



Arkansas Environmental Education Association

the **Natural State**

Quarterly Publication of the Arkansas Environmental Education Association

Winter / Spring 2010

Vol. 12 - No. 1

In This Issue

[EE Calendar](#)

[EExtras](#)

[The Money Tree](#)

[2010 EE Expo set for July 28](#)

[AEEA Sets 2010 Goals](#)

[Meet the Board](#)

[AEEA to Offer Mini-Grant](#)

[Globe at Night Campaign](#)

A great hello to all our AEEA Members!

After an extra snowy winter I feel like I am emerging from hibernation. As the last of winter melts away I am anxious for Spring. This winter I have spent more time inside, afraid that the winter cold might cause an illness during my first pregnancy, so I have missed a great deal of the beauty that nature holds because of chilly temperatures, but getting outside regardless of our age, income or physical abilities is more important than ever.

Many environmental educators have read the book, *Last Child in the Woods* by Richard Louv. The author's viewpoint has opened the eyes of many educators, parents, and everyday citizens to the importance of children spending time outside. I would even say that First Lady Michelle Obama's campaign *Move* holds great potential to be combined with a learning experience that

Green Jobs Will Exceed Trained Workers

Professional Development: How to Reset Your Attitudinal Dial

Out-of-State Professional Development

Two New Ways for Schools to Raise Money

Experts Urge Earlier Start to Teaching Science

Social Networking Sites

PLT Releases New Early Childhood Curriculum

Totally Trout Program set for March 6

Arkansas Environmental Education Association

Mission Statement: To promote environmental education and the work of environmental educators.

AEEA is a networking and information based organization that works with educators, students, business, government, and the general public to increase the awareness and knowledge about the environment.

Board of Directors

Executive Director

Brad Robertson, Bismarck

President

Sarah DeVries, Little Rock
Arkansas Department of Environmental Quality

Vice President

Rob Beadel, Little Rock
Arkansas Forestry Association

Secretary

Susan Bolyard, Fayetteville
US Geological Survey

Treasurer

Patricia Ouei, Lowell
UA Cooperative Extension Service

Members at Large

Betsy Spetich, Little Rock

reinforces to school administrators, home school associations, and parents that learning is not limited to a classroom, just as healthy living isn't limited to gym class or the light menu at your favorite restaurant.

As a new parent and an environmental educator I feel that quality environmental education programs are more important than ever before. The connections we make with nature shape our opinions and actions in the future and those opinions and actions have the capability to impact many other people.

The challenge to environmental educators is how to duplicate the accomplishments of the quality environmental programs that already exist. We need to do a better job in sharing the story of environmental education, and join together to create a generation of environmentally literate, conscious, and active citizens.

There are some individuals in our membership that have been able to do this. Jeff Belk of Rogers High School teaches a course that includes outdoor recreation and environmental science. Students in his class receive 0.5 Ecology credit and 0.5 P.E. credit for his course and all physical education activities have ecology incorporated into them. Some of the students in his class had never experienced the joys of canoeing, hiking, or spelunking with their families before enrolling in the class. They would never have known about the thalweg of a stream, or understand why pollution prevention is not just the right thing to do but is important to improve our quality of life.

Another example is the outdoor classroom and rain gardens installed in several school yards across the state. These outdoor classrooms inspire and motivate students and create a connection to the lesson. A students' mindset begins to change from 'having to do the work because it is assigned' to 'wanting to do the work because it is interesting'. This wanting, the interest, the curiosity, creates students who are problem solvers, who inquire, and think not just outside the box but beyond the original problem to identify even larger solutions.

However, some of our environmental education programs need improvement. As important as it is to change the mindset of students we also need to change the mindset of educators to modify, change and evaluate ourselves and our programs. We need to ask, "Are we reaching our audience?" In my own experience if I conduct the same program over and over the material can become stale, students can tell and they lose interest, I have lost my audience. But if I keep an open mind to new ideas, and I use these to modify and create new components to the program it remains fresh and alive which encourages students to be more involved.

Regardless of the environment program that you are

Arkansas Department of Environmental Quality

Keith Harris, Little Rock
University of Arkansas Little Rock

John Kutko, Clarksville
Clarksville Primary School

Gloria Stephens, Little Rock
Arkansas Department of Education

Diana Angelo, Perryville
Natural Resources Conservation Service

Terri Hebert, Conway
University of Central Arkansas

Ronnie Monroe, Little Rock
University of Arkansas Little Rock

Suzanne Hirrel, Little Rock
Leopold Education Project

implementing, you must find the components that work for your audience and develop them to reach those you seek to educate. It is vital that we stop making excuses about a lack of resources or national programs with little funding, but instead we must focus on the goal of creating the best environmentally literate, conscious, and active citizens we can. It is with this goal in mind that I challenge you to keep up the good work.

Now that my son is born I plan to spend a lot more time outside. Remember to take time for yourself, get outside and enjoy the Natural State.

Sincerely,

Sarah DeVries
2010 AEEA Board President

EE Calendar

March 19

WET-WILD-PLT workshop

Janet Huckabee Arkansas River Valley Nature Center

Ft. Smith, Arkansas

To register, contact: Karen Westcamp-Johnson

(479) 452-3993 or

kdwestcamp-johnson@agfc.state.ar.us

March 31

WET-WILD-PLT workshop

Witt Stephens, Jr. Central Arkansas Nature Center
Little Rock, Arkansas

To register, contact: Hollie Lisk

(501) 907-0636 or

2010 EE Expo set for July 28

"Environmental Education - a Natural for Arkansas

Officially known as "The Natural State", Arkansas is recognized throughout the country for its natural beauty, clear lakes and streams, and abundance of natural wildlife.

