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Social Studies Project Plan

CANADIAN PHYSICAL LANDSCAPE



UBC, Faculty of Education
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Canadian Physical Landscape: Regions and Resources

Grade Level: 5

Timeline: 3-4 weeks (12 lessons; 45-60 minutes)

Class Composition

The class has 26 students. As it is a grade 4/5 split class, there are both grade 4 and grade 5 students; the class is divided evenly so there are 13 of each grade level. For the purposes of this assignment, the unit will focus on the class as a combined class, with a focus on grade 5 curricular content. Of the 26 students, 9 are female, 17 are male. There is an SEA in the classroom who works with one student designated with behavioural challenges. In addition, there are 2-3 other students who are not designated, but often receive attention and support from the SEA due to behavioural or academic challenges. Within the classroom, there is a wide diversity of learners. Several students read at a grade 2 or lower level, while a number of students are proficient in many subject areas and achieving at a grade 7 or above level. In addition, there have been class behaviour issues as many students lack focus, or perhaps interest, in their studies, and often wander, distracting others and disrupting classroom dynamics. This unit has been designed to stimulate interest in the subject matter by hands-on activities, individual, group, and class initiatives, reflection journals, presentations, and field trips, in addition to a number of individual assignments. Class discussion will form the basis of many lessons, working in pairs, small groups, or as a whole class. By actively engaging in the students' learning and providing real-life, concrete examples of the subject matter, the hope is to curb disruption and boredom in the classroom and progress towards an exciting environment filled with fun AND learning.

Unit Rationale

This unit has been designed as part of the Grade 5 Social Studies curriculum for British Columbia. The overall unit, Canadian physical landscape, covers two key topic areas: the physical regions of Canada and the natural resources found in these regions. The combination of both regions and resources is integral because of the connectedness the two topics share; certain resources, for example, are found exclusively in specific geographic regions. Its cross-curricular connections allow this unit to encompass many subject areas, stimulating interest while meeting learning objectives. The unit includes both oral and written work, in order to satisfy several Language Arts outcomes in addition to Social Studies learning outcomes. As well this unit corresponds directly with a number of Science learning outcomes.

The unit itself is comprised of two projects, one a group effort designed to be completed in-class, while the other is an individual assignment that will require some work be completed for homework with limited time in class. In addition, the unit will have a work booklet with specific pages to be completed after or during each lesson. There will also be a map quiz and a

unit test for further assessment. Finally, should funds and time permit, this unit has been designed to include interactive learning through a number of field trips. There are a number of potential field trips that could accompany this unit (see appendix for overview); these may also be spaced throughout the year, making connections to content learned within this unit.

Assessment

The students will be assessed in a number of ways throughout the unit. Specific assessment goals for each lesson can be found in the overview below. The entire unit is meant to assess students using a variety of strategies so as to address diverse learning styles and individual students. Such assessment includes anecdotal observations, class discussions, response journals, content worksheets, group projects, and an individual report. Rubrics for these assignments can be found in the appendix. To conclude the unit, I have created a unit test that summarizes the content and evaluates students' understanding of the content. A map quiz will accompany these assessment methods, taking place following the subset of lessons on the physical regions. This map quiz will be a good review for the unit test which will include a re-assessment of the content. Before the unit test, there will be an informal review period connected to a game of Jeopardy-style quiz in which the students work as a team to answer questions and score points. This review is meant to be an informal assessment; while students are not specifically evaluated on their ability to answer these questions, it will allow the teacher to assess where students' understanding is and adjust the test accordingly. It will also allow students to check their own assessment and prepare for the unit test as necessary. Finally, there will be a self-evaluation that the students will complete in order for them to reflect upon their own learning and think critically about their comprehension and participation.

The unit test, map quiz, and self-evaluation can be found in the appendix, along with assignment rubrics for both the group project and oral presentation.

Guiding Goals

The following Primary Learning Outcomes have been taken from the BC Ministry of Education curriculum document.

