# Don't Stop Now!

Now that you and your students have learned about Wisconsin's forest resources and have been introduced to sustainable forestry, what are you going to do? You could scratch "teach about forests" off your "to do" list! Or you and your students could tackle a local forestry issue or problem in your community.

If you choose action, get ready for a great and challenging learning experience!

# **Getting Ready**

- 1. You don't want to choose the action project your class will tackle, but you do want to be ready for it. Read *Taking Action:*An Educator's Guide to Involving Students in Environmental Action Projects. See Finding Out More! for information.
- 2. Watch the local paper for forestry-related articles. Keep note of interesting issues that might inspire a class project.

# Doing the Activity

Below is an outline of the steps needed to get a project off the ground. The size and nature of your project will determine the course it takes!

- Discuss with your students the idea of doing an action project. Tell about some action projects that kids have already done. *Taking Action* gives summaries of "success stories" from around the country.
- Together, brainstorm a list of some possible topics and related projects that the students find interesting.
- Assign research on the most promising topics.
- 4. Pick a project.

- 5. Develop a plan.
- Do it! Don't forget to keep a photographic and written record of your project.
- 7. Get recognized! Here's one way! Participate in the Department of Natural Resources' annual Earth Day Project. Projects that are registered with this program and meet the requirements will receive an Earth Day flag or classroom banner. Contact: Earth Day Project, c/o Project WILD/Project Learning Tree, Department of Natural Resources, CE/6, P.O. Box 7921, Madison, WI 53707-7921, (608) 267-2463.



## Method

Students participate in a self-directed action project.

## **Key Concepts**

Every person is responsible for the stewardship of forest resources.

Our children's children should be able to experience the beauty and productivity of diverse forest ecosystems.

## Objectives

- identify ways they can make a difference
- complete a project that focuses on sustainable forestry

## Subjects & WI Academic Standards

Science: H.4, G.8, H.8

Social Studies: D.4, D.8

English/Language Arts: A.4, B.4, C.4, D.4, F.4 A.8, B.8, C.8, D.8, F.8

Environmental Education: A.4, C.4, D.4, E.4 A.8, C.8, D.8, E.8

## Materials

varies

## Preparation Time

varies

# **Activity Time**

varies

## Setting

varies

# Ideas for Action Projects Related to Sustainable Forestry

## Improve the Quality of Your School Grounds, School Forest, or Local Park

Map your school's green space and consider how it could be improved. Your students will struggle with management decisions that consider the economic, ecological, and social goals of your site. Think about your school site. What would it look like in the future if nothing was done? How could it look if you follow a thoughtful plan? Find helpful information in the following resources:

- Wild School Sites: A Guide to Preparing for Habitat Improvement Projects on School Grounds published by Project WILD.
- "Design an Urban Schoolyard Forest" from Wisconsin's Millennium Tree.
- "Improve Your Place" and "I'd Like to Visit a Place Where . . . " from Project Learning Tree.
- Wildlife and Your Land: A Series About Managing Your Land for Wildlife from the DNR's Bureau of Wildlife Management. It offers many suggestions for improving wildlife habitat.
- **DNR Service Centers** and your local state park can provide you with construction plans for wild houses! Bluebirds, wood ducks, and bats will appreciate your efforts.
- The National Wildlife Federation's Backyard Wildlife Habitat program and Schoolyard Habitats program also offer good suggestions for enhancing wildlife habitat. www.nwf.org/habitats

## Share Inspiration

Students are wonderful educators. Take advantage of their natural teaching ability by allowing them to write and/or read stories about the forest to younger children. Look at the Wisconsin's Millennium Tree activity "Forest Fact and Fiction." In this activity, students create a book that expresses their knowledge about Wisconsin forests.

## Research Local Forest Issues

See the activity "Forest Issues Project" in Wisconsin's Millennium Tree for ideas on how to use local foresters as resources for environmental investigations and student research.

### Think About the Rainforest

Unlike some parts of the world, Wisconsin has been gaining forest acreage, not losing. Many other parts of the world are not so fortunate! Ask your students to watch for news articles about deforestation in other countries. Look into ways that your class can raise awareness about the world's tropical rainforests. Here are two ideas to get you started:

- ♣ Investigate the advantages and disadvantages of preserving tropical forest land. Here are a couple of the groups doing this: International Children's Rainforest
  P.O. Box 936, Lewiston, ME 04240 (207)784-1069
  Save the Rainforest
  Dodgeville High School, 912 W. Chapel, Dodgeville, WI 53533
  www.lascruces.com/~saverfn/
- Find out about shade-grown coffee. Does it conserve tropical rainforest habitat while still allowing farmers to make a profit from their land? One source of information and coffee for resale is the Thanksgiving Coffee Company, Box 1918, Ft. Bragg, CA 95437, (800) 648-6491. www.thanksgivingcoffee.com

These action projects were mentioned earlier in the guide. They are repeated here in case you just became inspired!

