

# 2009 Forest Appreciation Week

## "My Favorite Tree" Writing Contest



Top three statewide students, parents and teachers will be honored at a special celebration in our State Capitol.

Words of statewide winners and nine semi-finalists will appear in the WDNR's 2010 Arbor Day-Earth Day Calendar.

Teachers of the three state writing contest winners receive FREE LEAF & Project Learning Tree (PLT) workshops. Details on Page 4.



100 participating teachers will win a free copy of *The Man Who Planted Trees* by Jean Giono.

**Supplemental Activities inside! →**



Brought to you by the Wisconsin Department of Natural Resources - Division of Forestry

January 19, 2009

*Dear 4th Grade Teachers and Friends,*

Once again, it is time to participate in the 20th Annual Forest Appreciation Week Writing Contest! By combining creativity with pencil and paper, one of your fourth grade students has a chance to win savings bond prizes, a landscape tree for their community or school grounds, see their words in print and be recognized at a special Arbor Day celebration in our State Capitol . . . if they enter the 2009 Writing Contest! Awards, prizes and ceremony are sponsored by the Wisconsin Woodland Owners Association; the Wisconsin Arborist Association; the Wisconsin Nursery Association; the LEAF Program; the Project Learning Tree (PLT) Program; and the Department of Natural Resources Forestry Division.

Teachers can win, too! The first 100 teachers that enter this year's contest will receive a copy of Jean Giono's book, "The Man Who Planted Trees." This extraordinary fable follows the life of a shepherd who devotes himself to planting trees, ultimately adding beauty and sustenance to the community where he lives. This story is sure to provoke your thoughts on natural resources and enhance your classroom activities. In addition, the teachers of the three state winners will receive scholarships for both a LEAF and PLT teacher workshop.

This year's theme, "My Favorite Tree," asks students to write about a tree that they think is special. Regardless of shape, size or color, trees have the ability to trigger our imaginations and create fond memories. Students are encouraged to write about a tree species that they find to be unique or a forest tree with which they have had a remarkable experience. For inspiration, check out the supplemental activities and educational resources provided in this contest packet.

Contest requirements can be found on page 3. Additional copies of the contest packet can be downloaded from the EEK! (Environmental Education for Kids) website. Search the "Teacher Pages" at [www.dnr.wi.gov/eeek](http://www.dnr.wi.gov/eeek). Be sure to bookmark this site, because in April the writings of the three state winners and nine semi-finalists will be posted for world-wide viewing.

Join in the celebration of Arbor Day (April 24) and Earth Day (April 22) by encouraging your students to enter this year's contest. Good luck!



*Sincerely,*  
*Genny Fannucchi*  
Forest Resource Education  
and Awareness Specialist  
Division of Forestry

*Tessa Jilot*  
Forestry Educator  
Division of Forestry



# 2009 Forest Appreciation Week Writing Contest

## Contents

Check Out the 2008 Contest Winner .....	5
Inspirational Thoughts and Student Activities .....	6-9
Project Learning Tree Activity – Adopt a Tree .....	13-17
LEAF Lesson – Me as a Tree .....	18-24
Participate in the WDNR – Division of Forestry 2009 Forest Appreciation Week Writing Contest by writing about Your Favorite Tree	
Certificate of Participation .....	25
Contest Entry Form .....	26
Care and Distribution Tips for your Arbor Day Free Seedlings .....	27

### Contest Requirements:

- ✱ Fourth Grade Students Only
- ✱ Submit only one (1) entry per classroom
- ✱ Any written form, including essay, poetry or other type of creative writing is acceptable. The entry must be 200 words or less and follow the theme: *My Favorite Tree*.
- ✱ Writing must be the original work of a student currently in fourth grade.
- ✱ A participation report form must be attached to your classroom entry. Your classroom entry must be sent to the writing contest coordinator listed in this packet on page 26.
- ✱ Entries must be postmarked by March 6, 2009. Contest entries will not be returned and become property of the contest sponsor.
- ✱ Judging Criteria – Theme Application 60%, Originality 30%, Presentation and Accuracy 10%
- ✱ A semi-finalist will be chosen from each CESA District and their essay will appear in the 2010 Arbor Day-Earth Day Calendar and on the WDNR website *EEK!* – Environmental Education for Kids.
- ✱ A panel of judges from the Department of Natural Resources will review the 12 semi-finalists and select the three state winners.

### Contest Prizes and Recognition:

- ✱ The three state winners and their teachers will be recognized for their achievement. The first, second and third place students will be presented with a savings bond of \$100, \$75 and \$50, respectively. The Wisconsin Woodland Owners Association donates the awards. The students will also receive a landscape tree to be planted at their school or in their community, donated by the Wisconsin Nursery Association.
- ✱ Teachers of the three state winners will receive scholarships for a LEAF workshop and a Project Learning Tree workshop, plus additional classroom supplies.
- ✱ Parents, students and teachers will be honored at a special celebration in our State Capitol.

*Teachers: On the next few pages you'll find activities and additional information that may assist you with this year's contest. Have fun and enjoy!*

### *Celebrate Our Tree and Forest Resources*

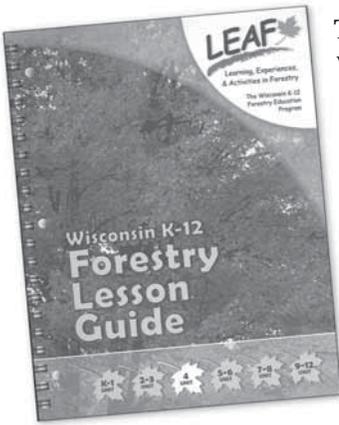
*Earth Day – Wednesday – April 22*

*Arbor Day – Friday – April 24*

*Forest Appreciation Week – April 19-25*



# Teachers Win Too!



Teachers of the three state writing contest winners receive a FREE LEAF workshop. In addition, teachers can earn one graduate level credit from the University of Wisconsin-Stevens Point at no cost for attending the workshop (over \$300 value). LEAF workshops are held throughout the year in many locations around the state.

Workshop participants are introduced to Wisconsin forest-related concepts, teaching techniques and classroom/field materials. Everyone goes home with a LEAF Lesson Guide designated to fit smoothly into their curriculum. The comprehensive Lesson Guide is correlated with Wisconsin's Model Academic Standards and features interdisciplinary classroom lessons, forestry career spotlights and field enhancements for outdoor learning.

*The "Me as a Tree" activity in this booklet is modified from the 5th-6th grade unit of the LEAF Lesson Guide.*

## Stay Connected

### FREE Resources for Teachers and Classrooms

Learn about the latest in environmental education by visiting the *EEK!* (Environmental Education for Kids) Teacher Pages at [www.dnr.wi.gov/EEK/teacher/](http://www.dnr.wi.gov/EEK/teacher/). Each month, the education calendar alerts teachers to professional development workshops, grant opportunities and the latest natural resource developments. Teacher materials are available for download in the subject areas of language arts, math, science and social studies. Links to multimedia resources and reference materials are also available to enhance your classroom activities. Looking for a student action project? The *EEK!* Teacher Pages will help you discover how to adopt a bald eagle nest, conduct milkweed monitoring or become a green and healthy school. Take a look!

Free resources are available to order through the DNR's Education Connection. The resources are arranged by topic and include materials such as lesson guides, activity books, videos, posters and much more. Order a little or a lot! A hard copy can be downloaded at <http://dnr.wi.gov/education/PDF/EducationConnection.pdf>. You can also browse by topic and order online at [www.dnr.wi.gov/education](http://www.dnr.wi.gov/education).



A FREE Wisconsin Project Learning Tree (PLT) scholarship for professional development will be awarded to the teachers of the three 4th grade writing contest winners.

PLT is an award winning environmental education program for educators and students in Pre-kindergarten through 12th grade. This education program has

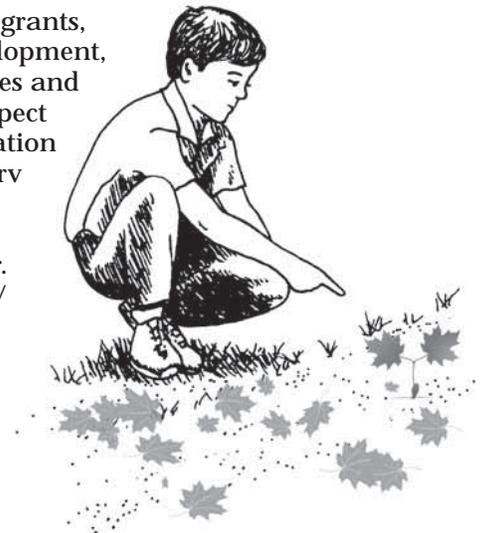
been used in Wisconsin and nationally for over 30 years and teaches students how to think, not what to think, about the environment. Students learn environmental content that correlates to national and state standards in science, social studies, language arts, math and other subjects – and strengthen their critical thinking, team building and problem solving skills.

Project Learning Tree is correlated to the Wisconsin Model Academic Standards and each workshop includes Wisconsin based resources to use in your classroom.

*The "Adopt a Tree" activity in this booklet is a sample of the variety of lessons offered in the Project Learning Tree PreK-8 Environmental Education Activity Guide.*

### Want more?

Get news sent right to your inbox with the Education News Listserv! DNR Education News will keep you informed of upcoming DNR and DNR-related educational opportunities and resources such as grants, professional development, curricular resources and more. You can expect to receive information through the listserv two to four times a year. Sign up today at [www.dnr.wi.gov/education/newsletter](http://www.dnr.wi.gov/education/newsletter).



*First Place 2008 – Theme: “My Favorite Forest Animal”*

# My Favorite Forest Animal

---

by Micaela Jobke

My fur can be white, gray or black,  
and we do not travel in a pack.  
We do not hibernate when it's chilly,  
sit and watch us, you'll think we're silly.  
We can climb a tree in the blink of an eye,  
do not try to catch me I'm really quite shy.  
My tail is bushy and my hands are so cute,  
we often snack on nuts and fruit.

We make a nest in the hole of a tree,  
it's great to be so wild and free.

We can't come in your house to be your pet,  
we look like a drowned rat when we're wet.

We come in many colors and sizes,  
don't be shocked if we show you some surprises.

We like to come out during the day,  
we gather our food, run and play.

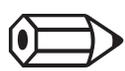
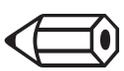
We gather and store our food in the fall,  
watch us walk on electric wires up tall.

You can't really tell if I'm a boy or girl,  
my favorite forest animal is the squirrel.