Environmental education is a natural fit in Arkansas.

The 2010 EE Expo is set for Wednesday, July 28th at the Brewer-Hegeman Conference Center on the University of Central Arkansas campus in Conway. Environmental organizations, agencies, educators, students, and professionals will have the opportunity to network and learn from others who are involved in conducting environmental programs and projects here in "The Natural State". EE Expo will include presentations, hands-on sessions, exhibit booths, keynote speakers, resource tables, and silent auction. Come join us for a fun and educational event.

COST: Early Bird Registration through June 30:

AEEA members \$45

Non-members \$60

On-site Registration:

AEEA members \$65

Non-members \$80

Registration fee includes: awards luncheon, breaks, and 6

hrlik@agfc.state.ar.us

April 11-17

National EE Week

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

April 26

Reading and Project WET workshop

Hispanic Community Services

311 West Huntington Avenue

Jonesboro, Arkansas

To register, contact: Barbara Miller millerb@adeq.state.ar.us or (501) 683-5407

April 29 & May 6

Project WET and Wonders of Wetlands workshop

4pm - 7pm both nights

Must attend both sessions

Mabelvale Middle School

10811 Mabelvale West Road

Little Rock, Arkansas

To register: Little Rock teachers register through your LRSD professional development site and others contact: Barbara Miller millerb@adeq.state.ar.us or (501) 683-5407

May 10-11

AAMLE 22nd Annual Professional Development Conference

Hot Springs, Arkansas

<http://www.aamle.org>

May 26-29

Neighborhood USA Conference

hours of ADE-approved professional development.

Registration information, Request for Proposals, Exhibitor Registration, and Sponsorship information is available at: <http://www.arkansasee.org/content/expo-and-ee-fest>.

AEEA Board of Directors Sets Goals for 2010

The 2010 AEEA Board of Directors met on February 6th at the annual Board Retreat to set goals and discuss direction of the organization for the new year. The goals for 2010 included:



- Increase general membership to 175
- Provide two mini-grants (one for formal educator and one for non-formal educator)
- Conduct a successful EE Expo with an attendance goal of 100+
- Continue to develop an Environmental Literacy Plan for Arkansas
- Begin planning for two EE Fests in 2011

The Executive Director and the Board have set some lengthy goals for 2010 but with their determination and dedication they feel these goals are achievable. Become an "active" member, get involved with AEEA, and help achieve these goals to grow AEEA!!!

Meet the Board

Let's introduce you to a couple of our new Board members.

Little Rock, Arkansas

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

June 8

PLT Early Childhood & Growing Up WILD workshop

Witt Stephens, Jr. Central Arkansas Nature Center

Little Rock, Arkansas

To register, contact: Sarah Baxter
sabaxter@agfc.state.ar.us

June 12

PLT and Energy & Society workshop

Bull Shoals State Park Visitor's Center

Mountain Home, Arkansas

To register, contact: Rob Beadel
rbeadel@arkforests.org

June 16

Project WET and Wonders of Wetlands workshop

Boone County Library

221 W Stephenson Road

Harrison, Arkansas

To register, contact: Barbara Miller
millerb@adeq.state.ar.us

June 24

Project WET and Wonders of Wetlands workshop

Mabelvale Middle School

10811 Mabelvale West Road

Little Rock, Arkansas

To register: Little Rock teachers register through your LRSD professional development site

Dr. Terri Hebert



Terri is a relative newcomer to the Natural State, moving because of her job almost five years ago from Tyler, Texas. She has been in public education for 25 years, teaching primarily science to a variety of

students in grades 4th-10th. Beginning her teaching career in Louisiana, Terri immediately saw the need to reach out to area informal science agencies as a means of enhancing her students' learning experiences.

Upon her relocation to East Texas, she began her administrative career - first as a district librarian and later as science coordinator of the largest public school district in the area. Also during this time, she returned to school to secure her master's degree in educational technology and later her doctor's degree in secondary education/educational leadership.

It was then that Terri moved to Arkansas to serve as the Central Education Renewal Zone Director, housed at the University of Arkansas at Little Rock. She then transitioned from a grant-funded position to a tenure-track position at the University of Central Arkansas, where she remains as Assistant Professor in the College of Education's Department of Teaching and Learning.

As a new member of the Arkansas Environmental Education Association Board, Terri looks forward to working with state environmental education leaders as advancements are made to improve science knowledge and skills for all.

