

In this issue: Dr Seuss's *The Lorax* is back! Plus, PLT GreenSchools! gives Connecticut students a voice, and in a recent PLT webinar a Texas teacher and his student describe how they have used PLT's GreenSchools! Investigations on two very different schoolyards. The 2nd webinar in this series will be held in March. Re-subscribe to *The Branch* to continue receiving announcements and other news, resources, and grant opportunities in the future.



The Lorax is Back!

By Jaclyn Stallard

Dr. Suess's The Lorax hits movie theaters on March 2nd. Download these six PLT activities to support "teachable moments" related to the film and help connect more kids to the wonders of woods!

News & Updates



Last Chance to Re-Subscribe!

By Vanessa Bullwinkle

We hope you like our redesigned e-newsletter! We are changing our email provider, so if you have not already done so, you will need to re-subscribe to continue receiving *The Branch* in the future. Sign up today!



Policy Update - Winter 2012

By Christine Cadigan

Reflecting on 2011 and looking forward to 2012.

On the Ground



PLT GreenSchools! Gives Connecticut Students A Voice

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Creating a Courtyard of Curiosity

By Kelly Gates

Surrounding construction delayed Pride Elementary's Courtyard of Curiosity in Madisonville, KY. But the wait was worth it.



PLT Supports "Learning By Doing" with 26 GreenWorks! Grants

By Vanessa Bullwinkle

Across the country, students are taking what they learn in the classroom and applying it to the real world.

Educator Tips



Words to Live By - A Tribute to Wangari Maathai

By Al Stenstrup

Kenyan environmental and political activist Wangari Maathai (the first African woman to win the Nobel Peace Prize) can inspire your students. Here's how you can incorporate her words and the story of her life in *Words to Live By*, an activity in PLT's new *Focus on Forests* high school module.

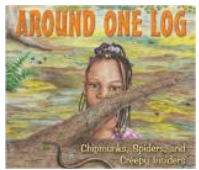
Tools



New PLT GreenSchools! Webinar Series

By Rachel Bayer

Join us for a free PLT professional development opportunity as we host four Project Learning Tree GreenSchools! webinars.



Literature Connections - Around One Log

By Jaclyn Stallard

Storybooks are a great way to capture children's interest in the environment. Check out this issue's suggestion for a great book—and some ways to tie it to PLT activities.



EE Resources - Winter 2012

By Jaclyn Stallard

Webinars, citizen science projects, apps, guides, contests, prizes, and more! Plus, register for the Green Schools National conference - **AND** as a PLT-trained educator, you can take advantage of a special discount.

The Lorax is Back!

By Jaclyn Stallard



Slated for release on March 2, 2012, *Dr. Seuss' The Lorax* is a 3D-CG adaptation of the classic tale of a forest creature who shares the enduring power of hope. Dr. Seuss' original book has sold more than 1.6 million copies, and it has been ranked by educators as one of the top 20 books for children.

The film's environmental fable may draw fans and critics alike. Ultimately *Dr. Seuss' The Lorax* offers a message of hope and renewal, restoration and responsibility. Forests matter to everyone, and we must use and care for them responsibly and sustainably.

The book—and now the movie—show how important it is to take care of trees and forests, which provide many public benefits: clean air and water, wood products we use every day, wildlife habitat and recreation. Given the many threats to America's forests due to climate change, pests and pathogens, and land conversion, the movie can help students think critically about what has to happen today to protect the health and productivity of America's forests.

Watch the movie or read the book with your students, and discuss the inherent value of forests and importance of sustainable management by using the [package of PLT activities](#) we have prepared to help students understand the importance of working forests and other topics related to the movie.

Activity 1: Who Speaks for the Trees?

Students read (or watch!) *Dr. Seuss's The Lorax* and examine the importance of conserving and sustainably managing natural resources. (Grades 2-8)

Who Speaks for the Trees?



DOING THE ACTIVITY

PART A—*Dr. Seuss' The Lorax*

Activity 2: We All Need Trees

Students are often surprised to learn how many different products we get from trees. Use this activity to help your students learn just how much we depend on trees in our daily lives. (Grades PreK-6)

Activity 3: Three Cheers for Trees

It's easy to take for granted both trees and the many benefits they provide. In this activity, students picture how their community would be different without trees and think about how much trees add to people's lives. (Grades 1-4)

Activity 4: Forest for the Trees

In this activity, students will role-play managing a Tree Farm. By using a piece of land as a Tree Farm, they will begin to understand the economic factors that influence management decisions for private forest lands. (Grades 4-8)

Activity 5: 400-Acre Wood

In this activity, students will play the role of manager of a 400-acre (162-hectare) piece of public forest. Through this role, students will begin to understand the complex considerations that influence management decisions about forest lands. (Grades 7-8)

Activity 6: Plant a Tree

Never underestimate the power of a tree! Besides giving us an amazing array of paper and wood products, trees provide a host of other benefits - from shading our backyards to assisting in the maintenance of the global climate. Students can express their appreciation of trees by planning and carrying out their own tree-planting project. (Grades 1-8)

Resources:

Geisel, Theodor (Dr. Seuss). *The Lorax*. Random House. 1971

Grades PreK-6. ISBN: 0394823370

In this classic children's book, the Once-ler describes how his greedy actions destroyed a beautiful and thriving environment. Children will enjoy the colorful characters and rhyming verse. Also available in Spanish.

PLT Activities to Support *Dr. Seuss's The Lorax*
[Download these six PLT activities](#) for free to support "teachable moments" related to the film.

Discover The Forest

The U.S. Forest Service's (USFS) Discover the Forest campaign encourages parents and children to spend time in forests and reconnect with nature. It aims to get children outdoors, help create interest in the environment and help children develop a lifelong relationship with the natural world. With the upcoming release of *Dr. Seuss's The Lorax*, the USFS website www.discovertheforest.org has been expanded to promote the concept of forest sustainability, and USFS has partnered with the Ad Council and NBC/Universal to create a series of PSAs that use scenes from the movie to highlight www.discovertheforest.org.



