

Plant a Tree

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



Activity 6

Levels

Grades 1-8

Subjects

Science, Social Studies

Concepts

- Organisms are interdependent: they all depend on non-living components of the Earth.
- Altering the environment affects all life forms—including humans—and the interrelationships that link them.
- Resource management technologies interact and influence environmental quality; the acquisition, extraction and transportation of natural resources; all life forms; and each other.

Skills

Researching, Defining Problems, Formulating Questions, Making Decisions, Evaluating



Technology Connections

Internet Resources, Digital/Video Cameras, Presentation Software

Materials

Paper and pencils, copies of “Plant a Tree” student page
Optional: *Billy B Sings About Trees* CD

Time Considerations

Preparation: 60 minutes
Activity: Two to five 50-minute periods

OBJECTIVES

- Students will identify ways that urban trees enrich our lives.
- Students will determine how people care for urban trees and identify areas in the community that would benefit from having more trees.
- Students will organize and execute a class tree-planting project in a local area.

ASSESSMENT OPPORTUNITY

- Have your students put together an information booklet that other groups could use to plan, execute, and publicize a community tree-planting project. Teams of students can work on different sections of the booklet such as the benefits of tree planting, selecting a site in your community, getting permission and advice for planting on a site, finding volunteer help and funding, determining what species to plant, planting and caring for the trees, and arranging for publicity. Students can include photos, diagrams, drawings, and videos.

BACKGROUND

Trees are invaluable assets to our communities. They give us flowers, fall colors, and lovely scents. They provide homes for birds, squirrels, butterflies, and other wildlife. Their branches create beautiful shapes that soften the urban landscape and even hold tree houses. They shade and cool our streets and buildings and insulate home from cold winds. They contribute to a community’s sense of place.

Trees, particularly those planted in urban or residential areas:

- Help settle out, trap, and hold small particles (dust, ash, smoke) that can damage lungs
- Absorb sulfur dioxide and other pollutants
- Store carbon, helping to reduce atmospheric carbon dioxide
- Hold soil with roots, preventing erosion
- Provide homes and food for birds and other animals
- Serve as a windbreak, keeping buildings warmer
- Provide shade, keeping buildings cooler
- Muffle traffic noise
- Provide beauty and enjoyment

By planting a tree, students can contribute positively to their neighborhood and community. As the founder of TreePeople in Los Angeles writes, “When

we plant and care for trees, alone or together, we begin to build an internal place of peace, beauty, safety, joy, simplicity, caring, and satisfaction. The results encourage us to take on larger challenges. After a while, we discover that we’ve established a richer inner and outer world for ourselves, our families, our neighborhoods, our cities, and our world.”

GETTING READY

Find out which agencies or organizations are responsible for tree planting and maintenance in your community. Parks departments, urban forestry departments, and independent garden clubs are possibilities. Students can write to those agencies or organizations for tree-planting information.

DOING THE ACTIVITY

1. Ask students to name some areas in the community (such as along city streets and in other public areas, including the school grounds) where trees have been planted. Then have them work in small groups to list the benefits trees provide to people and wildlife in those areas.
2. Use the groups’ lists to develop a class list, and add any other benefits you can think of (see Background). Have everyone make a copy of the list.

3. Tell the students that planting trees is a great way to do something good for the community – and for the planet as a whole. Have them work in small groups over the next week or so to identify areas in the community (or on the school grounds) that would be improved by the presence of one or more trees. Remind students to refer to their lists of tree benefits as they consider different planting sites. If you're working with younger students, take them on a walk around the school to locate an area or areas that would be improved by adding a tree.

4. After the students have identified possible sites, have a group discussion about the feasibility of each site. Have students decide which site (or sites) should be the focus for their tree-planting campaign. With proper supervision, teams can work on different sites.

5. If you're working with older students, ask them whom they think they should contact to get permission to plant in the area(s) they've chosen. Help them learn about tree planting in your community, finding answers to questions such as:


- How much money is spent annually on tree care in the community? How many trees are planted, and where?
- Which species are most often chosen for planting?
- Do any criteria exist for selecting the species that will be planted? If so, what are they? Whether or not such

criteria exist, you may want to suggest to students that they consider many different factors before deciding on which trees to plant. For example, depending on where they'll be planting, they may want to consider native species and species that are resistant to air pollution, drought, and so forth.

- What are some hardships that urban trees face? What is the average life span of a city tree?
- How can citizens become involved in planting and maintaining trees on public property?


Help students use this information to compose a letter to the appropriate people, agencies, or organizations for permission to plant.

6. After the students have received permission to plant, help them detail plans for their tree-planting project. For instance, they may decide to raise money to buy trees from a local nursery, or they might ask people to donate trees. You may contact local foresters or nurseries to get help with planning and carrying out the planting.

 Students can do Internet research to find out what kind of tree to plant and the specific requirements for that tree.