The core learning outcomes focus on the following Social Studies PLOs:

- E1 describe the major physical regions of Canada
- E2 describe the location of natural resources within BC and Canada, including fish and marine resources, forests, minerals, and energy resources

As mentioned above, there are a number of cross-curricular connections in addition to expanded Social Studies' concepts. Please see appendix for a complete list of primary learning outcomes, including cross-curricular connections.

Cross-Curricular Connections

Social Studies

Prescribed Learning Outcomes	Suggested Achievement Indicators
<i>It is expected that students will be able to...</i>	
A2 use maps and timelines to locate, interpret, and represent major physical, political, and economic features of BC and Canada	<ul style="list-style-type: none"> <input type="checkbox"/> use keys and legends to interpret maps (e.g., resources, economic activities, transportation routes, capital cities, population) <input type="checkbox"/> recognize that different types of maps represent particular types of information (e.g., thematic maps show information such as resource distribution, topographic maps show elevation, political maps show provincial boundaries) <input type="checkbox"/> create maps to represent aspects of a specific place (e.g., economic activity, landforms and bodies of water), applying keys and legends <input type="checkbox"/> create and interpret timelines and maps to show the development of political boundaries in Canada (e.g., each province's entry into Confederation, creation of Nunavut)
A3 gather a body of information from a variety of primary and secondary sources	<ul style="list-style-type: none"> <input type="checkbox"/> apply established criteria to compare information sources (e.g., relevance, accuracy, authorship) <input type="checkbox"/> apply a variety of strategies to record information gathered from sources <input type="checkbox"/> create a bibliography of all sources used
A4 create a presentation on a selected topic	<ul style="list-style-type: none"> <input type="checkbox"/> use an outline to organize information into a coherent format <input type="checkbox"/> create a presentation using more than one form of representation (e.g., poster and oral report)
E1 describe the major physical regions of Canada	<ul style="list-style-type: none"> <input type="checkbox"/> use appropriate terminology to describe geographic features (e.g., bay, strait, inlet, gulf, coast, peninsula, range, valley, plain, plateau, deciduous, coniferous, boreal) <input type="checkbox"/> name and locate on a map the major physical regions of Canada (e.g., Appalachians, Arctic lowland, Canadian Shield, cordillera, Great Lakes/St. Lawrence lowlands, Hudson Bay lowlands, Innuitian, interior plain) <input type="checkbox"/> use thematic maps to describe the physical features of each region in Canada (e.g., vegetation, terrain, rock and mineral types)

<p>E2 describe the location of natural resources within BC and Canada, including</p> <ul style="list-style-type: none"> - fish and marine resources - forests - minerals - energy resources 	<ul style="list-style-type: none"> <input type="checkbox"/> identify significant natural resources in BC and Canada, including <ul style="list-style-type: none"> - fish and marine resources (e.g., salmon, cod, oysters, lobster, abalone, seaweed, salt) - forests - minerals (e.g., diamonds, gold, asbestos, tin, copper) - energy resources (e.g., natural gas, petroleum, coal, hydro) <input type="checkbox"/> use thematic maps to describe the location of natural resources in Canada in relation to characteristics of physical geography (e.g., fish on the coasts, mineral resources in the Canadian Shield)
<p>E3 explain why sustainability is important</p>	<ul style="list-style-type: none"> <input type="checkbox"/> define and give examples of renewable resources (e.g., forests, fish) and non-renewable resources (e.g., mining, petroleum) in Canada <input type="checkbox"/> speculate on the potential consequences of non-sustainable practices in resource use (e.g., won't be there for future generations, effects on wildlife, local and global effects) <input type="checkbox"/> give examples of how people can demonstrate stewardship of resources and the environment (e.g., limiting waste, conserving energy and water, reusing materials)