The Lorax visits Washington, DC on December 5, 2011 to launch the PSAs and meets U.S. Chief Tom Tidwell. Photo by Amanda Cooke, American Forest Foundation.

News & Updates

Last Chance to Re-Subscribe!

By Vanessa Bullwinkle

We hope you like our redesigned e-newsletter!

With our next issue, we will also have a new distribution service.

If you have not already done so, **you will need to [re-subscribe](#) to continue receiving *The Branch* in the future.** We want to keep you on our mailing list, and it will only take a minute of your time to sign-up.

We send out *The Branch* four times a year. Each issue includes articles by educators about their use of PLT, practical ways to use PLT materials, recommendations for teaching resources, grant opportunities, and children's books, as well as updates on new PLT curriculum and service-learning opportunities. We also provide news about environmental education policy, and ways you can take action.

We want our e-newsletter to be a useful resource for your teaching, and we welcome your ideas. Use the new comment feature, or [email](#) us with suggestions and your feedback.

[Sign up today to continue receiving *The Branch*.](#)
Thank you!

Policy Update - Winter 2012

By Christine Cadigan

The American Forest Foundation's (AFF) environmental education advocacy continues to focus on working with our partners to build policy and funding support for Project Learning Tree and other similar programs. Our advocacy goal is to ensure that PLT state coordinators, facilitators, and educators have the tools they need to help our children understand the world around them and learn how to think, not what to think, about

complex environmental issues. As we plan for what we might accomplish this year, it's important to review our successes and challenges from 2011. Take a peek at 2011, in review below:

Key Legislation

The climate on Capitol Hill for investment in education, or anything for that matter, was tough, with cuts proposed at every turn. To help maintain current funding support for PLT and grow new opportunities, AFF advocated for the following:

- Funding for the National Environmental Education Act (NEEA)
- Funding for USFS State and Private Forestry Programs, which support Conservation Education
- Passage of the No Child Left Inside Act (NCLI)

We saw the House propose to completely eliminate the NEEA funding, and the House Majority Leader's [YouCut](#) website proposed to [eliminate USFS Conservation Education](#), which supports PLT along with critical programs like Smokey Bear. Fortunately, due to the leadership of PLT, our partners, and the action of the PLT network, the final FY2012 appropriation levels passed by Congress maintained funding for these programs.

In 2011, we saw progress on NCLI. Lead sponsors of the bill, Senator Jack Reed (D-RI) and Congressman John Sarbanes (D-MD), reintroduced the legislation into the 112th Congress on July 14, 2011. Again, with PLT's leadership and your actions, the NCLI Act had bipartisan, bicameral support with 14 Senate and 47 House co-sponsors.

The Senate Education Committee [included environmental education in their bill](#) to reauthorize the Elementary and Secondary Education Act (ESEA): the federal government's comprehensive education law. This means, for the first time ever, environmental education was

recognized in mainstream education policy as a key component to a child's education. Additionally, the Obama Administration launched a new [Green Ribbon Schools](#) awards program to recognize environmental leadership among schools, something that will help support getting PLT used in more classrooms. PLT was at the table during this process and ensured that the program made sense for our PLT GreenSchools!

PLT Grassroots Activities in 2011

In 2011, we held our [first PLT fly-in with 10 PLT Grasstops Leaders](#) (educators, state coordinators and state partners) from six target states coming to DC to build relationships with target Members of Congress. Following the fly-in, 10 letters to the editor detailing the advocacy experience were submitted to home papers to highlight environmental education and PLT.

We also conducted three online campaigns with our PLT Grassroots Network of over 28,000 individuals, using our [new PLT advocacy website](#). We ran campaigns around environmental and conservation education program funding and in support of NCLI legislation. Through these campaigns, activists had more than 15 letters to the editor placed, highlighting PLT and its value to children.

What to expect in 2012

While Congress is not expected to move much in 2012, given that it's a Presidential election year, that doesn't mean we will dial down our efforts! Congress must continue to hear from the PLT network about the importance of educating the next generation, so we can conserve our natural resources.

Successful advocacy is about relationships. Members of Congress continually use constituent relationships for advice on issues. To position PLT and our policy priorities, from passage of NCLI to funding for key environmental education

programs, we must develop relationships with our Members of Congress.

So how can you be a part of this relationship building? It doesn't mean you have to come to D.C.; you can do it right in your own home!

Here are a few steps you can take to build relationships with your Members of Congress:

- 1) [Take Action](#)
- 2) [Write a Letter to the Editor](#)
- 3) [Host a Member at a PLT school](#)
- 4) [Attend the PLT fly-in](#)

Throughout the year you'll hear from us as we offer webinars and other training opportunities to learn more about being a PLT advocate. We hope you'll join us in this effort!

On the Ground

PLT GreenSchools! Gives Connecticut Students A Voice

By Kathy Westra

When two seventh-graders and three of their teachers participated in a PLT GreenSchools! training session in 2009, no one could have imagined that, in just two short years, the "Green Rivers" Team at Two Rivers Magnet Middle School in East Hartford, CT, would galvanize the entire school around environmental learning and action. Yet that is just what has happened. There's no stopping the Green Rivers Team, which now has more than 150 members—approximately one-third of the student body.



"Our Green Rivers club started as a grassroots thing, the idea of just two students. Now it involves the whole Two Rivers school community, and many different projects," says Christie Hazen, the school's Enrichment Coordinator and advisor to the Green Rivers team. "From the beginning, PLT's GreenSchools! program has helped our students grow in skills, leadership, and environmental awareness."

We interviewed Hazen (pictured on the right) and five Green Rivers team members, (from left to right) Ashley Peck, Sarah Patulak, Matt Pynzar, Lydia Brewer, and Zoe Diamond, to learn what makes the program a school-wide success. On the far left of this photo, taken following a presentation at the National Science Teachers Association conference, is James McGirt, manager of the PLT GreenSchools! program.