Diana Angelo

Diana is a Cartographer/Archeologist with the Natural Resources Conservation Service in Little Rock. She has previously worked with Arkansas Game & Fish Commission as an Education Coordinator and 12 years with the National Park Service at the Buffalo National River and Agate Fossil Beds National Monument in Nebraska. She has also been a cave tour guide at Cosmic Caverns near Berryville.

and others contact: Barbara Miller millerb@adeq.state.ar.us or (501) 683-5407

July 7

Wonders of Wetlands workshop

Janet Huckabee Arkansas River Valley Nature Center

Ft. Smith, Arkansas

To register, contact: Kendra Ingle kgingle@agfc.state.ar.us

Please include your name, school name, email address, and phone number

July 20

Project WET and Wonders of Wetlands workshop

Cossatot River State Park

1980 Hwy 278 West

Wickes, Arkansas

To register: register through the DeQueen/Mena Education Service Cooperative at (870) 386-2251 or email ramseyc@dmec1.dmesc.k12.ar.us

July 28

EE Expo

Brewer-Hegeman Conference Center

UCA Campus

Conway, Arkansas

<http://www.arkansasee.org>

July 29

Pharmaceuticals, Water Quality and Project WET workshop

Westside Wastewater Treatment Plant

Diana has 25 years experience with Girl Scouts of America as a scout leader, leader recruiter and trainer, outdoor educator, and Resident or Day Camp Director/Co-director. Her background also includes time in the classroom as an elementary school teacher.

Please join me in welcoming our new 2010-2011 Board members and wish the 2010 Board best of luck as they continue to grow EE in Arkansas and serve the EE community.

AEEA to Offer Mini-Grant

Last fall, AEEA awarded one of it's members the first AEEA mini-grant. Ms. Kristi Trotter-Hattenhauer, a teacher at Jonesboro Math and Science Magnet School, received the award to help with a Butterfly and Moth Indoor Garden.

The Arkansas Environmental Education Association offers members the opportunity to apply for up to \$150 in the AEEA mini-grant program. The mini-grant program is designed to support, enhance and expand the implementation of environmental education throughout the state of Arkansas. Two grant cycles are held each calendar year; the Spring funding cycle is open for non-formal educators and the Fall funding cycle is open for formal classroom educators.

Watch for upcoming announcements for more details on this Spring's mini-grant opportunity for non-formal educators.

5th Annual Globe at Night Campaign

What: The Globe at Night Campaign

When: 8pm to 10pm local time, March 3-16, 2010

Where: Everywhere

Who: You! (Everyone!)

15 South Broyles

Fayetteville, Arkansas

To register, contact: Barbara Miller millerb@adeq.state.ar.us or (501) 683-5407

EExtras

Presidential Awards for Excellence in Mathematics and Science Teaching

Nomination deadline April 1

The Presidential Award for Excellence in Mathematics and Science Teaching is the highest recognition that a K-12 mathematics or science teacher can receive for outstanding teaching in the United States. Awards are given to mathematics and science teachers from each of the 50 states and four U.S. territories. Recipients of the award receive a citation signed by the President, a paid trip for two to Washington, D.C. to attend a series of recognition events, professional development opportunities and a \$10,000 award from the National Science Foundation. [Click here to learn more.](#)

It's About Us - 2010 Census in Schools

The 2010 Census - a count of everyone living in the United States - will happen in March and April. The US Census Bureau has created fact sheets and lesson plans for Kindergarten through 12 grade to help teachers and students understand the census and the

How: See <http://www.globeatnight.org>

Why: With half of the world's population now living in cities, many urban dwellers have never experienced the wonderment of pristinely dark skies and maybe never will. This loss, caused by light pollution, is a concern on many fronts: safety, energy conservation, cost, health and effects on wildlife, as well as our ability to view the stars. Even though light pollution is a serious and growing global concern, it is one of the easiest environmental problems you can address on local levels.

Globe at Night is an annual 2-week campaign in March that helps to address the light pollution issue locally as well as globally. This year the campaign is March 3-16, 2010. You are invited along with everyone all over the world to record the brightness of your night sky by matching its appearance toward the constellation Orion with star



maps of progressively fainter stars found at http://www.globeatnight.org/observe_magnitude.html. You then submit your measurements on-line at <http://www.globeatnight.org/report.html> with your date, time and location. A few weeks later, organizers will release a map of light-pollution levels worldwide.

Over the past four 2-week Globe at Night campaigns, volunteers from over 100 nations have contributed 35,000 measurements. To learn the five easy steps to participate in the Globe at Night program, see the Globe at Night website at <http://www.globeatnight.org>. You can listen to a 10-minute audio podcast on light pollution and Globe at Night at <http://365daysofastronomy.org/2010/02/03/february-3rd-the-globe-at-night-campaign-our-light-or-starlight/>

For activities that have children explore what light pollution is, what its effects are on wildlife and how to prepare for participating in the Globe at Night campaign, see the new activities at <http://www.darkskiesawareness.org/DarkSkiesRangers>.

Monitoring our environment will allow us as citizen-scientists to identify and preserve the dark sky oases in cities and locate areas where light pollution is increasing. All it takes is a few minutes during the March 2010 campaign to measure sky brightness and contribute those observations on-line. Help us exceed the 15,000 observations contributed last year. Your measurements will

importance of getting counted.
www.census.gov/schools/

make a world of difference.

Green Jobs Will Exceed Trained Workers, Says Report

National Environmental Education Week

April 11-17, 2010

National Environmental Education Week connects educators with environmental resources to promote K-12 students' understanding of the environment. Our nation's water and energy resources are increasingly relevant topics of discussion in today's media, classrooms, and homes. Recognizing the importance of conserving both water and energy to protect the planet and reduce costs, and acknowledging the interdependence between water and energy, EE Week's 2010 theme is Be Water and Energy Wise! When you register for EE Week, you will receive certificates of participation, free online resources, information on professional development and funding opportunities, and access to discounts and special offers on educational materials just for EE Week participants. Register today at www.eeweek.org/register.

