

Oklahoma Green Schools Newsletter #3 – March 2011



The Oklahoma Green Schools Committee really wants to know about your efforts to promote a green and healthy school! If you are a participant in the National Project Learning Tree (PLT) pilot program or are just working on your own, but have not officially signed up for our Oklahoma Green Schools Program, please do that now: <http://www.okgreenschools.org/pages/application.html>. It will only take about three minutes of your time and will really help our Committee.

Toolkit Checkout Available for Investigations - To check out a toolkit (if you are registered in the OK Green Schools Program) for use primarily with the Project Learning Tree (PLT) Energy Investigations, click here: <http://www.okgreenschools.org/pages/challenge.html>. Go to #5 on this link to view the toolkit contents and a video demonstration for using the tools, as well as to sign-up for toolkit checkout.



Carbon Calculator Update

Following the student pilot testing of carbon calculators last month, these free online carbon calculators are offered as suggestions for setting your school's baseline.

- Younger Students/Lower Elementary - EPA offers a great tool for the younger students. <http://epa.gov/climatechange/kids/calc/index.html>
- Upper Elementary/Middle School - this site calculates a per student footprint. Multiply by the number of students or add scores together: <http://cal.zerofootprint.net/youth>
- Middle School/High School - good site for older students. Downloadable Excel sheet allows for easy calculations: www.coolschoolchallenge.com

Congratulations to Tulsa McLain High School!

AT&T recently announced that it is contributing \$10,000 to Sustainable Tulsa to help fund a renewable energy system at McLain High School for Science and Technology. The contribution will be used to help pay for phase one of the renewable energy project, which will be the installation of a photovoltaic system to provide power to the McLain High School greenhouse. The photovoltaic system will use solar energy to help power watering, cooling and root warmer systems in the greenhouse.



Interested in using wind energy at your school? The Oklahoma Wind Power Initiative (OWPI) has a limited number of 20 meter wind assessment towers available that can be used to conduct free wind energy feasibility studies at Oklahoma schools. The towers would be installed on site and collect data for at least one year. OWPI would provide monthly data summaries and a cost/energy production estimate for a small wind turbine. If you are interested in having a wind assessment tower installed at your school, please contact Britton Rife at 405-325-8870 or bkriife@gmail.com for more information.

Green Teacher 2011 Free Webinar Series

Green Teacher recently launched their 2011 Webinar series, designed for both non-formal and formal youth educators. Almost 800 non-formal and formal youth educators filled out an online survey to help choose the topics for these thirty free webinars. Each session will feature a 20-30 minute presentation, and 30-40 minutes for questions and answers. For more details of upcoming webinars, and information on how to register, please visit <http://greenteacher.com/webinars>. You may also sign-up for webinar notifications.

Inola Green Schools Update by Les Pace

Inola students recently evaluated the lighting in the corridors of the middle school and found them to be over illuminated. We experimented and removed every other fixture in the corridor and then re-evaluated the light levels and found them to be more than adequate and meeting the illumination standards set by the Illuminating Engineering Society and the National Standards for Illuminating a K12 facility. The next step was to take pictures of the before and after, write a report describing the activity, giving before and after energy use, light levels, and then make a presentation to the board.

In March, Inola brought together the Green Teams from the elementary, middle and high schools to collaborate and set goals for the district's Green Schools Program. AEP/PSO has chosen Inola as a Benchmarking School and Inola also partnered with AEP/PSO in the Smart Schools Program that provides assistance and financial incentives for the installation of new energy efficient measures.

Student Spotlight: Salman Hamid

An enthusiastic and motivated 14-year-old Casady student, Salman Hamid, serves as a mentor to other students and schools in green awareness, including encouraging Mercy School to participate in the OK Green Schools Program. Salman will start his advocacy for school energy audits and awareness of carbon footprint calculators on Saturday, April 16 with an exhibit at the Nichols Hills Earth Day Celebration. Salman, formerly a student at Deer Creek Middle School, became motivated through his work as a Green Team member there. Deer Creek was the first school to complete the Oklahoma Green Schools Pilot Program in the school year 2009-2010. Casady staff members are very proud of Salman's efforts to educate about energy conservation in the OKC area.