## Plant a Tree

What if you wanted to plant a tree outside your school? What kind of tree would you plant? What would you need to consider? See additional information in the **Extending the Learning** section of "Every Tree for Itself!" on page 12.

## Be a Tourist in Your Own Town

Find out if you live in a Tree City USA. Visit the WDNR website (www.dnr.state.wi.us/org/land/forestry/uf/awareness) for a complete list of Wisconsin cities. If you do, how did your community qualify? If you don't, what are the qualifications? Is anyone in city government aware of the program or working toward the goal of becoming a Tree City? Take a walk through your community. Where are trees growing? Talk about what the community would be like without any trees. Invite your city forester or someone from the city maintenance department to talk to your group about how trees are planted, why they are planted where they are, and how people in the community can help care for trees. See the activity "Trees in Trouble" in *Project Learning Tree*. It will help you identify some special problems that city trees face. Do something about it!

## Investigate Endangered Species

Focus on Wisconsin's endangered and threatened species that live in the forest. Visit the Endangered Resources website (www.dnr.state.wi.us/org/land/er/rare.htm) for an up-to-date listing. The greatest problem that threatened and endangered animals face is habitat loss. Learn more about this need for space in these activities:

- The **Project WILD** activity "Too Close for Comfort" investigates the amounts of space different animals need.
- The Project Learning Tree activity "Life on the Edge" encourages students to become advocates for endangered species of plants or animals. After learning about habitat loss, students create "public relations campaigns" for these species.

#### Get Involved with Wildlife Research

Since animals depend on forest ecosystems, we can learn a lot about the forest by monitoring animal populations. Find out about these opportunities for students to be involved in gathering data:

#### Christmas Bird Count

Wisconsin Audubon Society 3118 N. Oneida Street, Appleton, WI 54911, (414) 735-9903

#### Classroom FeederWatch

Cornell University http://birdsource.cornell.edu/cfw

#### Fourth of July Butterfly Count

North American Butterfly Association www.naba.org

#### Journey North

Journey North www.learner.org/jnorth

#### Midwest Sandhill Crane Count

International Crane Foundation P.O. Box 447 Baraboo, WI 53913-9778, (608) 356-9462 www.savingcranes.org

#### Wisconsin Frog and Toad Survey

Wisconsin Department of Natural Resources Bureau of Endangered Resources P.O. Box 7921, Madison, WI 53707, (608) 267-0849



## Volunteer Your Muscles!

Help maintain a recreation area, restore a habitat, or just clean up a place! Here are some possibilities for involvement:

#### Adopt-A-Highway Department of Transportation www.dot.state.wi.us

Adopt-A-Trail
Contact your local WDNR state park, forest, or trail.

#### **★** Adopt-A-Lake

UW-Extension, University of Wisconsin - Stevens Point Stevens Point, WI 54881 http://uwexlakes.uwsp.edu/Adopt-A-Lake

#### DNR's Natural Areas Program

Wisconsin Department of Natural Resources P.O. Box 7921, Madison, WI 53707 www.dnr.state.wi.us/org/land/er/snas.htm

#### **★** The Nature Conservancy

633 W. Main Street, Madison, WI 53708, (608) 251-8140 www.tnc.org

#### Water Action Volunteer (WAV) Program

Wisconsin Department of Natural Resources P.O. Box 7921, Madison, WI 53707, (608) 264-8948 http://clean-water.uwex.edu/WAV

## Remember . . . Be a Good Steward Every Day

Put into practice the things you believe will help the earth and its inhabitants. Set a good example for your students. Pick up litter, recycle, conserve energy, shop wisely, and always look for new ways to care for the earth. Think of creative ways to share the message with your community!

# Finding Out More!

Taking Action: An Educator's Guide to Involving Students in Environmental Action Projects produced by Project WILD and the World Wildlife Fund. This resource was compiled to inspire and to provide models for conducting effective environmental projects. Contact the Wisconsin Project WILD office: WDNR, P.O. Box 7921, Madison WI 53707.

**Taking Action! Ideas for Environmental Involvement in Wisconsin** compiled by the Wisconsin Project WILD office. This list of projects, ideas, and contacts is available from the Wisconsin Project WILD office. See address above.

#### Grants!

**C.D. Besadny Conservation Grants.** Fund your small-scale, grassroots conservation project! Grants of up to \$1,000 are awarded to schools, organizations, individuals, and government agencies for projects involving education, restoration, research, and management of Wisconsin's natural resources. Contact the Natural Resources Foundation of Wisconsin (608) 266-1430. www.nrfwis.org

Forest Stewardship Grants. Do you have a forest stewardship project you would like to undertake? Projects can include: training natural resource professionals, landowners, youth, or loggers; developing training materials, educational resources, or programs; providing technical assistance to landowners; and completing forestry demonstration projects. Contact Forest Stewardship Coordinator, WDNR, 101 S. Webster St., P.O. Box 7921, Madison, WI 53707-7921.

