The Northwest Passage and Canada-US Relations

Lesson Overview:
Student inquiry into the Northwest Passage should follow the jigsaw model. Teachers will prepare materials for five learning centres entitled, “Physical Systems”, “People and Culture”, “History of the North”, “Arctic Sovereignty” and “Environmental Issues”. During the first phase of this inquiry, jigsaw groups will examine a particular aspect of the assigned centre topic and answer the questions included by the teacher in student worksheets. Next, students within jigsaw groups will share their research with others in the group so that all members gain a broader understanding of the centre topic. Each jigsaw group should prepare to present its research for the next class.

Prior to the presentations, the teacher will make a copy of each of the five worksheets available to every student for note taking. Each group will present its collective findings to the rest of the class. Presentations should be no more than 10 minutes each (five over 50 minutes). Evaluation of presentations may be done using a rubric. All student worksheets are to be collected for marks at the end of the second class.

Grade Level: 8

Time Required: Two classes

Curriculum Connection:
Alberta Social Studies 8:
- History and Geography in the Western Hemisphere
  - Topic A -- Geography of Canada and the United States
  - Topic B -- Canadian History to the Twentieth Century

Links to Canadian National Geography Standards:
Essential Element #1: The World in Spatial Terms
- Students map and label the arctic regions of North America, indicating the precise route(s) of the Northwest Passage.

Oceans Scope & Sequence Standard #1: The World in Spatial Terms
- Latitude/longitude/depth (map and chart reading)

Essential Element #3: Physical Systems
- Students explore polar eco-zone, including systems of sea ice, heat and light reflection, currents and arctic winds that influence world climate as well as navigation in the Northwest Passage.

Oceans Scope & Sequence Standard #3: Physical Systems
- The biological ocean – processes and interactions (ocean ecosystems)
**Essential Element #5: Environment and Society**
- Ask questions concerning Canada's northern sovereignty, including patrolling for illegal dumping and the effects of air pollution on northern peoples and wildlife along the Northwest Passage.

**Oceans Scope and Sequence Standard #5: Environment and Society**
- Interconnections between atmospheric, land and ocean issues (e.g., waste disposal, global climate change, non-point source pollution)

**Essential Element #6: The Uses of Geography**
- Examine how geographic features of the Arctic Ocean have impeded use of the Northwest Passage as a national or international waterway, past and present. Debate arctic sovereignty from multiple perspectives; encourage students to assess the importance of the Northwest Passage in their own lives and how they might respond as individuals to problems affecting the Arctic Ocean and Canada's North.

**Oceans Scope and Sequence Standard #6: The Uses of Geography**
- Impact of ocean processes on the location of and outcome of historic events (e.g., exploration, migration and settlement)

**Geographic Skill #1: Asking Geographic Questions**
- Confront the problem of Canada's claim to sovereignty over the arctic and the Northwest Passage as an internal waterway in light of opposing foreign claims to the passage as an international waterway. Pose questions to students concerning military defence of the arctic, as well as emerging problems of pollution in the Passage as more sea ice disappears. Encourage students to develop a plan to protect the Arctic Ocean and the Northwest Passage in particular.

**Geographic Skill #2: Acquiring Geographic Information**
- Students acquire information from a variety of sources, including music, art, literature, maps and Internet resources.

**Geographic Skill #3: Organizing Geographic Information**
- Students prepare maps of shipping routes, currents, ice fields, as well as international and national borders.

**Geographic Skill #4: Analyzing Geographic Information**
- Students interpret maps, photos, music and tables in order to develop understanding of problems faced in the Canadian Arctic and the Northwest Passage.

**Geographic Skill #5: Answering Geographic Questions**
- By effective independent and group work, students will collaborate as a class to develop a detailed and nuanced understanding of the problems
facing Canada in its arctic regions and in the Northwest Passage in particular.

Additional Resources, Materials and Equipment Required:
- Music about the Northwest Passage. Example: Stan Rogers’ “Northwest Passage”, or A.L. Lloyd’s, “Lord Franklin”.
- Audio equipment and overhead projector
- Poetry and music relevant to themes of madness in the north. For example, Robert Service’s “Cremation of Sam McGee” or “Death in the Arctic” and Stan Rogers’ “Canol Road”.
- Relevant teacher-selected readings on the Northwest Passage from a variety of perspectives. Provide short articles by academics, northern peoples, military and environmental organizations, and policy think-tanks. Also include recent newspaper clippings, current events and any pertinent websites.
- Maps of the Northwest Passage and the Arctic Ocean.
- Photos and art that portray early expeditions and exploration, as well as modern struggles over Arctic sovereignty,
- Photocopies of important written materials on environmental changes, pollution and global warming in the Arctic; include excerpts on various alternatives for preserving the north and protecting the Passage, such as the use of submarines and Inuit Rangers.
- Blank maps for students to use
- Student Worksheets that ask pertinent questions about each area of research.

Main Objective:
Students will gain an understanding of Arctic geography in the Western Hemisphere and its implications for Canada-US Relations, as well as familiarity with the pre-twentieth century history of the Canadian North, as is commensurate with Topics A and B of the Alberta Social Studies 8 Curriculum.

