

LEARN ABOUT

FORESTS

We all depend on trees and forests! Use this fun, hands-on activity to engage youth in learning about sustainable forest management. It's perfect for educational events, career days, or field visits.



**PROJECT
LEARNING
TREE**
An initiative of SFI

WHO WORKS IN THE FOREST?

PLAN

KEY CONCEPT: The forest sector generates diverse employment opportunities including foresters, natural resource managers, scientists, harvesting professionals, truckers, factory workers, engineers, architects, wildland firefighters, carbon modelers, and many more. [PLT's Forest Literacy Framework, Concept 2.C.4]

OBJECTIVES: Provide opportunities and materials for learners to

- Explore a variety of forest careers.
- Identify the training or education requirements and supporting skills for specific forest-sector jobs.

SESSION TIME: 50 minutes

SETTING: Indoors and outdoors



BACKGROUND

Our society depends on forests to provide timber and other forest products, as well as as well as providing wildlife habitat, helping to clean the air and water, and offering recreation opportunities. People in the forestry field work to manage forests sustainably so that forests provide all the things we need and want from them.

Forestry is more than just planting trees, fighting forest fires, or harvesting logs, although managing those tasks may be part of a forester's responsibilities. Forestry also includes professionals who specialize in individual parts of the forest, such as soils, water, or wildlife. It encompasses work in computer modeling, mapping, statistical or budget analysis, and education. It also includes people engaged in harvesting, milling, transporting, engineering, or marketing forest products such as lumber, plywood, paper, and pulp.

PREPARE

MATERIALS: Scissors and envelopes.

GET READY: Make copies of the Who Works in the Forest? Worksheet, cut them apart to make sets, and put each set in an envelope to hand out to the learners. Invite one or more of your colleagues, ideally people who have different jobs, to talk with the group about their job, answering such questions as:

- What education, training, skills, and personal characteristics are needed for this job?
- Why did you choose this job?
- What is the most interesting thing about it, and what is the most challenging part?
- What does a typical day involve?
- What types of organizations or businesses hire people for this job?
- How has this job changed over time?
- Why is this job important?

BENEFITS OF FORESTS

Jobs in sustainable forestry help to maintain or restore ecosystems and ensure that forest products are sustainably produced. Worldwide, more than 54.2 million people work in jobs connected to forests.





EXPERIENCE:

1. Divide the group into teams or pairs and give each a set of career cards. Challenge teams to categorize the jobs by different criteria, such as indoor versus outdoor, high tech versus low tech, amount of interaction with other people, academic discipline, education level required, and so on.
2. Ask a few volunteers to name a job that interests them and explain why. Encourage learners to think about the skills needed for the jobs and reflect on how those skills compare with their own strengths.
3. Introduce your colleague(s) to the group and ask them to describe their job. Allow time for learners to ask questions.

LEAD

INTRODUCE:

Ask learners to list out loud some of the resources that forests provide. Answers might include

- Plant and animal habitats,
- Paper and wood products,
- Places for recreation, and
- Air, soil, and water protection.

Make the connection that forests can be managed by people to enhance each of these different resources. Challenge learners to think of some jobs that are related to forestry.

CONNECT:

Point out that many people who work in and for forests are motivated by a deep connection to nature. Invite learners to find something outdoors that they connect to, whether it is an object, feeling, or action. Encourage them to ask a question related to their observations and then consider what type of job or professional could help them explore this topic.

CLOSE

Challenge learners to think about what skills are necessary for the job that most interested them. Have them write down three skills they have that might make them well suited for this job and three skills they might need to strengthen.



TAKE ACTION

Challenge learners to create a new job or tool related to forests. Encourage them to think about a forest-related problem they would like to solve (such as litter or pollution) and then invent a job or tool to help solve it. For example, their job might involve a virtual reality teaching tool, a mobile app, or a new forest product.





WORKSHEET

WHO WORKS IN THE FOREST?

People have many different jobs that sustain our forests. Cut apart the following cards and categorize the jobs by indoor versus outdoor, high-tech versus low-tech, amount of interaction with other people, academic discipline, level of education needed, or other criteria.



