



# Minnesota Project Learning Tree Educator Update

May 2009

*"The pleasures of spring are available to everybody, and cost nothing." – George Orwell (1903-1950) English writer*

E-newsletter for educators who have attended a Project Learning Tree workshop

## NEWS

### Nature Words Removed From Oxford Junior Dictionary

Children & Nature published an article bemoaning the removal of a rather large collection of nature vocabulary, most of which were replaced with "new" technology vocabulary.

[www.childrenandnature.org](http://www.childrenandnature.org)

### Minnesota Association for Environmental Education Conference

June 17 – 18, 2009

Five Hawks Elementary School and School Forest, Prior Lake

Cost: \$50 (one day) or \$75 (two days)

**Includes:** Wonderful indoor and outdoor sessions for teachers who want to teach outside and integrate environmental education into their curriculum, keynotes, lunches, snacks, great give-aways, CEUs, and more

**REGISTER NOW!** <http://naaee.org/maee>



### Pre-Service Instructor Training

This is an FYI. Minnesota Project WET and Learning Tree received a national grant to mentor 15 new pre-service instructors to integrate the Projects at colleges and universities in Minnesota that teach education classes.



### DNR Volunteer Training for PLT, WET, WILD Aficionados

Want to lead your **own** PLT, WILD, or WET workshop? You can! Every other year, the Projects get together to put on a fabulous 2-day training for those who want to become a *DNR volunteer workshop facilitator*. The training is **FREE**, and you get a lot of mentoring and free stuff to help you conduct workshops to an audience of your choice. You must have attended a PLT, WET, and WILD workshop in the past. To apply for this volunteer opportunity, visit

[www.mndnr.gov/education/teachers/facilitator\\_intro.html](http://www.mndnr.gov/education/teachers/facilitator_intro.html)

(Already a facilitator? New stuff will be introduced. We encourage you to join us!)



This could be you!

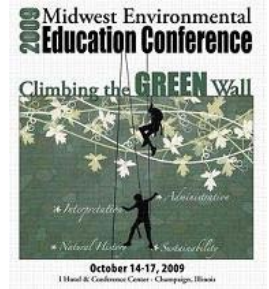
## Midwest Environmental Education Conference

October 14 - 17, 2009

Champaign, Illinois

Cost: \$200 - \$225 per person (includes all sessions, field trips, keynotes, and most meals.)

[http://eeai.net/annual\\_conf.htm](http://eeai.net/annual_conf.htm)



### Do You Need a Classroom or Field Day Presenter?

Post your presentation needs (the who, what, why, when, and where's) on [www.extension.umn.edu/FieldDays](http://www.extension.umn.edu/FieldDays).

University of Minnesota Extension sends this site to their state-wide network of "Minnesota Master Naturalist" volunteers who are always looking to present to an

audience. Master Naturalists are like "Master Gardeners," only they specialize in Minnesota natural history topics.

### Fact Sheet on Children's Health and Nature

Want more proof that being outdoors keeps us healthy both physically, mentally, and intellectually? Send this fact sheet to parents, principals, and administrators.

[www.neefusa.org/assets/files/NIFactSheet.pdf](http://www.neefusa.org/assets/files/NIFactSheet.pdf)

## TEACHER THRIFTIES: Free and cheap stuff

### Grant Wrangler Mailing List

Online resource for teachers, students, and schools to locate free money.

Sign-up for their e-mail [www.grantwrangler.com/](http://www.grantwrangler.com/)

### Gardenburger Community Garden Grants

Community gardening can range from creating a small school garden to adopting an abandoned plot of land and turning it into something useful and beautiful.

Neighborhood associations, schools, youth groups, community centers, camps, and clubs - as long as you activities are garden-related, you're encouraged to apply.

