

Water in Canada

Name: _____

Content: Resources and economic development in different regions of Canada

Curricular Competency: Use Social Studies inquiry processes and skills to — ask questions, gather, interpret, and analyze ideas; and communicate findings and decisions

Curricular Competency: Develop a plan of action to address a selected problem or issue

Curricular Competency: Construct arguments defending the significance of individuals/groups, places, events, or developments (significance)

Curricular Competency: Ask questions, corroborate inferences, and draw conclusions about the content and origins of a variety of sources, including mass media (evidence)

Curricular Competency: Sequence objects, images, or events, and recognize the positive and negative aspects of continuities and changes in the past and present (continuity and change)

Curricular Competency: Differentiate between short- and long-term causes, and intended and unintended consequences, of events, decisions, or developments (cause and consequence)

Curricular Competency: Take stakeholders' perspectives on issues, developments, or events by making inferences about their beliefs, values, and motivations (perspective)

Curricular Competency: Make ethical judgments about events, decisions, or actions that consider the conditions of a particular time and place, and assess appropriate ways to respond (ethical judgment)

First Peoples Principles of Learning: Learning is reflective



Canada's Fresh Water System

Water as a Natural Resource in Canada

Water is one of Canada's most valuable natural resources. Canada has about **20% of the world's freshwater**, found in lakes, rivers, glaciers, and underground. Famous bodies of water like the **Great Lakes, Lake Winnipeg, and the Mackenzie River** show how important water is across the country.

Water is used in many ways. People drink it, cook with it, and use it for farming and industry. Water also provides **hydroelectric power**, which is electricity made by the movement of water. Hydropower is one of the main sources of clean energy in Canada, especially in provinces like Quebec, Manitoba, and British Columbia. Water is also essential for **transportation, recreation, and tourism**, as well as for wildlife and ecosystems.

For Indigenous peoples, water has deep cultural and spiritual meaning and is seen as a living, sacred resource that must be respected and protected.

While Canada has a lot of freshwater, it is not endless. Pollution, climate change, and overuse can put water at risk. Some communities, including Indigenous communities, face challenges accessing safe drinking water. Because of this, Canada must carefully manage and protect water so it will be clean and available for future generations.

Canada has an incredible supply of freshwater, which makes it one of our most important resources. But if it is not managed carefully, pollution and overuse can create serious problems. Protecting water is essential for people, wildlife, and the environment.

The Value of Water in Canada

Even though we don't often think of water as something we buy and sell, it is extremely valuable to Canada's economy. Water supports many industries, which together make billions of dollars each year. For example:

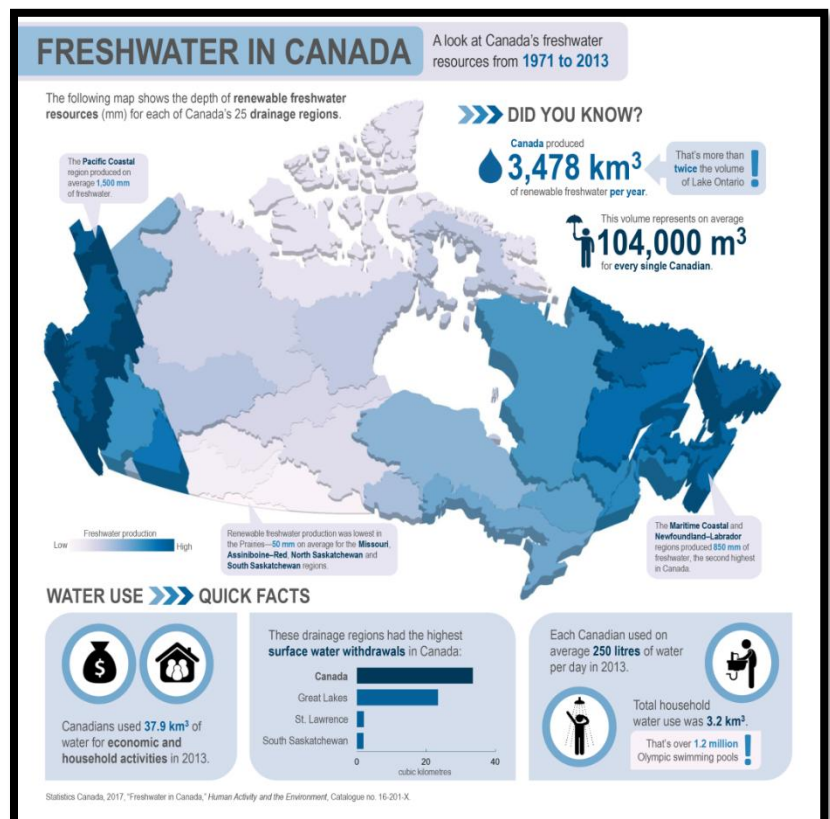
- **Hydroelectric power (hydropower):** About **60% of Canada's electricity** comes from water-powered dams. This saves Canada money and allows us to sell electricity to other countries, especially the United States. Hydropower is worth **billions of dollars each year**.
- **Agriculture (farming):** Farmers rely on water for irrigation and raising animals. Without it, crops and food production would not be possible.
- **Manufacturing and industry:** Factories use water to cool machines, process goods, and clean products. This keeps industries running smoothly and helps them make money.
- **Tourism and recreation:** Lakes and rivers attract millions of visitors for activities like boating, fishing, and camping, which bring in **billions of dollars** each year.
- **Exports:** Canada doesn't usually export bulk water, but we do export products made with water (like hydroelectric power and bottled water).



