

Learning Objectives

Students will...

- Identify types of resources found in the Arctic.
- Understand the connection between resource development, climate change and sovereignty.
- Choose one resource and an ideal location to promote development and sovereignty in the Arctic.
- Create a map that shows the location for the resource.
- Explain how the geographical conditions of that location are ideal for the resource being promoted.
- Design a compelling advertising campaign to convince others of the economic, social and environmental benefits of this resource. The campaign will meet criteria for resource development as per the Declaration of Arctic Sovereignty, 2009, by the Inuit Circumpolar Council (ICC).
- Pitch the advertising campaign using a visual presentation.

Time required

Two 60-90 periods

- First class: Introduce and develop the advertising campaign
- Second class: Pitch the campaign presentations

Suggested Grade level

Secondary (Grades 9-12)

Materials

- Map: Resources in the Arctic
- Passage from *Polar Imperative* (Appendix A)
- Resource Development and Arctic Sovereignty Timeline (Appendix B)
- Advertisement Activity Sheet (Appendix C)

Set-up

Read the passage from *Polar Imperative* to understand the context of this lesson in relation to the topic of Arctic sovereignty. Consult the Resources in the Arctic Map, Timeline and the Glossary to equip yourself with the spatial relationships, facts and vocabulary used in the lesson. Make copies of the

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Introduction

Project the Resources in the Arctic Map for the class to examine. (If students have completed the introductory lesson in this resource package, they will already be familiar with the map.) Ask students to identify the types of economic activities evident on the map (review primary, secondary, tertiary, quaternary as required). Do they know of other examples of resources or economic activity which are not on the map? Which resources are the most valuable? Why?

Share the passage from *Polar Imperative* and the Resource Development Timeline with the class (read aloud, read it together, or ask students to read it individually). As students are reading, ask them to highlight the types of resources and economic activities that they encounter. How have they changed over time? How is climate change affecting resource development in the Arctic? What is the connection to Arctic sovereignty?

Development

Inform students that they have the opportunity to investigate and promote a specific resource development idea for the Arctic. Distribute the Advertisement Activity Sheet and review the instructions and criteria with the students. Assist students with their campaign if necessary as they prepare for the presentation. (Students can make use of presentation software such as Haiku Deck, Prezi, PowerPoint, etc., if available.)

Conclusion

Students pitch their advertisement campaigns to the class in a visual presentation. Assess them based on the criteria in the activity sheet and how convincing they are. Option: Ask the class to vote on the most compelling campaign.

Extend your geographic thinking

Here are three examples of tourism activities in the Arctic that you can also experience virtually:

- **Expedition Arctic:** A Partnership between the Canadian Museum of Nature, Students on Ice and the Virtual Museum of Canada
<http://www.expeditionarctic.ca/site/>
- Fort Prince of Wales, originally built in mid-1700s at the mouth of the Churchill River to protect Hudson's Bay Company's cargo ships from French rivals, has been restored and is now a National Historic Site (Grant, 2010, p.80).
Virtual tour: <http://www.pc.gc.ca/eng/lhn-nhs/mb/prince/edu/edu3.aspx>
- Interactive Tourism map from Nunavut Tourism
<http://www.nunavuttourism.com/interactive-map>



Resources in the Arctic map, Advertisement Activity Sheet, *Polar Imperative* passage and timeline as necessary.

Optional: Many educators are finding the practice of 'front-loading' and 'flipped' teaching to be very effective as a way to make the most of class time together. This could be attempted with this lesson by making the passage from *Polar Imperative*, Map, Timeline and Glossary available to students before the lesson activities. They would be responsible for reading and reviewing the material and come to class ready to participate in activities and discussions.

Links to Canadian National Standards for Geography

Essential element 5: Environment and Society

- Use and sustainability of resources

Appendix A: Passage from *Polar Imperative*

In the last half of the twentieth century it was discovery of new resource wealth that played the key role in economic, political and social development of the North American Arctic. Since the age of Martin Frobisher, the search for gold or other valuable resources had attracted countless adventurers to the Arctic Islands. This time, however, it was not gold but oil and gas that inspired a new generation of fortune hunters to lay claim to vast tracts of land and offshore waters. A major oil discovery on Alaska's North Slope in the winter of 1968-69 unleashed a combination of forces that forever changed the course of Arctic history. Comparable to a bursting dam, the discovery released a reservoir of competing interests: the oil and gas industry, various environmental groups, commercial shipping and government vessels, as well as aboriginal land claims and demands for the right to self-government.

After preliminary assessment of Greenland's hydrocarbon resources proved disappointing, the oil and gas companies focussed their attention first on Alaska, then elsewhere in the Arctic. Fearing irreparable harm to their environment, the Inuit across North America responded with a call for a unified voice to counter adverse political decisions of their southern-based nation-states. To some, it appeared that history was slowly coming full circle as the Inuit joined together to renounce the vestiges of colonialism and regain control over their ancestral lands and waters. While progress was slow, their incremental success in the 1970's and 1980's laid the foundation for major changes in governance in Alaska, and especially in the Canadian Arctic and Greenland, that were thought impossible only decades earlier (Grant, 2010, pp.139-140).

