

Boreal 101



Lesson Six

Age range: 8 to 12 (Junior)

Time: 60 minutes

Subjects: Visual Arts, Geography,
Social Studies, Science

Resources: scissors, glue, *The Boreal Forest* (page 32 and 33) and *Introducing the Boreal Forest* (page 34 and 35) worksheets.

Learning Outcomes

Students will learn about biological, geographical, cultural, economic and global aspects of Canada's boreal.

Hook: Variety in the Boreal

Show the 18-minute film *Canada's Forest* (see *Video Resources*, page 9).

If students have not seen a map of the boreal, make handouts or an overhead of page 5, or show the poster from CFA Teaching Kit Volume 6. Students will realize just how much of Canada this forest covers.

Procedure

1 As a class, define whether or not your community is located in the boreal. Have a classroom discussion about what the boreal forest means to us as Canadian citizens.

They may focus on trees, wood and paper products, camping and fishing.

Ask them to list other resources and activities not normally associated with a forest, such as:

- metals and minerals,
- oil and gas,
- farming,
- bird watching,
- ceremonies and events,
- plants and herbs used for food, cultural and spiritual purposes (by Aboriginal and non-Aboriginal people alike).

Explain that they are going to discover that there is much more to the boreal forest than they would ever have thought!

2 Put students in pairs; each pair should have glue, scissors, *The Boreal Forest* (page 32 and 33) and *Introduction to the Boreal* (page 34 and 35) worksheets.

3 Ask students to cut out the blocks of information on *Introduction to the Boreal*, and paste them under the correct headings on *The Boreal Forest* worksheet.

4 Afterwards, discuss the variety of boreal facts and activities that they just learned about and the ways in which this forest is valued. Were students surprised by any of the information? Remind students that, as is the case everywhere, the industries, cultures and individuals involved with the boreal adapt over time to address new technologies, developments and concerns.

Extensions

Review what the class has learned about the boreal region. Across the top of a chalkboard or flip chart, write the word BOREAL. Have the students refer to their *Boreal Forest* worksheets to find things that correspond to each letter. For example, under B, they could call out: birds, bear, blueberries, Bald Eagle, British Columbia, birch, better mining, balsam, burn, benefits (such as?),

The Boreal Forest (page 32 and 33)

B	O	R	E	A	L	F	O	R	E	S	T
BOREAL PROVINCES AND TERRITORIES	OIL AND GAS INDUSTRY	RESOURCES FOR MINING	EATING AND HEALING	ANIMALS, BIRDS AND TREES	LIGHTNING BRINGS WILDFIRE	FOREST FACTS	OTHER BOREAL COUNTRIES	RECREATIONAL OPPORTUNITIES	ELECTRICITY (HYDRO DAMS)	SPIRITUALITY AND CULTURE	TIMBER HARVEST AND REGENERATION
British Columbia	Oil and gas wells are found mostly in Alberta	80% of Canada's mining takes place in the boreal	Sap from the paper birch is a medicinal tonic	Coniferous trees include spruce, balsam and fir	Jack pine cones open when this occurs	Global boreal absorbs vast amounts of CO ₂ , a greenhouse gas	United States (Alaska)	Bird-watching	Canada is world's largest producer of this power	People of all cultures find spiritual value in the boreal	Boreal forestry provides hundreds of thousands of jobs
Quebec	This industry's roads, pipelines and wells impact the boreal	Mining provides us with precious metals like gold and nickel	Russians eat the nuts of dwarf Siberian pine	Over three million song birds and waterfowl breed here	On average, fire strikes any given boreal area every 150 years	Global boreal filters millions of litres of water daily	Russia (holds 50% of global boreal forest)	Cross-country skiing	Hydro is a clean, pollution-free source of electricity	Aboriginal culture is closely tied to the land	60% of Canadian forestry occurs in the boreal
Saskatchewan, Manitoba and Ontario	The Alberta oil sands lie within the boreal	Mining provides us with minerals like uranium and potash	Sphagnum peat moss is good for cuts and rashes	Predators such as Bald Eagle, wolf, bear and fox	Causes plants like fireweed to appear afterwards	Global boreal includes the world's northern forests	Finland, Norway, Sweden (Scandinavia)	Fishing	Harnessing the power of falling water	Cree culture is known for its birch-bark-biting art	Timber provides wood, pulp and paper products
Alberta	Oil companies are starting to minimize disturbances such as roads	Diamond mining occurs in several boreal locations	People pick blueberries and bearberries in the boreal	Deciduous trees like aspen, balsam, poplar and white birch	The biggest boreal disturbance, exceeding pests and forestry	Canada's boreal covers 58% of its land mass	Latvia and Estonia	Camping	There are drawbacks and benefits to hydro power	Boreal forest is important in Native culture and livelihood	By law, timber harvesters must replant
Yukon and Northwest Territories and Nunavut	Another name is petroleum products	Mining, drainage and roads have an impact on the boreal	Labrador tea plant is a good source of vitamin C	Herbivores like moose, beaver, muskrat, deer and caribou	Lightning fires often start in dry, rocky places	World's three forest types: tropical, temperate and boreal	Lithuania	Hunting	Most dams in Canada are in the boreal	One Native spiritual custom is the Vision Quest	Boreal forestry supports 7000 businesses in Canada
Newfoundland and Labrador	Thousands of Canadians work in the oil and gas sector	Mining in Canada is changing for the better	Mushrooms are gathered in the boreal	Small mammals include the snowshoe hare and lemming	Fire consumes only 1/3 of living material in a burn area	Global boreal covers 11% of Earth's surface	Scotland	Hiking	Dams, reservoirs and transmission lines impact the boreal	Boreal plants and animals are part of native cultural practices	All forestry activity requires long-term planning and management



The Boreal Forest

B BOREAL PROVINCES AND TERRITORIES	O OIL AND GAS INDUSTRY	R RESOURCES FOR MINING	E EATING AND HEALING	A ANIMALS, BIRDS AND TREES	L LIGHTNING BRINGS WILDFIRE





F FOREST FACTS	O OTHER BOREAL COUNTRIES	R RECREATIONAL OPPORTUNITIES	E ELECTRICITY (HYDRO DAMS)	S SPRITUALITY AND CULTURE	T TIMBER HARVEST AND REGENERATION



Introducing the Boreal Forest

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