*School: St. Martin Lutheran Grade School, Clintonville  
Teacher: Ms. Teresa Buelow*



*Inspirational thoughts from a past student winner*

 **Great Grandfather Willow** 

by Megan Binkley, Van Hise Elementary School, Madison

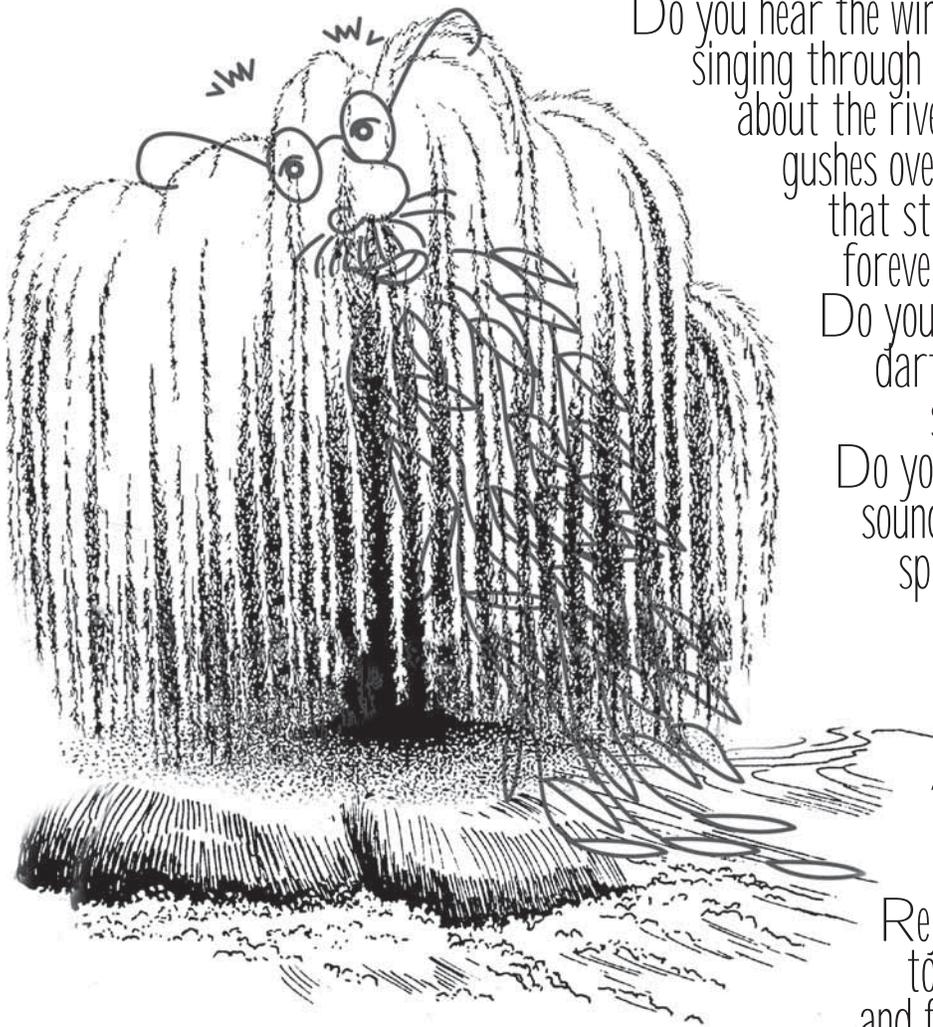
Long, star-silver branches  
awakened by the seedling  
my great grandfather planted  
so many seasons ago.

Recorder of time,  
swaying in the breeze;  
a time-caressed giant  
sighing in the wind.

Do you hear the wind  
singing through your branches,  
about the river that trickles, runs,  
gushes over your roots  
that stretch down,  
forever into eternity?  
Do you see the colorful spirits,  
darting through your boughs,  
singing their harmonious song?

Do you hear the sweet  
sounds of Honey Creek  
splashing,  
rippling,  
under you,  
gentle, dancing giant?  
Ancient one,  
great grandfather willow,  
hear me now and rejoice.

Rejoice that you have children  
to play on you  
and fly through the air  
on your long, slender branches,  
and to once again enjoy  
your beauty and splendor.

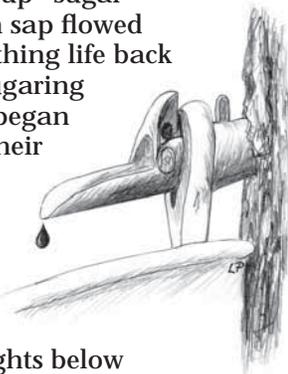


*First Place Winner, Forest Appreciation Week Writing Contest 2005*  
*School: Van Hise Elementary School, Madison*  
*Teacher: Nancy Peterson*  
*CESA: District 2*



# Syrup Stories

Long ago, Native Americans set up “sugar camps” in the early spring when sap flowed from tree roots into trunks, breathing life back into the trees. They knew that sugaring time had arrived when streams began to trickle, animals awoke from their wintry slumber for a stretch, and icicles began to drip. Even the red squirrels knew and pierced the bark to drink the sugary sap. This magic flow inside the tree was (and still is) triggered by cold nights below freezing and warmer days with temperatures pushing above the freezing mark into the 40s.



The Chippewa, Menominee, and Winnebago tribes of the Great Lakes region awaited this time of year for centuries. It meant the harvest of an important and tasty resource. The Native Americans would move their tribe’s people to the sugar camp to harvest the sap. First, they tapped the tree with a spout made from a reed or a hollow twig. Then, they collected the dripping sap in a trough made from hollowed out branches. Finally, they collected the sap in containers and heated it over an open fire until it thickened into syrup or turned to sugar.

One of the best times of the year for most tribes was during “sugaring” time as people came together with family and friends at the maple grove following a long winter. They enjoyed the spring with games, fun, and the harvesting of sap. Syrup was not only a tasty treat, it was also valuable to the Native Americans as a trade item with the early settlers. Eventually, the settlers were taught the traditional ways of making syrup and began producing their own supplies.

Used with permission from the EEK! website – [www.dnr.wi.gov/EEK/](http://www.dnr.wi.gov/EEK/)

### Teacher Tip

The Sugar Maple poster included in this booklet contains information on the tree’s parts and history. It is a great resource for students as they complete the activities on the following pages.

## Directions:

1. Use the essay above to help you answer the questions in Section A. Write the answers in the blank squares.
2. Use the answers from Section A to match the letters and numbers in Section B.
3. To help you get started, some of the letters have already been given.

## Section A

1. Place where Native Americans harvested sap from maple trees.

				R				
10	14	11	9	24	22	9	13	19

2. In early times, maple trees were tapped with this item, made from a reed or twig.

10	19	16	14	15

3. Native tribes and early settlers did this with maple syrup.

T				
15	24	9	3	23

4. Even animals loved syrup time! This animal licked the sap as it dripped through the bark.

						I				
24	23	3	10	4	14	8	24	24	23	12

5. One of the tribes that participated in maple syruping each year.

6	8	5	5	23	18	9	11	16

## Section B

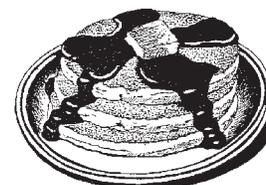
Use the answers from Section A to fill in the letters below to answer the following question:

What did Native Americans use maple sap for?

									K	
10	6	23	23	15	3	24	8	5	21	10

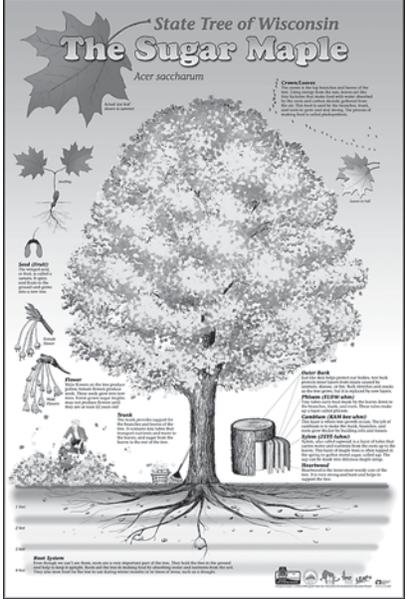
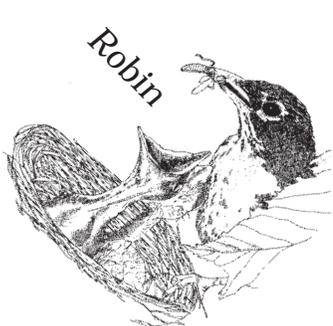
				Y
22	9	5	3	25

10	25	24	14	19



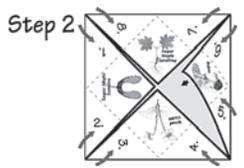
Answers on page 26.



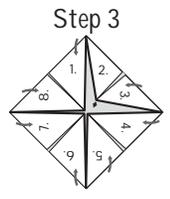
 <p>Seedling</p>	<p>Q. What part of the maple tree is tapped for maple syrup?</p> <p>A. The sapwood, also called the xylem. It carries water and minerals through the trunk.</p>	<p>Q. What do we call the branches and leaves at the top of the tree?</p> <p>A. The crown.</p>	 <p>Samaras</p>
<h3>Wisconsin Sugar Maple Tree Quizzer</h3>			
<p>Q. Are sugar maple trees deciduous or coniferous?</p> <p>A. Deciduous. Sugar maples drop their leaves in the fall.</p>	 <p>Poster Design and Illustration by Linda Pohlod</p>		<p>Q. What year did the sugar maple become our "official" state tree?</p> <p>A. 1949. The American robin and wood violet also became state symbols that year.</p>
<p>Q. When do the winged seeds of the sugar maple trees fall?</p> <p>A. In the autumn. They are called "samaras".</p>			<p>Q. Name the important jobs of a tree's roots.</p> <p>A. Roots provide support, anchor the tree in place, store food and absorb water.</p>
 <p>Robin</p>	<p>Q. How tall can a sugar maple grow?</p> <p>A. 80 to 100 feet or more.</p>	<p>Q. What is a tree's protective outer covering called?</p> <p>A. The bark.</p>	
		 <p>Syrup</p>	

**Step 1**  
Color quizzer and cut around outside border to make your paper square.

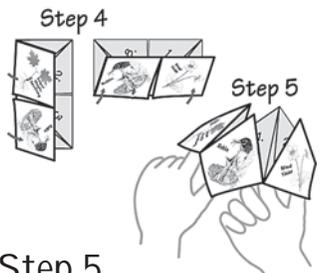
**Step 2**  
Start on plain side. Fold outside corners in to the middle along dotted lines, so pictures show.



**Step 3**  
Turn square over. Fold new outside corners in to the middle.



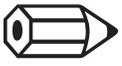
**Step 4**  
Fold top edge to bottom edge. Crease along middle. Open back up. Fold one side to other side. Crease along middle. Open back up.