In the twenty-first century, rapidly melting sea ice in the Northwest Passage and Northern Sea Route offers northern nations the potential for a faster, safer and more economical shipping route to Asia. Yet from the fifteenth century to the present, there is only one constant with regard to Arctic resources. Whether furs or ivory, oil or diamonds, for southerners it was – and still is – all about profits. For the Inuit, whose environment was inextricably tied to their cultural traditions, their resources now offer new hope for economic prosperity (Grant, 2010, p.11).

Greenlanders experienced an unexpected advantage from the warming trend; they are now growing fresh vegetables to replace imported varieties and their sheep are producing fatter lambs. They are actively seeking new opportunities in mining and oil and gas development made possible by the shrinking ice cover. With the U.S. Geological Survey estimating the island's oil and gas reserves to be the nineteenth-largest in the world, Greenlanders hope to share in the wealth and gain financial independence from Denmark. The disappearance of the ice cover from most of southern Greenland has made the goal more realistic. Other opportunities range from tourism to freshwater exports and hydroelectric development. Inuit elsewhere are demanding a greater say in resource development as part of their rights to self-government (Grant, 2010, p.410).

Climate change may have brought challenges, but it also offers an opportunity for creative initiatives with priorities attached to the environment rather than the economy (Grant, 2010, p.465).

Appendix B: Resource Development and Arctic Sovereignty Timeline

1800's	The most valuable resources found in the Arctic at this time were whales, fish, furs and the ivory tusks of narwhals and walrus. (p10)
1821	Hudson's Bay Company merges with the Northwest Company and gains control of the extensive Northwestern Territory.
1882	First International Polar Year to conduct meteorological and magnetic research projects throughout the circumpolar region. (p.168)
1896	Sudden influx of American miners from Alaska into Canadian territory, after gold is found on small tributaries of the Yukon River and a major discovery on Bonanza Creek (p.180).
1900's	Resources discovered include coal, iron, lead, zinc and, in the 1800's in Greenland, cryolite that would eventually be used in the manufacture of aluminum. (p.10)
1903	Alaska Boundary Tribunal settles dispute in favour of U.S. claims, raising concerns by Prime Minister Wilfrid Laurier about Canada's sovereignty over the Arctic Islands. Two NWMP detachments are built, one at Ft McPherson in the western Arctic and another at Fullerton Harbour on Hudson Bay.
1904-1911	Government expeditions sent north to claim the Arctic islands for Canada were also expected to collect customs duties and report on foreign whaling and trade in furs and ivory.
1922-1930	Royal Canadian Mounted Police detachments were established near Hudson's Bay Company fur trading posts to affirm effective occupation of the Arctic.
1941 – 1945	During the Second World War, the United States assumes the major responsibility for the defence of North America, including construction of weather stations, airfields and communication centres throughout the Canadian Arctic and Greenland. In Canada, U.S. activities are approved by the Permanent Joint Board on Defence.
1946 –1970s	Following the Mutual Joint Defence Agreement signed by Canada and the United States, and a similar agreement with Denmark, U.S. military activities continue with the construction of weather stations and airfields during the postwar years to defend against possible invasion by the Soviet Union. Additional activities take place during the Cold War, including aerial reconnaissance (as part of NORAD), submarine patrols, ballistic missile defense and extensive radar lines that crossed from Alaska through Arctic Canada and Greenland.
1968-1969	Discovery of oil and gas in Prudhoe Bay, Alaska, leads to expansion of exploration in the Canadian Arctic.
2000's	New discoveries of oil and gas, diamonds and minerals, coincide with a rapidly escalating warming of the Arctic climate and melting of the land and sea ice.
2007	Russia claims rights to the North Pole because of its potential for seabed mining on the under-sea ridges adjacent to the Pole. (p.11)

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2009	ICC Declaration on Arctic Sovereignty states that “industrial development of the natural resource development of the Arctic can proceed only insofar as it enhances the economic and social well-being of Inuit and safeguards our environmental security.” (p.411)
Present	An outstanding dispute exists over Hans Island (1.3 km in size), because it might offer a cheaper and safer location for oil-drilling rigs than offshore waters. (p.11)

FROM: POLAR IMPERATIVE, BY SHELAGH GRANT

Appendix C: Advertisement Activity Sheet

Instructions:

You have the opportunity to investigate and promote a specific resource development initiative for the Arctic. Choose one resource to promote and design an advertisement to convince others to support your idea.

Steps:

- Choose one resource (see examples below) and an ideal location of operation to promote development and sovereignty in the Arctic.
- Design a compelling advertising campaign to convince others of the economic, social and environmental benefits of this resource.
- The campaign will:
 - ▶ Meet criteria for resource development as per the Declaration of Arctic Sovereignty, 2009, by the Inuit Circumpolar Council (ICC) which states: “Industrial development of the natural resources of the Arctic can proceed only insofar as it enhances the economic and social well-being of Inuit and safeguards our environmental security” (Grant, 2013, p. 22).
 - ▶ Outline economic, social and environmental benefits.
 - ▶ Include a map that shows the location for the resource.
 - ▶ Explain how the geographical conditions of that location are ideal for the resource being promoted.
- Pitch the advertising campaign using a visual presentation.

Resource Ideas:

Clean Energy Initiatives, Meteorological Monitoring, Mining, National Defense Technology, Environmental Conditions Monitoring, Aviation, Tourism, Wildlife Management Initiatives, Agriculture, Scientific Research, Shipping, Coast Guard Icebreakers, Fishing, Oil and Gas exploration

Can you think of more? How about something completely new? Be creative!

Resources in the Arctic