7. Have students plant trees and take care of them. See the planting recom-

mendations on the student page, and get directions from the nursery on how to plant and care for the particular species of tree.

 The students can take digital pictures before and after planting the tree. Using presentation software they can keep a scrapbook of the tree over time.

Enrichment

- Students could arrange for a special tree-planting ceremony, possibly in conjunction with a special occasion such as Earth Day or Arbor Day. Students should plan the event and send out news releases to publicize it, including the benefits of planting trees.

- Have students make a map of the planting site using graph paper. The map should show the site as it is now and the area the tree canopy will cover when the tree reaches maturity. Have students use garden books or on-line resources to determine the mature size of the tree. Students calculate and compare the areas of the two canopies.

- Use selected music ("My Roots Run Deep" and "These Trees") from the *Billy B Sings About Trees* CD to enhance the concepts covered in this activity.

READING CONNECTIONS

Aliki. *Story of Johnny Appleseed*. Prentice-Hall. 1963. Retells the wandering of John Chapman whose devotion to planting apple trees made him a legendary figure in American history. Also available in Spanish. Grades K-3. ISBN: 0671667467.

Giono, Jean. *The Man Who Planted Trees*. Chelsea Green Publishing Co. 1985. Jean Giono's beautiful allegorical tale is legendary. Written in the 1950's, its message was ahead of its time, inspiring readers to rediscover the harmonies of the countryside and prevent its willful destruction. Grades 4+. ISBN: 1570625387.

Locker, Thomas. *Sky Tree: Seeing Science Through Art*. HarperCollins. 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 K-4. ISBN: 0064437507.

Manson, Christopher. *The Tree in the Wood: An Old Nursery Song*. North-South Books. 1993. A cumulative folk song that traces a tree back to the acorn planted by a boy whose bed was feathered by a bird nesting in a similar tree. Grades K-3. ISBN: 1558581928.

Mellett, Peter. *Trees: Fantastic Facts*. Anness Publishing, Ltd. 2000. Reveals for young readers the secret life of trees – what really goes on inside the trunk, how leaves make food, when trees first grew on the earth, and

more. Includes 19 information sections on the different parts of a tree and their functions, 23 practical projects that help you discover the life-cycle of a tree, and more than 250 illustrations, photos, and explanatory artwork. Grades 3-6. ISBN: 1842150944.

Winter, Jeanette. *Wangari's Trees of Peace: A True Story from Africa*. Houghton Mifflin Harcourt. 2008. This book depicts Wangari Maathai's inspirational story in brief words and colorful images. It offers a welcome introduction to Wangari's awe-inspiring work and to the subject of activism in general. Grades K-4. ISBN: 0152065458.



Plant a Tree

Choose Your Site Carefully.

Look up, around, and down. The tree you plant today could eventually reach 40 to 100 feet (12 to 30 meters) in height, depending on the tree type. Give your tree plenty of room – its roots will grow wide and deep.

Plant it well away from buildings and power lines, so that it won't do any damage, or need harmful pruning later in its life. Plant the tree where its roots will not grow into sewers and pipelines, or under driveways and sidewalks.

Look at the tree. Make sure it's suited to the environment you are planting it in, so that it has the best chance of surviving.

Take Care Before and During Planting.

Keep the tree cool and shaded, and keep its roots moist until planting. During planting, try not to handle the tree's roots. Tamp the dirt firmly, but don't pack it too tightly or the roots won't be able to either reach out for water and nutrients, or anchor the tree. Soak the soil around the tree with water to encourage deep rooting.



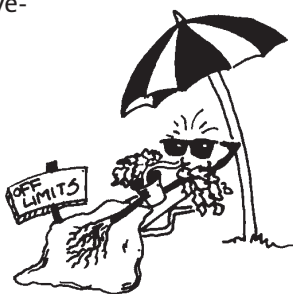
If you're planting a sapling...

Dig a hole twice as wide and as deep as the rootball. Build a mound of soil, and place the sapling on top of the mound so that it is two inches (five cm) above the hole's bottom. If the roots are wrapped, remove the burlap. Fill the hole with dirt, tamping it down with your foot and wetting it with water as you fill the hole.



If you're planting a seedling...

Dig a hole a little deeper than the roots' length. Fill the hole around the seedling with dirt. Then gently pull the trunk of the seedling up slightly to straighten the roots.



Give Special Care During the Early, Developmental Years.

A tree is most vulnerable during the first years of its life. Protect it from pests and animals. Water it as appropriate for the tree type. Add a 3- to 4-inch (8 to 10 cm) layer of mulch around the base of the tree to help keep the soil moist and improve soil aeration (mulch should not touch trunk).

Then sit back and enjoy! If cared for properly, each tree you plant will grow and flourish, providing you and all of us with benefits and beauty for generations.