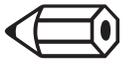
**Step 5**  
Turn square over. Put your thumbs and pointer fingers into the four pockets on back. Do you see Sugar Maple pictures? You're ready to play the game!

- How to play:**
1. Have a friend select a picture from the Sugar Maple Quizzer and count the number of letters in its name. Open and close the Quizzer that number of times.
  2. Have the player pick one of the numbers showing. Open and close the Quizzer that number of times. Open another number and give the quiz!





# My Favorite Tree Crossword



See if you can find the words in this crossword puzzle.

## Across

2. We do this to newspaper and plastic to help conserve trees.
7. Wisconsin's state tree (also the state tree of New York, Vermont and West Virginia).
10. The process that leaves use to make food from the sun.
12. The inner-most woody core of a tree.
14. This covers and protects the tree.
16. Trees that keep their leaves year round.
17. Tiny tubes that carry food made by the leaves down to the branches, trunk and roots.

## Down

1. A national holiday where we celebrate trees.
3. The name given to the branches and leaves at the top of a tree.
4. Holds a tree in place and absorbs water, minerals and nutrients.
5. Helps the tree produce food with the help of soil nutrients, carbon dioxide and water. Hint: it's very bright and found in the sky.
6. Trees use this gas in the air to help them make food.
8. Trees that drop their leaves in winter.
9. Delicious product of a maple tree made by boiling its sap.
11. Trees release this gas which helps us breathe.
13. Another name for sapwood.
15. The month of the year when we celebrate Earth Day and Arbor Day.

See answers on page 26.



# Resources for Teachers

## *If Trees Could Talk* *Stories about Wisconsin Trees*

Written By R. Bruce Allison

If trees could talk, what stories would they tell? Author and arborist R. Bruce Allison tackles this question in an engaging, accessible format in this children's companion to his 2005 adult title, *Every Root an Anchor*.

Inside the pages of *If Trees Could Talk*, Allison gives readers aged 7-12 fascinating stories that introduce them to noteworthy trees, both past and present, across Wisconsin. From Kenosha's buried forest on the shores of Lake Michigan to the Wyalusing maple that saw the last of the passenger pigeons; from Aldo Leopold's "good oak" to the disappeared elms of State Street in Madison, these stories open up a fascinating ecological and social history of Wisconsin to young readers. Other stories showcase the state's history: Readers will encounter Chief Black Hawk hiding in a hickory, Civil War soldiers enlisting for battle under "sign-up" trees, and trees used to hang criminals without a trial. They will also learn of large and unusual trees like the Columbus Cottonwood, which was over 26 feet around or, in the words of the author, so large that "it would take you and eight of your friends with arms outstretched to reach all the way around it!"

Told in compelling narrative style and supplemented with historic photographs and illustrations, these stories instill a sense of place and understanding of the rich heritage of our trees and forests. The book also carries an environmental message encouraging children to appreciate and manage natural resources wisely and respectfully. The highly accessible format includes a map of historic trees' locations, a glossary of tree terms, a tree identification chart, and a list of suggested books and websites for further reading.

R. Bruce Allison is an arborist in Madison, Wisconsin. He holds a masters of science in forestry and a PhD in land resources from the University of Wisconsin-Madison. He has served as the president of the Wisconsin Arborist Association and as chairman of the Dane County Tree Board and Wisconsin Urban Forestry Council. Allison is the author of several books and articles about trees, the most recent being a revision of *Wisconsin's Champion Trees: A Tree Hunter's Guide* and *Every Root an Anchor: Wisconsin's Famous and Historic Trees*. This is his first book for children.

*Due for release in May 2009*

Paperback: \$15.95

80 pages, 80 b/w photos and illus., 8 x 9

ISBN: 978-0-87020-419-7



## *Celebrate Arbor Day* *at your School*

In Wisconsin, Arbor Day is always celebrated on the last Friday in April. This year Arbor Day falls on April 24. There are many ways that you can celebrate our tree and forest resources in your classroom. Here are some sources that can help you plan activities at your school:

- ✦ The *EEK!* website offers information on the history of Arbor Day as well as activities and games. – <http://dnr.wi.gov/eeek/veg/arbor.htm>
- ✦ The National Arbor Day Foundation's website is jam-packed with information on trees and activities to bring into your classroom. Many of the materials can be downloaded for free. – [www.arborday.org/arborday/index.cfm](http://www.arborday.org/arborday/index.cfm)
- ✦ If you are hoping to plan a celebration for your school, the National Arbor Day Foundation website offers a free "Celebrate Arbor Day" booklet that is available for ordering. – [www.arborday.org/Shopping/Merchandise/MerchDetail.cfm?id=55](http://www.arborday.org/Shopping/Merchandise/MerchDetail.cfm?id=55)
- ✦ You can order trees for your students to plant at home or in the community through DNR's Nursery Program. See the last page of this booklet for details.



## *Free Book Teaches Wisconsin Forest History*

Would you like a fun and engaging way for your students to learn about the history of Wisconsin's forests? *Wisconsin Forest Tales*, a collection of eight historical fiction stories, is a useful tool to help teach Wisconsin history and boost reading skills. The book is available at no cost to 4th grade teachers in Wisconsin. It was written in 2004 by local author Julia Pferdehirt with funding from the Wisconsin Environmental Education Board, the Wisconsin Department of Natural Resources, and LEAF, Wisconsin's K-12 forestry curriculum.

If you are a Wisconsin 4th grade teacher and have not already received one, please request a Wisconsin Forest Tales kit by sending an email to leaf@uwsp.edu with your name, the name of your school, and the school's shipping address (for UPS delivery).

Each classroom kit includes:

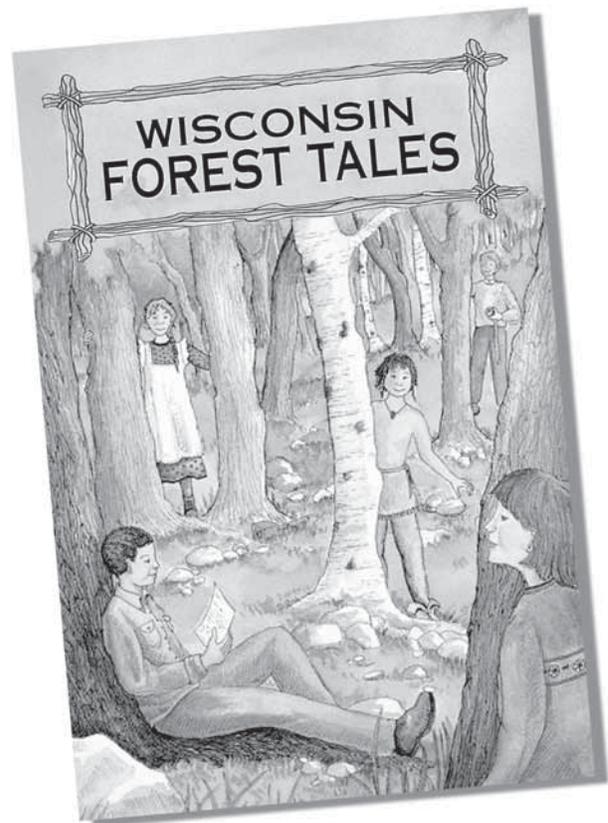
- ✳ One copy of the book, *Wisconsin Forest Tales*
- ✳ A guide book with a related classroom activity for each story
- ✳ A Wisconsin Forest Tales poster
- ✳ A CD
- ✳ A "Trees are Tremendous" video

The CD included in the kit features topic-related songs (and words so your students can sing along) by Wisconsin musicians Stuart Scotts and Ken Lonnquist; a reader's theater script written by the author to accompany each story in the book; the entire book (each story is included as a PDF file for you to print as many copies as needed for your class); and various other resources.

An electronic copy of the book, the reader's theater scripts, and the activity guide are also available online at: <http://wisconsinforestry.org/webtemplate.php?linkname=wiforesttales>

Three sets (25 copies each) of the books are also available for checkout from the Wisconsin Center for Environmental Education Resources Library at UW-Stevens Point. Contact them at (715) 346-4854 or online at: [www.uwsp.edu/cnr/wcee/library/index.htm](http://www.uwsp.edu/cnr/wcee/library/index.htm)

Teachers with access to school or public libraries in the Wisconsin Library Delivery System Network (<http://psw.scls.lib.wi.us/delivery/networks/networks.html>) can borrow these books up to four weeks.



## *Wisconsin Center for Environmental Education*

### *EE Resources Library*

The Wisconsin Center for Environmental Education (WCEE) maintains an Environmental Education (EE) Resources Library for use by educators in Wisconsin. It is located in Stevens Point, Wisconsin, on the UW-Stevens Point campus.

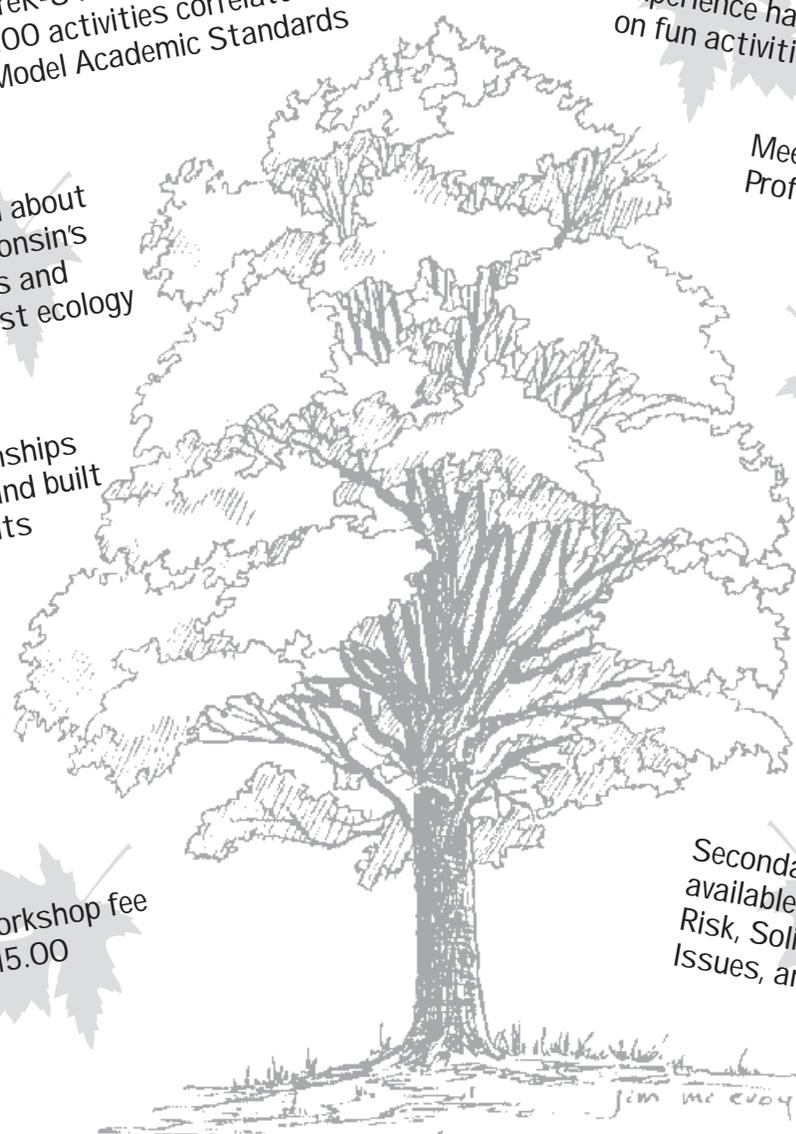
The library houses an up-to-date collection of EE materials including:

- ✳ Curriculum and activity guides
- ✳ Children's books
- ✳ Reference books
- ✳ Multimedia – DVD, CD, VHS, cassette
- ✳ Demonstration materials, games, puppets, posters and more

Materials can be checked out on-site or via the web. For contact information, directions and hours of operation, visit the EE Resources Library webpage – [www.uwsp.edu/cnr/wcee/library/index.htm](http://www.uwsp.edu/cnr/wcee/library/index.htm)

# Project Learning Tree (PLT)

An award-winning environmental education program for PreK-8 formal and non-formal educators. Go out on a limb . . . attend a workshop!



\* Receive a PreK-8 PLT Activity Guide with nearly 100 activities correlated to Wisconsin Model Academic Standards

Experience hands-on fun activities!

Meets Teacher Standards for Professional Development

Organize a workshop at your school or nature center and receive one **free** registration!

PLT Early Childhood Materials, ages 3-6

Secondary modules available on Forest Ecology, Risk, Solid Waste, Forest Issues, and Places We Live

Workshop fee \$15.00

Branch out - meet other educators - share ideas!

Discover the interrelationships of natural and built environments

Learn about Wisconsin's trees and forest ecology

\*Correlations available on the DNR website at <http://www.dnr.wi.gov/education/pltwildwet>  
Click on Project Learning Tree, then Educational Resources



WDNR - PLT/WILD/WET

101 S. Webster St.

Madison, WI 53707-7921

Phone: 608-264-6280

E-mail: [dnrpltwildwet@wisconsin.gov](mailto:dnrpltwildwet@wisconsin.gov)  
<http://dnr.wi.gov/education/pltwildwet>

Project **WILD**<sup>®</sup>



# Adopt a Tree

Students “adopt” a tree, deepening their awareness of individual trees over time and encouraging a greater understanding and appreciation of their local environment.



## Activity 21

### Levels

Part A: Grades PreK-2  
Part B: Grades 3-8

### Subjects

Science, Math, Language Arts,  
Visual Arts, Social Studies

### Concepts

- Organisms are interdependent; they all depend on non-living components of the Earth. (2.1)
- While every organism goes through a life cycle of growth, maturity, decline, and death, its role in the ecosystem also changes. (5.3)

### Skills

Composing, Observing,  
Concept Forming, Reasoning,  
Organizing Information



### Differentiated Instruction

Nonlinguistic Representations,  
Realia/Hands-on Learning,  
Curricular/Personal Connections,  
Oral/Reading/Writing Skills, High  
Order Thinking



### Technology Connections

Word Processing Software,  
Presentation Software,  
Spreadsheet/Database Software,  
Digital/Video Cameras, Peripherals

### Materials

Small notebooks, different colored pieces of yarn (optional), pencils, drawing paper, crayons or markers, tree field guide, binoculars and magnifiers, camera, copies of student pages.

### Time Considerations

Preparation: 15 minutes  
Part A: 50 minutes (ongoing visits and projects can be done throughout the year)  
Part B: 50 minutes, plus repeated visits throughout the year

### Related Activities

See the box on the next page.

### OBJECTIVES

- Students will describe a chosen tree using personal observation and investigation and organize information about the tree.
- Students will identify relationships between their tree and other organisms.

### ASSESSMENT OPPORTUNITIES

- Over short or extended periods, have younger students create books or portfolios about their adopted tree(s). On the first book page, each student can glue a picture of himself or herself

standing next to the adopted tree. Students' books can also include drawings, poems, stories, pressed leaves, rubbings, flowers, or twigs.

- Older students can write an essay about life from their tree's perspective. For example, a student who adopts a very old tree might write a story in which the tree “talks” about the days when small farms dotted the landscape or when horses and buggies crowded city streets. The tree could also talk about how it relates to the plants, animals, and people around it, and what problems it has.
- Through drawing or photography, have the students show and describe at least five distinguishing features of their trees and compare their findings with those of other students.

### BACKGROUND

See Backgrounds for “Tree Factory” and “Plant a Tree.” This activity also works well as a way to integrate a number of other activities. See the box on the next page for other suggested activities to use with an adopted tree.

### GETTING READY

Make copies of the student pages you will be using.

Gather notebooks or materials for students to make their own “Adopt a Tree” notebooks. Students can fold a sheet of construction paper in half, insert blank pages, and staple the book along the folded edge. They can draw or paste a photo of their adopted trees on the cover.

You may choose to provide teacher-made notebooks where each page has its own sentence starter or directions. Students can either draw or write a response depending on language/fine motor skills. For example:

*My tree smells like...*

*My tree feels like...*

*My tree looks like...*

Before this activity, find an area with several trees on or near the school grounds

that the students can observe over a period of time.

**Safety!** Check for any hazards at the site, such as deep holes, sharp objects, or poisonous or irritating plants.

### DOING THE ACTIVITY

#### PART A—Growing Up Together

1. Take the class outside to a grove of trees. Give students a few minutes to use their senses of smell, touch, hearing, and seeing to get acquainted with the area. Choose a particular tree to observe.

2. Ask students to volunteer to describe the tree, using first their sense of sight and then their other senses. Summarize each student's description by making comparative statements. You may structure students' comments by asking individuals to complete this sentence: “The tree is \_\_\_\_\_.”

3. Ask students whether they think the tree is alive. Ask students how they know whether the tree is alive or not. (Trees need food and water to grow, just like people.)





## PART B—My Favorite Tree

 1. Ask students to name something that is their very own or is special to them in some way. For example, one person might mention a pet and another might mention a present received from a relative or close friend.

4. Use these discussion questions: How are all the trees here alike? How are they different? Are they all alive? Are other plants alive in the area? What things do these trees give students? How do these trees help the environment?

 Provide a Venn diagram and model how to compare the trees within a graphic organizer.

5. You may choose to give each student an official “PLT Adopt a Tree Certificate” to fill out based on the tree you observed. Alternatively, with younger students, you may decide to complete one certificate as a class.

2. Explain that each person will choose his or her very own special tree to adopt. With younger students, you can have the whole group adopt a particular tree. Where there’s a shortage of trees, you might have teams adopt trees. Students will observe their trees throughout the school year, or for however long you decide to conduct the activity. Explain that how they select their tree is up to them. Some students may choose the tallest or fullest tree. Others may choose the smallest, “cutest” tree. Some may pick a seemingly average looking tree, only to discover that there’s more to it than meets the eye. No matter which tree they pick, students should be able to say why they chose it.

3. Provide each student with a small notebook, and explain that students

should use their notebooks to record observations and answer questions about their trees. (You can also have them make and decorate their own notebooks. See Getting Ready.)

 See Getting Ready for Teacher-Made adaption.

4. Take students outside and let each choose a tree. Students might tie a colored piece of yarn around their tree to identify it. If you’re working with older students, or if there aren’t trees near your school, you might have students choose trees in their yard or in the neighborhood. Students could briefly visit their trees before or after school.

**Safety!** If students will be visiting trees outside of class, be sure to review safety rules with them. They should get permission from parents. For trees away from their homes, they should make sure it’s okay with the owner and always have a parent or partner with them when visiting the tree.

5. Give students a copy of the “Adopt a Tree Activities” and have them do a number of the activities. They should write and draw their observations and responses in their notebooks. (For younger students, you will need to read and explain the activities to them.) Students may also develop their own

## Other PLT Activities for Your Adopted Tree

**Get in Touch with Trees:** Use sense of touch to explore your adopted tree.

**Sounds Around:** Sit under your adopted tree and listen for a variety of sounds.

**Poet-Tree:** Write poems about your adopted tree.

**Environmental Exchange Box:** Share with another class what you’ve learned about your adopted tree.

**Trees as Habitats:** Study your adopted tree to learn what plants and animals depend on it.

**Plant a Tree:** Plant a new tree to adopt.

**Then and Now:** Research how the area around your adopted tree has changed over many years.

**Sunlight and Shades of Green:** Do an experiment using your adopted tree to learn how it manufactures its own food.

**Have Seeds Will Travel:** Include seeds from your adopted tree in a study of seed dispersal.

**Field, Forest, and Stream:** Study the environmental factors under your adopted tree and compare them to factors in another area.

**The Closer You Look:** Use your adopted tree to make careful observations of trees and their parts.

**Bursting Buds:** Examine your adopted tree’s leaf buds.

**Germinating Giants:** Compare your adopted tree to the coast redwood and the coconut palm.

**How Big Is Your Tree?:** Measure your adopted tree’s height and circumference.

**Trees in Trouble:** Examine the health of your adopted tree.

**Signs of Fall:** Do an experiment on your adopted tree’s leaves to learn why the leaves of deciduous trees change color.

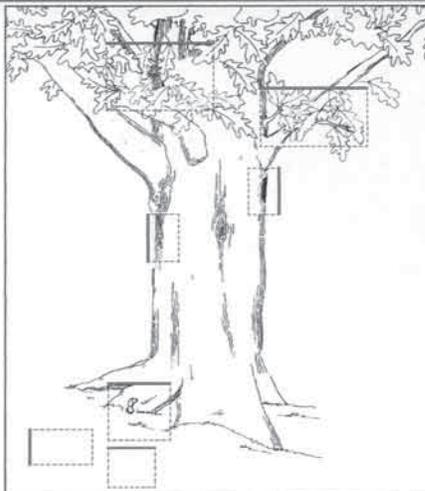
questions or activities to explore. After the initial visit to the tree, you might give younger students official “PLT Adopt a Tree Certificates” to fill out.

6. Ask students what they now know about the tree and what they would like to find out. Have them write their questions in their notebooks.