Science

Prescribed Learning Outcomes	Suggested Achievement Indicators
<i>It is expected that students will be able to...</i>	
<ul style="list-style-type: none"> • analyse how BC's living and non-living resources are used 	<ul style="list-style-type: none"> <input type="checkbox"/> with teacher support, analyse data and correctly classify BC's resources as renewable or non-renewable (e.g., renewable: salmon; non-renewable: copper) <input type="checkbox"/> explain in detail various ways in which BC's resources are used (i.e., for commercial and/or recreational purposes)
<ul style="list-style-type: none"> • identify methods of extracting or harvesting and processing BC's resources 	<ul style="list-style-type: none"> <input type="checkbox"/> illustrate several examples of resource harvesting or extraction (e.g., salmon, trees, oil, gas, water, copper, coal) <input type="checkbox"/> trace a finished BC resource-based product (e.g., a tin of salmon, cedar basket, oil and gas) to its source

<ul style="list-style-type: none"> analyse how the Aboriginal concept of interconnectedness of the environment is reflected in responsibility for and caretaking of resources 	<ul style="list-style-type: none"> illustrate in detail various ways in which Aboriginal peoples take care of the land and the resources explain, citing examples, how and why Aboriginal peoples' unique relationship with the environment demonstrates responsibility for the land and resources
<ul style="list-style-type: none"> describe potential environmental impacts of using BC's living and nonliving resources 	<ul style="list-style-type: none"> identify and describe a variety of solutions to address the issue of natural resource management in BC (e.g., conservation of resources through recycling) collect relevant data and coherently articulate various points of view on a local resource issue in BC

Language Arts

Prescribed Learning Outcomes	Suggested Achievement Indicators
<i>It is expected that students will be able to...</i>	
A5 select and use strategies when expressing and presenting ideas, information, and feelings, including <ul style="list-style-type: none"> setting a purpose accessing prior knowledge generating ideas making and sharing connections asking questions to clarify and confirm meaning organizing information practising delivery self-monitoring and self-correcting in response to feedback 	<ul style="list-style-type: none"> discuss what they already know about the topic and what the audience needs to know ask and/or answer questions to focus the topic, clarify understanding, or identify the need for further information organize information chronologically or around major points of information (e.g., use graphic organizers, generate research questions, collect and incorporate information from more than one source) practise delivery of formal presentations monitor volume, tone, intonation, pace, expression, and gesture use appropriate strategies for making connections with the audience (e.g., position themselves so others can see and hear, use body language such as smiling or making eye contact) adjust presentation in response to feedback (e.g., self-correct errors of pronunciation; answer questions and clarify ideas when others do not understand)

B7 select and use strategies after reading and viewing to confirm and extend meaning, including

- self-monitoring and self-correcting
- generating and responding to questions
- making inferences and drawing conclusions
- reflecting and responding
- using 'text features' to locate information
- using graphic organizers to record information
- summarizing and synthesizing

- use self-monitoring and self-correcting strategies (e.g., reread and skim for details and to confirm understanding)
- ask and respond to questions related to the material read or viewed
- make inferences and draw conclusions (e.g., make connections between cause and effect in materials read or viewed)
- use 'text features' (e.g., headings, illustrations, diagrams) to locate information
- use graphic organizers to record and organize information (e.g., "Plus-Minus-Interesting" chart, Venn diagram, report outline) summarize the "big idea" or author's message, and give supporting details
- reflect on the reading and viewing and make connections (text-to-self, text-to-text, text-to-world)

C2 write a variety of clear, focussed informational writing for a range of purposes and audiences, featuring

- clearly developed ideas by using interesting supporting details and explanations
- sentence fluency through clear, well-constructed sentences that demonstrate a variety of sentence lengths and patterns, with an increasingly fluid style
- effective word choice through the use of new words, words selected for specificity, and powerful adverbs and verbs
- a voice demonstrating an appreciation of, and interest in, the topic
- an organization that includes a purposeful introduction, followed by a well-developed and logical sequence of details, with a conclusion that summarizes the details

□ create a variety of informational writing (e.g., expository writing such as reports, procedures, various multimedia formats, and may include impromptu writing) that demonstrates the following criteria
The writing/representation:

- demonstrates a clear purpose
- makes sense
- features a narrowed, focussed, clear, and coherent topic
- includes accurate information
- shows understanding of the topic through personal experience and/or research
- may express and justify a viewpoint
- may anticipate and answer some of the reader's questions
- includes visuals and text working jointly to represent and enhance the topic
- reads smoothly and demonstrates effective paragraphing
- contains clear language and effectively used content words
- attempts to engage or persuade
- uses a variety of connecting words to combine ideas, indicate comparisons, sequence, and describe cause and effect relationships
- contains 'text features' (e.g., illustrations, headings, diagrams) that are clear, relevant, and helpful to the reader

Unit Plan Overview

Lessons shaded indicate those lessons that have been fully developed. To see more details, view the lesson in its entirety following this overview.

	Topic	Objectives (PLOs)	Activities	Materials	Adaptation	Assessment/ Criteria
1	Political Regions of Canada: Review	<u>Social Studies A2</u> use maps and timelines to locate, interpret, and represent major physical, political, and economic features of BC and Canada	Review political boundaries of Canada. Ask students to recall from earlier this year the provinces, territories, and capitals of each. Read text selection. Colour map of Canada with political regions (identify provinces, territories, capitals, and major geographic landforms – St. Lawrence River, Hudson’s Bay, Rocky Mountains) Complete set of worksheets on provinces and territories, their capitals and location within Canada.	Text: CGS, 12 Worksheets: Mapping Skills, 29-30, 37, 52 Blank map of Canada Media: Completed map of Canada SMART Board or projector Other: Writing tools Colouring tools	For those students who are unfamiliar with Canadian geography, this would be a good opportunity to review the provinces, territories, and their capitals. By scaffolding this information, students will build on prior knowledge and be better prepared for following lessons.	<ul style="list-style-type: none"> ✓ Contribution to class discussion ✓ Successful completion of worksheets ✓ Successful completion of map

	Topic	Objectives (PLOs)	Activities	Materials	Adaptation	Assessment/ Criteria
2	Introduction of Physical Regions	<u>Social Studies</u> E1 describe the major physical regions of Canada	<p>Watch “Over Canada” video. Inform students to keep an eye out for different landforms or physical characteristics that appear unique or different. (e.g. The Prairies). Students should take note of such observations for class discussion.</p> <p>After the video, discuss as a class what they saw.</p> <p>Read selection from text, introducing the various physical regions of Canada.</p> <p>Complete set of worksheets demonstrating the different physical regions in relation to their location. Colour map of Canada with physiographic regions.</p>	<p>Text: CGS, 14-15</p> <p>Worksheets: CGS, 16-17</p> <p>Media: “Over Canada” video SMART Board or projector</p> <p>Other: Writing tools Colouring tools</p>	<p>This a good opportunity to continue building a base of knowledge about Canadian geography. The video is designed to stimulate interest. Key vocabulary will also be learned. ELL students should take special note of this vocab.</p> <p>Alternatively, a field trip to Fly Over Canada at Canada Place in Vancouver may be a good experience for all students.</p>	<ul style="list-style-type: none"> ✓ Contribution to class discussion ✓ Successful completion of maps ✓ Successful completion of worksheets

