Introduce students to forest-related careers with these Career Corners from PLT's Explore Your Environment: K-8 Activity Guide. Visit plt.org/myk8guide for ideas on how to use these career connections with your students

Trees are so beautiful! Many <u>ARTISTS</u> draw, paint, and take pictures of trees to share them with others.	LUMBERMILL WORKERS cut logs into lumber for building materials such as flooring, windows, and doors. These workers may use computers to figure out the best way to cut each log and how to reduce wood waste.soil is related to plant growth or study how taking care of soil can improve forest health.
BOTANISTS (BOT-uh-nists) are scientists who study plants. They may look at the shapes of seeds and fruits to learn how these parts help plants live and grow.	Do you like working with plants? NURSERY WORKERS sow, water, and care for plants. They know what plants need to be healthy.
Do you like telling stories through pictures? A FILMMAKER creates movies to tell real-life stories about people and places.	PARK RANGERS teach forest visitors about the forest and explain the rules. They keep visitors safe in the forest and help protect the forest from activities that could damage it.
FOREST ECOLOGISTS (ee-CALL-uh-jists) are scientists who study how forest plants and animals depend on each other to live. They may also explore how these living things use air, soil, and water to stay alive.	PLANT ECOLOGISTS (ee-CALL-uh-jists) study the relationships between plants and the environment. They may observe a plant's life cycle within a specific ecosystem and recommend strategies for ensuring the plant's health.
GRAPHIC ARTISTS use images and shapes to share ideas with others. To teach others about forests, they may draw trees, plants, or animals.	WILDLIFE BIOLOGISTS (buy-ALL-uh-jists) study wild animals and their habitats to find out what they need to live. They may watch animals in trees, forests, and other habitats.
LOGGERS harvest mature trees for wood and other products that people use. This makes room for young trees to grow and helps the forest stay healthy.	



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ARBORISTS (AR-bur-ists) are "tree doctors" who care **HYDROLOGISTS** (hye-DRAW-luh-jists) investigate water in for trees to make sure they stay healthy throughout their forests by studying how it travels into the soil, and eventually to a lives. Arborists must know many different tree species and stream. In addition to learning about the water cycle, hydrologists understand what they each need to thrive. try to solve questions such as how streamflow affects forests or how climate change impacts watersheds. **CAREER COUNSELORS** help people find jobs. They may METEOROLOGISTS (me-tee-uh-ROL-uh-jists) use science work in schools, guiding students to explore a variety of and math to predict daily weather and long-term climate. They career choices. also work to understand how the atmosphere, weather, and climate affect the Earth and people. NATURE PHOTOGRAPHERS help to document elements **CLIMATE SCIENTISTS** study long-term weather patterns. One way they learn about weather that happened in the past of our natural world with photos and video. They sometimes is to look at tree growth rings. In warm, wet years, trees grow travel to remote areas, where they patiently wait to capture the perfect moment depicting wildlife and nature. faster—and have wider growth rings—than in cool, dry years. **ENVIRONMENTAL FILMMAKERS** tell stories through film **OUTDOOR RECREATION LEADERS** plan and guide hikes, that show people different points of view on a topic or theme. games, crafts, and other outdoor activities in parks and camps. These films can help to increase people's understanding of They teach groups how to do the activities and organize and set and feelings for nature. up any equipment needed. **ENVIRONMENTAL HEALTH PROFESSIONALS work** Do you enjoy working with materials and solving problems? to improve the public's health. They identify, track, and reduce PACKAGING TECHNOLOGISTS (teck-NAWL-uh-gists) environmental risks that could hurt people, like pollution or design and make packaging for different products. By using harmful chemicals. They may test air, water, and soil to make thoughtful designs, they can help to reduce waste and pollution. sure these are safe. FOREST ECOLOGISTS (ee-CALL-uh-jists) study the links **POETS** use words, metaphors, and rhyming patterns to express between living and nonliving elements of forests. These feelings or to describe objects or events. Poets help people see scientists are interested in how different elements-including experiences more deeply. They may write poetry books, songs, people—affect the health of the forest. or advertising jingles. **FORESTERS** take care of forests. They monitor forest trees **SOCIOLOGISTS** (sew-see-ALL-uh-jists) study people and over long periods of time to be sure that they are growing and their communities. By looking for changes in your community, healthy—just like you are doing with your adopted tree. you are thinking just like one! **FORESTRY TECHNICIANS** help foresters monitor the **SOIL SCIENTISTS** are really into dirt! They research how soil is related to plant growth or study how taking care of soil health of forest trees. One way they do that is to take core samples from living trees to see the pattern of the trees' growth can improve forest health. rings.