By Cindy Chan

Epoch Times Staff Feb 18, 2010

<http://www.theepochtimes.com/n2/content/view/29992/>

FOREWORD: Even though this article is written about the Canadian job market, this trend is also being seen in the United States and throughout the world.



A construction worker walks on a green roof at the 2010 Athletes Village on Nov. 4, 2009, in Vancouver, Canada, host city of the 2010 Olympic Winter Games which began on Feb. 12, 2010. (Jeff Vinnick/Getty Images)

OTTAWA-Jobs in the environmental sector are growing rapidly and Canada needs to catch up to train more workers to meet the demand, says a recent report.

The Canadian Council on Learning (CCL), the country's national organization for educational research, says that in 2011 the demand for environmental employees is expected to increase by 8.1 percent, fuelled by rising interest in environmental issues.

Taking the latest figures from ECO Canada, an industry-led group that specializes in research, training, and certification of environmental careers, the council says the pool of qualified workers is not keeping up with the rising

PLT's new GreenSchools! Initiative

PLT's new national GreenSchools initiative provides a blueprint for educators, students, environmental and health advocates, school board members, parents and

interested community members to teach, learn, and engage together in creating a more green and healthy learning environment at their school by combining environmental education, service learning, and leadership opportunities for students to help turn their school into a model GreenSchool. Schools can provide a healthy environment for students and staff, promote ecological sustainability, reduce consumption patterns, and teach students to be environmental stewards of their communities and of the earth and its resources. The program combines professional development, student investigations, and service learning projects. For more information or to register your school, go to

www.pltgreenschools.org.

The application for the 2010 Summer Teacher Institute at the Exploratorium is now available!

The Arkansas Discovery Network is once again sending six teachers from Arkansas to the Exploratorium Summer Teacher Institute in San Francisco, California. This is your last chance to attend the Institute with the Arkansas Discovery Network, so apply today! The Institute is a 4-week professional development experience that will invigorate your teaching with techniques to inspire your students to become excited about learning. The institute will be held June 21 through July 16, 2009 (the application deadline is March 17, 2009).

For more information or to

demand.

The council says that the number of graduates from post-secondary environmental programs dropped by 9 percent between 1999 and 2005. It also estimates that in the meteorological field alone this year there will be more than 3,000 unfilled jobs.

"The green economy is an undeniable part of our society and global culture, and it is critical that Canada is prepared to meet this sector's need for skilled workers," said Paul Cappon, CCL's President and CEO, in a press release.

Careers in the green economy span a broad range. Some examples include botanist, geologist, oceanographer, landscape architect, petroleum engineer, eco tourist operator, environmental lawyer, park interpreter, policy analyst, and pollution control technologist.

ECO Canada estimates that the environmental sector accounted for more than half a million jobs across the country in 2006. By 2011, the demand in this sector is expected to increase by nearly 40,000 jobs, reaching more than 570,000.

Mr. Cappon notes that people who pursue environmental careers are "a special shade of green," as they are drawn to their professions by personal belief rather than money or power.

"Students choose green careers primarily because of their personal interest in environmental issues, strong emotional connection towards the environment and passion about the environment and environmental issues," the CCL report said.

While the CCL findings identify the impending skills shortage, they also point to some potential solutions.

Based on research on career choices in the environmental sector, CCL recommends stimulating students' interest in the environment early as the key to increasing the supply of environmental program graduates.

The elementary- and middle-school years are important times for providing environmental education programs to children.

The CCL report suggests offering students experiential activities such as outdoor programs, field trips, and summer camps to stimulate a sense of empowerment and interest in environmental work.

Research suggests that both students and teachers may have a limited understanding of the diversity of jobs available in the environmental sector, and may even have stereotypical misconceptions about certain careers. They

download an application, [click here](#).

The Money Tree



Oh, if it was just that easy. This section provides information and resources for grants and

funding available for environmental education projects, programs and classrooms. Good Luck!

ACS-Hach High School Chemistry Grant

The ACS-Hach High School Chemistry Grant is a great opportunity for chemistry educators to request up to \$1,500 for any purpose that enhances the teaching and learning of chemistry within their classrooms (i.e., professional development courses, laboratory supplies, instructional materials, and technology tools).

Applications are currently being accepted through April 1, 2010 for the 2010-2011 academic year. Details about the grant and the application process can be found at www.acs.org/hach.

Nature Hills Green America Awards

The Nature Hills Nursery Green America Awards recognize

need better information about the sector and its career opportunities, CCL says.

Another challenge is the numerous career-related resources available that can cause indecision and anxiety without proper guidance.

Students need help to navigate and make sense of all the information and to work through the career decision-making process, recommends the report.

Teacher Magazine
Published: February 3, 2010

Professional Development: How to Reset Your Attitudinal Dial

By Vicky Gilpin

The air is getting warmer, or at least we like to think so. The students are still eager return to school, and everyone awaits the start of new television episodes. It's that time of year again, when we endure the chill of winter because we believe in the coming of spring.

