

Comparing Your Community to Canada's Forest Communities

Activity Info

Level: junior/intermediate

Subject: geography, science

Duration: one class, plus daily research time for a period of five days (10 minutes each)

Group: four per group; class

Setting: classroom

Preparation: access to Internet

Summary

Students will work in groups using a variety of research tools to study the weather and climate of their own community and of communities in forest regions across Canada.

Learning Outcomes

Students will:

- discuss and understand the differences between climate and weather
- research, record and discuss the weather conditions and climate for their community and communities in forest regions across Canada
- compare weather and climate
- discuss how changes to our climate might affect the environment around us

1. As a class, discuss the differences between weather and climate (see page 3).

2. Divide the students into groups and assign each group a community to research from the list below. Choose a cross-section of forest communities to represent different forest types and different parts of Canada:

- Your Community
- Thunder Bay, ON
- Prince George, BC
- Truro, NS
- Trois-Rivières, QC
- Fort McMurray, AB
- Whitehorse, YK
- Labrador City, NF
- Swan River, MB
- Port Alberni, BC
- Fredericton, NB
- Haliburton, ON
- Hinton, AB
- Summerside, PE
- Sept-Îles, QC
- Prince Albert, SK
- Yellowknife, NT
- Corner Brook, NF

3. Ask each group to:

- locate their research community on a map of Canada
- determine the forest region and common trees found there
- determine the hardiness zone for this area (see page 16)

Hint: Information on forest regions and the various tree types can most easily be found in print and on-line resources produced by the Canadian Forest Service or the Model Forest Network. A Canadian atlas or encyclopedia might also help. For plant hardiness zones check this Internet link:

<http://sis.agr.gc.ca/cansis/nsdb/climate/hardiness/intro.html>

4. Over a period of five school days the students will research and record weather conditions for their research community using the newspaper, television, radio and the Internet. Students can use the chart on page 13 for recording their data.

Hint: Students can link to their research community's newspaper via the Internet, or they may want to link up via the Internet with a school in that community.

5. Have the students research and record the description of their research community's climate using another source, for example a Canadian atlas or encyclopedia.

Each group may choose to do their research together or assign different tasks to individual members.



6. When recording their data, ask each group to use the **Community Climate chart** on page 13. You may wish to use the following example as a guideline:

Community: Corner Brook

Province: Newfoundland

Forest Region: Boreal, predominantly forest

Hardiness Zone: 4b

Common Trees: black spruce, balsam fir, jack pine, white birch, trembling aspen

Climate Description: Corner Brook is on the east coast of Canada, and the west coast of Newfoundland. Corner Brook is Canada's snowiest city with an annual average snowfall of 414 cm. Average rainfall is 771.0 mm per year. Corner Brook's weather is largely moderated by the Atlantic Ocean. With an average minimum temperature of -10.8 C in the coldest month of the year (lowest temperature on record -31.7 C) it doesn't get as cold as other parts of Canada. July is the warmest month with an average maximum temperature of 21.9 C. Corner Brook experiences measurable precipitation (rain or snow) an average of 201 days each year.

7. Ask the groups to share their results through brief verbal presentations. Create a class comparison chart of the different research communities.

8. As a class, discuss and compare the weather and climate of the various research communities to the one you live in:

Your community:

- Based on the students' research, is the weather in your community different from the description given for its climate (warmer, colder, drier, wetter)?
- Does the climate description match how the students would describe your community's climate? What are their thoughts on why it does or doesn't match?

Research communities:

- Do the five days of weather that the students recorded reflect the description of their research community's climate?

Should we draw conclusions about climate based on the data from a few days, or from one season? How many years of study do we need to determine climate trends?

FOR ADVANCED-LEVEL STUDENTS



- Select two forest regions of Canada. How does the climate help to determine the kind of forest found in each region?
- How does a forest affect climate and on what scale?

Ice Storm Sparks Further Partnership in the Eastern Ontario Model Forest

One of the possible effects of climate change is an increased number of dramatic weather events such as floods, tornados, gales and ice storms.

In January 1998 an ice storm wreaked havoc on eastern Ontario, southern Quebec, New Brunswick and parts of Nova Scotia, along with many areas in the northeastern United States.

Whether or not the ice storm is a sign of climate change is open for discussion, but it did provide a learning experience for forest managers.

The Eastern Ontario Model Forest (EOMF) was the first to use the model forest partnership and organization to deal with a sudden crisis.

This model forest covers 1.53 million hectares of mixed forest. Ninety per cent of it is privately owned, including 2,500 private woodlots and large tracts used to produce maple syrup.

Working together, with the help of the Canadian Forest Service and Ontario Ministry of Natural Resources, the model forest partners — private woodlot owners, Christmas tree growers, paper and timber industries, the Mohawk Council of Akwesasne, and others — developed a co-ordinated approach that gave everyone equal access to financial and scientific information. This helped them respond in a timely, thoughtful manner and expedited the road to recovery.



MODEL FOREST
NETWORK
RÉSEAU DE
FORETS MODELES

Community Climate



Community _____ Province _____ Forest Region _____

Common Trees _____

Climate Description _____

| | Wind | Humidity | Precipitation | Sun/Cloud Cover | Temperature (high & low) |
|--------------|------|----------|---------------|-----------------|--------------------------|
| DAY 1 | | | | | |
| DAY 2 | | | | | |
| DAY 3 | | | | | |
| DAY 4 | | | | | |
| DAY 5 | | | | | |