



## Activity Information

<b>Grades:</b>	Junior/Intermediate
<b>Estimated duration:</b>	2 class periods (1 for research and 1 for creating a map and discussion)
<b>Materials:</b>	<ul style="list-style-type: none"><li>• Computer lab if resources allow</li><li>• Encyclopaedias or other resource books</li><li>• Map of Canada</li><li>• Pencil crayons</li></ul>
<b>Setting:</b>	Indoor
<b>Key Vocabulary:</b>	Forest region, forest distribution, map, ecotones, geography, economy

## Curriculum Links

### **Social Studies: Grade 4**

B3.1 identify various physical regions in Canada (e.g., landform, vegetation, and climatic regions), and describe their location and some of the major ways in which they are distinct from and similar to each other (e.g., the location of the Western Cordillera and the Appalachian regions and the characteristics of the mountains in each region; characteristics of boreal forest and tundra regions; similarities and differences between agricultural areas in the Niagara region, the Annapolis Valley, and the western plains; climatic differences between the rainforest of Vancouver Island and arid areas such as the Canadian badlands)

### **Social Studies: Grade 4**

3.3 identify factors (e.g., availability of water or food, amount of light, type of weather) that affect the ability of plants and animals to survive in a specific habitat.

### **Science: Grade 6**

3.6 identify everyday products that come from a diversity of organisms (e.g., traditional pain relievers are derived from the bark of the white willow tree; tofu is made from soybeans; silk is made from silkworm cocoons; nutritional supplements, shampoos, toothpastes, and deodorants contain pollen collected by bees)

## Learning Goals

1. Students will become familiar with the names and characteristics of Canada's forest regions.
2. Students will be able to indicate their location on a map and identify the forest region.
3. Students will learn about some of the many items produced from wood and wood by-products.

## Teacher Background

It seems hard to believe that 10 000 years ago most of Canada was covered with ice. As the ice receded, the land that emerged was quickly colonized by plants and trees. The exceptional ability of trees to migrate and adapt to new soils and climatic conditions accounts for the transformation of the land.

Today, there are eight recognized forest regions in Canada: the **Boreal, Deciduous, Great Lakes-St. Lawrence, Acadian, Subalpine, Montane, Columbia**, and **Coast** forest regions. Each region has its own characteristic mix of tree species that thrive under certain growing conditions. The distribution and growth of tree species is heavily influenced by such factors as topography, climate, and soil conditions. Soil conditions include composition, type, depth and moisture regime. Different trees require different soil conditions. Jack pine, for example, usually grow well in dry, sandy soils, whereas tamarack prefer moist, to wet, peaty soil. Forest managers need to know this information when managing their forests as it is important in determining the right harvesting practice, and regenerating the forest afterwards.

The different forest regions have within them a variety of tree species that are harvested for different purposes. Tree species such as pine and spruce are used in the pulp industry, making paper and paper products – and even sometimes to create food flavouring! Hardwoods like maple, ash or oak provide high quality wood materials often used in flooring or cabinetry. Different woods possess different qualities which make them ideal for specific purposes.

While Canada has plenty of forest resources within its borders, access is limited in some cases due to geography. Costs to access a resource may often outweigh any benefits.

***Did you know? 80% of Canada's forest land is found in the Boreal.***

## Teacher Preparation

Before beginning this activity, if resources allow, you will need to arrange a class period in either the computer lab or library for students to complete their individual study. If you will be working in a library it is recommended that the most relevant resources be pulled in advance.

For the second class period, provide each student with a copy of a map of Canada (see the end of this lesson plan) and pencil crayons to complete the forest region labelling task.

## Activity

### *Day One*

1. Indicate to the students that they are to find the locations of the different forest regions of Canada. Students should make note of the characteristics of each forest region as well as determine what products or materials can be made using trees from each region. Students should be made aware that they will be required to create a forest region map the next day in class.
2. Students should be given one full guided study period to collect the information needed to complete day 2 tasks.

### *Day Two*

1. Start by getting students to discuss the different forest regions that they learned about during the guided study period. What are the names of each forest region? What characteristics or trees define them? This can be done as a class or in small groups.
2. Provide each student with a copy of Canada's Forest Distribution Map.
3. The map requires students to include a legend to denote the various forest regions. Brainstorm with the class what is contained in a legend and how they can effectively display the required information. Encourage students to create borders for each forest region.
4. Consider discussing forest "ecotones" with the class. Ecotones are the transition areas found between two types of ecosystems. Explain how forest regions are not clearly defined on the land and that there is a gradual shift of species from one region to another. However regions are used to describe the general area of a forest type.
5. After students have completed their maps review as a group. The teacher should lead the students through a discussion of the characteristics of each region as well as products that are made using common tree species. For more information about wood products you can download a copy of the Weird Wood lesson plan or Weird Wood Flashcards from [www.forestsontario.ca](http://www.forestsontario.ca)
6. Once you have discussed wood products shift the discussion towards the economy and forests centering on the impact of human use on forests. How does the geography of Canada benefit its economy? What economic disadvantages are there with Canada's geography? Discuss the distribution of natural resources to the location of populations.
7. Students should then hand in their maps so they can be displayed in the classroom.