**GreenWorks!** GreenWorks is a Project Learning Tree environmental community action program. It encourages students to participate in community-based partnerships by developing and implementing environmental action projects, such as graffiti paint-overs, tree plantings, stream clean-ups, and recycling projects. Contact the National PLT office at (202) 463-2462. www.plt.org/html/plt in action/greenworks.html

*Urban Forestry Assistance Grants.* These grants are administered through the WDNR's Urban Forestry Program. They fund projects that improve a community's capacity to manage its trees. The applicant may be a city, village, town, county, tribal government, or not-for-profit organization. Joint applications are encouraged. Grants range from \$1,000 to \$25,000. www.dnr.state.wi.us/org/land/forestry/uf/grants

**WEEB Grants.** The Wisconsin Environmental Education Board (WEEB) awards grants for the development, dissemination, and implementation of environmental education programs. Awards are available for small grants requesting up to \$5,000 and for large grants requesting \$5,001-\$20,000. http://weeb.uwsp.edu

Local Grants. Check with local service organizations and conservation clubs for special project funding. Several nationwide discount chains have grant programs for schools and community organizations. Ask your local store! For example, Target and the National Wildlife Federation sponsor Earthsaver clubs (www.nwf.org/earthsavers) around the country.

# Appendix

## Curriculum / Activity Guides

Lessons in a Land Ethic: Teacher's Guide with Student Activities for Indoor and Outdoor Use published by The Leopold Education Project, 1991. Contact Pheasants Forever for information about attending a workshop and receiving this curriculum guide. Find your local chapter by visiting the national Pheasants Forever website (www.pheasantsforever.org). Also check out the Leopold Education Project website (www.lep.org). Grades 6 - 12.

**NatureScope:Trees Are Terrific** produced by the National Wildlife Federation, 1985. This multidisciplinary guide features good background information, hands-on activities, and copycat pages. It is available through Acorn Naturalists, (800) 422-8886, (www.acornnaturalists.com). Preschool - grade 7.

One Bird - Two Habitats: A Middle School Environmental Education Curriculum on Migratory Birds produced by the Wisconsin Department of Natural Resources, 1994. This interdisciplinary curriculum unit focuses on the interconnectedness of birds, forests, and people in Nicaragua and Wisconsin. It is available only through workshops. Contact the State Coordinator at WDNR, Communications and Education, PO Box 7921, Madison, WI 53707, (608) 264-6282. Grades 6 - 8.

**Paper Makes Wisconsin Great!** produced by the Wisconsin Paper Council, 1998. This multimedia educational program explains the papermaking process, highlights the socio-economic contributions and history of the industry, and demonstrates the industry's commitment to environmental stewardship. Contact the Wisconsin Paper Council, P.O. Box 718, Neenah, WI 54957-0718, (920) 722-1500, (www.wipapercouncil.org). Grades 4 - 5.

**ParkPacks** produced by the Wisconsin Department of Natural Resources - Bureau of Parks and Recreation, 1999. ParkPacks were developed through a grant from the Wisconsin Environmental Education Board. They focus on sustainable forestry and include engaging activity cards, books, and other materials. Contact the Chief Naturalist, WDNR, P.O. Box 7921, Madison, WI 53707, (608) 267-9351 for information concerning availability. Grades 6 - 8.

**Project Learning Tree** published by the American Forest Foundation, 1994. The PLT guide is a set of action-oriented activities that uses the forest as a "window" into natural and built environments. The guides can be obtained by attending PLT workshops. For more information contact the National PLT office at (202) 463-2462, (www.plt.org) or the Wisconsin office at (608) 264-6280, (www.dnr.state.wi.us/org/caer/ce/pltwild). Grades K - 8.

**Project WILD** published by the Western Regional Environmental Education Council, 1992. Project WILD is an interdisciplinary, supplementary conservation and environmental education program emphazing wildlife. For more information contact the National WILD office (www.projectwild.org) or the Wisconsin office at (608) 264-6280, (www.dnr.state.wi.us/org/caer/ce/pltwild/).

**Sustainable Forestry: Commitment to the Future** produced by the Wisconsin Department of Natural Resources, 1996. This packet is no longer available, however you might be able to borrow one from your local forester. Grades 6 - 12.

Wisconsin's Millennium Tree: Sustainable Forestry Activities for Elementary School Students produced by Department of Public Instruction, Wisconsin Department of Natural Resources, USDA Forest Service, and several other agencies, 1999. The complete activity guide can be downloaded from WDNR's EEK! website (www.dnr.state.wi.us/org/caer/ce/eek). Grade 4.