7. Have students visit their trees on a regular basis throughout the year and in a variety of weather conditions, noting changes or making other kinds of observations. Help students develop investigations to answer their questions about their adopted tree.

8. Each time they visit, you might have them write a few sentences or make sketches in their notebooks describing any changes they notice (broken branches, new leaves); animal or human activity taking place on or near the tree (nest, carved initials); or any other observations. You might ask additional questions as different seasons come and go, such as: What color do the leaves become in the fall? When does the tree bloom in the spring? Have students guess the causes of these changes and predict future changes.

Students can create “Adopt a Tree eJournals” using word processing or presentation software. Students may add digital photos of the tree to document seasonal changes, and include optical scans of leaves and other artifacts from around the tree. You might



also create a data table using spreadsheet software so that students can record their observations each time they visit the tree. Help students insert the data table into their eJournals.

### Enrichment

- Have students create a picture of a tree with flip-up windows portraying the life of their tree, in their tree, and among the tree’s roots. (See the diagram above or go to [www.plt.org](http://www.plt.org) for enlarged, printable versions.)
- Students learn more about their adopted tree through one of a number of other PLT activities. For example, have students work in pairs to measure the height, circumference, and crown of their trees. (See Activity 67, “How Big Is Your Tree?” for complete directions.) Afterward, pairs use those measurements to design several math problems

to share with the others. (See “Other PLT Activities for Your Adopted Tree” on the previous page for other ideas.)

- Make a painting or model of a large bare tree and use it as a focal point for various curriculum topics. Through the year, you might have students show how the tree is constantly changing: from green leaves and apples to changing colors and falling leaves; and from winter skeletons to bursting buds, flowers, and bees. You can also use the tree to illustrate units of study about plants, wildlife, holidays, social studies, environmental issues, and so on.
- Raise money to buy a class tree. Take students to a nursery to pick out the tree; then hold a tree-planting ceremony. (See Activity 31, “Plant a Tree” for complete directions.)

### READING CONNECTIONS

Arnosky, Jim. *Crinkleroot’s Guide to Knowing the Trees*. Simon & Schuster. 1992. An illustrated introduction to trees and woodlands with information on how to identify the bark and the leaves, the many ways that animals use trees, and how to read the individual history that shapes every tree. Grades 2-7. ISBN: 0027058557.

Iverson, Diane. *My Favorite Tree: Terrific Trees of North America*. Dawn Publications. 1999. Trees are important in children’s lives. This book celebrates the joy children feel as they interact with their favorite tree in their own unique way. For older children, separate text

is included that features an overview of each tree’s traits, associated wildlife companions, and role in the web of life. Grades PreK-7. ISBN: 1883220939.

Kirkland, Jane. *Take a Tree Walk*. Stillwater Publishing. 2002. An interactive self-guided odyssey in search of the wonder of trees. With book in hand, kids head out to their backyard, schoolyard or local park to find and identify trees. Grades 3-7. ISBN: 0970975414.

Locker, Thomas. *Sky Tree: Seeing Science Through Art*. Harper Collins. 1995. A tree stands on a hill by a river. As the sky changes, so does the tree, its branches filling with clouds, stars, snow, birds, mists, and the golden spring sun. One tree can mean many

things. Grades PreK-4. ISBN: 0064437507.

Oppenheim, Joanne. *Have You Seen Trees?* Scholastic Inc. 1995. The rhythmic language and lush paintings of this joyful poem celebrate the varied characteristics of trees – from young to old, short to tall and throughout the seasons. Grades PreK-2. ISBN: 0590466917.

Udry, Janice May. *A Tree is Nice*. Harper & Row. 1956. An older book with a simple message, *A Tree is Nice* describes the importance of trees to people and to wildlife. Most children will be able to relate personal experiences to the story. Grades PreK-K. ISBN: 0064431479.

Available @ <http://shop.plt.org>



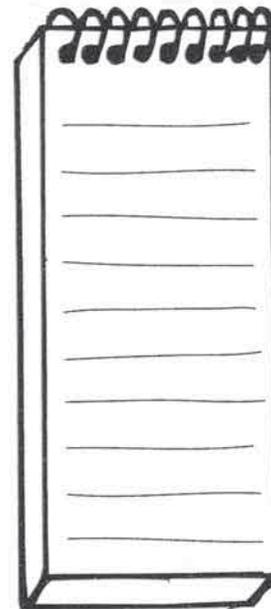
*Adopt a Tree: Correlations to Wisconsin Model Academic Standards*

Students will: 1. Describe a tree using personal observations and investigations; 2. Investigate interrelationships between trees and other organisms in nature. Part B: Grades 3-8; English Language Arts, Environmental Education, Science. ELA: B.4.1, F.4.1 EE: A.4.1, A.4.4 S: C.4.2, C.4.8, F.4.4



# Adopt a Tree Activities

Keep notes and drawings in your notebook.



1. Make a sketch of your tree. Draw the shape of its trunk, branches, and canopy (treetop).
2. Find out what kind of tree it is. Does it have any fruits, nuts, or seeds that help identify it? Sketch what you find. Use a field guide or other reference guide to look up its name.
3. Where is your tree? Draw a map to show its location.
4. Draw a picture of your tree from various perspectives: from a distance, from a high place, or from lying underneath looking up.
5. Investigate the health of your tree. Is it alive? How can you tell? Is it healthy? In what ways are people helping or hurting it?
6. Write 10 words to describe your tree, and then use these words in a paragraph or poem about your tree.
7. Draw a picture of a leaf from your tree. How does the leaf smell? How does it feel?
8. Make a rubbing of your tree's bark using the edge of a crayon or a soft-leaded pencil. How does the bark feel? How does it smell?
9. Are any animals on or near your tree? Don't forget to look for insects, spiders, and other small animals. Use binoculars or magnifiers for a closer look.
10. Are there any signs that animals have used your tree in the past? Look for holes, nests, trails, and other animal signs and describe what you see.
11. Each time you visit your tree, describe any changes you notice since the last visit.
12. Take photographs of your tree every visit. Look at several of the different photographs at once. In what ways has your tree changed over time and in what ways has it stayed the same?
13. Keep a record of seasonal changes in your tree. When do the leaves start to fall? When do the leaf buds form on the branches? When do the fruits or seedpods ripen?



# Project Learning Tree Adopt a Tree Certificate

Official Tree Name \_\_\_\_\_

Nickname \_\_\_\_\_

Birthplace \_\_\_\_\_

Circumference \_\_\_\_\_

Height \_\_\_\_\_

Identifying Characteristics \_\_\_\_\_

Adopted By \_\_\_\_\_

Date Adopted \_\_\_\_\_

One Especially Interesting Thing About My Tree Is: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*In the box above, make a leaf or bark rubbing of your tree.*





LEAF is a partnership program between  
Wisconsin Department of Natural Resources -  
Division of Forestry

and

Wisconsin Center for Environmental Education  
College of Natural Resources  
University of Wisconsin-Stevens Point.

## Me as a Tree

This lesson is modified from the LEAF 5-6 Forestry Lesson Guide, Lesson 1. Discover more about LEAF at [www.leafprogram.org](http://www.leafprogram.org)



### Nutshell

In this lesson, students learn how trees and humans are similar. Students use comparisons between humans and trees to understand a tree's functions and basic needs.

#### Big Ideas

- A tree is a perennial plant (lives more than one growing season) with a well-defined woody stem, crown, and roots.
- Trees have basic needs which include nutrients, sunlight, space, and water.
- As part of the forest community, trees have various roles (e.g., providing habitat, holding soil). The presence of trees alters the surrounding environment.

#### Objectives

Upon completion of this lesson, students will be able to:

- Draw and explain the parts of the tree and their functions.
- Compile a list of basic needs of a tree.
- Differentiate functions of a tree in a forest community.

#### Subject Areas

Arts, Science, Social Studies

#### Lesson/activity Time

- Total Lesson Time: 70 minutes
- Time Breakdown:

Introduction .....	10 minutes
Activity 1 .....	15 minutes
Activity 2 .....	25 minutes
Conclusion .....	20 minutes

#### Teaching Site

Classroom

### Background

Words in bold can be used as vocabulary terms.

#### Parts of a Tree

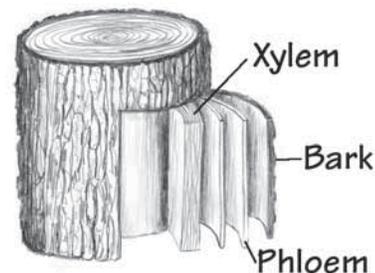
A tree is defined as a perennial plant with a well-defined woody stem, crown, and roots. Although trees are members of the plant kingdom, these tree features make them distinct from other plants. Each feature performs a different function for the tree.

#### Trunk

The woody stem, or trunk, sets trees apart from other plants. The trunk provides support for the branches and leaves. It also acts as the food and water connection between the leaves and roots.

Within the trunk are many layers. These layers perform functions for the tree.

- **Xylem** carries water and nutrients absorbed from the soil by the roots to the leaves. The word comes from the Greek *xulon* which means "wood."
- **Phloem** carries sugars (food energy) created during photosynthesis from the leaves to the rest of the tree. The word comes from the Greek *phloos* which means "bark."
- **Bark** is the outermost layer that protects the tree from injury.



#### Crown

The crown of a tree is composed of leaves and branches. It is where photosynthesis takes place. Leaves gather energy from sunlight and carbon dioxide from the air, and then combine them with water. Photosynthesis is the process trees use to make sugars, the energy for tree growth. The food energy created by the leaves in the crown is stored in the branches, trunk, and roots.



## Roots

A tree's unseen root system may have more mass than the visible top portion of the tree. A tree's roots usually grow even farther out from the trunk than its branches. They lie just below the surface of the ground in the top nine inches of the soil. The structure of a root system is complex. Root systems consist of large, woody roots that grow out from the trunk and huge numbers of small roots growing out from the large ones. The large roots serve as anchors to keep the tree standing, provide energy storage for times when the tree isn't making sugars, and gather nutrients and water for the rest of the tree. The small roots that grow from the large roots are responsible for absorbing water and nutrients from the soil.

*Additional parts not used in this lesson are defined on the Sugar Maple poster included with this booklet.*

## Basic Needs Of A Tree

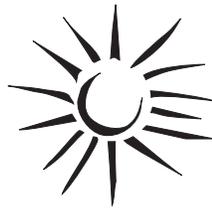
Trees and other plants have five things that they need in order to survive: nutrients, sunlight, water, air, and space.

### Nutrients

Trees use nutrients (minerals) from the soil to build the materials that make up the tree. These nutrients help the tree to survive, grow, and reproduce.

### Sunlight

Sunlight is the form of energy that trees use to complete the process of photosynthesis. In order for trees to convert carbon dioxide and water into sugars (and other carbohydrates), they need energy from the sun.