It's also time to prepare for a string of professional development workshops that are impossible to avoid. Whatever the acronyms used for the credits or points required for continued certification by a state or district, teachers have a need to collect them, and the easiest way to do so is by attending workshops, conferences, or other training sessions.

nonprofit organizations that submit a local environment community project that makes best use of the trees, bushes and shrubs that Nature Hills Nursery will award (Grand Prize \$2,500 value). Deadline for submission is April 1, 2010. [Click here for details.](#)

Walmart State Giving Program

The Walmart State Giving Program seeks to support organizations with programs that align with their mission to create opportunities so people can live better. The Foundation has four areas of focus: Education, Workforce Development / Economic Opportunity, Health & Wellness, and Environmental Sustainability. Minimum grants are \$25,000. The submission deadlines are April 17 and September 18 each year. [Click here for details.](#)

Siemens We Can Change the World Challenge

Entry deadline varies by grade level

The Siemens "We Can Change the World" challenge offers students the opportunity to make a sustainable change matched to science, math and reading/language arts concepts and skills. Teams of students find an adult mentor who will play an active role in guiding student development of the project and submission of materials. The entry period for



Teachers participating in a hands-on, interactive Project Learning Tree activity during a professional development workshop.

I'll confess. I enjoy workshops. I like the opportunity to have someone teach me for a while. However, as I ran through a typical string of professional development opportunities recently (some voluntary and some mandatory), I started thinking about the old adage: "Teachers make the worst students." My co-workers are good workshop attendees. They usually pay attention, ask questions, and write notes about the content of the presentation. But I can recall some professional development days where we weren't so...professional.

I remember one workshop where the speaker was so monotonous and the lack of professional courtesy so acute that teachers were openly passing notes, playing hangman, drawing, grading, and otherwise passing the time until they would be released. This was also the day when we threatened to stage a revolt after the speaker attempted to tell us we could not take a bio-break after four hours in our seats. If memory serves, it was also during this session that I created a twelve-stanza haiku that elaborated upon activities in which I would rather be participating. It was not, perhaps, my finest moment as an educator or a professional.

As someone who also presents at conferences often, I've been thinking more about the levels of responsibility during a workshop or other professional development activity. Of course, as teachers we have a right to expect that the presenter will be engaging, relevant, and triple-check his or her PowerPoint presentations for typing errors. But what are the responsibilities of the listeners?

Obviously, few of us are going to be in joyous ecstasy anticipating each and every professional workshop we're required to attend. Often we'd rather be grading, prepping for future lessons, or engaging in teaching-based activities-not to mention getting some

submissions has already begun and ends January 31 for elementary school groups and March 15 for middle school groups. [Click here for details.](#)

Project AWARE Foundation Grant

The Project AWARE Foundation is committed to the preservation of the aquatic environment and its resources throughout the world through education, advocacy, and action. The Foundation provides grants for the conservation of both marine and freshwater underwater environments, with a focus on coral reefs, shark protection, sustainable fisheries, ecotourism, shoreline cleanups, and aquatic education for children. Grants range up to US \$10,000. The application deadlines are March 15, June 15, September 15, and December 15, annually. [Click here for details.](#)

Digital Wish Grants

Digital Wish offers 43 different grants for digital camera hardware and software for your classroom. To apply, register your classroom at Digital Wish and enter a lesson plan. All teachers who submit a lesson plan on Digital Wish will be automatically entered to win a Mobile Digital Camera Lab plus as many as 43 technology grants. Grants will be awarded on the 28th of every calendar month. [Click here for details.](#)

sleep, taking more than five minutes to eat a meal, or remembering what our loved ones look like in natural light. However, like our students, teachers must have accountability for what we get out of a learning opportunity.

Barring the ubiquitous professional development days that are inappropriate for the audience (too often have I been to workshops touted as perfect for my grade level and subject area, only to find upon arrival that they are focused on strategies for an entirely different age level and subject area), I believe every presenter has some kernel of wisdom to share.

Going With The Grain

The Allyn & Bacon Guide to Writing (2009) presents a strategy of reading called "against the grain" and "with the grain" to encourage readers to explore works using multiple perspectives. When reading with the grain, the reader accepts the material's thesis and seeks to discover its relevance and application. When reading against the grain, the reader searches for ways to resist the thesis of the work and challenge the author's arguments.

Many teachers simply cannot quell the tremor of dismay they feel if a conference or "brand new implementation" appears to be the same-old defunct strategy, gift-wrapped in a shiny new acronym. But I'm here to argue that going to a professional development activity can be more rewarding if the participants are determined to make it so. If we teachers attend workshops with an open mind, we can retain our objectivity and analytical awareness while also being receptive to ideas we might otherwise have overlooked.

Instead of immediately assuming that familiar-sounding material at a conference is just re-packaged initiatives from five years ago, I try to remember where I last heard the information and attempt to make connections between the professional development activities then and now. By doing that, I've become more adept at detecting when ideas presented in seminars and workshops are not simple re-hashes but attempts to build on previous implementations.

For example (and forgive the jargon in advance), by smoking out the KRSP method-Knowledge, Reasoning, Skills, and Product-lurking behind the content of a recent standards-alignment workshop, I was able to make deeper connections between the presented ideas and the Response to Intervention strategies my school is developing. I had a similar experience on a recent morning when I heard echoes of Harry Wong's ideas in the PBIS-Positive Behavioral Interventions and Supports-workshop.