## Educators' References

It Takes a Tree produced by the Pacific Logging Congress. Each American uses the equivalent of one tree in wood and paper products each year. This video and booklet discuss how the tree is harvested and how logging companies are working to conserve natural resources. Contact the Pacific Logging Congress at P.O. Box 1281, Maple Valley, WA 98038 for information about availability and price.

Material World: A Global Family Portrait by Peter Menzel (Sierra Club Books, 1994). This resource book provides an intimate look into the everyday lives of typical families from around the world. It is also available as an interactive CD-ROM.

Naturewatch: Exploring Nature with Your Children by Adrienne Katz (Addison-Wesley Publishing Company, Inc., 1986). This book offers over 50 projects that encourage exploration and discovery in the out-of-doors.

Sand County Almanac by Aldo Leopold (Available from several publishers in different formats). This classic environmental book is as timely as when it was first written. A definite "read" for older students and all adults!

Taking Action: An Educator's Guide to Involving Students in Environmental Action Projects produced by Project WILD and the World Wildlife Fund, 1995. This resource was compiled to inspire and to provide models for conducting effective environmental projects. Contact the Wisconsin Project WILD office: WDNR, P.O. Box 7921, Madison, WI 53707, (608) 264-6280.

Wild School Sites: A Guide to Preparing for Habitat Improvement Projects on **School Grounds** published by Western Regional Environmental Education Council, 1993. This guide contains everything you need to start a wildlife habitat project. Contact the Wisconsin Project WILD office: WDNR, P.O. Box 7921, Madison, WI 53707, (608) 264-6280.

Wildlife and Your Land: A Series About Managing Your Land for Wildlife by Mary K. Judd, Diane Schwartz, and Todd L. Peterson, 1996 - 1998. This is a series of booklets about managing your land for wildlife. They are available from the WDNR, Bureau of Wildlife Management, P.O. Box 7921, Madison, WI 53707. They are also listed on the WDNR website under Wildlife Publications.

Wisconsin Department of Natural Resource's Public Wildlife Recreation Land published by the Wisconsin Department of Natural Resources, 1998. This booklet lists public lands that are open for people to hunt, fish, hike, canoe, and watch wildlife. It is available from WDNR Service Centers and the Bureau of Wildlife Management, P.O. Box 7921, Madison, WI 53707. Ask for publication number PUB-WM-001-98.

Wisconsin: Pathways to Prosperity by Shiela Reaves (Windsor Publications, 1988). This overview of Wisconsin history is filled with historical photographs, old signs, and interesting reprints.

Wisconsin Wildlife Viewing Guide by Mary K. Judd (Falcon Press Publishing Co., 1995). This guide covers many of the state parks, natural areas, sanctuaries, nature centers, and wildlife areas around the state.

Wisconsin's Champion Trees produced by the Wisconsin Department of Natural Resources, 1998. This resource contains information on how to measure a tree and how to compare it to the state records. It also includes a detailed listing of the largest trees in the state organized by species. You can get a copy by contacting your local WDNR Forester and asking for publication number PUB-FR-115 98. It is also available online at the WDNR website.

Wisconsin's Famous and Historic Trees by Bruce Allison and Elizabeth Durbin (Wisconsin Books, 1982). This resource lists historic trees, hanging trees, homeplace trees, Native American trees, and surveyors' trees. It also tells you where you can find trees made famous by legend, art, and individuals.

#### Websites

Many of the sites contain links to other forestry-related pages on the WWW. \* Indicates partners in the development of this CD-ROM packet.

Adopt-A-Highway www.dot.state.wi.us

Adopt-A-Lake

http://uwexlakes.uwsp.edu/Adopt-A-Lake

American Forest Foundation

www.affoundation.org

American Forest and Paper

Association www.afandpa.org American Forests

www.americanforests.org

American Museum of Papermaking

www.ipst.edu/amp/

Chequamegon - Nicolet **National Forests** www.fs.fed.us/r9/cnnf

Classroom FeederWatch http://birdsource.cornell.edu/cfw

College of Menominee Nation -Sustainable Development Institute www.menominee.edu/sdi/forestry.htm

Earthsaver Clubs www.nwf.org/earthsavers

EEK! Environmental Education for Kids!

www.dnr.state.wi.us/eek/

eNature. Inc. www.enature.com

Forest History Society www.lib.duke.edu/forest

Forest Products Laboratory

www.fpl.fs.fed.us

Forest Research Community www.reeusda.gov/forest

Forest Service Video Library

www.r5.fs.fed.us/video

Forest Stewardship Council

www.fscus.org

F.R.E.E. Network - Forest Resource **Environmental Education** 

www.freenetwork.org

Georgia Pacific

www.gp.com/educationalinnature International Crane Foundation

www.savingcranes.org

International Wood Products

Association

www.iwpawood.org

Journey North

www.learner.org/jnorth

Lake States Lumber Association \*

www.lakestateslumber.com

Leave No Trace www.Int.org

Leopold Education Project

www.lep.org

Library of Congress

http://lcweb2.loc.gov/ammem/ collections/finder.html

Lumberiack Resource Conservation and Development Council, Inc. \*

www.wi.nrcs.usda.gov/RCD/ lumberjack/lumber.html

Minnesota Department of Natural Resources

www.dnr.state.mn.us

Minnesota Power Electric www.mpelectric.com/treebook/

Museum Products Company www.museumproductsco.com

www.nascofa.com/prod/Home

National Arbor Day Foundation

www.arborday.org

National Association of State

Foresters

www.stateforesters.org

National Project Learning Tree

www.plt.org

National Weather Service

www.crh.noaa.gov/mkx/climate.htm

National Wildlife Federation's Schoolyard Habitats Site www.nwf.org/habitats/schoolyard