- Open to 501(c)(3) nonprofit organizations
- An organization can apply for a minimum of \$1,000 and a maximum of \$10,000
- Applications must be received by **May 15, 2009**

[www.gardenburger.com/Grants.aspx](http://www.gardenburger.com/Grants.aspx)



## Great Web Site! Frog Calls & Videos

A “webumentary” sponsored by the Chicago Herpetology Society is on [www.midwestfogs.com](http://www.midwestfogs.com) Web site. Included are documentary video clips of scientists discussing frog issues, declining amphibian populations, malformed frogs, and more.



## RECOMMENDED

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### Teaching in the Outdoor Classroom

June 8 – 12, 2009

Prairie Wetlands Learning Center, Fergus Falls

**Cost:** FREE (plus you get a \$100 stipend, 30 CEUs, free lodging, weather monitoring equipment, field journal, and more)

[www.fws.gov/midwest/pwlc/documents/biocampteache09.pdf](http://www.fws.gov/midwest/pwlc/documents/biocampteache09.pdf)

### Earth and Sky Radio Shows and Podcasts

*(Resource for almost all PLT activities)*

Teachers can find Earth & Sky radio shows and podcasts relating to a particular PLT activity through a quick link on the EarthSky ([www.earthsky.org/teachers](http://www.earthsky.org/teachers)) and PLT ([www.plt.org/cms/pages/21\\_21\\_64.html](http://www.plt.org/cms/pages/21_21_64.html)) Web sites.

### Composting With Worms

*(Resource for PLT’s PreK-8 activities “Nature’s Recyclers,” “the Fallen Log,” and “Soil Stories”;* GreenWorks! and GreenSchools! Programs)

From Mary Appelhof’s book, *Worms Eat My Garbage*, Appelhof found that red wiggler earthworms don’t mind living in a box, and will gladly eat the same things we do. The worm castings, or vermicompost, are a high-quality soil amendment that can be used for school, home, and garden plants. To get started with worm composting, check out the City Farmer’s Web site

([www.cityfarmer.org/wormcomp61.html](http://www.cityfarmer.org/wormcomp61.html)) and watch a video of a Master Composter (<http://freshtopia.net/vlog/?p=45>) demonstrating this technique.

### Teacher’s Domain: Photosynthesis

*(Resource for PLT’s PreK-8 activities “Every Tree for Itself,” “Three Cheers for Trees,” “To Be A Tree” and more)*

This video (<http://www.teachersdomain.org/resource/tdc02.sci.life.stru.photosynth/>) from Interactive NOVA: “Earth,” explores the history of plant biology. It takes the viewer from the earliest scientific hypotheses that plants ate dirt, to our present-day understanding of photosynthesis, the process by which plants use the sun’s energy to convert carbon dioxide and water into carbohydrates, a storable form of chemical energy. Recommended for grades 3 and up.



## No Idling Campaign

Cars idling in front of schools during pick-up and drop-off times greatly pollute the air our students breathe. Download the "School Toolkit" and reduce the amount of toxic fumes around your school or daycare center. [www.earthday.net/noidling](http://www.earthday.net/noidling).

**NO  
IDLING  
Young  
lungs at  
work**

## "Hidden" Section of PLT Web site Just for PLT Teachers

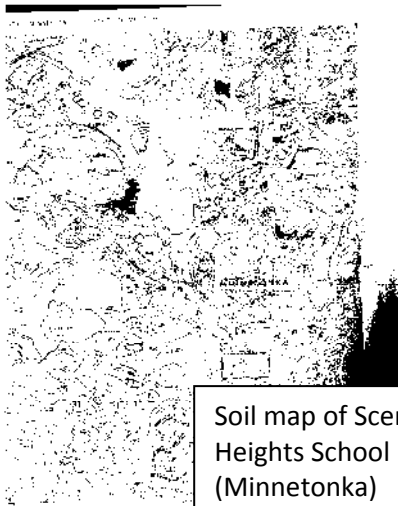
Go to [www.mndnr.gov/plt](http://www.mndnr.gov/plt).

Click on "Trained Teachers and Facilitators."