Had I been seeking to listen to these speakers against the grain, I would have missed several great opportunities for learning (and an "aha" moment or two) and would have left the presentations with a lot of annoyance and little understanding. But when teachers set their attitudinal dial to go with the grain, we have a much better chance at gaining something meaningful from almost any presentation or workshop. And when we consciously adopt a specific and positive mindset before the event begins, we're also in a position to encourage colleagues to look for connections and join us in some

Captain Planet Foundation Grants

The Captain Planet Foundation provides grants of up to \$2,500 to school and community groups to support hands-on environmental projects. You can submit a proposal at any time during the year. However, proposals will only be reviewed the last day of March, June, September, and December. [Click here for details.](#)

My Big Green Idea Scholarship Program

PNY Technologies, Inc. is challenging high school seniors to conceive an Eco-friendly solution, product, or idea that will help to save the environment using PNY technology; whether it is at your home or school, in your community or even on a national level. Submissions will begin to be received on November 1, 2009. Final submissions must be received no later than March 15, 2010. [Click here for details.](#)

Visit Our Sponsors



open-minded discussion rather than immediate resistance.

I'm not promising that I will never doodle during a presentation-I'm no Pollyanna. But I strongly believe that I have a much better chance of growing as a professional by listening closely and making intentional connections than I did back in the days when I was crafting my mega-haiku or puzzling through my weekly grocery list.

Vicky Gilpin is an English, speech, and drama teacher at rural Cerro Gordo High School near Decatur, Illinois. She holds a doctorate in educational leadership and is completing studies at the University of Illinois to become credentialed as a Master Online Teacher.

Out-of-State Professional Development Opportunities

Great Lakes Bioenergy Research Center Summer Programs for Teachers - Summer 2010

The Education and Outreach area of the Great Lakes Bioenergy Research Center (GLBRC) supports and collaborates on a diverse array of programs that mainly address the needs of K-12 and undergraduate learning communities, and topically address bioenergy-related issues ranging from biotechnology to sustainability. Programs are scheduled for summer 2010. [Learn more](#)

2010 AITC Agriculture in the Classroom National Conference - June 24-26, 2010

Educators of all grade levels are invited to participate in the 2010 National Agriculture in the Classroom Conference, being held June 24-26 in Baltimore, Maryland. A variety of hands-on workshops will be held, as well as a tours and a "Share Your Best" resource fair, all designed to help educators teach about agriculture and give students a greater awareness of the role of agriculture in the economy and society. [Learn more](#)

Approaching Walden 2010 Seminar - July 11-16, 2010

The Walden Woods Project is currently accepting applications for Approaching Walden, a professional development summer seminar for high school educators and graduate students. The six-day workshop provides teachers with the skills needed to lead their students in a study of their home community. The place-based, interdisciplinary workshop uses Henry David Thoreau's ethic and his experience at Walden Woods as a model.



Pine Ridge Gardens

...helping restore the earth



[Learn more](#)

Green Schools National Conference - Oct. 24-26, 2010

The 1st Annual Green Schools National Conference will be held October 24-26 in Minneapolis, Minnesota. The focus will be Growing Green Schools Across America with breakout sessions built around the topics of sustainability education, green practices at school, green school facilities, community involvement, green economics and green careers. [Learn more](#)

Two New Ways for Schools to Raise Money

Do You Know Someone Who Should Be a Member of AEEA???

Help us recruit new members and grow our network of Environmental Educators in Arkansas. Share this email and encourage colleagues to join AEEA.

Click [here](#) for membership information and to download a membership form.

Purchase your AEEA merchandise online!

www.cafepress.com/arkansasee

Mugs, shirts, t-shirts, bags, buttons, stickers, and more!!!

Proceeds benefit projects and programs offered by AEEA

TerraCycle is now accepting more materials for reuse while helping schools raise money. Three brands of writing utensils-Sharpie, Paper Mate, and EXPO-will be collected and turn into new products through the "Writing Instrument Brigade."

The free program is available to any school and is easy to operate. Schools sign up with TerraCycle, at www.terracycle.net, then print a pre-paid shipping label from the website to send the collected pens, markers, and other writing instruments back to TerraCycle for upcycling into new products. TerraCycle will donate two cents per writing instrument to the school.



Through the Elmer's Glue Crew Recycling Program, classrooms can win prizes along the way for their participation in collecting empty Elmer's glue bottles and sticks.

Through the Brigades, TerraCycle and its sponsors help schools or other community groups raise money. Participation is free and all shipping costs are paid. To date, more than 70 million juice pouches, 11 million cookie wrappers and 500,000 energy bar wrappers were kept out of landfills. TerraCycle and its sponsors paid almost \$500,000 dollars to more than 50,000 schools or non-profits.

The entire list of Brigades is available at www.terracycle.net.

[Education Week](#)

Vol. 29, Issue 18

Experts Urge Earlier Start to Teaching Science

By Debra Viadero

The sand-and-water table in Barry Hoff's classroom in the Southampton Head Start program on New York's Long Island, used to be filled with sand on two sides.

But water was restored to the table last month as 16 preschoolers stood around it, dipping and pouring water through tubes and funnels, squeezing it through turkey basters, and learning, in the process, something of what it's like to think like scientists.

The change in Mr. Hoff's room, and in a handful of other classrooms like it around the country, stems from growing interest among academic experts and educators in teaching science to preschoolers.

"I think a lot of preschool teachers aren't aware of the fact that preschoolers can figure out things like they do, or make predictions as they do," said Mr. Hoff, who's been teaching preschool for four years. "But some of the things we're doing now are things that children find a lot of wonder with."

Three years ago, when a task force of the congressionally chartered National Research Council issued influential recommendations for improving K-8 science education, it also made a pitch for introducing scientific study even before the start of formal schooling, with children as young as 4.