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TOUR GUIDES are experts on a specific place or region. They may lead visitors to national parks, local trails, or museums. When they are guiding visitors on a trail, they point out animals, plants, and other features and answer questions about the area.

<u>WILDLIFE BIOLOGISTS</u> (buy-ALL-uh-jists) study wildlife and their habitats to understand what these animals need to thrive. They look at the relationships of birds, mammals, fish, reptiles, or amphibians to the forest and to each other.

<u>URBAN FORESTERS</u> plant and protect the trees in a city. They monitor the trees to make sure they are healthy and develop long-term plans for the urban forest.

WILDLIFE CONSERVATIONISTS (con-sir-VAY-shunists) are scientists who study wild animals and their habitats. Wildlife conservationists may help control diseases and harmful insects to keep wildlife habitats healthy.

<u>URBAN FORESTERS</u> plant, care for, and protect the trees in a city. Urban forests provide shade, improve air quality, reduce energy use, absorb carbon dioxide, and add beauty to the community.

WILDLIFE MANAGERS keep track of the animals that live in a natural area to make sure there is enough of the right habitat. They conduct surveys—like this one—to find out the types and numbers of animals in the area.

WATER MANAGEMENT PLANNERS design water systems that bring cities, towns, and farms the water they need without harming the environment. They study the landscape and use problem-solving skills to plan the best system.

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



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<u>CARBON MODELERS</u> work with forest owners to quantify the carbon being stored or sequestered in their forest. Using this information, owners sell "carbon credits" to companies that emit carbon dioxide (and are required to offset their emissions by buying credits) as a way to reduce overall carbon emissions.

ENVIRONMENTAL JOURNALISTS collect and analyze facts about topics related to the environment. They dig for information from documents, conduct interviews, and write fact-based stories for podcasts, e-journals, newspapers, radio, or television.

COMMUNITY ENGAGEMENT MANAGERS build relationships with groups of people to identify and address issues affecting their well-being. The work often involves partnerships that help mobilize resources and drive changes in policies, programs, and practices.

Conflicts like the Morris Woods debate may be addressed with the help of **ENVIRONMENTAL LAWYERS**, who specialize in legal matters concerning the environment. They represent different stakeholders, ensure that environmental laws are respected, and lobby for balanced environmental regulations.

COMMUNITY PLANNERS develop land-use plans to help meet the changing needs of cities, towns, and counties. They also recommend whether new proposals should be approved or denied.

FIRE PREVENTION SPECIALISTS work to reduce the risk and extent of forest fires. They may inspect outdoor public and residential areas for fire hazards, enforce fire regulations, and recommend fire prevention measures.

COMMUNITY PLANNERS help shape the physical, social, geographic, and economic elements of their community. They may survey community members to identify priorities, and work in teams to draft and carry out plans.

<u>FOREST BIOTECHNOLOGISTS</u> use science and genetic engineering to test new ways to develop wood products and to make forests more sustainable. They must be creative and innovative, as well as detail oriented.

ENDANGERED SPECIES BIOLOGISTS conduct research to determine whether species are rare or should be listed as threatened or endangered. They work to answer questions like: Why is this species rare or at risk? What are the causes of threats to this species? What can we do to remedy the problem?

FOREST ECOLOGISTS study the relationships between living and nonliving components of forest environments and the effects of humans on forests. They work outdoors, spending a lot of time in the field.

ENERGY MANAGERS monitor the energy use of a facility or organization and recommend ways to reduce energy. They may redesign processes, retrofit buildings and equipment, plan energy-related systems for new projects, or contract with new renewable energy resources.

FORESTERS manage forests for public and private use. They may develop short- and long-term plans for the forest. Their plans may include planting, growing, and monitoring trees for healthy growth and making sure forest practices meet environmental regulations.

