

Who Works in This Forest?

National Science Education Standards

- * Standard C: *Life Sciences* — Populations, resources, and environments.
- * Standard F: *Science in Personal and Social Perspectives* — Science and technology in society.
- * Standard E: *Science and Technology* — Understandings about science and technology.



OVERVIEW

All kinds of people work in the forest —from foresters to loggers, from scientists to naturalists. Everyone depends on properly managed forests for recreation, essential products, and a healthy environment. This activity provides students with an overview of forest-related careers.

OBJECTIVES

Students will:

1. Explore a variety of jobs that are directly related to forest resources.
2. Describe how various professionals work together to care for our forests.

SUBJECTS

Science, Social Studies

VOCABULARY

Urban forestry,

TIME

50 minutes

MATERIALS

Copies of student page, magazines for cutting out pictures (optional)

TEACHER TIPS

Many teachers have access to resource professionals in the surrounding community. Invite a forester, or biologist, or hydrologist, or other specialist, into your classroom to talk about their background education and their work.

BACKGROUND

Forestry is more than just planting trees and fighting forest fires, although those tasks may be part of a professional forester's responsibilities. In nature, forest ecosystems are controlled by sunlight, rain, and soil fertility. Wind storms, insect infestation, tree disease, and lightning also have a role in regulating forest ecosystems.

We cannot depend on nature alone to take care of forests and provide the timber, wildlife, clean air, water, and other forest products that we need today and in the future. In the profession of forestry, people care for forests in ways that mimic nature. Urban foresters specialize in caring for the nearly 70 million acres (28 million hectares) of forests that grow in and around metropolitan communities. They pay close attention to factors that affect those forests, such as limited growing space, poor air, lack of water, poor soil quality, and vandalism. Urban foresters try to increase the average life span and maintain the aesthetic quality of trees in those city parks or forests.

Forestry activities can also affect surrounding communities. For example, when trees are harvested or pesticides are used, the water quality in nearby streams must be protected. Foresters are trained to care for all the systems in and around the forest.

While foresters are trained in managing all forest resources, foresters often call on other professionals who specialize in individual parts of the forest, such as soils, water, or wildlife. Some specialists work in computer modeling, mapping, and statistical or budget analysis. Usually, a team of foresters and specialists work together to decide how to care for the forest so that it provides all the things people need and want from it.

BEFORE THE ACTIVITY

Make copies of student page and gather magazines for cutting out pictures.



ACTIVITY

1. Ask students if they have either visited or seen pictures of a forest. Do they think those forests require people to take care of them? If so, what kind of work is necessary? Record their answers on the chalkboard.

2. Discuss with students how forests provide plant and animal habitats; paper and wood products; places for recreation; and air, soil, and water protection. Explain that people must manage forests to enhance all of these. See if students can add more jobs to their list by drawing on this discussion.

3. Pass out copies of the student page, and tell students the page will describe several people who do particular types of work. Students should read the brief descriptions and decide which jobs are necessary in caring for a forest. If they think a job is necessary, they should check “Yes,” and explain their choice underneath; otherwise, they should check “No,” and explain their choice.

4. Go over the student page with students. Have them share their choices and the reasons for those choices. By the end of the discussion, all students should realize that every job on the page is helpful in conserving and caring for forests. Also use background information as you discuss some other kinds of people who work with forests.

5. Write the following occupations on the chalkboard: logging truck driver, cardboard box maker, nature guide, wildlife biologist, birdwatcher, newspaper deliverer, wildlife artist, angler, sawmill operator, campground manager, and garden supply store owner.

6. Ask students how each of those workers could benefit from having forests managed by the people they’ve learned about. Which workers depend on forests in some way to do their jobs? (all of them) Be sure students explain how each person depends on forests.

Answers for Step 6

logging truck driver—Work depends on the availability of logs.

cardboard box maker—Work depends on wood to make cardboard.

nature guide—Forested land is pleasant place to hike and study.

wildlife biologist—Forests contain wild creatures to be studied.

birdwatcher—Forests provide a habitat for many different kinds of birds.

newspaper deliverer—Papers are made from trees.

wildlife artist—Artist may use forests and the animals and plants that live there as subjects for pieces of art.

angler—The forest protects streams, the habitat of fish.

sawmill operator—Business depends on a supply of logs.

campground manager—Nearby forests draw people to certain campgrounds.

garden supply store owner—Bark from trees provides mulch for people’s gardens.





EXTENSION

Invite several people whose jobs (forester, wildlife biologist, logger, sawmill worker, and so on) are related to the forest to come and speak to your group. Have students prepare questions to ask each person about the work he or she does. Here are some possible questions:

- What kind of training do you need?
- What's a typical day like?
- How many other people do you work with?
- What other kinds of people do you depend on to do your job?
- What kinds of clothes do you wear to work?
- What special equipment do you use on the job and what does this equipment enable you to do?
- What are the most rewarding things about your job?
- What aspects of your job pose the biggest challenges?

Afterward, have students draw pictures or write stories about the people and their jobs.

ASSESSMENT

Using magazines, have each person create a collage showing how people depend on forests. It can include pictures of forests, trees, people living near forests, forest products, and people using forests or products, and people working in forests. Have the students explain their collages to you verbally or in writing.



CREDIT

This activity is adapted with permission from Project Learning Tree (PLT). PLT is a program of the American Forest Foundation. Go to <http://www.plt.org/> for more information about this award-winning environmental education curriculum.



Name _____

Student Page

Who Works in This Forest?

1 Juanita

Many of my friends call me "Wild Woman." That's because I'm a wildlife biologist. I help make sure that wild animals and plants have all the things they need to survive, such as food, water, and space.

Is this job necessary?

YES NO

Explain

3 Brigette

How would you like to decide how a forest should be cared for? That's what I do all the time. I'm a forester. Being a forester can be tricky: I have to find the right balance between all kinds of needs, including the needs of people, plants, and animals.

Is this job necessary?

YES NO

Explain

5 Haley

Like all hydrologists (*high-DRAHL-uh-jists*), I'm interested in water. I look at water supplies, study water-sheds and water cycles, and try to solve water pollution problems.

Is this job necessary?

YES NO

Explain

2 Max

When people ask me what I do, I tell them I have a "dirty" job. I'm a soil scientist. One thing I do is monitor soils to make sure they don't get smashed down, or compacted. I know that soil can absorb a lot of water from snowmelt and rain. But if the soil gets compacted, rainwater and snow melt can rush right off, causing erosion problems.

Is this job necessary?

YES NO

Explain

4 Jerome

I love numbers. And I get to deal with them each day: I'm a budget analyst. (A budget is a kind of outline of the money an organization expects to spend during a year.) I review the budgets people set up to make sure they're not spending too much money or money on the "wrong" things, and to make sure they're spending enough money on the "right" things.

Is this job necessary?

YES NO

Explain

6 Takashi

Are some living things more resistant to diseases and pests than others? Do some living things grow faster than others? Can these abilities be transferred to other living things, creating things that are "better"? These are the kinds of questions I'm trying to answer. I'm a geneticist (*juh-NET-uh-sist*).

Is this job necessary?

YES NO

Explain

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