Kailyn Frank, 4, center, framed by tubing held up by a student, uses a turkey baster to draw water from a plastic bin during a "Water Exploration" exercise at the Southampton Head Start facility in Riverhead, N.Y., on Jan. 12. -Emile Wamsteker for Education Week

"The commonly held view that young children are concrete and simplistic thinkers," the report said, "is outmoded." Refuted, some experts added, by decades of research in cognitive science and developmental psychology.

Concerns about American students' performance on international science tests and the supply of students pursuing careers in science, technology, engineering, and mathematics, or STEM, fields, combined with the expansion of federal testing requirements to include high school science, have served in recent years only to heighten that call.

Yet, as University of Miami researcher Daryl B. Greenfield found in a [Florida study](#) testing the school-readiness skills of more than 5,000 Head Start graduates, science is one of the areas in which children show the least learning growth during their preschool years.

Shells and Magnets

"Most teachers will have a science area in their classroom, ... and if you look on plans, you would see something listed as science but, in reality, there would be some shells, some magnets, and maybe a pumpkin, or a book about animals in winter," said Nancy Clark-Chiarelli, a principal research scientist at the Education Development Center, a research group based in Newton, Mass. "But those items are not conceptually related, and they don't promote children's independent exploration of them."

If preschool teachers had water tables in their classrooms, Ms. Clark-Chiarelli and her EDC research partners found in their work, they were often turned into bathing areas for plastic dolls rather than used as science-teaching tools.

Ms. Clark-Chiarelli and her colleagues sought to improve preschool science teaching by crafting a "Young Scientist" curriculum series with support from the National Science Foundation. The guides focus on teaching children about the natural world and developing their knowledge of physical science through building structures and water play.

Because preschool teachers are often uneasy about teaching scientific concepts, the research team also developed an accredited professional-development program for them, and assessments to determine whether teachers and their pupils were benefiting from the added instruction.

The EDC researchers field-tested the program with 50 Massachusetts teachers working in Head Start, the federal preschool program for disadvantaged children, and found "dramatic" learning gains for teachers, coupled with "promising" improvements for their young students in two of the three science content areas on which the guides focus.

Beyond 'Amazing'

Now, with funding from the U.S. Department of Education's Institute of Education Sciences, the researchers are engaged in a larger study testing the curriculum's efficacy in Mr. Hoff's class and dozens of other New York Head Start classrooms in Westchester County and on Long Island. Halfway into the six-month training program, Mr. Hoff said the knowledge he has gained is already transforming his teaching.

"I do consider myself scientifically minded, but before it was more or less 'Let's see this,' or 'This is amazing,' and I'd kind of explain what was occurring and move on," he said in an interview. "This is something to guide [his students] on to exploring, and it seems to have more lasting impact on their learning."

When his students play with the water, for instance, he makes notes of what they're doing and used the notes later on, during discussion time, to coax children to share their discoveries. What did you do with the funnel, he might ask, or how did you get the water in the tubes? Did you notice any bubbles?

"Because kids can parrot back what they hear, teachers think they know more than they do," said Cindy Hoisington, who is working with Ms. Clark-Chiarelli as a lead instructor and teacher mentor on the project. "Kids don't know bubbles are full of air, and teachers are kind of shocked because they thought their kids knew that."

New efforts to teach more science in preschool come at a time when early-childhood educators worry that a growing emphasis on academics during those years is crowding out the playtime that children need for healthy development.

Kathy Hirsh-Pacek, a psychology professor at Temple University, in Philadelphia, counts herself as one of those advocates. But she says efforts to expand preschool science teaching need not necessarily conflict with young children's need for playtime. Science can be taught in the context of play.

"The people who are pure play people suggest that you need to have free play for young children, and I think the evidence is pretty clear on that," Ms. Hirsh-Pacek said. "But I also think the evidence is pretty clear that you don't

just need to have free play for children. There's free play, and there's guided play."

"You just have to be careful," she added, "because sometimes adults can become too intrusive and the play just stops."

Science Talk

The EDC researchers say their efforts also go hand in hand with the growing emphasis in preschool programs on developing children's language skills.

"We believe in order to have good discussions, you have to have something to talk about," Ms. Clark-Chiarelli said.

Research-and-development efforts aimed at improving preschool science instruction are also under way at the Center for Math and Science Education at the University of Texas and the University of Miami, where Mr. Greenfield is developing an assessment of preschoolers' science readiness, as well as other locations.

In September, meanwhile, a team of researchers led by Rochel Gelman, a cognitive psychologist from Rutgers University's Busch campus in Piscataway, N.J., published a book on the subject called [*Preschool Pathways to Science: Facilitating Scientific Ways of Thinking, Talking, Doing, and Understanding*](#).

"In preschool, you find that kids are natural scientists, whether it's life science, earth science, or physics," said Mr. Greenfield. "Young kids are interested in changes in the weather or whether something is hard or soft. They have a natural curiosity about the world."

Social Networking Sites Provide Tools for Connecting People and Information

The Facebook logo, consisting of the word "facebook" in white lowercase letters on a blue rectangular background.The Twitter logo, consisting of the word "twitter" in a light blue, rounded, lowercase font on a white rectangular background.