	Topic	Objectives (PLOs)	Activities	Materials	Adaptation	Assessment/ Criteria
3	Physical Regions of Canada	<u>Social Studies</u> E1 describe the major physical regions of Canada	<p>Read about each of the physical regions of Canada to identify key characteristics of each.</p> <p>Students will work mostly independently to complete a series of worksheets, designed to engage students with each region.</p> <p>Work will likely take place over the course of two classes. The expectation is that students will have completed, at minimum, The St. Lawrence Lowlands by the end of the first class. Otherwise, it will be assigned for homework.</p> <p>At the end of the second class, or when students are completed, review with class using a chart, outlining where</p>	<p>Text and Worksheets:</p> <p>Appalachians: CGS, 18-21, 26</p> <p>The Canadian Shield: CGS, 27-35</p> <p>The St. Lawrence Lowlands: CGS, 36-43</p> <p>The Interior Plains: 44-47, 50-51</p> <p>The Cordillera Region: 52-53, 55-58</p> <p>The Arctic Lowlands: 61-62, 64-67</p> <p>The Hudson Bay Lowlands: 68-69, 73-74</p> <p>Media: SMART Board or white board Chart of regions</p> <p>Other: Writing tools Colouring tools</p>	<p>This lesson is heavily based on independent work. Students who find themselves struggling may choose to work with a small group or may seek teacher guidance throughout the package.</p> <p>If an SEA is available in the classroom, this may be a great opportunity to work with a small group to pull out key terms and ideas.</p> <p>Pre-reading for vocab may also be of benefit to many students.</p>	<ul style="list-style-type: none"> ✓ Successful completion of worksheets ✓ Contribution to class discussion

	Topic	Objectives (PLOs)	Activities	Materials	Adaptation	Assessment/ Criteria
			<p>the region is located, the topography, climate, resources, and any other important information.</p> <p>Students who finish early may begin to work on group project.</p>			
4	Physical Regions of Canada (con't)	<p><u>Social Studies</u> A3 gather a body of information from a variety of primary and secondary sources</p>	<p>In groups of 4-5, students will be assigned a physical region and are tasked with researching the region.</p> <p>Students will write the information on a piece of paper shaped like that region, will overlay with map of Canada.</p> <p>Class time will be provided for research (computer time, library time, etc.)</p> <p>When completed, groups will present</p>	<p>Text: (see above)</p> <p>Media: Internet-accessible devices (computers, iPads, etc.) Non-fiction books</p> <p>Other: Cut-outs of physical regions Enlarged map of Canada Writing tools Colouring tools</p>	<p>This activity is designed to scaffold learning and build upon previous knowledge. Working in groups for this project is intended to allow students to come together to understand the ideas explored in earlier lessons. This will provide the teacher with the opportunity to</p>	<p>✓ group presentation ✓ (see rubric)</p>

	Topic	Objectives (PLOs)	Activities	Materials	Adaptation	Assessment/ Criteria
			their findings to the class.		check for comprehension and to assess students' ability to work in groups.	
5	Introduction to Natural Resources	<u>Science</u> - analyse how BC's living and non-living resources are used	<p>Have class brainstorm resources. Ask students to think about resources (what is a resource? what are some examples?)</p> <p>Have students "Think, Pair, Share" with a partner and then report back to the class.</p> <p>Have students predict the difference between renewable and non-renewable resources. Can they name some?</p> <p>Read text on resources. Discuss as a class, were their predictions correct? Have students answer questions from the textbook.</p>	<p>Text: Connections Canada 5, 134-136</p> <p>BC Science Probe 5, 160-173, 176-179</p> <p>Worksheets: Questions from text</p> <p>Media: SMART Board or projector</p> <p>Other: Writing tools</p>	Utilizing the "Think, Pair, Share" approach will allow students to engage with others' ideas as they develop their own opinions. By allowing students time to formulate ideas, this approach is designed to engage all students and encourage class participation. Previewing questions and working as a class will allow students to follow along,	<ul style="list-style-type: none"> ✓ Class discussion in brainstorm activity ✓ Completion and accuracy of answers from textbook