**Username is: teacher**

**Password is: minnesotaDNR**

This site is a bonus for teachers who have attended a PLT, WET, or WILD workshop, so use your benefits!



Soil map of Scenic Heights School Forest (Minnetonka)

## Want to Make Maps of Your School or Neighborhood?

"How to Create and Share a Custom Map" (from the University of Minnesota - Extension) is a great "how-to" video that shows students step-by-step instructions for making maps from Google Earth and other free Internet resources.

<http://umconnect.umn.edu/custommap>

## Here Is the Wetland

Resource for PreK-8 activities "Web of Life," "Water Wonders," and "Watch on Wetlands")

Looking for a great book to introduce young children to the "Web of Life" and the interconnectedness of all living creatures? Told as a lyrical tale with simple text *Here Is the Wetland* starts and ends with water while highlighting many animals that can survive and flourish atop the wetlands' surface as well as in its shadowy depths.

Written by Madeleine Dunphy, 2007, ISBN 9780977379590, appropriate for grades K-4.

## Investigations of Daily High-Low Temperatures

Using this online activity, students can analyze the spatial patterns of daily temperature extremes, examine the relationship of coasts, latitude, and altitude to temperature extremes across the USA in a hands-on, GIS-based environment.

<http://blogs.esri.com/Info/blogs/gisedcom/archive...>

### Make a Class Poster

In this activity, an adult leader will introduce proper techniques for collecting natural items. A good framing strategy is to first ask the children to name some of the things they might find in their schoolyard or woods (leaves, twigs, bark, buds, seeds, scat, litter, etc.). After that's established, ask the children what they think may be good rules for collecting items they find. Guide them towards these general guidelines, but try to get the kids to come up with these guidelines themselves:

- Collect stuff that is dead
- Don't harm the parent plant
- It's ok to pick up litter and bring it to a central collection place (garbage bag). Don't let young kids pick up glass.
- Don't collect scat – but show it to other people if it's interesting!
- Know what poison ivy and stinging nettles look like and avoid those areas. All parts of the poison ivy plant are toxic all times of the year.
- Know where the burs are. Avoid those areas. If kids get burs on clothes, tell them to put the burs in the garbage bag. (Burs are seeds-don't throw them on the ground unless you want more bur plants there later!)



What kinds of nature items can you find in your schoolyard?

For each guideline, discuss “why.” Give the students boundaries outside. Let them collect 5 items each. Bring the items to the big sheet of paper. Lay them on the paper. If you know what it is, use the Sharpie pen to label it. When everything is arranged and labeled the best you can, return the poster to the classroom later. The poster will serve to remind kids all year long what kinds of things exist outside their school doors. If desired, key out the names of plants later with a field guide.

#### Materials:

- Large sheets of white paper (the back of an existing poster works well) or cardboard- one for each group of kids
- Clear contact paper
- Scissors
- Black sharpie pens
- Garbage bag (for collecting any litter you may find on site)
- Optional: Collection bags (reused plastic or paper store bags)
- Optional: Plant field guides

**Tips:** This activity can be done any time of the year. Kids love the chance to discover stuff that's on their own site, learn about it, and share their discoveries with others. This activity can take up to an hour to do. Smaller groups of kids (10 kids per “poster”) work better than 30 kids per poster.

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*Workshop announcements to follow!*

# UPCOMING ENVIRONMENTAL EDUCATION WORKSHOPS

## from the Minnesota Department of Natural Resources

Registration forms are on [www.mndnr.gov/plt/workshops/html](http://www.mndnr.gov/plt/workshops/html)

### **PLT, WILD, and WILD Aquatic Workshop**

For Grade K-8 educators

June 16, 2009

8 am – 3:30 pm

Jeffers Pond Elem. School, Prior Lake

Cost: \$70, which includes activity guides for PLT, WILD, and WILD Aquatic; lunch; 7 CEUs.

Optional graduate credit available.

### **PLT/WILD/WET Facilitator Training**

If you have already attended a PLT, WET, and WILD workshop and would like to learn how to deliver workshops to your school or home audience, join this elite force of DNR volunteers by attending this free training!