Natural Resource Conservation

Education

www.fs.fed.us/outdoors/nrce

Natural Resources Foundation of Wisconsin

www.nrfwis.org

The Nature Conservancy

www.tnc.org

North American Butterfly

Association

www.naba.org

Northwest Center for Sustainable

Resources

www.ncsr.org

Recreational Opportunities on

Federal Lands

www.recreation.gov

School Nature Area Project

www.stolaf.edu/other/snap

Smokey Bear

www.smokeybear.com/

Society of American Foresters

www.safnet.org

Soil and Plant Analysis Lab

http://uwlab.soils.wisc.edu

State Historical Society of

Wisconsin

www.shsw.wisc.edu/oss

State of Wisconsin Information

Server

http://badger.state.wi.us/

Sustainable Forestry Partnerships

http://sfp.cas.psu.edu

Technical Association of the Pulp

and Paper Industry

www.tappi.org/paperu/

**Temperate Forest Foundation** 

www.forestinfo.org

Tree Musketeers

www.treemusketeers.org

TreeLink

www.treelink.org

University of Florida

www.agen.ufl.edu/~foodsaf/

dh104.html

University of Wisconsin -

Extension

www.uwex.edu

Water Action Volunteer Progam

http://clean-water.uwex.edu/WAV

Wisconsin Center for Environmental Education \*

www.uwsp.edu/acad/wcee

Wisconsin's County Forests Association

www.wisconsincountyforests.com

Wisconsin Department of Natural

Resources \*

www.dnr.state.wi.us

Wisconsin Department of Public

Instruction

www.dpi.state.wi.us

Wisconsin Department of Tourism

www.travelwisconsin.com

Wisconsin Environmental

**Education Board** 

http://weeb.uwsp.edu

Wisconsin Forest Resources

**Education Alliance\*** 

www.wfrea.org

Wisconsin Geological and Natural

History Survey

www.uwex.edu/wgnhs

The Wisconsin Page

www.uwsp.edu/acaddept/geog/

wisconsin

Wisconsin Paper Council

www.wipapercouncil.org

Wisconsin State Cartographer's

Office

http://feature.geography.wisc.edu/sco

Wisconsin State Climatology Office

www.uwex.edu/sco

Wisconsin Woodland Owners

Association

www.geocities.com/RainForest/1704/

Wisconsin's Vascular Plants

www.wisc.edu/herbarium

World Forest Institute

www.vpm.com/wfi

WWW Virtual Library: Forestry

www.metla.fi/info/vlib/Forestry

## Children's Nonfiction

Apple Tree by Peter Parnall (Macmillan Publishing Co., 1987). This book describes the many ways an old apple tree interacts with insects, birds, and other animals through the four seasons.

Arbor Day by Diane Burns and Kathy Rogers (Carolrhoda Books, 1989). This book for elementary children encourages appreciation of trees and discusses what has happened to them since the pioneers settled America.

Biodiversity by Dorothy Patent Hinshaw (Clarion, 1996). This book provides a global perspective on environmental issues while showing the interdependence between Earth and all living things.

The Blossom on the Bough, A Book of Trees by Ann Dowden (Crowell, 1975). Beautiful drawings and text explore the importance of forests, the parts and cycles of trees, the functions of flowers and fruits, the distinctive features of conifers, and the forest regions in the United States.

Crinkleroot's Guide to Knowing the Trees by Jim Arnosky (Bradbury Press, 1992). A funny forest fellow introduces 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.

A Day in the Life of a Forest Ranger by David Paige (Troll Associates, 1980). The forest ranger in this story works in the Nicolet National Forest.

Discovering Trees by Douglas Florian (Charles Scribner's Sons, 1986). This book introduces trees and their growth, reproduction, and usefulness.

Eyewitness Books - Tree by David Burnie (Alfred A. Knopf, 1988). Photographs and text explore the anatomy and life cycle of trees; examine the different kinds of bark, seeds, and leaves; explain the commercial processing of trees to make lumber: and describe the creatures that live in trees.

Evewitness Explorers - Trees by Linda Gamlin (Dorling Kindersley, Inc., 1993). This is a junior version of the Eyewitness Book described above.