Casady Service Learning Project for Martin Luther King Day by Carmen Clay

After attending the MLK Day energy auditing workshop here on the Casady campus, I left feeling somewhat amazed at what even small changes can make in the financial and consumptive make-up of an institution. Les Pace, energy use consultant, pointed the way for more sustainable energy use and ultimate savings for the school by focusing on just *lighting alone*. Simple measures, such as changing the panels covering over the lights in each room, can make qualitative differences in students' success. And this is just one measure an institution can implement. Changing the fixtures and installing more efficient bulbs, though having an initial outlay financially, can noticeably save the school money in the long run. And, lighting is just one of many components that can be addressed and changed with little disruption. We had also determined, with a simple measuring device, the CO₂ levels present and discussed how such levels affect a student's attentiveness and performance. Reducing said levels can be as simple as introducing more live plants to the learning environment – again, not an earth-shaking change to make and ultimately not that costly. And these changes can be done incrementally so as to reduce the expenses per alteration. In the long run, the sum total of these relatively minor changes can have substantial benefits to student/faculty well-being and success as well as the institution's financial well-being.

Meet the Experts: Christina Stallings Roberson, OK Forestry Services Education Coordinator

Christina was trained in Project Learning Tree (PLT) in 1996 and became a workshop facilitator the same year. In 2000, she took over the struggling Oklahoma PLT program as the state coordinator and began working closely with the National PLT staff to revitalize and strengthen the state program. She has personally conducted dozens of PLT and EE workshops around the state with participants ranging from early childhood educators through pre-service teachers and university faculty. She also conducts regular training for others interested in conducting EE or PLT workshops.



Christina has been on the Oklahoma Green Schools Program (OGSP) steering committee since early 2009, and was fundamental in tying the state OGSP to National PLT Green Schools. She also conducted many of the OGSP trainings at the 2009 pilot school sites as well as both training sessions for the 2010 prospects.

Christina is a member of OKAEE, the state NAAEE affiliate, and has served on the state board as well as participating annually in the OKAEE sponsored EE Expo. She is also a member of OSTA, the state NSTA affiliate, regularly exhibiting at that annual conference as well as many other conferences around the state and region. She also attends the National PLT Coordinators Conference each year to stay current on initiatives at the national level and in other states and in 2010, she attended the first National Green Schools Conference in Minneapolis, MN.

In all of her affiliations and memberships, Christina specializes in training and curriculum. She rewrote the training format for the Oklahoma Master Naturalists and has significantly increased membership and participation at workshops. She has collaborated with other agencies and organizations, such as Oklahoma State Parks, Leopold Education Project, and The Nature Conservancy and by correlating their materials to PLT activities, aided educators in their quest to teach state specific topics. She was also instrumental in writing a state specific arts and nature based early childhood curriculum.

Christina holds an MS degree in Environmental Science and a BS in Zoology, both from Oklahoma State University. She also holds a current Oklahoma professional teaching certificate in secondary science and social studies from the University of Central Oklahoma. Christina is an active member of the Oklahoma Native Plant Society, Oklahoma Master Naturalists and the Oklahoma Academy of Science.



Green Holiday Tips: Earth Day April 22

Earth Day is a great time to plan some fun, educational, and action-oriented activities. Celebrating Earth Day on or around April 22 can be a great way for schools to showcase classroom environmental education, highlight efforts to “green” the school facility, or engage the whole school community in making a difference. An Earth Day activity can be done in one class period, can take place over the course of a few class periods or a week, or can be a school-wide activity or fair. To make it easier for you, the Green Schools Initiative has compiled a list of fun and meaningful ideas here: http://www.greenschools.net/downloads/EarthDayIdeas_001.pdf and links to get you started. But use your own and your students’ creativity and dream up your own! Create an Earth Day Committee at your school with students, parents, and teachers to help plan the event.