### Water

Water is key to photosynthesis. Water is also important to the tree for transportation of nutrients. It's water that makes up most of the tree's sap. Sap carries nutrients up the trunk and food back down to the roots.



### Air

All plants need air to survive. It is from the air that plants get the carbon dioxide for photosynthesis. Without air in the soil, roots would "drown."

### Space

Space is the least tangible of the basic needs. It is important for students to know that trees can't grow to their potential when they are crowded. Root systems need room to grow, as do branches, leaves, and stems.

## Functions in the Community And Altering of Environment

Trees have various functions in their community. They absorb carbon dioxide and produce oxygen during photosynthesis. Since many trees live for

a long time, they act as "carbon sinks" to store carbon. Another function is transpiration. Trees absorb water from the soil and release water vapor into the atmosphere. Trees also provide habitat for animals and plants in their branches and in hollows in their trunks. The seeds, leaves, and bark of trees are also used as food by animals. The many roots of trees help hold soil and prevent erosion.

It's easy to see how people alter their environment, but trees can alter the environment too. The shade a tree casts will determine what plants are able to live beneath it. If a tree has dense shade, sun-loving plants will not grow under it. In turn, animals that rely on sun-loving plants will be absent as well. That same shade will also change the temperature in the community. Trees impact the moisture content of the soil, which also changes the types of plants able to grow there. Some trees have the ability to give off chemicals that discourage other plants from living near them. Black walnut is an example of a tree in Wisconsin that can control other species with chemicals.

## Materials List

### For Each Student

🍁 Copy of Student Page 📄 1, *Trees and Humans*

### For The Teacher

🍁 Chalk/marker board

🍁 Overhead transparency markers

🍁 Overhead transparencies of:

- Student Page 📄 1, *Trees and Humans*
- Teacher Page 🍎 1, *Basic Needs of Trees and Humans*

🍁 Teacher Key 🍎 ↔ 1, *Trees and Humans Key*

🍁 Teacher Key 🍎 ↔ 3, *Basic Needs of Trees and Humans Key*

### Teacher Preparation

Make overhead transparencies of Student Page 📄 1, *Trees and Humans* and Teacher Page 🍎 1 *Basic Needs of Trees and Humans*.

## Procedure

### Introduction

1. Begin by showing students pictures of trees or observing actual trees in the schoolyard. Ask students to make comparisons between different trees. (*One tree has dark brown bark and another has light brown; one tree has leaves and another has needles, etc.*)



- Next, ask students to compare trees with people and provide examples of what they have in common and why. (*Accept any reasonable responses. People have legs and arms, trees have branches.*) Ask what makes trees and people different. (*Trees can't move; trees have green leaves, etc., again accepting reasonable answers.*)
- Explain that, in the next activities, students will be comparing trees and humans.

### Activity 1

- Tell students that they will be comparing the parts of a tree to the parts of a human and discussing how these parts have similar functions. Display the overhead transparency of the Student Page  1, *Trees and Humans*, and distribute a copy of the page to each student.
- Explain that all of the choices for the parts are listed at the bottom of the page and students should write them in the blanks. Each numbered part on the tree diagram corresponds with a numbered part on the human diagram with a similar function. The functions are listed at the bottom of the page as clues to determining what the parts are.
- Once students have completed their worksheets, have them help you fill in the blanks on the overhead transparency. As you fill in each pair of numbers, explain more about the function that corresponds with the number. (See Teacher Key   1, *Trees and Humans Key*.)

### Activity 2

- Explain to students that trees and humans both have basic needs. Basic needs are things that an organism must have in order to survive. Display the overhead transparency of Teacher Page  1, *Basic Needs of Trees and Humans*. Ask students what the basic needs of humans are. Fill in their answers on the overhead in the triangle chart titled “Basic Needs of a Human.” (See Teacher Key   3, *Basic Needs of Trees and Humans Key*.) Explain why nutrients and sunlight are not basic needs of humans if those answers are given. (*Although people need nutrients, we get those things from food, which is a basic need. Sunlight provides us with vitamin D but it is not the only source. Nutrients and sunlight become secondary to the basic need for food.*)
- Ask students what the basic needs of a tree are and fill in their answers on the overhead in the triangle chart titled “Basic Needs of a Tree.” (See Teacher Key   3, *Basic Needs of Trees and Humans Key*.) Explain why things like food and shelter are not basic needs of trees if those answers are given. (*Trees create their own food and don't need shelter.*)
- Ask students to make comparisons between the two and write the similarities on the third triangle.

### Conclusion

- Have students brainstorm their roles in the school community. (*Possible answers include: act as a role model to younger students, be a friend to others, be a good student – listen, etc., fill school responsibilities – hall monitor, cafeteria patrol, etc.*) Also, have students brainstorm a list of the roles others in the school play. (*Janitor, teacher, cook, principal.*)
- Have students study the *Sugar Maple poster* included in this activity booklet, or a picture of a forest. Explain that the picture shows examples of many roles trees have in the forest community. Have students study the picture and determine as many of these roles as possible. Make a list of the tree's roles on the board. (*Provide food, provide habitat, prevent erosion by holding soil, provide shade, produce oxygen.*)
- Have students think back to the roles they and the other people they listed play in the school community. Ask them what they think might happen if these roles weren't filled. (*If they were not good students, their grades would go down and they wouldn't learn. If they did not fill school responsibilities, someone else would have to do them or no one would do them and the school would run less smoothly, be less safe, etc. If the teachers weren't there, the students wouldn't learn. If the janitor wasn't there, the garbage would pile up and the halls wouldn't be swept.*) Now ask what they think might happen if trees did not fill their roles in the forest community. (*The animals would not have food or shelter. Water sources would become polluted and dirty. There would be less oxygen in the air. There would be less shade.*)

### Standards

#### Language Arts C.8.3

##### Oral Language

**Standard is:** Participate effectively in discussion.

- Participate in discussion by listening attentively, demonstrating respect for the opinions of others, and responding responsibly and courteously to the remarks of others.
- Establish and maintain an open mind when listening to others' ideas and opinions.
- Display and maintain facial expressions, body language, and other response cues that indicate respect for the speaker and attention to the discussion.
- Participate in discussion without dominating. Students discuss their own ideas and listen to the ideas of others about the information they are learning throughout the lesson.

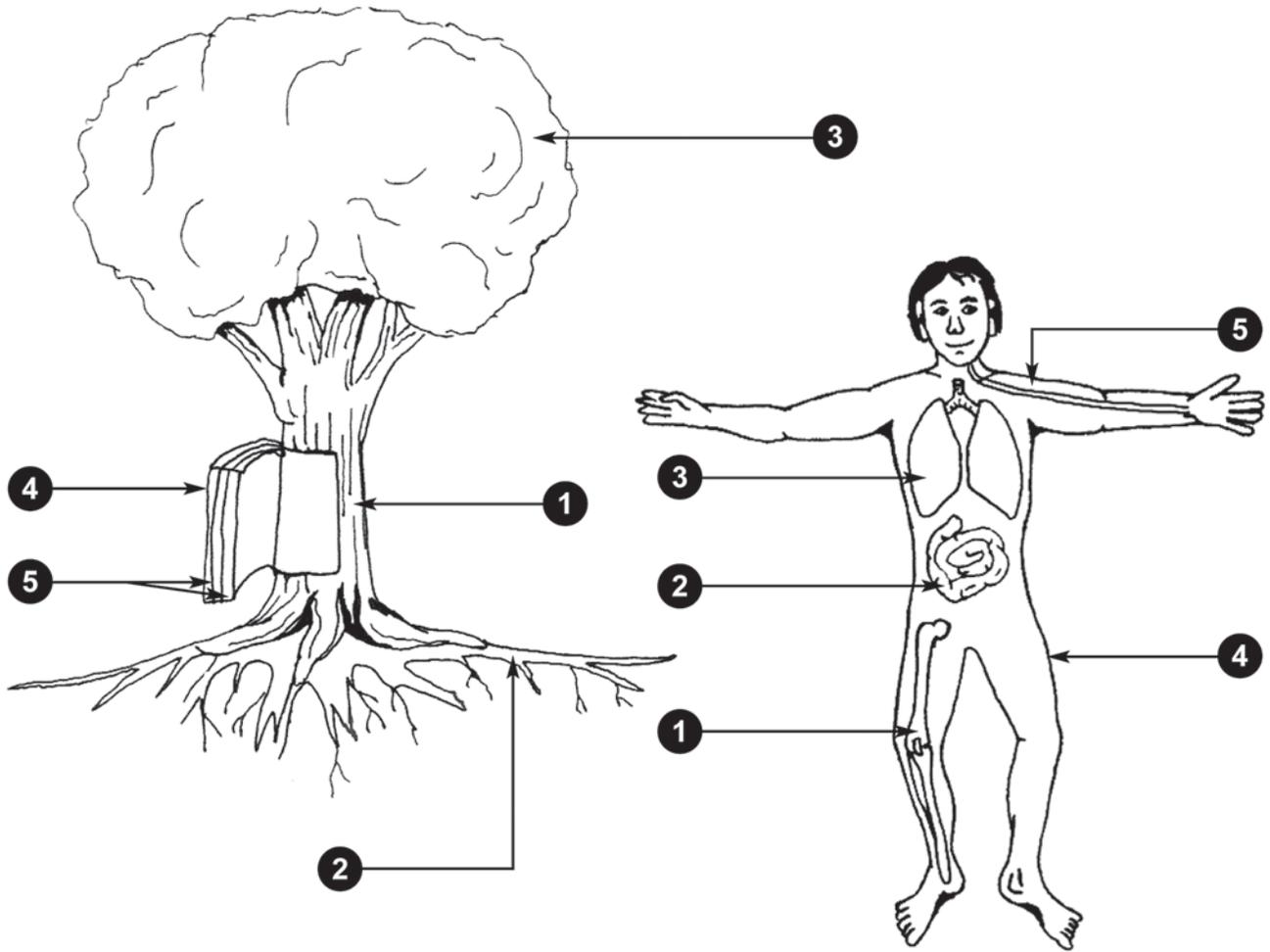
#### Science F.8.1

##### Structure and Function in Living Things

**Standard is:** Understand the structure and function of cells, organs, tissues, organ systems, and whole organisms. Students learn about the structure, function, and systems of trees and humans by labeling a diagram comparing the functions of tree parts and human parts.



# TREES AND HUMANS



## TREE/HUMAN PARTS

Write the tree/human parts in the appropriate blanks on the pictures above.