	Topic	Objectives (PLOs)	Activities	Materials	Adaptation	Assessment/ Criteria
					checking their own predictions against those of their peers.	
6	Forestry	<p><u>Social Studies</u> E2 describe the location of natural resources within BC and Canada, including - forests</p> <p><u>Science</u> - identify methods of extracting or harvesting and processing BC's resources</p>	<p>Read text selection from Connections Canada 5 and BC Science Probe 5.</p> <p>As a class, complete a Venn Diagram, comparing the sources. What does each tell us? How are they different? How is their information similar?</p> <p>Have students re-visit the text as needed to answer a series of questions.</p> <p>Using the map on page 135 as a reference, ask students to identify on map key areas where forestry is a main industry.</p>	<p>Text: Connections Canada 5, 188-190 BC Science Probe 5, 184-189</p> <p>Worksheet: Questions from text Blank map of Canada</p> <p>Media: SMART Board or projector and whiteboard</p> <p>Other: Writing tools Colouring tools</p>	<p>This class activity is designed to compare texts, building valuable language skills while engaging with content material. Students will pre-read with the class after predicting and will re-visit the text as needed to check for comprehension.</p> <p>This activity also begins a series of daily tasks (mapping resources) to create stability and repetition.</p>	<ul style="list-style-type: none"> ✓ Contribution to class discussion and Venn Diagram ✓ Successful completion of questions from text ✓ Successful completion of map

	Topic	Objectives (PLOs)	Activities	Materials	Adaptation	Assessment/ Criteria
7	Fish and Marine Resources	<p><u>Social Studies</u> E2 describe the location of natural resources within BC and Canada, including - fish and marine resources</p> <p><u>Science</u> - identify methods of extracting or harvesting and processing BC's resources</p>	<p>Divide class into two.</p> <p>Have one half read the text selection from Connections Canada 5 and brainstorm ideas about how fishing is an industry.</p> <p>Have the other half read the text selection from BC Science Probe 5 on how fishing is a resource.</p> <p>Each group should complete worksheet as a guideline, which has to be completed by each member of the group.</p> <p>Have each group share their findings. Elect a student record findings to create a Venn Diagram.</p> <p>Students will conclude by independently identifying on map</p>	<p>Text: Connections Canada 5, 153-164 BC Science Probe 5, 180-183</p> <p>Worksheet: "Comparing Industry and Resources" CGS, 59-60 Blank map of Canada</p> <p>Media: SMART Board or projector and white board</p> <p>Other: Writing tools Colouring tools</p>	<p>By working with a group and comparing texts, students will learn both comparison language skills and team building.</p> <p>Using a worksheet as a guideline, students are further scaffolding knowledge, building on guidelines from the teacher. By providing students with concepts on which to focus their attention, students may be less distracted and able to complete the assignment. Reviewing the</p>	<ul style="list-style-type: none"> ✓ Observation of group work ✓ Contribution to class discussion and completion of Venn Diagram ✓ Successful completion of map

	Topic	Objectives (PLOs)	Activities	Materials	Adaptation	Assessment/ Criteria
			key areas where fishing is a main industry, using page 135 of Connections Canada 5 as a reference.		content as a class will allow students to recognize key pints and be able to begin to pull out key points on their own.	
8	Minerals	<p><u>Social Studies</u> E2 describe the location of natural resources within BC and Canada, including - minerals</p> <p><u>Science</u> - identify methods of extracting or harvesting and processing BC's resources</p>	<p>Bring a selection of minerals in the classroom and set up centres. Students will move in groups of 4 and work together to answer a series of questions about the mineral. (What do they think it is? What does it look like? Feel like? Where do they think it's from?)</p> <p>After each group has had 5 mins with each mineral, ask students to share their findings. Why did they guess that?</p> <p>After students are done sharing, reveal</p>	<p>Text: BC Science Probe 5, 208-218</p> <p>Worksheet: "What is it?" – guided group worksheet Blank map of Canada</p> <p>Media: SMART Board or projector</p> <p>Other: Set of minerals (min. 6) Writing tools Colouring tools</p>	<p>This hands-on activity is designed to engage students and encourage them to be interested in the topic. By asking the students to participate in this activity, we are encouraging them to invoke their observation skills, building descriptive vocabulary, and working as a member of a team.</p>	<ul style="list-style-type: none"> ✓ Participation in class activity ✓ Observation of group activity ✓ Contribution to class discussion ✓ Successful completion of map