Action and Results

Green Rivers team members have set their sights on making a difference—not just in their school, but in their community and in their state. "Their work has shown me all the things students can accomplish when they're given leadership opportunities and a voice," says Hazen. "Our projects are all focused on educating ourselves, the community, and getting our school to the "greenest" it can be," say her students, writing in a recent [blog post](#).

The team's accomplishments include:

- **Preparing and delivering a PLT GreenSchools! presentation at a meeting of the National Science Teachers Association in Hartford, CT.** "Rather than being daunted by the challenge of presenting at a meeting where almost all the other presenters are adults, our students jumped right in," says Hazen. "They were really excited, and spent every lunch hour before the meeting developing and rehearsing their PowerPoint presentation. They took complete

ownership. I was there to give them support and help them with resources, but they really took charge of everything.”

“Admittedly, we were a little nervous, being the only people there under the age of 18 in a room full of adults,” said her students in their blog entry. “But our youthful energy worked to our advantage to help us keep everyone informed and interested. We think we did well; people were actively listening and they didn’t look like they wanted to fall asleep.”

- Using the [PLT GreenSchools! Energy Investigation](#) to evaluate their school’s energy use, and developing an audacious action plan to save energy at Two Rivers. With financial support from a \$6,000 PLT grant, the Green Rivers team researched and purchased a “wind spire” turbine to cut the school’s energy costs by harnessing wind energy. The school’s administration was so impressed with the plan that they contributed \$20,000 to retrofit the roof to accommodate the wind spire.
- Developing leadership skills to keep the Green Rivers team cohesive and productive, and to expand the group’s impact. Six students attended leadership training provided by the [Alliance for Climate Education](#)—training usually reserved for older high school students. Completing the training qualified them as ACE “Ambassadors” committed to keeping other Green Rivers club members engaged, active, and involved in both their school and their community. The things they have learned about climate science from their ACE training are helping inform their continuing efforts to save energy at their school, in their homes, and in the broader East Hartford community. A “Green Day” held on Earth Day 2011 involved the entire school, and Green Rivers team members have gone to local elementary schools to

teach younger students the basic of recycling and composting.

- Researching the growing issue of tree damage from invasive species like the emerald ash borer and the Asian longhorned beetle. They developed a lively, humorous skit and YouTube video presentation—complete with beetle costumes—to teach younger students and community members about the threat the pests pose, as well as how to spot the early signs of tree damage. They’re hoping to present their skit to the Connecticut State Legislature later this year.

“Even though neither of these beetles has been documented in Connecticut, these youth are ahead of the curve in recognizing that this could be a problem here,” says Rachel Holmes, a forester with the state’s Department of Energy and Environmental Protection and a member of Connecticut’s PLT steering committee. “Our best hope for protecting our forests is for people to watch for signs of these insects so we can respond to an infestation before it becomes a widespread problem. This team is creating awareness of this problem in their own creative, enthusiastic way, and I am grateful for their efforts. They give me hope this message will be heard!”

- Developing a Green Rivers Web site to keep the entire school community engaged in the team’s work.



Tips for Teachers

- **Let students lead the way.** You'll be amazed at what young people can accomplish. Like Two Rivers teacher Christie Hazen, be there to give your students support and help them with resources, but let them take charge of the projects they undertake. They will learn important lessons from both successes and setbacks.
- **With your students, brainstorm a list of groups and government agencies** that could serve as resources to your PLT GreenSchools! program, and ways they might be involved. Invite them to make presentations at your school, mentor Green Team members, or become involved in other ways. In the case of Two Rivers, reaching out to the state's Department of Energy and Environmental Protection gave students access to the professional expertise of a forester, who provided both encouragement and additional resources.
- **Access PLT's GreenSchools! Investigations online by registering at www.greenschools.org.** A great way to begin using the PLT GreenSchools! Energy Investigation is to collect data on the energy use at your school. What are you paying for electricity each month? Can you save money?
- **Think big, and find ways to involve your whole school in the PLT GreenSchools! vision.** The Two Rivers students were undaunted in their quest to install a wind spire on their school. With help from a PLT grant, and funds from the school's administration, the project became a reality. To apply for a grant from PLT, visit www.greenschools.org for more information and an application form.
- **Participate in [PLT's GreenSchools! webinars](#).** Learn from guest speakers, student Green Teams, and other teachers what they are doing to green schools across the country and the world.

- **Encourage your students to think about ways your Green Team's work can be shared**—with other students, schools, community organizations, and the media. The most powerful service-learning projects are those that widen the circle of those involved in making schools and communities greener.

Kathy Westra is a writer and environmental communications consultant based in suburban Washington, D.C.

Creating a Courtyard of Curiosity

By Kelly Gates

One Team, One Dream. That's the vision of Pride Avenue Elementary School, a school of 400 students in Madisonville, Kentucky. Our vision helps create a school climate that is positive, family-oriented, and geared toward exploration and hands-on learning.

Our new Courtyard of Curiosity supports that vision. Thanks to my PLT training we have incorporated PLT activities into my school, and thanks to a PLT GreenWorks! grant, we are well on the way to creating an inviting, easy-to-use space between an existing and newly added wing of the school.

Making Outdoor Memories

When I started teaching here, I was literally coming home. I attended Pride Avenue Elementary myself! Back then, we sometimes went out in the woods behind the school, which had a small amphitheatre that has since fallen into disrepair. I remembered my own experiences out there so well.

So when some of the teachers began to talk about an outdoor learning area, I knew it would be great for Pride Avenue kids. Unlike the area from my childhood, however, we decided the outdoor space should be easily accessible from the school building. The Courtyard has doors right out to it from two different parts of the school.