FORESTER

Foresters, or forest managers, oversee public or private forestlands. In my job, I develop short- and long-term plans for planting and growing, monitor trees for healthy growth, and make sure our forest practices comply with environmental regulations.



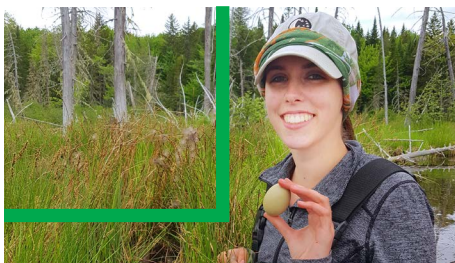
ENVIRONMENTAL EDUCATOR

I teach children and adults about forests. As an environmental educator, I lead school and community groups in learning activities focusing on trees and forest ecosystems. I especially enjoy guiding field trips where learners can experience nature firsthand.



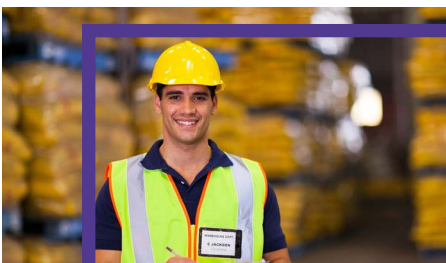
NATURAL RESOURCE ECONOMIST

I am passionate about ensuring the sustainability of forest resources. I determine the value of assets from the forest such as timber and ecosystem services. I also work to find the most efficient ways to supply or manufacture forest products.



WILDLIFE BIOLOGIST

I study wildlife and their habitats to understand what they need to thrive. I consider the relationships of birds, mammals, fish, reptiles, or amphibians to the forest and to each other. My work helps manage wildlife habitats for the benefit of all.



SAFETY INSPECTOR

I review forestry job sites, either in the field or at the mills and ensure that the workplace is a safe and healthy place for workers. I provide information, advice, and guidance to both employees and employers to help them meet safety compliance policies and regulations.



FOREST ENGINEER

As a forest engineer, I figure out how to utilize trees and conduct forest operations in the most efficient, cost-effective, and sustainable way. I may develop and test wood products, or design and supervise the construction of a trail or bridge.



WORKSHEET

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WILDLAND FIREFIGHTER

My job is to help protect and maintain the health of the forest by preventing, controlling, and putting out wildfires. To prepare for fire emergencies, I maintain and test firefighting equipment. I also talk to the public about ways they can help prevent wildfires.



HYDROLOGIST

I investigate water in forests by studying how it travels through the forest, into the soil, and eventually to a stream. In addition to learning about the water cycle, I try to solve for water-related effects or issues such as how streamflow affects forests or how climate change impacts watersheds.



MILLWRIGHT

A millwright is an industrial mechanic who maintains or constructs machinery for mills, print shops, or other businesses. As a millwright, I must be familiar with different machines and how they work, and have the analytical skills necessary to fix problems.



SOCIAL MEDIA DIRECTOR

I spread awareness about my organization's forestry program to various audiences on social media platforms. I get to be creative when planning media campaigns related to the forest, and work with a team to share stories and build meaningful connections.



PACKAGING TECHNOLOGIST

I'm a problem solver who enjoys working with materials. As a packaging technologist for a forest products company, I am responsible for designing, developing, and manufacturing packaging for a range of products, helping to reduce ocean plastic pollution.



NATURE PHOTOGRAPHER

Forests are my shooting sets. I use various cameras, lenses, and tools to document elements of our natural world to share with clients. My work involves traveling to remote areas, where I patiently wait to capture the perfect moment depicting wildlife and nature.



WORKSHEET

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ARCHITECT

As an architect, I try to reduce the ecological footprint of buildings and homes through carefully crafted designs using sustainable and certified wood and other materials. Sometimes I create spaces that let people coexist with nature by bringing the outdoors indoors.



