



### LESSON SUMMARY

Students will explore opportunities for employment in the forest community.

## Activity Information

<b>Estimated Duration:</b>	Two class periods (one for discussion and research; one for project work; homework as necessary)
<b>Materials:</b>	Markers, other presentation aids
<b>Setting:</b>	Indoors
<b>Key Vocabulary:</b>	Forester, ecosystem, career options



## Teacher Background

When you think of a “forester”, what is the first image that comes to mind? Do you picture someone holding a chainsaw, wearing steel-toed boots and a plaid lumber jacket? Perhaps you imagine a scientist studying the effects of an invasive species of insect? What about someone working in an office with remote sensing data, or sitting at a boardroom table in a business meeting? In fact, all of these answers are correct. Today, professional foresters are just as likely to be found in a laboratory or executive office, as out in the midst of the woodlands. They work within a legislated Code of Ethics, maintain high standards of professional practice and are publicly accountable for their actions.

Over the past 20 years, the range of career options in forestry management has broadened, due in part to a number of significant changes in the process of forest management planning. Forestry activities are now strictly managed in accordance with forest management plans designed for sustainability. Plans are developed with input from people such as: company, government and Conservation Authority management foresters; timber supply analysts; fish and wildlife technicians; and pest control specialists.

Professional foresters can apply their skills in many special areas. There are careers in forest research, in aquatic ecosystem management and in integrated resource management. A forestry professional may: study the genetics of how trees grow and reproduce; oversee seed management and collection; manage greenhouse seedling production; assist in forest regeneration; or specialize in silviculture. Some choose to care for fisheries, wildlife and other non-timber resources. Urban settings also offer opportunities. Cities benefit from the forests and green spaces within their limits and depend on the expertise of forestry professionals to maintain their sustainability.

In considering a career in forestry, students need to focus on certain basic education requirements. Individuals working in the forestry community must have a background in math, science, biology, chemistry, English and computer studies. They must also have physical stamina and fitness, as much of the initial training involves outdoor activities. The focus on effective planning for sustainability requires comprehensive consultation with interested and knowledgeable stakeholders. Students should know that good communication skills, negotiation and problem solving skills, as well as the ability to work in a team environment, are all valuable assets to bring to a job in the forestry community. Students who enjoy the outdoors and have a penchant for natural sciences may be intrigued by the challenge of planning and managing Canada’s forestlands.

A significant portion of forestry sector workforce is expected to retire by 2030. This high level of attrition will result in a shortage of skilled workers which is expected to impact the sector for many years. Given the boom currently being experienced in the forest sector, this skills shortage is expected to become even more pronounced. According the Forest Products Association of Canada, Ontario will experience an average deficit of almost 2,400 workers per year through to 2028 – an average annual shortfall of over 5% of the total estimated direct workforce of 45,000. If left unaddressed, this could result in a compounded labour shortage equivalent to 40% of the required workforce.

## ACTIVITY

**Step 1** Ask your class to think about opportunities for employment in the forest community. List their responses on the board. Once they have completed their list, challenge them to consider different opportunities. Some career possibilities for university graduates with a degree in forest related programs include:

- Timber Supply Analyst
- Manager of Forest Resources
- Consulting Forester
- Forest Nursery Superintendent
- Forest Engineer
- Forest Regulation Specialist
- Remote Sensing Specialist
- Regional Woods Superintendent
- Executive position (government, corporate, association)

Although this lesson focuses on professional forester careers, there are alternate choices for students who prefer to study for a certificate or diploma in the field. These career choices might include:

- Utility Tree Climber
- Marketing Specialist
- Environmental Landscaper
- Horticulturalist
- Park or Wetlands Inventory Technician
- Pest Control Technician
- Fish and Wildlife Technician
- Nature Interpreter
- Park Warden

**Step 2** Assign your students the task of creating a detailed, attractive brochure, designed to encourage their peers to consider and explore a career in forestry. School guidance counselors could use this marketing product. This brochure must include the following:

- An attractive layout and design, complete with detailed graphics
- The educational background required to follow this career path
- Sufficient information to highlight, to both students and guidance counselors, the varied opportunities available in the forestry community

**Step 3** Upon completion of the brochure, students will create a marketing plan, outlining how they would use the brochure to encourage the pursuit of a career in forestry. This marketing plan will include the following:

- **Background** Why should more students consider forestry careers? Why is it important to them and to the future of Canada’s forests?
- **Target Audiences** Who should use this brochure to ensure the broadest distribution? (e.g. guidance counselors, geography, science and career teachers)
- **Promotion** How will the brochure be promoted and distributed? (e.g. in-school distribution, media, special events, teacher conferences)
- **Partners** Who might assist in distributing the brochure? (e.g. local forestry companies, nearby nurseries, municipal parks and recreation offices, municipal or regional utilities)

**Extension**

For one month, students should assemble a file of clippings from print and online sources dealing with forestry, the forest industry, forest management and careers in forestry. Articles should be categorized, based on their focus and identification of the variety of career opportunities in the field of forestry and resource management.

**Evaluation**

The quality of students’ work will be assessed on the following basis:

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| 1. Knowledge and understanding (30 marks) | Content detail of the marketing plan and brochure                              |
| 2. Application (20 marks)                 | Layout and design  |
| 3. Communication (30 marks)               | Marketing plan, including background, target audiences, promotion and partners |
| 4. Thinking and inquiry (20 marks)        | Brochure design, originality and content                                       |