Do you blog or tweet? Do you have a Facebook or Twitter account? These terms were nonexistent several years ago but in today's world of social networking they are becoming the newest way to share information. Organizations, state and federal agencies, and many, many more entities are setting up fan pages and groups on Facebook to share information about their organization, programs, and projects. This provides instant communication and access to developing issues, news, and events that people are most interested in following.

The **Arkansas Environmental Education Association** has a group page on Facebook. Check it out and join the group. Just follow this [link](#).

The **Arkansas Forestry Association** is another organization utilizing both Twitter and Facebook. Join their fan page and follow along by clicking [here](#).

The **Arkansas Science Teachers Association** has a fan page on Facebook as well. Check out their page [here](#).

Search Facebook and Twitter for your favorite organizations, businesses, and interests. You'll be surprised by the number of groups out there sharing information.

Project Learning Tree Resleases New Curriculum for Early Childhood Educators to Get Young Children Outdoors

Activity Guide and Music CD Teaches Children Ages 3 to 6 About the Natural World Around Them

Washington, D.C. - Just as more attention is being focused on the need to connect students to nature at a younger age, Project Learning Tree® (PLT) releases a new curriculum guide and music CD to engage children ages 3 to 6 in outdoor exploration and play. Eleven field-tested, hands-on activities showcase over 130 "early childhood experiences" which integrate investigations of nature with

art, literature, math, music, and movement. Early childhood educators and caregivers can obtain a copy of [PLT's Environmental Experiences for Early Childhood curriculum](#) by attending a PLT professional development workshop in their area.



"Exploring nature is a complete sensory experience, and early experiences with the natural world excite children's imaginations and foster their inborn sense of wonder and curiosity- important motivators for lifelong learning," says Kathy McGlauffin, Director of Project Learning Tree and Senior Vice President of Education for the American Forest Foundation,

the national sponsor of PLT.

"Increasing environmental literacy is a proven way to encourage scientific inquiry, and PLT's Environmental Experiences for Early Childhood provides an introduction to environmental education at a key developmental period in children's lives," adds McGlauffin.

Since 1993, PLT has provided environmental education training and academic curricula for pre-kindergarten and kindergarten educators to assist in their educational programming with young people. In response to a huge demand for more activities that use developmentally-appropriate approaches for reaching young learners, PLT has created a new early childhood curriculum and produced an accompanying music CD to provide a valuable resource designed specifically for early childhood educators.

"PLT's Early Childhood program encourages young children to learn about the natural world around them using their senses, the seasons, and neighborhood trees," says Al Stenstrup, Director of Education Programs at the American Forest Foundation. "The experiences in PLT's Early Childhood guide encourage children to explore, discover, and communicate in expressive ways. They emphasize outdoor adventure, support children having fun while learning, and utilize each child's imagination and creativity to provide opportunities for learning in groups or as individuals," he says.

The activities highlight the importance of kinetic learning and differentiated instruction, including opportunities to incorporate music and movement using the CD to encourage children to sing and dance. The music selections include instrumentals with different rhythms and cultural connections, nature sounds, classical music, and fun songs with educational lyrics from children's music artist Billy B. Brennan.

PLT's Environmental Experiences for Early Childhood guide includes background information on facilitating experiences for the early childhood learner, how to guide children in learning about nature both indoors and outdoors, and clear objectives and benchmarks to assess learning. It also includes suggestions for activities that

families and friends can conduct to enhance their child's learning experiences at home.

PLT's Environmental Experiences for Early Childhood guide has been correlated to national standards for preschool education by three major early childhood accreditation programs. All activities meet the National Association for the Education of Young Children criteria for curriculum, the North American Association for Environmental Education's Early Childhood Environmental Education Guidelines for Excellence, and the Head Start's Child Outcomes Framework.

Educators receive training and PLT's Environmental Experiences for Early Childhood materials by attending a professional development workshop. PLT's 50-state network trains 30,000 PreK-12 educators every year through 1,500 workshops held across the country. Contact information for each PLT state program can be found at www.plt.org, along with additional resources and correlations to academic standards and guidelines.

These 6 hour workshops are conducted throughout Arkansas and are offered free of charge; however a minimum of 15 participants (maximum 30) are required to conduct a workshop. To schedule an Environmental Experiences for Early Childhood workshop, Basic PLT workshop, or Secondary Modules workshops in your area - please contact Rob Beadel at (501) 374-2441 or rbeadel@arkforests.org.

"Totally Trout" Program set for Little Rock on March 6

Trout fishing is a great adventure sport in Arkansas. The beauty and complexity of the sport are what sets it apart from other forms of fishing. The Arkansas Game and Fish Commission and Chesapeake Energy have partnered to bring a free event designed to teach interested anglers how simple trout fishing can be.



"Totally Trout" is a free event designed for the entire family. The program will be held at the Arkansas State Fairgrounds Hall of Industry on March 6 beginning at 9 a.m. and continuing until 2 p.m. Educational seminars, how-to demonstrations, biology lessons and door prizes are just a few of items that will be provided. ESPN Great Outdoor Games gold medalist Chuck Farneth will be on

hand for fly casting demonstrations. Come for a quick lesson or stay as long as you like.

Novices and seasoned veterans alike will find the free seminar entertaining and educational. For more information call (501) 223-6300 or go to <http://www.agfc.com/pdfs/TotallyTrout2010.pdf>.

DISCLAIMER: Websites referenced in this publication are solely for information and as a resource to the reader, and does not constitute endorsement, recommendation, or favoring by the AEEA, its Board of Directors or its membership.