LUMBER MILL WORKER

I work in a mill that cuts logs into lumber for building materials such as framing, flooring, windows, and doors. You may be surprised to learn that my job is very high-tech: computers help me determine the best way to cut each log and how to minimize wood waste.



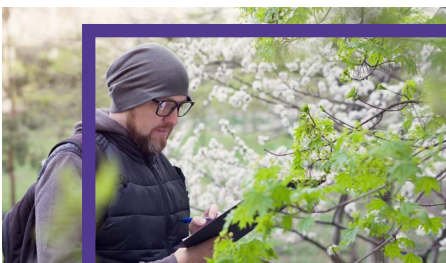
LOGGER

As a logger, I harvest timber from forests, which people rely on for building materials, furniture, paper, packaging, and many other products. My job is to cut the trees safely and in a way that ensures water quality and the long-term health of the forest remains.



PARK RANGER

As a park ranger, I work to educate forest visitors about the forest and to explain and enforce the rules and regulations. I help keep the visitors safe in the forest and help keep the forest safe from visitors.



CARBON MODELER

As a carbon modeler, I work with forest owners to quantify the carbon being stored or sequestered in the forest. Based on this information, owners exchange "carbon credits" with companies that emit carbon dioxide as a way to reduce overall carbon emissions and climate change effects.



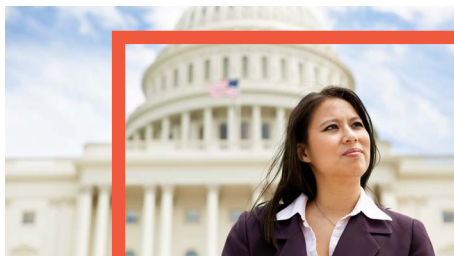
PAPER MANUFACTURER

I work as a machine operator for a paper manufacturing company that makes various paper products. I run the paper-making machines and conduct quality inspections on the finished products.



WORKSHEET

WHO WORKS IN THE FOREST? PAGE 4



POLICY ADVISOR

As a forest policy advisor, my job is to analyze laws and programs that affect the forest and to provide guidance on ways to improve them. I enjoy looking at all the ways policies might impact people and the forest and finding the best balance.



SUSTAINABILITY MANAGER

As a sustainability manager, I ensure that my organization upholds environmental standards and minimizes environmental harm. I make sure that my organization uses paper products that come from sustainably managed forests.



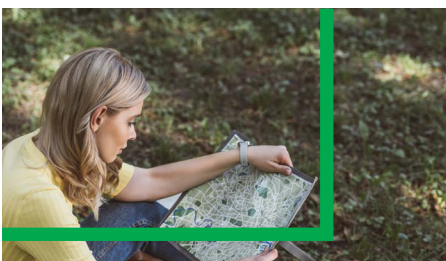
FORESTRY TECHNICIAN

My job takes me into the forest almost every day, and I spend a lot of time outside. As a forestry technician, I work with foresters and forest engineers to maintain forestland. Depending on the need on any given day, my duties can range from fire suppression to data collection to trail repair.



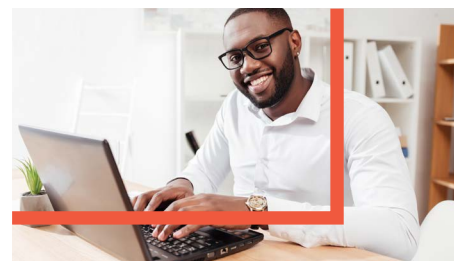
WOOD SCIENTIST

Wood is an amazing natural resource that we use for paper, construction lumber, particle board, and other products. As a wood scientist, I study the physical, chemical, and biological properties of wood to improve the way we process it into different products.



GIS SPECIALIST

As a geography or Geographic Information Systems (GIS) specialist, I work with computers to create graphs and maps showing forest-related data, such as land use, tree cover, and environmental practices. My work helps inform the public and decision-makers about forests.



FINANCIAL FORECASTER

As a financial forecaster for a wood products company, I work with numbers every day. I analyze lumber and paper pulp market prices and international exchange rates to help my company make the best investments and sound financial decisions.