The Forest by David Bellamy (Clarkson N. Potter, Inc., 1988). This book describes the coexistence of a variety of plants and animals in their natural forest environment and their struggle to survive a human-made catastrophe.

Forest Fires by Patrick Merrick (The Child's World, Inc., 1998). Questions and answers provide information about forest fires and how they occur.

Forest Life by Barbara Taylor (Dorling Kindersley, 1993). Vivid photographs reveal the variety of animal and plant life found in the forest.

Forest Resources by Jane B. Whipple (Franklin Watts, 1985). This book examines America's forests and their use, describing the history of forest use and protection, the national forests, fire and other major threats, and the resources provided by forests.

The Hidden Life of the Forest by Dwight Kuhn (Crown Publishers, 1988). Colorful pictures tell the story of the animals and plants of the forest.

How the Forest Grew by William Jaspersohn (Greenwillow, 1989). This book describes the gradual transformation of a cleared farm field into a dense forest. It is a primer on forest succession.

How Trees Help Me by Bobbie Kalman & Janine Schaub (Crabtree Publishing Company, 1992). Part of the Primary Ecology Series, it introduces trees and tree parts, discusses tree life cycles and current problems facing trees, and includes some simple activities for getting to know trees.

I Can Be a Forest Ranger by Carol Greene (Children's Press, 1989). This career guide describes the duties and training of a forest ranger.

Oak & Company by Richard Mabey (Greenwillow Books, 1983). Text and drawings follow an oak tree and its company of plants and animals from its beginning as an acorn to its death 282 years later. This book was written in England, so the drawings and some of the names are not familiar or native animals.

One Small Square: Woods by Donald Silver (Scientific American Books for Young Readers, 1995). This book invites kids to investigate the plant and animal life found in a small section of the woods.

Outside and Inside Trees by Sandra Markle (Bradbury Press, 1993). This book discusses various parts of trees and their functions, including the bark, sapwood tubes, roots, and leaves. The text is accompanied by many photographs and microscopic images of trees.

Paper by Kids by Arnold Grummer (Dillon Press, 1990). Follow step-by-step instructions to make decorative paper using materials found around the house and simple equipment that can be bought or constructed.

Resources Today - WOOD by Kathryn Whyman (Glouchester Press, 1987). This book shows how wood is harvested and turned into useful products.

Temperate Forests by Lynn Stone (Rourke Enterprises, 1989). This EcoZones book examines the forest community as an ecological niche and describes the trees, plants, and animals supported there.

**TIMBER! From Trees to Wood Products** by William Jaspersohn (Little, Brown & Company, 1996). This book explains how people and machines turn trees into a variety of wood products.

Trees by Joy Richardson (Watts, 1993). This introduction to the world of trees covers how they grow, why they lose their leaves, and more.

Trees Alive by Sarah Reidman (Lothrop, Lee, and Shepard, 1974). This book describes the life processes of trees, how they support animal and plant life, and what they contribute to our environment, comfort, and enjoyment.

Trees and Leaves by Althea (Troll Associates, 1990). This book from the Nature Club Series describes the characteristics of various trees and how they provide food and shelter for animals. It includes great illustrations of trees from around the world that show the diversity and adaptability of trees.

*Trees Are Forever* by Eleanor B. Heady (Parents' Magazine Press, 1978). This book includes information on tree growth, diseases, insects, fire, forestry, and the importance of trees to people and animals.

Trees of North America by Alan Mitchell (Thunder Bay Press, 1994). This book describes broad-leaved trees, ornamental trees, evergreens, and conifers. It also includes many tree-related activities.

Woods, Ponds, & Fields by Ellen Doris (Thames & Hudson, 1994). This Real Kids/Real Science Book is filled with ideas and suggestions for observing and collecting animals and plants in woods, fields, and ponds.

## Children's Fiction

**The Big Tree** by Bruce Hiscock (Macmillan Children's Book, 1991). Beautiful illustrations help to tell the story of a maple tree over 200 years old.

**Birth of a Forest** by Millicent Selsam (Harper & Row, 1964). This book tells the story of a pond slowly becoming a forest.

**Cherry Tree** by Ruskin Bond (Boyds Mill Press, 1991). A young girl plants a cherry seed in the Himalayan foothills. On her tenth birthday, the tree finally blooms.

**A Clearing in the Forest** by Carol and Donald Carrick (The Dial Press, 1970). The spirits of the forest try to drive away a boy and his father, but soon they see that the people want to live in harmony with the land.

*Flute's Journey* by Lynne Cherry (Harcourt Brace & Co., 1997). A young wood thrush makes his first migration from his nesting ground in a Maryland forest to his winter home in Costa Rica and back again.

*Giants in the Land* by Diana Appelbaum (Houghton Mifflin, 1993). Giant pine trees in New England were cut down during the colonial days to make massive wooden ships for the King's Navy.