Through a partnership with Green Giant Landscaping and employees from General Electric, students planned, built, and now

maintain our new area. So far, fifth graders developed a butterfly garden in conjunction with a Chrysalis project. They released butterflies into the garden and have observed many butterflies that lingered with us. They will remember the release of the butterflies for years to come!

Making the Dream Happen



Things got off to a slower start than we anticipated, partly due to delays with school construction going on simultaneously. It turned out the adjoining area

needed a better drainage system, which our board office provided, through an in-kind \$20,000 expense. It took a while to trouble-shoot and solve the problem. But the upside is that the plants and trees in the Courtyard will fare much better with improved drainage.

A PLT *GreenWorks!* grant provided a good portion of our funding. Other sources included a \$2,000 grant from the Hopkins County Education Foundation and additional funding and products through contests run by the Sonic Corporation (Limeades for Learning-\$800 in products) and Big Lots (Lots2Give-\$2,500 grant). These contests were based on online voting and, with a little organization, these kinds of opportunities can pay off. We mobilized the school community to vote through reminders on school menus and other information that went home in backpacks and flyers distributed to parents during afternoon pick-up time. It worked!

Lessons Along the Way

Although ours is still a work in progress, we have already learned some valuable lessons.

- We were hoping to start planting in 2009, but it took until April of 2011 to really get things rolling. Some circumstances were out of our control—we just had to accept that. But we didn't give up the project either! We continued to work with the school district's Facilities office to keep our dream alive. Patience and determination paid off.

Fourth- and fifth-graders set up a composting station—composting pumpkins was also a real hit.



A local Girl Scout troop approached us to plant rose bushes in one corner of the area. They earned their badges, and we have a beautiful spot to

enjoy. We plan to have an outdoor plaque installed in this area to feature the girls by name from the troop that completed it. Various trees and bushes, native as well as nonnative to Kentucky, are spread throughout the courtyard. Benches will be installed near these areas to create little “sanctuaries” for reading and reflection.



- We also learned help comes from unexpected places. In addition to funding, that help also included volunteers from local employers. For example, the plant leader for GE is the father of a student who attends Pride. He brought about 20 volunteers with him on a Saturday to landscape the area. This initial landscaping effort only took five to six hours utilizing an eager group of volunteers versus *days* with only a handful of our school stakeholders. Thank goodness we all had team spirit and wanted to give back to students in our community.
- We have many new ideas to achieve. Several concepts involve creating more habitats for students to observe living creatures in natural places, as well as learning how we can capture energy from the sun. They include installing a pond, stocking it, and connecting it to a solar-powered pump. Solar-powered birdbaths will also be installed. We have a spider web frame to establish when warm weather breaks so we can examine the formation of webs up close and personal while respecting wildlife. A plant cam has been purchased to capture photos over time to assemble into a video that will show the full life cycle of growth.

So far, older students have spent the most time on activities in the Courtyard. We are hoping they can serve as mentors to younger students, a relationship that will benefit both groups. It's been a growing adventure creating our "Courtyard of Curiosity," and we are definitely cultivating minds here at Pride through its creation!

Kelly Gates, a PLT-trained and a National Board Certified Teacher, teaches fifth grade at Pride Avenue Elementary School in Madisonville, KY.

PLT Supports "Learning By Doing" with 26 GreenWorks! Grants

By Vanessa Bullwinkle

This year, students across the country will remove invasive species from forests, restore marsh habitat, build nature trails and outdoor classrooms, and create schoolyard gardens, thanks to Project Learning Tree's GreenWorks! grants.

PLT recently distributed more than \$24,000 in grants to 26 schools or youth organizations in 19 states. Since 1992, PLT has distributed nearly \$1 million to fund more than 1,000 GreenWorks! action projects nationwide. Proposals for the next round of grants will be due September 30, 2012. Application forms will be made available in the summer from www.GreenWorks.org.

"GreenWorks! is the action component of Project Learning Tree," said Jaclyn Stallard, PLT manager of education programs, in announcing the grants. "These student-driven projects bring learning to

life as youth directly experience the application of new knowledge to the world around them.”

Upon hearing news of her grant to create a nature trail around the perimeter of Hillside Elementary School in Niskayuna, New York, kindergarten teacher Christine Mathews wrote to say, "PLT's support has got our kids bursting at the seams with enthusiasm and excitement about the journey we are taking this year."

The grants, awarded through a competitive process from more than 100 applications submitted, involve students in all grades, preschool through college, and in settings that range from urban neighborhoods to rural communities. As examples of their creativity:

- In Thornton, Colorado, seventh and eighth graders at Achieve Academy will create a **sensory garden** on the school grounds. Students, working with a local gardening club and the school district maintenance department, will research native plants and urban wildlife. They will put several garden designs to a community vote, then build and maintain the selected design.
- In Lake Villa, Illinois, students at Lakes Community High School will launch a **forest restoration project** on several acres of woods on the school campus, currently overgrown with buckthorn and other underbrush.
- In Oxford, Maine, the Roberts Farm Preserve will involve area middle and high school students in a **forestry and shelter construction** project to harvest and mill local wood, then use the lumber to construct a shelter and outdoor classroom.
- In Cleveland Heights, Ohio, students in grades 4 to 6 at Ruffing Montessori School will **restore a marsh habitat** at the Nature Center of Shaker Lakes. They will plan and implement activities to restore native species and learn how to scientifically document their progress.
- In Madison, Wisconsin, students in the afterschool program at Glendale

Elementary School will reclaim an abandoned lot, creating an **educational prairie and wetland**.

For a list of all projects awarded, go to www.plt.org/2012-GreenWorks-grant-award-winners.

Educator Tips

Words to Live By - A Tribute to Wangari Maathai

By Al Stenstrup



"It's the little things citizens do. That's what will make the difference. My little thing is planting trees."