Some researchers estimate that water's contribution to the Canadian economy is worth **tens of billions of dollars each year** when you add up power, farming, industry, and recreation. But its value goes beyond money—water is priceless because people and nature cannot survive without it.

Problems with Hydroelectric Power

Hydroelectric power is a clean and renewable source of energy, but it also has some problems. To build a dam, large areas of land often have to be flooded, which can destroy animal habitats and forests. Sometimes, communities—including Indigenous communities—are forced to move because their land is covered by water. Dams can also change the natural flow of rivers, which affects fish like salmon that need to swim upstream to spawn. In addition, building big dams costs a lot of money, and if water levels drop due to drought or climate change, the dams may not produce as much electricity.



Curricular Competency: Use Social Studies inquiry processes and skills to – **ask questions**, gather, interpret, and analyze ideas; and communicate findings and decisions

Write down 5 questions that you are wondering about the hydroelectric industry in Canada:

1. _____
2. _____
3. _____
4. _____
5. _____

Curricular Competency: Take stakeholders' perspectives on issues, developments, or events by making inferences about their beliefs, values, and motivations (perspective)

What do you think the following people might believe about the **hydroelectric** industry? (large-scale oil and gas operations, to then sell the product)

A hydroelectric dam builder in British Columbia	An environmentalist / conservationist in British Columbia
Why might they support/oppose commercial hydroelectric power? _____ _____ _____ _____ _____ _____	Why might they support/oppose hydroelectric power? _____ _____ _____ _____ _____ _____
What might make them want to encourage / discourage MORE hydroelectric operations than there already are? _____ _____ _____ _____ _____ _____ _____	What might make them want to encourage / discourage MORE hydroelectric operations than there already are? _____ _____ _____ _____ _____ _____ _____

Curricular Competency: Construct arguments defending the **significance** of individuals/groups, places, events, or developments (significance)

Someone tells you that "hydroelectricity isn't that big of a deal in Canada." What are your thoughts? Would you agree with them? Disagree with them? Is hydroelectricity actually that significant of a thing in the Canadian economy, and in Canadian society? Explain your thinking.

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Hydroelectric Power: Causes and Consequences

Short-Term Causes (immediate reasons for development):

- Canada has many rivers with strong currents and waterfalls, perfect for building dams.
- People needed more electricity for homes, businesses, and factories.
- Hydroelectric power was seen as cleaner than coal or oil.

Long-Term Causes (built up over time):

- Canada has relied on water power for hundreds of years, first for mills and later for electricity.
- Governments wanted renewable energy sources to reduce pollution and dependence on fossil fuels.
- Technology improved, making it possible to build large dams and power stations.

Intended Consequences (what people hoped for):

- A steady, renewable source of electricity.
- Less air pollution compared to burning oil, coal, or gas.
- Ability to sell extra electricity to the United States for profit.
- Jobs and economic growth in hydro-rich provinces like Quebec, Manitoba, and British Columbia.

Unintended Consequences (what happened by accident):

- Flooding of land, forests, and even whole communities.
- Loss of animal habitats and changes to ecosystems.
- Indigenous peoples losing access to traditional lands and resources.
- Salmon and other fish populations decreasing because river flow is blocked.
- High cost of building and maintaining dams.

Which of these short-term or long-term causes impacted hydroelectricity the most? Why is that?

Which of these consequences is the most disastrous? Why is that?

Curricular Competency: Develop a plan of action to address a selected problem or issue

If you were in charge of hydroelectricity in Canada, what would you do? What would be your course of action, in regards to hydroelectricity in the future? Why is that?