**The Gift of the Tree** by Alvin Tressalt (Lothrop, 1992). A dying tree gives the gift of life to other plants and animals in the forest.

**The Giving Tree** by Shel Silverstein (Harper, 1964). This classic story tells of a boy's use of a tree from the time he is young until he is old.

**The Grandpa Tree** by Mike Donahue (Rinehart, 1988). Read this tale of the life cycle of an evergreen tree—from birth to death to rebirth.

**Just a Dream** by Chris Van Allsburg (Houghton, 1990). Walter is not interested in the environment; he is interested in the robots and amazing inventions of the future. But one night, his dreams take him to a very different future that changes his attitude about the use of natural resources.

**The Light in the Forest** by Conrad Richter (Bantam Books, 1953). An infant is kidnapped by the Lenni Lenape on the frontier. When he is returned to his parents as a teenager, he finds the white man's ways disturbing.

*Little House in the Big Woods* by Laura Ingalls Wilder (HarperCollins, 1994). Follow a year in the lives of two young girls growing up on the Wisconsin frontier.

*Lumberjack* by William Kurelek (Houghton Mifflin Company, 1974). The author's paintings of Canadian lumbercamps accompany his first-hand observations of the life of a lumberjack.

*Marven of the Great North Woods* by Kathryn Lasky (Harcourt Brace & Company, 1997). When his Jewish parents send him to a Minnesota logging camp to escape the influenza epidemic of 1918, ten-year-old Marven finds a special friend.

**The Miracle Tree** by Christobel Mattingley (Gulliver Books, 1985). Separated by the explosion of the atomic bomb, a husband, wife, and mother carry on with their lives in the ruins of Nagasaki and are eventually reunited one Christmas by a very special tree. This story is more about people than trees, but it shows how trees impact people's lives.

My Father Doesn't Know About the Woods and Me by Dennis Haseley (Atheneum, 1988). As a child walks in the woods with his father, he seems to become other animals enjoying the freedom of nature.

An Oak Tree Dies and a Journey Begins by Louanne Norris and Howard Smith (Crown Publishers, 1979). A big, old oak tree on a river bank falls into the water and floats out to sea.

Once There Was a Tree by Natalia Romanova (Dial Books, 1985). This story from Russia tells about a tree stump and the animals that call it home. It beautifully states that the tree belongs to all, because it grows from the earth that is home for all.

Once There Was a Tree (Great Plains National Instructional Television, 1994). This Reading Rainbow videorecording is based on the book by Gennadii Spirin. The story weaves together the relationships among all living things and our dependence on trees for food, shelter, and clean air. LeVar then explores the life cycle of trees in a forest. (30 minutes)

Pearl Moscowitz's Last Stand by Arthur Levine (Tambourine Books, 1993). A "grandmother" has seen enough changes. She saves the last tree on the street.

The Singing Fir Tree: a Swiss Folktale retold by Marti Stone (G.P. Putnam's Sons, 1992). In his guest to find the perfect wood for his masterpiece, a woodcarver tries to cut down the town's beloved singing fir tree.

Someday a Tree by Eve Bunting (Clarion, 1993). This powerful story tells how chemicals can affect trees and the people who love them.

Song of the Trees by Mildred Taylor (Bantam, 1984). A family tries to save their woods from lumbermen during the Depression.

Sky Tree: Seeing Science Through Art by Thomas Locker (Harper Collins Publishers, 1995). This beautifully illustrated book shows one tree through the seasons. Text and paintings tell the story of changes in and around the tree.

The Time Tree by Enid Richemont (Little Brown and Company, 1989). The summer after their last year of elementary school brings changes in the friendship of Rachel and Joanna. Past and present worlds seem to merge, and a mysterious girl dressed in old-fashioned clothing appears and disappears at their secret place in an old tree.

A Tree in the Trail by Holling Clancy Holling (Houghton Mifflin Co., 1970). A cottonwood tree, sprouted in 1610 on the Great Plains, sees much history before it is felled in a storm in 1834. While fiction, the tree's story is historically based. The first fourteen chapters move quickly and are easy to read aloud.

A Tree's Tale by Lark Carrier (Dial Books for Young Readers, 1996). The huge 400-year-old oak tree sees many people come and go during the course of its life as a path-tree to the inland forest.

Trees by Harry Behn (Holt, 1992). "Trees are the kindest things I know/They do no harm, they simply grow." This line sets the stage for this wonderful poem about trees.

The Voice of the Wood by Claude Clement (Dial Books, 1988). An incomparable magical cello is made from a Venetian instrument maker's beloved tree. It is played during the Grand Carnival only after a famous young musician lets down his public facade and faces the instrument with honesty and heartfelt desire.

## Forestry References

The Forest by Roger Caras (Holt, Rinehart, and Winston, 1979).

The Forest by Peter Farb (Time-Life books, 1969).

Forest by Jack Page (Time-Life Books, 1983).