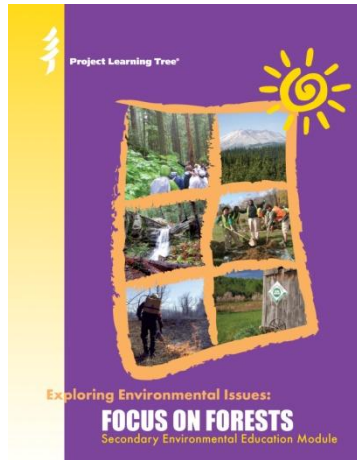
She was called "Mama Trees" by many people in Kenya. She was called a "subversive" by Kenya's former president, Daniel Arap Moi. She helped the lives of more than 900,000 females through her economic empowerment of women. She was jailed and physically beaten for fighting against the building of a skyscraper in the middle of one of the last public green spaces in Nairobi, the capital of Kenya. She was recognized in 2004 as the first African woman and first environmentalist to receive the Nobel Peace Prize. She did many "little things."

The Branch Winter 2012

Wangari Maathai had many “words to live by.” She is an excellent person to focus on when using the PLT activity by the same name, Words to Live By.

The activity is included in the new high school module, [PLT’s Exploring Environmental Issues: Focus on](#)

[Forests](#), published in 2011. The module is available through attendance at a PLT professional development workshop. (Contact [your state coordinator](#) for information about workshops in your area.)



PLT’s Words to Live By activity follows the writings of different environmental writers over many time periods. In doing this activity, students express their own views about forests and explore different perspectives by reading excerpts from the writings of different authors.

This adaptation of the activity provides many “words to live by” from the life of the inspirational environmentalist Wangari Maathai.

Wangari passed away in September 2011. Current Kenyan President Mwai Kibaki presided over a state funeral in Nairobi, making her only the third Kenyan and the first woman to receive such an honor. The funeral procession made its way to Uhuru Park in downtown Nairobi, where she had stood years before protesting the possible destruction of the park and the building of a skyscraper in its place. The park has been renamed Freedom Corner. Wangari modeled her beliefs every day. For her final action, she requested a casket made of hyacinth, papyrus, and bamboo - she still wanted to preserve the trees.

Doing the Activity

1. Distribute a quote from Wangari Maathai to each student (see below). Have students read the quotes aloud, in order of how they appear. This will best represent a timeline for the events and changes in Wangari’s life. You will see the quotes are divided into three sections: **The Early Years and Education**, **The Years of Doing “Little Things”**, and **Nobel Laureate**. You can choose to use all quotes or smaller subsets.

2. After reading all quotes from **The Early Years and Education**, have students draw a picture of Wangari’s Kenya at the time she was a child, and then another picture that depicts the same space when she returned home from studying in the United States. Ask your students:

- How had the environment changed?
- What was the same?
- What did she do about it?
- What would you have done about it?
- Then, use the Internet to research images of this region of Kenya today. Do you think Wangari would be happy with how it looks today? Why or why not?

3. After reading all the quotes in the section **The Years of Doing “Little Things”**, ask students:

- Why did Wangari’s tree-planting initiatives work so well?
- What kind of tactics did she use to combat environmental issues?
- What is an environmental issue that the world (or your community) faces today? How can Wangari’s tactics be used to combat the issue?

4. After reading the quotes from **The Award: Nobel Peace Laureate**, ask students who Wangari accepts her award on behalf of and who she calls on at the end. Ask:

- If you were receiving the Nobel Peace prize, who would YOU accept it on behalf

of and who would YOU call upon in the end to ensure your work was a success?

- Was Wangari's work a success?
- Is there still work to be done on her behalf? Will you help? How?

5. After reading all quotes, have students discuss the following questions:

- How did events during Wangari's lifetime affect her view of forests and the environment?
- How did social issues of the time affect her thinking and actions?
- Compare her quotes to those of the other writers featured in the activity on the "[Tales of the Forest](#)" [student pages](#). What similarities and differences can you identify?
- Are there other writers today - or people in your life - who reflect some of the values that Wangari Maathai held? If so, who are they and what beliefs do they share with Wangari?

Wangari's Words to Live By

Use these quotes in discussing Wangari Maathai's life and how her views and activities changed over the course of her lifetime.

A. The Early Years and Education



"It was during the *mbura ya njahi* - the season of long rains, in 1940 that Wangari Maathai was born. The daughter of a peasant farmer and the third of

six children, she was delivered in her mud-walled home that had no electricity or running water. The location was a little village called Ithite - located in the hills of central Kenya. In her primary school years she was always attentive to nature and enjoyed playing in the abundant fig trees near her home. She loved listening to birds and would also help her mother collect firewood for the household. Wood and water were abundant in her community during her childhood. She would catch tadpoles in the stream. She also enjoyed gardening and working the fertile soil."

- From *Diminishing Resources: Forests* by Allen Stenstrup (Morgan Reynolds Publishing, 2010)

"We lived in a land abundant with shrubs, creepers, ferns and trees ... Because rain fell regularly and reliably, clean drinking water was everywhere. There were large, well-watered fields of maize, beans, wheat and vegetables. Hunger was virtually unknown."

- From "Planting the Future," *The Guardian*, February 16, 2007

"My school was typical for its time. It had walls of mud, a floor of earth, and a tin roof. Every Friday we had to bring ash from home and put it on the floor, go to a nearby stream to bring water, and pour it on the ash. Then we swept the floor, a common way of cleaning in those days that kept the dust from building up in the classroom and got rid of pests, like fleas."

- From *Unbowed: A Memoir* by Wangari Maathai (Borzoi Book, 2006), p. 41

"As a child, I used to visit the point where water bubbled up from the belly of the earth to form a stream. I imagine that very few people have been lucky enough to see the source of a river."

- From *Unbowed*, p. 45

"Education, of course, creates many opportunities. In Kenya, for most people of my

generation and after, a high school education or a college degree is a guaranteed ticket out of the perceived drudgery of subsistence farming or the cultivation of cash crops for little return.”

- From *Unbowed*, p. 71

“I enjoyed biology more than the chemistry I had focused on in high school, so biology became my major, and I minored in chemistry and German.”

