note this will be at 12:00 PM CT).
Register today for this free webinar!

- **Attend this webinar to:** Learn about the importance of performing a chemical cleanout at your school.
 - Gain insight on how to establish a chemical management plan as part of your comprehensive IAQ management program.
 - Discover effective steps all schools can take to responsibly manage chemicals and reduce the likelihood of chemical incidents, including spills and fires.
 - Develop guidelines to systematically and aggressively manage common IAQ issues faced by schools, including eliminating sources of pollution and unnecessary hazards. **Speakers:** *Maria Johnson, Science Teacher, Arlington Public Schools, Virginia*
 - *Francine Locke, Office of Environmental Management and Services, School District of Philadelphia, Pennsylvania*
 - *Michelle Lusk, Cement Kiln Recycling Coalition, Virginia*
Kristina Meson, Schools Chemical Cleanout Campaign (SC3), U.S. Environmental Protection Agency (EPA) **Facilitator:** *Michele Curreri, Indoor Air Quality Tools for Schools Program, U.S. Environmental Protection Agency (EPA)*
- This webinar is offered at no cost to participants. Don't miss your chance!**

Oklahoma schools are signing up to be a part of this group. Find out more about the program at the webinar.

Register at : <<https://www1.gotomeeting.com/register/633659792>>.

Student Inventor competition announced

The fair committee will pay a stipend to teachers who have 5 or more students enter the fair to cover the cost of supplies needed to build the inventions (up to \$500).

The annual Wes Watkins New Products Fair celebrates Oklahoma inventors young and old. The Fair is an excellent opportunity for students (grades 3-12) to showcase their creativity and talent. It also provides an opportunity for them to display their inventions to the public and *compete for cash prizes*.

Wes Watkins New Products Fair

Thursday, November 4, 2010

2:00 p.m. - 6:00 p.m.

Moore-Norman Technology Center, South Penn Campus

13301 S. Penn Ave. - Oklahoma City, OK 73170

Oklahomans have proven to be talented inventors. The Fair encourages students to come up with new products through a process that focuses on hands-on inventive thinking. Through their participation in the Wes Watkins New Products Fair, students develop these skills:

- Problem Solving
- Creative Thinking
- Research and Inquiry
- Communication Through Presentation

Visit www.newproductsfair.com for entry application and Fair rules and instructions.

Accepting Entries Online

Deadline: October 24, 2010

www.newproductsfair.com

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

Jana Rowland, Science Education Director
Standards and Curriculum
Oklahoma State Department of Education
2500 N. Lincoln Blvd.
Oklahoma City, OK 73105
(405) 522-3524
FAX (405) 521-2971
Jana_Rowland@sde.state.ok.us