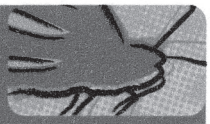
Adopt a Tree

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 nonliving 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.)

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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.

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.

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.

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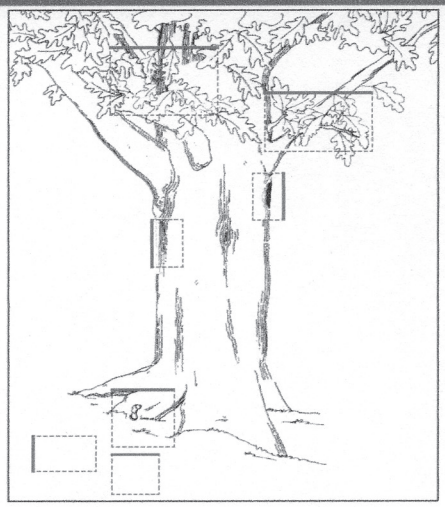
questions or activities to explore. After the initial visit to the tree, you might give younger students official "PLT Adopt a Tree Certificates" to fill out.

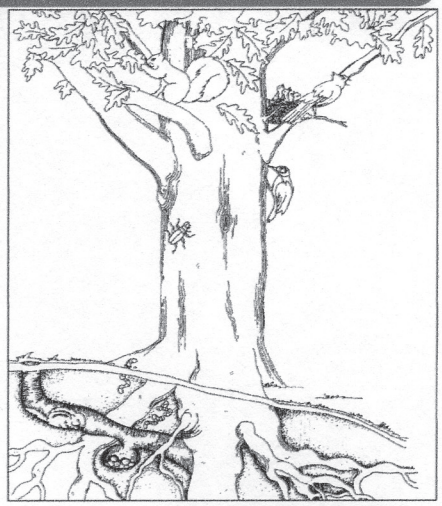
6. Ask students what they now know about the tree and what they would like to find out. Have them write their questions in their notebooks.

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 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.

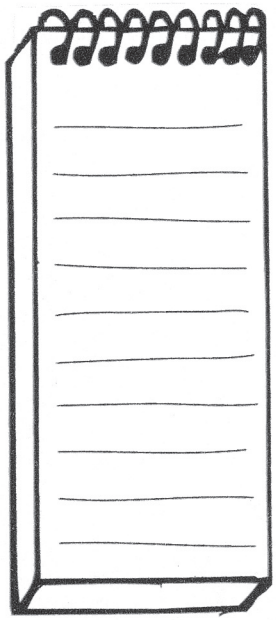
Available @ http://shop.plt.org

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*

PLT Student Page

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?

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Student Page

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.

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