June 24-25, 2009

Cedar Creek Ecosystem Science Reserve, East Bethel

Application form is on

[www.mndnr.gov/education/teachers/facilitator\\_intro.html](http://www.mndnr.gov/education/teachers/facilitator_intro.html)

### **PLT Early Childhood Workshop**

July 24, 2009

9 am – 3:30 pm

Maplewood Nature Center, Maplewood

Cost: \$40, which includes activity guides, lunch, 6 CEUs.

### **Summer Institute: PLT, WET, WILD, WILD Aquatic Workshop**

For High School educators

July 14 – 17, 2009

Vermilion Community College, Ely

Cost: \$250, which includes high school activity guides in PLT, WET, WILD, and WILD Aquatic; 4 days lodging; dinner on July 14; breakfasts and lunches; all field trips; and 25 CEUs. Two optional graduate credits are available.

### **PLT Early Childhood Workshop**

For Early Childhood, Head Start, ECFE, Kindergarten teachers, naturalists

July 24, 2009

Maplewood Nature Center

Cost: \$40, which includes PLT K-8 Guide, *MN-PLT Early Childhood Guide*, *Natural Wonders Guide to Early Childhood* for Environmental Educators, 6 CEUs, lunch.

### **Minnesota Minerals Education Workshop**

August 4-6, 2009

Minneapolis

A small registration fee covers continental breakfasts and lunches, transportation to all field trip sites, and resource materials. Call 651-259-5959 to request a registration form. *(This one fills up fast!)*

[www.mndnr.gov/education/geology/workshop/index.html](http://www.mndnr.gov/education/geology/workshop/index.html)



Minnesota PLT Educa  
[www.mndnr.gov/plt](http://www.mndnr.gov/plt)



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## What are the Projects?

Project Learning Tree (forests), Project WILD (wildlife), Project WILD Aquatic (aquatic wildlife), and Project WET (water) are award-winning international K-12 education programs. Together the programs offer a suite of books that contain more than 300 lessons on water, wildlife, forests, and natural resources issues. All three “Projects” use the natural world to increase students’ understanding of the world around them.

## WET, PLT, and WILD Activities are:

- Correlated to Minnesota Academic Standards,
- Interactive and hands-on,
- Ideal for reaching different learning styles,
- Flexible to be used in- or outdoors,
- Easily incorporated into existing curricula.

## Activity guides are available only through attending a workshop.

Workshops are designed for K-12 classroom teachers, naturalists, homeschool educators, scout and youth group leaders, pre-service teachers, university and college instructors, or other educators of K-12 students.



All three Projects emphasize teaching students **how to think**, not *what* to think. Lessons are designed to promote critical thinking and problem-solving skills and help provide our youth with the knowledge and experience they will need to make informed decisions.

For information about the activity guides and programs, see:

[www.mndnr.gov/plt](http://www.mndnr.gov/plt)

[www.mndnr.gov/projectwet](http://www.mndnr.gov/projectwet)

[www.mndnr.gov/projectwild](http://www.mndnr.gov/projectwild)





# Minnesota Association for Environmental Education (MAEE) 2009 Conference



## Environmental Education: A Lifelong Journey

Jeffers Pond Elementary School and School Forest  
Prior Lake, Minnesota (SW Metro area)

**Tuesday, June 16, 2009**

### *Optional Pre-Conference Project WILD and Learning Tree workshop*

8:00 am – 3:30 pm

Jeffers Pond Elementary

*By attending this pre-conference workshop,  
you get:*

- Project Learning Tree PreK-8 Activity Guide
- Project WILD K-12 Activity Guide
- Project WILD Aquatic Activity Guide
- 7 CEUs
- Optional: One graduate credit from Hamline University.