- From *Unbowed*, p. 79

“The spirit of freedom and possibility that America nurtured in me made me want to foster the same in Kenya, and it was in this spirit that I returned home.”

- From *Unbowed*, p. 97

“When people learn about my life and the work of the Green Belt Movement and ask me ‘Why trees?,’ the truth of the matter is that the question has many answers. The essential one was that I reacted to a set of problems by focusing on what could be done.”

- From *Unbowed*, p. 119

“I saw rivers silted with topsoil, much of which was coming from the forest where plantations of commercial trees had replaced indigenous forest. I noticed that much of the land had been covered by trees, bushes, and grasses when I was growing up had been replaced by tea and coffee.”

- From *Unbowed*, p. 121

“By then I understood the connection between the tree and water, so it did not surprise me that when the fig tree was cut down, the stream where I had played with the tadpoles had dried up. I profoundly appreciated the wisdom of my people, and how generations of women had passed on to their daughters the cultural tradition of leaving the fig trees in place. I was expected to pass it on to my children, too.”

- From *Unbowed*, p. 122

“Now, it is one thing to understand the issues. It is quite another to do something about them. But I have always been interested in finding solutions....It just came to me: ‘Why not plant trees?’”

- From *Unbowed*, p. 125

“The future of the planet concerns all of us, and all of us should do what we can to protect it. As I told the foresters, and the women, you don’t need a diploma to plant a tree.”

- From *Unbowed*, p. 138

B. The Years of Doing “Little Things”



“When I first started, it was really an innocent response to the needs of women in rural areas. When we started planting trees to meet their needs, there was nothing beyond that. I did not see all the issues that I have to come to deal with.”

- From an interview with Wangari Maathai, *Mother Jones* magazine, January 5, 2005

“It’s a matter of life and death for this country. The Kenyan forests are facing extinction and it is a man-made problem.”

- Quoted on SearchQuotes.com
(www.searchquotes.com)

"Anybody can dig a hole and plant a tree. But make sure it survives. You have to nurture it, you have to water it, you have to keep at it until it becomes rooted so it can take care of itself. There are so many enemies of trees."

- From the article "This Much I Know," *The Observer Magazine*, June 8, 2008

"After the women had planted seedlings on their farms, I suggested that they go to surrounding areas and convince others to plant trees. This was a breakthrough, because it was now communities empowering one another for their own needs and benefit."

- From *Unbowed*, p. 137

"For me, one of the major reasons to move beyond just the planting of trees was that I have tendency to look at the causes of a problem. We often preoccupy ourselves with the symptoms, whereas if we went to the root cause of the problems, we would be able to overcome the problems once and for all."

- From an interview with Wangari Maathai, *Mother Jones* magazine, January 5, 2005

"Education, if it means anything, should not take people away from the land, but instill in them even more respect for it, because educated people are in a position to understand what is being lost."

- From *Unbowed*

"I have seen rivers that were brown with silt become clean-flowing again ... The job is hardly over, but it no longer seems impossible."

- From the article "Planting the Future," *The Guardian*, February 16, 2007

"You must not deal only with the symptoms. You have to get to the root causes by promoting environmental rehabilitation and empowering people to do things for themselves. What is done for the people without involving them cannot be sustained."

- Quoted in "Seeds of Hope in Africa," *The Washington Post*, May 11, 2005

"We need to promote development that does not destroy our environment."

- Quoted in [Nobel Women's Initiative](#)

"We owe it to ourselves and to the next generation to conserve the environment so that we can bequeath our children a sustainable world that benefits all."

- Quoted in "[Farewell Wangari Maathai](#)," *The Guardian*, September 26, 2011

"The generation that destroys the environment is not the generation that pays the price. That is the problem."

- From [Wangari Maathai Quotes](#)

"We cannot tire or give up. We owe it to the present and future generations of all species to rise up and walk!"

- From [Wangari Maathai Quotes](#)

"You cannot protect the environment unless you empower people, you inform them, and you help them understand that these resources are their own, that they must protect them."

- From [Wangari Maathai Quotes](#)

"Every person who has ever achieved anything has been knocked down many times. But all of them picked themselves up and kept going, and that is what I have always tried to do."

- From [Wangari Maathai Quotes](#)

“I’m very conscious of the fact that you can’t do it alone. It’s teamwork. When you do it alone, you run the risk that when you are no longer there nobody else will do it.”

- From *The Green Belt Movement: Sharing the Approach and the Experience* by Wangari Maathai (Lantern Books, first published 1985), p. 138

C. The Award: Nobel Peace Laureate



Quotes below are from Wangari Maathai’s Nobel Lecture, Oslo, December 10, 2004

“I stand before you and the world humbled by this recognition and uplifted by the honour of being the 2004 Nobel Peace Laureate. As the first African woman to receive this prize, I accept it on behalf of the people of Kenya and Africa, and indeed the world. I am especially mindful of women and the girl child. I hope it will encourage them to raise their voices and take more space for leadership.”

“In this year’s prize, the Norwegian Nobel Committee has placed the critical issue of environment and its linkage to democracy and peace before the world. For their visionary action, I am profoundly grateful. Recognizing that

sustainable development, democracy and peace are indivisible is an idea whose time has come.”

“My inspiration partly comes from my childhood experiences and observations of Nature in rural Kenya. It has been influenced and nurtured by the formal education I was privileged to receive in Kenya, the United States and Germany. As I was growing up, I witnessed forests being cleared and replaced by commercial plantations, which destroyed local biodiversity and the capacity of the forests to conserve water.”

“In 1977, when we started the Green Belt Movement, I was partly responding to needs identified by rural women, namely lack of firewood, clean drinking water, balanced diets, shelter and income.”

“Throughout Africa, women are the primary caretakers, holding significant responsibility for tilling the land and feeding their families. As a result, they are often the first to become aware of environmental damage as resources become scarce and incapable of sustaining their families.”