ENVIRONMENTAL COMPLIANCE INSPECTORS

conduct routine investigations of job sites to ensure that all projects comply with environmental laws. They protect the health of workers, the general public, and the land.

<u>FORESTRY ENGINEERS</u> design and supervise the building of roads, trails, bridges, and other construction projects in managed forests. They must understand forest ecosystems and the impacts of projects on forest resources.

ENVIRONMENTAL EDUCATORS lead school and community groups in learning activities that focus on trees and forest ecosystems. They may conduct field trips where learners can experience nature firsthand.

FOREST TECHNICIANS help to maintain forestland. They may conduct a forest survey—or "cruise"—to estimate the size, quality, and species of trees and timber in an area.

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GEOGRAPHIC INFORMATION SYSTEMS (GIS)

<u>SPECIALISTS</u> work with computers to create graphic images and maps that show different kinds of data. Maps of forest areas may depict land use or tree cover, and help inform decision-makers about the forest.

<u>PLANT PATHOLOGISTS</u> (path-AWL-uh-gists) study the health of plants. They work to identify diseases, pests, and other health problems that plants may experience.

<u>LANDSCAPE ARCHITECTS</u> plan and design land areas for cities, parks, campuses, recreational facilities, and businesses. They work in urban and rural landscapes to create outdoor spaces that contribute to thriving communities.

PROJECT MANAGERS work with team members to successfully complete projects. They determine a project's scale, plan its budget and schedule, manage communications, and carry out other tasks needed to deliver results.

LOGISTICS SPECIALISTS review and coordinate the shipping and handling of national and international forest products. They analyze data to find sustainable and cost-effective processes.

<u>PUBLIC RELATIONS ASSOCIATES</u> work to provide news and information about forests through blogs, press releases, or media coverage. They may develop advertising and speak at public events about the benefits of forests.

<u>MEDIA COORDINATORS</u> create content for a variety of media platforms. They may research, write, and edit information about an environmental topic, and plan and carry out outreach campaigns.

<u>RECYCLING MANAGERS</u> oversee and promote recycling programs for communities or businesses. They may also investigate new opportunities for materials to be collected and recycled.

NATURAL RESOURCE ECONOMISTS are concerned about the sustainable use of energy, food, forests, and other natural resources. They may work to find the most efficient and least expensive ways to manage forests and to supply or manufacture forest products.

SAFETY INSPECTORS ensure that the workplace is a safe and healthy place for workers. They provide information, advice, and guidance to both employees and employers to help them meet safety policies and regulations.

NATURAL RESOURCE ECONOMISTS study the economic effects of decisions about natural resource use. They may analyze the costs and benefits of different options or use sophisticated computer programs to model various scenarios.

SUSTAINABILITY MANAGERS ensure that an organization, school, or company upholds environmental standards and minimizes environmental harm. For example, they might help an organization switch to using certified paper products that come from sustainably managed forests.

PAPER MANUFACTURERS run paper-making machines in a paper mill and inspects the finished products to ensure that they are high quality.

TRADITIONAL CULTURAL PROPERTY EXPERTS work with Native American and Native Hawaiian groups to study and protect important spiritual areas and sites. Deeply rooted in Indigenous communities, they are knowledgeable about the cultural history of these groups and are also legal experts.



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TREE NURSERY TECHNICIANS are plant experts who grow and care for trees, either for sale or for planting on public lands. They may water, prune, and weed young trees and maintain a database to track the trees.	WATER QUALITY SPECIALISTS assess the water in rivers, lakes, and water systems to make sure it is safe for people and the environment. They may analyze water samples for pH or other chemical properties and to determine the level of pollution.
URBAN FORESTERS plant, care for, and protect a city's tree population. Urban forests provide shade, improve air quality, reduce energy use, absorb carbon dioxide, and add beauty.	WILDLAND FIREFIGHTERS protect and maintain the health of the forest by preventing, controlling, and putting out forest fires, and lighting and managing prescribed burns. They may also talk to the public about ways they can help prevent fires.
VOLCANOLOGISTS (vole-can-AWL-uh-jists) have an exhilarating job! These scientists study the formation of volcanoes and investigate past and current volcano eruptions.	