- |         |                   |                   |          |                  |
|---------|-------------------|-------------------|----------|------------------|
| • Trunk | • Xylem/Phloem    | • Skin            | • Bark   | • Roots          |
| • Lungs | • Small Intestine | • Skeletal System | • Leaves | • Veins/Arteries |

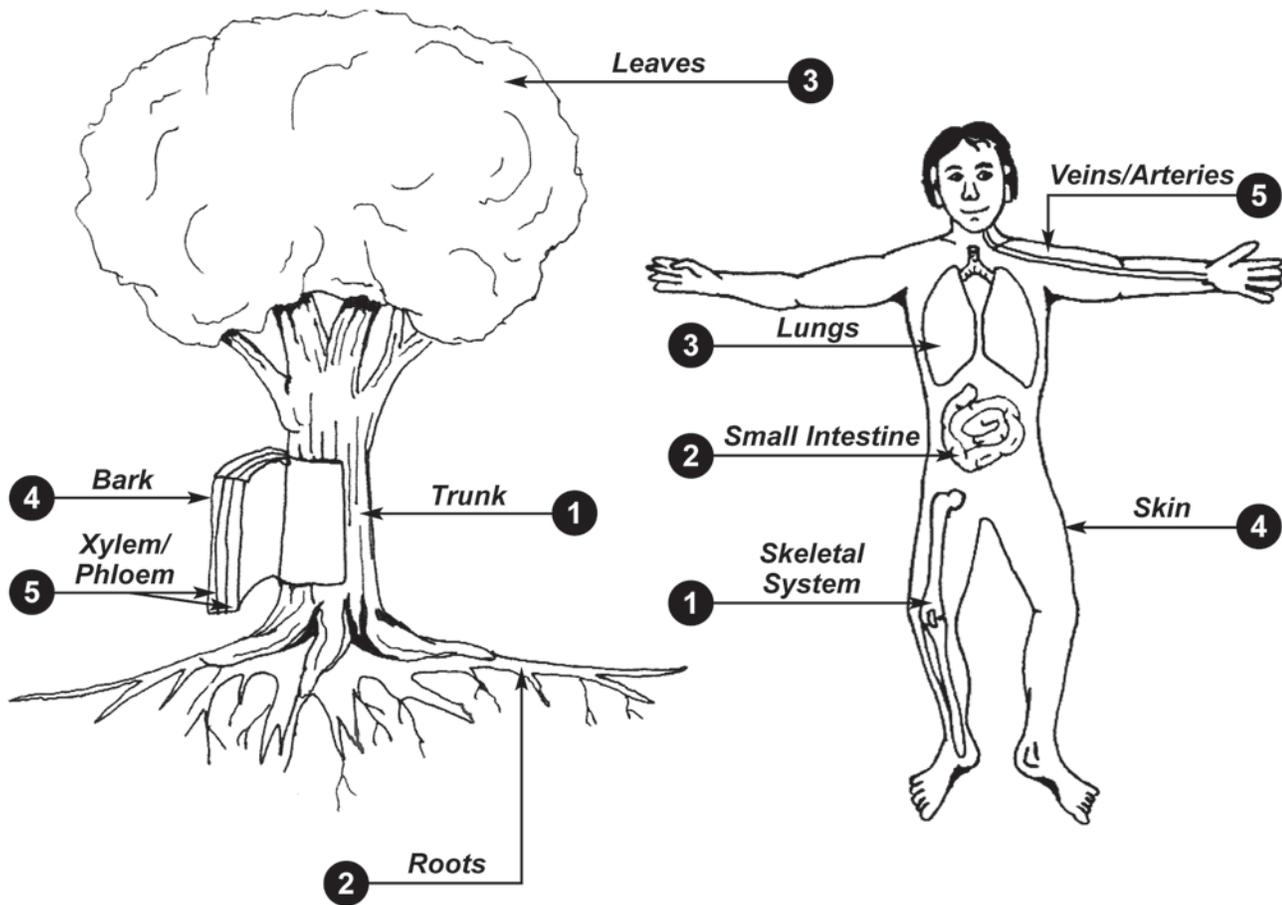
## TREE/HUMAN FUNCTIONS

Match numbers 1 through 5 in the pictures above to the functions below.

- |                    |                           |                 |
|--------------------|---------------------------|-----------------|
| _____ Protection   | _____ Support             | _____ Transport |
| _____ Gas Exchange | _____ Nutrient Absorption |                 |



# TREES AND HUMANS KEY



## KEY

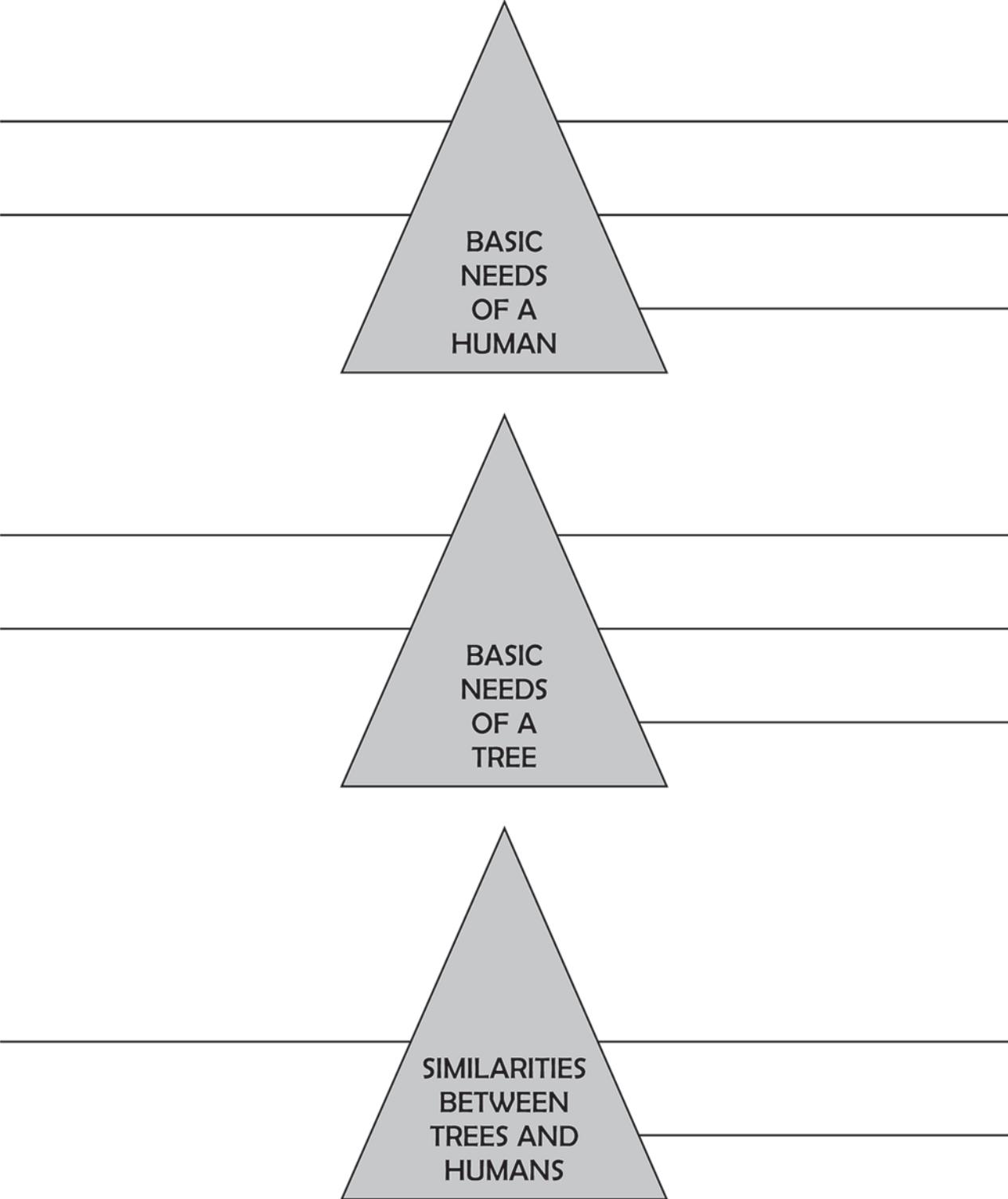
1. The **trunk** of a tree and the **skeletal system** of a human both provide support. Because the trunk of a tree is well-defined and woody, it sets trees apart from other plants. The trunk supports the branches and leaves of a tree and forms a connection between the leaves and the roots.
2. The **roots** of a tree and the **small intestine** of humans both absorb nutrients. Tree roots usually grow farther out than the tree's branches and lie just below the surface of the ground in the top nine inches of soil. Root systems consist of large, woody roots and huge numbers of small roots. The large roots serve as anchors to keep the tree standing, energy storage for times when the tree isn't producing sugars, and paths for nutrients and water to reach the rest of the tree. The small roots absorb water and nutrients from the soil.
3. The **leaves** of a tree and the **lungs** of a human are both places for gas exchange. Humans

take in oxygen and release carbon dioxide. Trees take in carbon dioxide and release oxygen. Leaves gather energy from sunlight along with the carbon dioxide and combine them with water. During this process called photosynthesis, sugars that are the food energy for the tree are produced.

4. The **bark** of a tree and the **skin** of a human both provide protection. Bark protects the tree from injury caused by insects, animals, other plants, and fire. Bark characteristics vary from species to species.
5. The **xylem and phloem** of a tree and the **veins and arteries** of a human all transport materials. Water, nutrients, and sugar (food) must all be transported in a tree. The xylem and phloem are made of cells created by the tree each year. Old cells die and remain part of the trunk of the tree.



# BASIC NEEDS OF TREES AND HUMANS



The diagram consists of three gray triangles stacked vertically. Each triangle is centered and has horizontal lines extending from its sides. The top triangle is labeled 'BASIC NEEDS OF A HUMAN' and has four lines. The middle triangle is labeled 'BASIC NEEDS OF A TREE' and has three lines. The bottom triangle is labeled 'SIMILARITIES BETWEEN TREES AND HUMANS' and has two lines.