“Tree planting became a natural choice to address some of the initial basic needs identified by women. Also, tree planting is simple, attainable and guarantees quick, successful results within a reasonable amount time. This sustains interest and commitment.”

“[W]e have planted over 30 million trees that provide fuel, food, shelter, and income to support their children’s education and household needs. The activity also creates employment and improves soils and watersheds. Through their involvement, women gain some degree of power over their lives, especially their social and economic position and relevance in the family.”

“In time, the tree also became a symbol for peace and conflict resolution, especially during ethnic conflicts in Kenya when the Green Belt Movement used peace trees to reconcile disputing communities.”

“It is 30 years since we started this work. Activities that devastate the environment and societies continue unabated. Today we are faced with a challenge that calls for a shift in our thinking, so that humanity stops threatening its life-support system.”

“In the course of history, there comes a time when humanity is called to shift to a new level of consciousness, to reach a higher moral ground. A time when we have to shed our fear and give hope to each other. That time is now.”

“Those of us who have been privileged to receive education, skills, and experiences and even power must be role models for the next generation of leadership.”

“I would like to call on young people to commit themselves to activities that contribute toward achieving their long-term dreams. They have the energy and creativity to shape a sustainable future. To the young people I say, you are a gift to your communities and indeed the world. You are our hope and our future.”

“As I conclude I reflect on my childhood experience when I would visit a stream next to our home to fetch water for my mother. I would drink water straight from the stream.... Later, I saw thousands of tadpoles: black, energetic and wriggling through the clear water against the background of the brown earth. This is the world I inherited from my parents.”

“Today, over 50 years later, the stream has dried up, women walk long distances for water, which is not always clean, and children will never know what they have lost. The challenge is to restore the home of the tadpoles and give back to our children a world of beauty and wonder.”

Resources

- [The Green Belt Movement](#)
The official site of the Green Belt

Movement and its founder, 2004 Nobel Peace Prize winner Wangari Maathai.

- ["Planting the Future,"](#) *The Guardian*, February 16, 2007
- ["This Much I Know,"](#) *The Observer* magazine, June 8, 2008
- Maathai, Wangari. 2006. *Unbowed*. New York: Knopf
In this memoir, 2004 Nobel Peace Prize winner Wangari Maathai recounts her life as a political activist, feminist, and environmentalist.
- Stenstrup, Allen. 2009. *Forests (Diminishing Resources)*. Morgan Reynolds Publishing
How can we manage the earth's forests in sustainable ways? This book explores the ecology of forests, the social impact of forests, and what our global community is doing to protect this vital resource.

Photo Credits

- Photo #1 - Photo of "Wangari Maathai" by Flickr's [Global Crop Diversity Trust](#)
- Photo #2 - PLT's Focus on Forests Curriculum
- Photo #3 - Photo of "Wangari Maathai" by Flickr's [Visionshare](#)
- Photo #4 - Kenya, October 2004. Photo by Mia MacDonald, courtesy of The Green Belt Movement
- Photo #5 - Receiving news of the Nobel Peace Prize award, Kenya, 2004. Photo by United Nations Environment Programme, courtesy of The Green Belt Movement

Al Stenstrup is Director of Education Programs for Project Learning Tree. *Jaclyn Stallard* also contributed to this article. *Jaclyn* is Manager of Education Programs for Project Learning Tree.

Tools

New PLT GreenSchools! Webinar Series

By Rachel Bayer



PLT marks the beginning of 2012 with a new series of free webinars highlighting PLT's GreenSchools! Investigations. The first webinar, **Transforming Schools with PLT GreenSchools! Energy Investigations**, took place on February 1 and included presentations by:

- **Caterina Hatcher**, ENERGY STAR National Manager for the Public Sector at the U.S. Environmental Protection Agency in Washington, DC. She discussed how teachers and students can use ENERGY STAR tools to help schools improve energy efficiency.
- **Richard Klein**, a Master Teacher at The Monarch School in Houston, and one of his students **Brett Fritsche** discussed how they have used the PLT GreenSchools! School Site Investigation on two very different schoolyards, and the Energy Investigation to save their school money.

To view the recording and slideshow for this webinar, visit <https://cc.readytalk.com/r/xkbpeqxlxx6>.

You can also read more about the The Monarch School in Houston in *The Branch* article "[Two Schools in One City Show the Versatility of GreenSchools!](#)"

Three more PLT GreenSchools! webinars will be held in March, April and May. Anyone—teachers, students, individuals or groups—can participate in this FREE webinar series, made possible in part by generous funding from the U.S. Forest Service. For more information, and to register for upcoming webinars, go to www.plt.org/webinars.

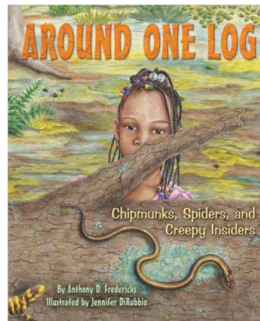
Literature Connections - Around One Log

By Jaclyn Stallard

Years after a great oak tree tumbles to the ground, a whole community of animals have made it their home. Upon close inspection, the fallen tree is seething with life!

Question: Is the old tree alive? Or is it dead?

Investigate this question and more using *Around One Log: Chipmunks, Spiders, and Creepy Insiders*, by Anthony D. Fredericks. Frederick's fun, rhyming verses provide a great introduction to common forest critters you can find in your own backyard, while also teaching about forest cycles and decomposition. Plus, as the story builds, it repeats, which is an excellent instruction technique for young children.



Can you find a fallen log to investigate near you?

Grades PreK-3. ISBN: 1584691379.