Register by June 5, 2009 at:

[www.mndnr.gov/plt/workshops.html](http://www.mndnr.gov/plt/workshops.html)

**Wednesday, June 17, 2009**

### **MAEE Teacher Day**



Sponsored by the **Minnesota School Forest Program**, this day will focus on classroom teachers who want to integrate the natural world into their existing curricula. The keynote speaker, Larry Weber, is a science teacher of the year and naturalist. He is sure to inspire!

#### **Sessions Tracks:**

- Finding time for environmental education (EE) in their curriculum
- Teaching EE beyond science time
- Service learning connections
- Sharing resources, lesson plans, and ideas

**Wednesday, June 17, 2009**

**Thursday, June 18, 2009**

### **MAEE Annual Conference**

**Open to everyone!**

**Keynote speaker: Mike Link**

Mike is recently retired from a 35-year career as director of the Audubon Center of the North Woods.

#### **Session Tracks:**

- **EE leadership**, management and budgeting, strategic thinking skills in this new economy
- Basic skills for new environmental educators
- Advanced EE teaching skills
- EE through the Life Stages with a look at intergenerational programs
- How to reach adults
- How to work with home-school families
- How to teach controversial topics
- Cutting edge research

### **Conference Sponsors**

- Prior Lake-Savage School District
- Minnesota DNR
- Minnesota Forest Resource Council
- Minnesota Pollution Control Agency
- Minnesota School Forest Program
- University of Minnesota Extension
- University of Minnesota – Duluth

#### **Conference Features**

- Lunch
- Wed evening social, dinner, and dessert concert with naturalist/musician/storyteller Doug Wood
- Handouts
- Exhibits
- Silent Auction
- Birding hikes
- Field trips
- Hiking in the School Forest

### **Registration**

for June 17 and 18

[www.naaee.org/maee](http://www.naaee.org/maee)

*Registration for OPTIONAL  
pre-conference workshop is on  
[www.mndnr.gov/plt/workshops.html](http://www.mndnr.gov/plt/workshops.html)*

# Project WILD and Learning Tree Workshop

Tuesday, June 16, 2009

8:00 am – 3:30 pm

Jeffers Pond Elementary and School Forest

## About the Workshop

Get hands-on, interactive activities that will engage your K-8 school students in learning about their environment. Use the natural world to teach your students math, reading, science and other subjects. This workshop is designed to introduce Projects WILD & Learning Tree to:

- Improve student skills in academic subjects,
- Demonstrate environmental education techniques for indoor and outdoor classrooms,
- Help address Minnesota academic standards,
- Incorporate activities into your curriculum.

There are literally 100s of activities to choose from!

## Cost is \$70, which includes:

- Lunch
- *Project WILD K-12 Activity Guide*
- *Project Learning Tree (PLT) K-8 Activity Guide*
- *Project WILD Aquatic Activity Guide*
- Outdoor instruction from DNR staff
- A certificate for 7 clock hours of instruction
- Posters and other supplemental resources
- If you attend both this workshop **AND** at least **one** day of the Minnesota Association for Environmental Education Conference (register on [www.naaee.org/maee](http://www.naaee.org/maee)), you can get one optional **graduate credit** from Hamline University for the half-price rate of \$115. Payment for the graduate credit will be collected in a separate check (to Hamline University) on the first day of the workshop.



### Questions about registration?

Laura Duffey

[Laura.duffey@dnr.state.mn.us](mailto:Laura.duffey@dnr.state.mn.us)

651-259-5263

**Confirmation and driving directions will be e-mailed upon receipt of registration.**

## To Register

**Project WILD and Learning Tree Workshop,  
Jeffers Pond Elementary School, Prior Lake  
June 16, 2009 ONLY**

**Deadline:** June 5, 2009

Complete the information below:

Your name \_\_\_\_\_

School name \_\_\_\_\_

School Address \_\_\_\_\_

\_\_\_\_\_

School City/State/Zip \_\_\_\_\_

Summer Address \_\_\_\_\_

\_\_\_\_\_

Summer City/State/Zip \_\_\_\_\_

Phone (W) \_\_\_\_\_

Phone (H) \_\_\_\_\_

**E-mail address** \_\_\_\_\_

**Summer E-mail address** \_\_\_\_\_

\_\_\_\_\_

*E-mail is required for confirmation of registration*

Grade(s) and subject(s) you teach

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Please tell us what you want to learn from attending this workshop.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_ Check here if you want to register for graduate credit through Hamline University (you must also register for the MAEE conference)

Send completed information above and check for \$70 (made out to Minnesota DNR) to:

MN-DNR

500 Lafayette Road, St. Paul, MN 55155-4044

**Summer Teacher Institutes at Michigan Technological University**  
For K-12 classroom teachers and non-formal educators

**Brochures and application forms:** [www.wupcenter.mtu.edu](http://www.wupcenter.mtu.edu)

**Application Deadline:** Friday, May 15, 2009 ~ 20 spaces available

**For more information:** Joan Chadde at 906-487-3341 or [jchadde@mtu.edu](mailto:jchadde@mtu.edu)

**(1) Great Lakes Watershed Investigations Teacher Institute ~ June 15-19, 2009**

**Cost: \$150** includes 3 credits; **\$375** with on-campus meals/lodging

Description: This Institute is designed to teach educators about the physical, chemical, and biological components of the Great Lakes ecosystem, using the Lake Superior watershed as the classroom. Teachers will receive training in and the new Michigan Water Quality unit (easily adapted to other states). **Eligible for COSEE scholarship.\***

**(2) Forest Ecology & Resources Institute ~ June 21-26, 2009**

**Cost: \$400** includes 3 graduate credits; **\$675** includes 5 nights' on-campus lodging/meals. All participants eligible to receive up to **\$250 travel reimbursement** (mileage or airfare).

Description: This six-day Institute is designed to provide teachers (grades 3-12) with a basic understanding of forest ecology and management. Topics presented will be forest management, biodiversity, silvicultural prescriptions, forest health, multiple uses (wildlife, water, recreation, timber), and biofuels. Teachers will receive choice of *Project Learning Tree* activity guides.

**(3) Future Fuels From Forests Teacher Institute ~ July 6-10, 2009**

**Cost: \$250** includes 3 credits. Upon completion of teaching unit by Dec. 31, **teachers will receive \$200 classroom supplies and \$300 stipend.** Additional cost of \$150 for 5 nights **on-campus meals/lodging.** All participants eligible to receive up to **\$250 travel reimbursement** (mileage or airfare).

Description: This 5-day Institute will engage middle/high school educators in an interdisciplinary investigation of forest-based ethanol production that will integrate silvicultural and landscape ecology, GIS, and chemical engineering through lecture, field trips, and computer investigations. Teachers will receive training in and receive the new *Michigan Energy Resources* unit (easily adapted to other states) and *Project Learning Tree's Forests of the World*.

**(4) Global Change Teacher Institute ~ July 13-17, 2009**

**Cost: \$400** includes 3 credits. ; **\$675** includes 5 nights' on-campus lodging/meals.

Description: This 5-day Institute will prepare you to engage your middle and high school students in a real-world study of the effects of global change on ecosystems, including the impacts of climatic change, elevated carbon dioxide and ozone levels, nitrogen saturation, acid rain, and invasive species. The Institute will be taught by internationally recognized faculty and researchers from Michigan Tech. Participants will visit the FACE resource site (<http://aspenface.mtu.edu/>) in northern Wisconsin where the effects of elevated CO<sub>2</sub> and ozone on forest productivity are clearly observable. **Eligible for COSEE scholarship.\***

**\*COSEE Great Lakes Marine Immersion Scholarships** to assist Great Lakes teachers (grades 4-10, informal educators, and pre-service teachers) in learning about the Great Lakes. Application should be made to the selected program, and a copy sent to Helen Domske [hmd4@cornell.edu](mailto:hmd4@cornell.edu) <http://coseegreatlakes.net/> (Marine Immersion Scholarships)