	Topic	Objectives (PLOs)	Activities	Materials	Adaptation	Assessment/ Criteria
			<p>the answers. Check for reactions.</p> <p>Read text selection from BC Science Probe 5.</p> <p>Conclude by asking students to identify on map key areas where mining is a main industry, using page 135 of Connections Canada 5 as a reference.</p>		<p>Reviewing the answers as a class will scaffold knowledge further, creating a wide variety of interactions and check their own ideas against conceptual answers.</p>	
9	Agriculture	<p><u>Language Arts</u> C2 write a variety of clear, focussed informational writing for a range of purposes and audiences, featuring</p> <ul style="list-style-type: none"> - clearly developed ideas by using interesting supporting details and explanations 	<p>Show students pictures from Victoria's Parliament Buildings (industry hall). Ask student to identify the pictures. Note that most of them are resources that have already discussed in class. Point out that agriculture or farming has not been discussed. Ask students to predict why.</p>	<p>Media: Pictures from Parliament Buildings (industry hall) Internet-accessible devices (computers, iPads, etc.)</p> <p>Other: Writing tools Coloured sticks to choose sides</p>	<p>A debate is a great way to engage students' attention. The idea behind this activity is to allow students to have a voice and an opinion rather than simply telling them factual information.</p> <p>By researching the concept and following it up with</p>	<ul style="list-style-type: none"> ✓ Contribution to class discussion ✓ Good use of class time for research ✓ Participation in debate ✓ Use of relevant and succinct points during debate ✓ Good teamwork ✓ Connection to other

	Topic	Objectives (PLOs)	Activities	Materials	Adaptation	Assessment/ Criteria
			<p>Allow students time to use iPads or computers and research the history of farming and its relevance their community.</p> <p>Students will then be randomly split into two groups and assigned a “side” to “debate” whether farming/agriculture is a resource? Students will be provided time for an opening statement, key arguments, and rebuttal.</p> <p>Students should think about how it compares to other resources.</p>		<p>conversation about it, students will have the opportunity to engage with material on their own terms and build knowledge by reinforcing concepts and ideas.</p> <p>This activity will build argumentative language and reiterate ideas about supporting details and explanation.</p>	resources
10	Energy Resources	<u>Social Studies E2</u> describe the location of natural resources within BC and Canada,	<p>Ask students to “Think, Pair, Share” and brainstorm what it means to be an “energy resource.” Can they think of any examples?</p>	<p>Text: BC Science Probe 5, 204-207, 224-226 BC Science Probe 5, 198-199</p>	<p>Again, the “Think, Pair, Share” approach is utilized to allow students to interact with others while</p>	<p>✓ Contribution to pair discussion and class activity</p> <p>✓ Completion of activity</p>

	Topic	Objectives (PLOs)	Activities	Materials	Adaptation	Assessment/ Criteria
		including - energy resources	<p>Have students pair up with 2 other groups, forming groups of 6. First share their findings with each other, then read “Helping Mother Earth” by Joan Brave. Ask students to add to their list.</p> <p>Discuss as a class. Review renewable vs. non-renewable resources. Create a class list.</p> <p>Read text selections from BC Science Probe 5. Add any new resources to the list as we go through reading.</p> <p>Assignment: create a graphic organizer that illustrates the energy resources we have in Canada and whether they are renewable or non-renewable.</p>	<p>Connections Canada 5, 138 “Helping Mother Earth” by Joan Brave</p> <p>Worksheet: Criteria for graphic organizer Blank map of Canada</p> <p>Media: SMART Board or white board</p> <p>Other: Writing tools Colouring tools</p>	<p>engaging their ideas. It also provides students with a chance to share their own ideas in a safe environment if students are uncomfortable with sharing in a whole class setting.</p> <p>By interacting with a variety of texts and texts types, the students can form opinions about what material they prefer and how to use a variety of sources. By adding to the list throughout the lesson, students will be able to scaffold their own learning.</p> <p>The graphic</p>	<p>with accurate and meaningful ideas</p> <ul style="list-style-type: none"> ✓ Creation of graphic organizers ✓ Successful completion of map