Try this book in conjunction with the following PLT activities:

[Environmental Experiences for Early Childhood](#)
Activity 8: Adopt a Tree
Activity 10: Trees as Habitats

[PreK-8 Environmental Education Activity Guide](#)

Activity 8: The Forest of S.T. Shrew
Activity 22: Trees as Habitats
Activity 23: The Fallen Log
Activity 24: Nature's Recyclers
Activity 61: The Closer You Look
Activity 79: Tree Lifecycle

EE Resources - Winter 2012

PLT GreenSchools! Webinar Series

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National Green Schools Conference February 27-29 in Denver, CO

U.S. Secretary of Education Arne Duncan will be the keynote speaker at the second annual Green Schools National Conference that will focus on funding for Green Schools projects. [Register](#) for the conference online - **AND as a PLT-trained educator, you can take advantage of this special discount code.**

1. Go to http://www.greenschoolsnationalconference.org/register_now.php
2. Scroll down and click on Register Online
3. Click on Affiliate Rates
4. When asked for a discount code, enter **pltschools**

National PLT staff will attend and present three sessions. Students from a PLT GreenSchool!, Escuela Tlatelolco Charter School in Denver, CO,

will co-present one of the sessions on Wed. Feb. 29th, 8:45 - 10:00 am. During their session "Use Service-Learning Projects to Turn Your School into a GreenSchool!" the students will describe how they have brought about positive environmental changes to their school and community through service-learning projects based on the PLT GreenSchools! model of students leading the way. Educators and students will leave the session with resource materials and implementation ideas for turning their school into a model green school. For more information, and to register, go to www.greenschoolsnationalconference.org.

Citizen Science Project - The Smithsonian Institution's Tree Banding Project

Citizen science programs involve students and teachers like you contributing to ongoing scientific work. [Sign up to participate in The Smithsonian Institution's Tree Banding Project](#) and contribute to research about tree biomass, and how trees respond to climate. Students around the globe will monitor the rate at which their local trees grow, and learn how that rate corresponds to Smithsonian research, as well as comparing their work to other students world-wide. [Sign up today](#) and, if you are selected, the Smithsonian will mail you a kit that includes everything that you will need to get started. Schools will be selected for participation based on location and when you apply. After you get your kit, your class will need to:

- Pick ten trees in your schoolyard for study
- Prepare and install the dendrometer (tree) bands
- Allow four weeks for the bands to settle
- Start collecting data and enter it online

You can also read more about this research in this [New York Times article](#).

"Walk in the Forest" Guide

This recently updated guide, produced by the American Forest Foundation and the Society of American Foresters, helps non-formal educators and woodland owners plan a walk in the forest for children, teachers, local leaders, tree farmers, families, and other community members.

Suggestions for using PLT activities are included.
[Download a copy.](#)

Energy Quest

(resource for PLT's PreK-8 activities "Renewable or Not?," "Energy Sleuths," "Pollution Search," "Waste Watchers," and PLT's Energy & Society Kit)

Energy Quest is an effort by the California Energy Commission to provide resources to teachers and students all about energy: its different forms, how it is generated, its sources and how to protect and conserve it. The [Energy Quest website](#) is arranged in easy-to-use tabs that lead to a rich, comprehensive supply of teaching material. The website's interactive interface is useful and educational to both teachers and students alike.

2012 AF&PA Recycling Awards

Deadline to apply: February 10, 2012

(resource for PLT's PreK-8 activities "Reduce, Reuse, Recycle," "Make Your Own Paper," "A Look at Aluminum," and PLT's GreenSchools! program)

Each year the American Forest & Paper Association (AF&PA) Recycling Awards recognize outstanding paper recycling efforts. Enter your school today for the chance to win a **\$2,000** cash prize, original framed artwork, and recognition in local and national media. Winners and finalists will also be featured on the [paperrecycles.org](#) website. But you'll have to hurry - **the deadline is February 10, 2012.** [Apply today!](#)

Project Earth 2012 U.S. Earth Day Contest

Deadline to apply: April 15, 2012

Project Earth is a global environmental network designed to connect schools, teachers, and students around the world to help solve environmental problems. Project Earth is hosting a national Earth Day Contest for grades K-12 featuring environmental projects, activities, and actions being taken to conserve resources and protect our environment. Share your environmental efforts on [www.ProjectEarth.net](#) and enter your project into the Project Earth 2012 U.S. Earth Day Contest! One nation-wide project entry from each K-5, 6-8, and 9-12 grade category

will be selected as a winner. Each winning project will be awarded a National Geographic Interactive Intelliglobe. Every project entry will be considered for the International 2012 World Environment Day Contest, in which the top project from each country will receive recognition in conjunction with the June 2012 United Nations Rio+20 Conference on Sustainable Development in Rio de Janeiro, Brazil.

Soil Explorers

(resource for PLT's PreK-8 activities "Soil Stories," "The Story of S.T. Shrew," "Nature's Recyclers," and "Field, Forest, and Stream")

The [Soil Explorers website](#), sponsored by the Bureau of Land Management, is designed just for kids. Learn about the importance of soil, soil food webs, soil facts, and more. A brief assessment is even included to test soil knowledge.

My Garbology

(resource for PLT's PreK-8 activities "Reduce, Reuse, Recycle," "Make Your Own Paper," "A Look at Aluminum," PLT's Municipal Solid Waste secondary module, and PLT's GreenSchools! program)

We toss items into the trash every day - about 4.4 pounds per person per day, on average. With garbology, the study of waste, students can learn about waste reduction and steps they can take to reduce the amount of trash on the planet. [This website's interactive interface](#) allows students to learn about the recycling, reusing, composting, and disposing of several everyday items.

ARKive's "Survival" App

(resource for PLT's PreK-8 activities "Web of Life," "Life on the Edge," "Habitat Pen Pals," and "Planet Diversity")

Use your mobile device to race against the clock in a battle for survival! Tap, drag, scroll, swipe and pinch your way through a series of quick-fire mini-games to reveal the identity of some of the world's most endangered animals. Full of real-life photographs, [this fun and educational application](#) tests speed, agility, endurance and intelligence, essential skills needed to become a Top Survivor.