Forests: A Naturalist's Guide to Trees and Forest Ecology by Laurence Walker (John Wiley and Sons, 1990).

**The Green America Book** by American Forest Institute (American Forest Institute, 1980).

*Introduction to Forest Science* by Raymond Young (John Wiley and Sons, 1982).

The Life of the Forest by Jack McCormick (McGraw-Hill, 1966).

North American Trees: National Audubon Society Collection Nature Series by Barbara Burn (Gramercy Books, 1984).

**The Secret Life of the Forest** by Richard Ketchum (American Heritage Press, 1970).

Woodland Life by G. Mandahl-Barth (Blandford Press, 1966).

## Field Guides

**The Audubon Society Field Guide to North American Trees** by Elbert Little (Alfred A. Knopf, 1987). Photographs.

*Eyewitness Handbook of Trees* by Allen J. Coombes (Dorling Kindersley, Inc., 1992). Photographs.

*A Field Guide to Trees and Shrubs* by George A. Petrides (Houghton Mifflin Company, 1972). The Peterson Field Guide Series. Drawings.

Forest Trees of Wisconsin: How to Know Them by Bureau of Forestry (Wisconsin Department of Natural Resources, 1990). Drawings. \*

*Trees* by George A. Petrides (Houghton Mifflin Company, 1993). A Peterson First Guides book. This field guide is smaller than the typical field guide and contains the trees that you are most likely to see. \*

**Trees** by Herbert S. Zim and Alexander Martin (Golden Press, 1956). A Little Golden Guide. Drawings. \*

*Trees of North America* by Frank C. Brockman (Golden Press, 1968). Drawings.

\* Recommended for use by children.

# CO-ROM Pre/Post Test

- 1. One acre of trees, which is an area about the size of a football field, can provide enough oxygen daily for:
  - a) You and 17 friends
  - b) You and 100 friends
  - c) Just you
  - d) I don't know
- 2. What do trees do for us?
  - a) Give off oxygen and take in carbon dioxide
  - b) Cool the surrounding area by as much as 10 degrees
  - c) Provide products such as clothing, football helmets, and cardboard boxes
  - d) All of the above
- 3. How much of Wisconsin is covered with trees?
  - a) Almost one-quarter
  - b) Nearly half
  - c) Over two-thirds
  - d) I don't know
- 4. Wisconsin's forests provide homes for which of the following wildlife?
  - a) Barred owl
  - b) White-tailed deer
  - c) Fox snake
  - d) All of these
- 5. How many different products are made from trees?
  - a) 50
  - b) Hundreds
  - c) Thousands
  - d) I don't know



- 6. Which of the following fun things could people do in a forest?
  - a) Hunting and fishing
  - b) Camping and hiking
  - c) Skiing and snowmobiling
  - d) All of these
- What is the most important job for Wisconsin's professional foresters?
  - a) Build trails and campgrounds
  - b) Manage forests sustainably to meet human needs and keep the environment healthy
  - c) Control wildlife populations
  - d) I don't know
- 8. What factors determine the types of forests found in Wisconsin?
  - a) Soils and climate
  - b) Species of animals
  - c) Diseases and pests
  - d) I don't know
- 9. Sustainable forestry provides which of the following benefits?
  - a) Environmental
  - b) Economic
  - c) Social
  - d) All of these
- 10. The cutting of trees provides many benefits.
  - a) Agree
  - b) Undecided
  - c) Disagree
  - d) I need to learn more

# CD-ROM Pre/Post Answers

Correct answers are indicated with **bold italic**.

- 1. One acre of trees, which is an area about the size of a football field, can provide enough oxygen daily for:
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  - a) Environmental
  - b) Economic
  - c) Social
  - d) All of these
- 10. The cutting of trees provides many benefits.
  - a) **Agree**
  - b) **Undecided**
  - c) **Disagree**
  - d) I need to learn more

Note concerning question 10: There is no right answer to this question. Use it to spark class discussion or note possible changes in students' perspectives.

## Welcome to the forest!

Thanks for choosing this CD-ROM Teachers' Packet. We hope that you and your students enjoy learning about Wisconsin's forest resources. Here's what you should find in the pack:

Wisconsin Forests Forever CD-ROM

Teachers' Guide

Forest Trees of Wisconsin: How to Know Them\* tree key (PUBL-FR-053 90REV)

Forest Trees of Wisconsin\*
poster (PUBL-FR-101-95)

**Sustainable Forestry** poster (PUBL-FR-105-95)

**Questions & Answers About Wisconsin's Forests\***brochure from Wisconsin Governor's Forestry Council

A Look at Wisconsin's Forests\* brochure (PUB-FR-122)

The Forest Where We Live\*

Wisconsin Natural Resources magazine insert (PUBL-FR-108-96)

\* Multiple copies of these publications may be available from the Wisconsin Department of Natural Resources.