Learning Outcomes:
By the end of the lesson, students will be able to:

- Articulate the generalized relationships between people with their geographic environment and how these interactions have influenced their patterns of life historically. Students will be able to discuss the north as a “region”, grasping northern issues about the Passage in terms of concepts (region, location, place, movement, environmental interaction) and related facts about the physical region (bodies of water, climate, longitude and latitude), its cultural, historical and political dimensions (native beliefs and traditions, exploration, international relations, northern sovereignty,
national security and military issues), its economic significance, as well as environmental issues facing the North (Knowledge Outcomes).

- Develop “Process Skills”. They will locate important geographical features of the North on a map, identifying relationships between human and physical geography. Students will make notes that outline the main and related ideas from each learning centre (locating/interpreting/organizing). They will compare information from different sources and draw conclusions about the significance of the Northwest Passage (analyzing/synthesizing/evaluating). Students will also hone their “Communication Skills”. They will construct maps, as well as write about and present their research findings to the class. Finally, students will develop their “Participation Skills”. They will converse with others in their station group, observe the courtesies of group discussion and make contributions to class presentations (Skill Objectives).

- Through independent and cooperative work, students will be encouraged to appreciate the cultural-historical, political, economic and environmental importance of the Northwest Passage. It is hoped that all students will develop a critical attitude towards Northern issues (Attitude Objectives).

The Lesson:
This lesson incorporates oceanographic study into a student inquiry project that addresses each of the “Six Essential Elements” outlined in the NGS “Oceans For Life” brochure.

<table>
<thead>
<tr>
<th>Teacher Activity</th>
<th>Student Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction</strong></td>
<td><strong>Student Activity</strong></td>
</tr>
<tr>
<td>Play recorded music about the Northwest Passage or Northern exploration and provide overhead transparency of lyrics.</td>
<td>Students listen to music and participate in teacher-led classroom discussion.</td>
</tr>
<tr>
<td><strong>Lesson Development</strong></td>
<td></td>
</tr>
<tr>
<td>Teacher develops student worksheets and organizes five learning centres prior to activity. During activity, teacher circulates among groups asking questions and offering guidance.</td>
<td>Students examine materials in their assigned learning centre and work cooperatively to answer worksheets and develop a group presentation on their collective findings.</td>
</tr>
</tbody>
</table>
**Lesson Extension:** Students can write a song or story about the Northwest Passage, paint/draw a picture, examine Inuit legends or research more military and environmental issues that affect the North and competing claims over Arctic sovereignty.

**Assessment of Student Learning:** Student worksheets are handed in for marks at the end of the second class. Teacher marks student presentations on a rubric.

**Student Worksheets**

**Centre One: “Mapping Physical Systems”**

1. Map and label the Arctic region of North America, including: all northern islands and settlements, the boundary between Alaska and Canada, major waterways, oceans and seas. Indicate the routes devised for a Northwest Passage. Explain how each route was developed.

2. Create individual maps that detail information about the Arctic eco-zone. Include maps showing systems of sea ice, currents and Arctic winds that influence world climate as well as navigation in the Northwest Passage.

3. What countries use the Northwest Passage? What physical features of the passage have made it difficult to navigate? Why is this changing? How might these changes affect Canada-US relations?

**Centre Two: “People and Culture”**

1. Read a poem about life in the Arctic. What does the poem tell you about the challenges of surviving in the North? What role does the geography of the North play in the poem?

2. Read selections from the Inuit stories provided. What do these stories tell you about the way the Inuit understand their relationship with the land and the animals? How did the Inuit live traditionally? How has their way of life changed?
3. Explain how the Inuit are affected by the activities of people living in other parts of the world. How might the Inuit be affected by increased traffic in the Northwest Passage? What important roles might the Inuit play in protecting Canada's northern regions and the Northwest Passage in particular?

Centre Three: “History of the North”

1. Read about the early explorations of Canada's North. What drove so many men to risk their lives to find a Northwest Passage? Why does the North still remain a coveted territory today?

2. Study an important Arctic explorer. What contributions did he make? What happened to him and his crew?

3. Research the history of the relations between the US and Canada surrounding the Northwest Passage. How have the opinions of the American and Canadian governments differed historically concerning the Passage and Arctic sovereignty?

Centre Four: “Arctic Sovereignty”

1. Why does Canada lack the capabilities to protect its northern territories and the Northwest Passage? What problems does this create for national security, environmental and resource protection, and our sovereignty in the Arctic?

2. Compare and contrast the competing claims of the United States and Canada to resources in the Arctic Ocean and access to the Northwest Passage. Which side has the most persuasive arguments? Defend your answer.

3. Research and discuss some of the possible solutions to Canada's "Arctic sovereignty" problem. How might Canadians protect the high Arctic?

Centre Five: “Environmental Issues”

1. How has global warming affected the Arctic eco-zone? Discuss the political consequences of climate change.

2. Discuss how air and water pollution in other parts of the world affect Canada's Arctic waters and northern peoples. What measures should Canadians take to protect the Arctic from further environmental degradation?

3. How might the purchase of more submarines strengthen Canada's ability to protect the Northwest Passage from pollution and illegal dumping? What problems have the Canadian Navy recently encountered with its submarine fleet? Do you think Canada should purchase more submarines? Defend your answer.