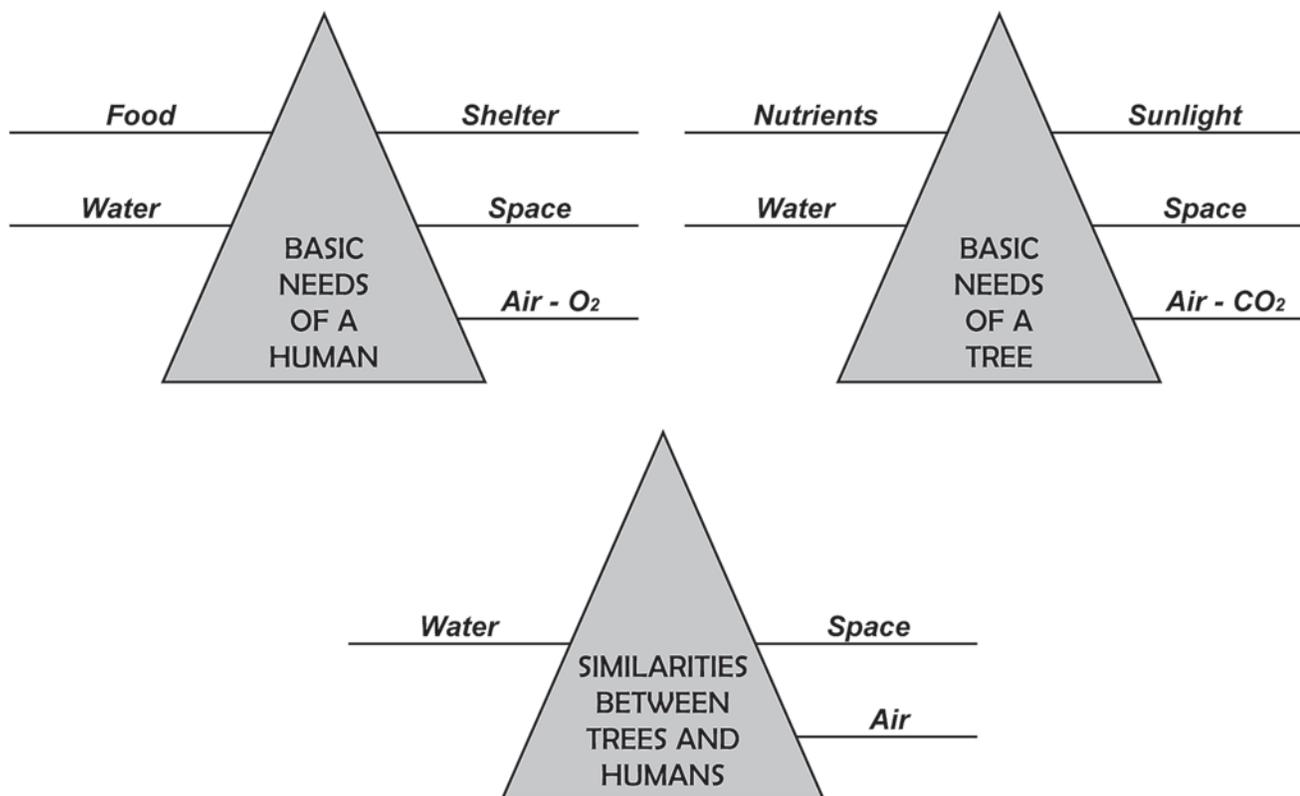
BASIC  
NEEDS  
OF A  
HUMAN

BASIC  
NEEDS  
OF A  
TREE

SIMILARITIES  
BETWEEN  
TREES AND  
HUMANS



# BASIC NEEDS OF TREES AND HUMANS KEY



## HUMANS' BASIC NEEDS

**Food:** Humans must find food; they cannot make it like trees can.

**Water:** Absorbed by the small intestine. Humans can live about a month without food but only one week without water.

**Shelter:** Humans need protection from elements such as weather. Different types of shelter are created depending on the environment a person lives in.

**Space:** Space is needed to move and exercise. A creature that does not have enough space is more prone to obesity, boredom, and sickness.

**Air:** Oxygen is necessary for healthy cell functioning. Humans take in oxygen from the air and release carbon dioxide.

## TREES' BASIC NEEDS

**Nutrients:** Most of the nutrients a tree needs are found in the soil. Roots absorb the nutrients and they are transported throughout the tree by the xylem.

**Sunlight:** Needed in the process of photosynthesis to create sugars used by the tree for food.

**Water:** Absorbed by the roots. Major component of sap which carries nutrients and food.

**Space:** Necessary for proper growth. A tree needs space for its roots underground, as well as its branches and leaves above ground. If a tree is crowded and cannot get the nutrients and sunlight it requires, its growth will be stunted.

**Air:** Carbon dioxide is necessary for trees to complete photosynthesis. Oxygen is released as a byproduct of the process.





*Certificate of Participation*

# *Forest Appreciation Writing Contest*

## *2009 - My Favorite Tree*



Student

*Paul DeLong*

Chief State Forester  
Wisconsin Department of Natural Resources  
Division of Forestry

# Forest Appreciation Week Writing Contest Entry Form

Each classroom entry must have this form. Submit only one (1) entry per classroom by March 6, 2009. Fill in the blanks below.

Attach this form to your chosen classroom entry and mail it to the judging coordinator:

Wisconsin Department of Natural Resources  
 P.O. Box 7921  
 Madison, WI 53707-7921  
 Attn: Tessa Jilot FR/4

Date \_\_\_\_\_ CESA District \_\_\_\_\_

Student's Name \_\_\_\_\_

Student's Address \_\_\_\_\_

City \_\_\_\_\_ Zip \_\_\_\_\_ County \_\_\_\_\_

Parent/Guardian Name(s) \_\_\_\_\_

Teacher's Name \_\_\_\_\_

School Name \_\_\_\_\_

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

City \_\_\_\_\_ Zip \_\_\_\_\_ County \_\_\_\_\_

Teacher's e-mail address \_\_\_\_\_

School Phone (\_\_\_\_) \_\_\_\_\_

Principal's Name \_\_\_\_\_

Number of students in your classroom that participated \_\_\_\_\_

*This number helps us determine the overall number of students participating in 2009.*

## Wisconsin Cooperative Educational Service Agencies

(Districts Operating High Schools)

Please circle your  
CESA District:



Answers to  
Syrup Stories  
activity on page 7

### Section A

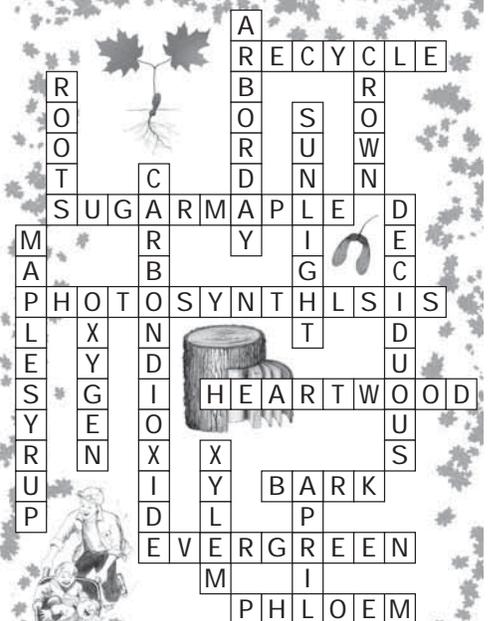
1. SUGAR CAMP
2. SPOUT
3. TRADE
4. RED SQUIRREL
5. WINNEBAGO

### Section B

- SWEET DRINKS  
 CANDY  
 SYRUP



## Answers to My Favorite Tree Crossword on page 9





*Thinking about distributing Arbor Day tree seedlings this year? If so, below are a few simple tips for the care and distribution of tree seedlings to your students.*

*A. Prior to distribution of seedlings*

Have each student bring a clear plastic bag about the size of a bread wrapper from home.

*B. When your seedling box or bag arrives*

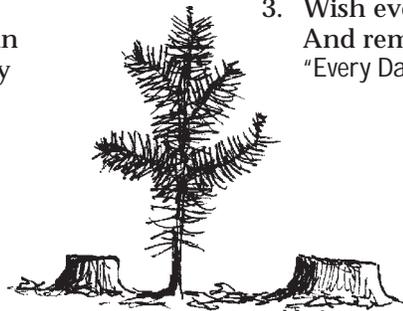
1. Keep your trees cool. Refrigerate your seedlings (34-36 degrees Fahrenheit is ideal). Seedlings are perishable and should be refrigerated until planting time. DO NOT FREEZE. Do not store your trees in the sun, in a car trunk, in a heated classroom or other warm place before distributing them to your students.
2. Keep your trees moist. Do not open your sealed bag or box of seedlings. Leaving the bag closed will keep seedlings moist and cool until planting time.

*C. At distribution time*

1. Package individual seedlings.
  - ✱ Wrap the roots of each seedling in paper towels.
  - ✱ Dip the wrapped area of the seedling in water and place in the plastic bag.
  - ✱ Tie the bag closed above the roots using string, tape or twist ties.
2. Review planting instructions with you students. If children cannot plant their tree the day that they receive it, tell them to place it in the vegetable drawer of their refrigerator until it can be planted. Plant the seedling at approximately the same depth as it grew in the nursery or slightly deeper. Encourage students to plant their seedling as soon as possible. Emphasize that for the seedling to live, its roots must be

kept moist until it is planted. Remind students to select a planting site that will give the seedling room to grow and has correct light conditions.

- ✱ Dig a hole as deep as the root system and about 1 foot wide. (Remind children that the majority of a tree's feeder roots are in the upper six inches of the soil where they compete with grass roots for oxygen, moisture and nutrients. Feeder roots thrive on soil that is loose, moist and fertile – conditions often lacking in soils around homes.)
  - ✱ Remove the seedlings and the paper towel, if used, from the bag and place it in the planting hole. Seedling roots should hang freely in the planting hole and not be crooked, crowded, twisted or bent.
  - ✱ Crumble soil back around the roots and pack the soil gently after planting.
  - ✱ Water your seedling. Water will finish packing the soil around the roots.
  - ✱ Mulch your planting area to a depth of 2 inches and a radius of 9-12 inches. Make sure to pull the mulch away from the seedling's trunk to prevent bark rot.
  - ✱ Remember to water the seedling weekly during dry periods. New trees need the equivalent of 1 to 1.5 inches of rainfall per week during their first year.
3. Wish everyone tree-mendous success! And remind your students that "Every Day is Arbor Day!"



*Applications for 4th Grade Arbor Day Free Tree Program are due March 14, 2009*

*Applications available at*

*<http://dnr.wi.gov/forestry/Nursery/Order/arborday-order.asp>*

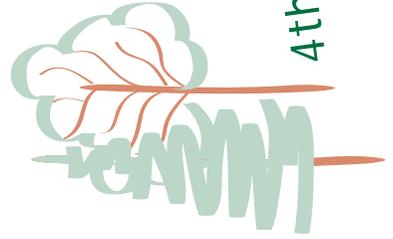




## State of Wisconsin

Department of Natural Resources  
Box 7921  
Madison, WI 53707-7921  
Attention: Genny Fannucchi - FR/4

Presorted Standard  
U.S. Postage  
Paid  
Madison, WI  
Permit 906



My Favorite Tree   
4th Grade Statewide Writing Contest  
Deadline → March 6th, 2009