	Topic	Objectives (PLOs)	Activities	Materials	Adaptation	Assessment/ Criteria
			Finally, ask students to identify on map where Canadians get their energy resources from. Use map on page 135 of Connections Canada 5 for reference.		organizer assignment has a two-fold concept: it checks comprehension, it also provides students with perhaps a clearer way of viewing materials. This will be useful for when studying for the unit test.	
11	Sustainability	<p><u>Social Studies</u> E3 explain why sustainability is important</p> <p><u>Science</u> - analyse how the Aboriginal concept of interconnectedness of the environment is reflected in responsibility for and caretaking of</p>	<p>Introduce topic of sustainability. Read page 183 of Connections Canada 5.</p> <p>Ask students to recall “Helping Mother Earth.” How do the Aboriginal peoples understand sustainability?</p> <p>Read remainder of text selections. Brainstorm ways that we can help reduce,</p>	<p>Text: Connections Canada 5, 183-187, 192-195 “Helping Mother Earth” by Joan Brave</p> <p>Worksheets: Initiatives Chart</p> <p>Media: SMART Board or projector and white board YouTube video</p>	<p>This lesson has been designed to bring together concepts and ideas, allowing students to use their recall abilities (or develop such) in order to present previous materials.</p> <p>This lesson involves a class activity that</p>	<ul style="list-style-type: none"> ✓ Contribution to class discussion and recollection of previous materials ✓ Contribution to initiatives for sustainability ✓ Completion of own chart in book

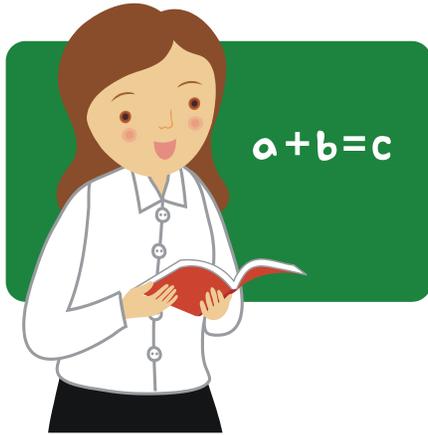
	Topic	Objectives (PLOs)	Activities	Materials	Adaptation	Assessment/ Criteria
		resources - describe potential environmental impacts of using BC's living and nonliving resources	reuse, and recycle. Make chart on board, outlining individual, class, school, community, and global-wide initiatives. Ask students to choose a few of each idea and copy into their own chart. View "The Little Hummingbird" video by Michael Yahgulanaas (https://www.youtube.com/watch?v=Vi5u7A9DRAc) to reiterate the concept of doing what we can.	Other: Writing tools	brings together all students' ideas in a clear, coherent manner. By asking students to copy down the chart on their own copy, students may be able to illustrate repetition in a positive manner. They may also add to the chart, demonstrating further knowledge and understanding.	

	Topic	Objectives (PLOs)	Activities	Materials	Adaptation	Assessment/ Criteria
12	Conclusion	<u>Social Studies</u> A4 create a presentation on a selected topic	<i>To take place over two-three days.</i> Individual student presentations of natural resource. Review Game: Jeopardy Unit Test	Worksheets: Self-evaluation Unit test Media: SMART Board or projector Review Game	By reviewing material in a fun, interactive way, students will be able to creatively engage with the materials. It will also further their recall ability. A self-evaluation allows for students to gauge their own learning and understanding in order to better prepare for the unit test. Finally, the unit test is designed to meet the needs of a wide-range of student. By incorporating a number of	<ul style="list-style-type: none"> ✓ Individual presentation (see rubric) ✓ Participation in review activities ✓ Unit test (see rubric) ✓ Self-assessment

	Topic	Objectives (PLOs)	Activities	Materials	Adaptation	Assessment/ Criteria
					assessment tools (multiple choice, matching, fill-in-the-blanks, and short answer), students will be able to choose the means best suited to illustrate their comprehension of course material.	

Extensions and Adaptations

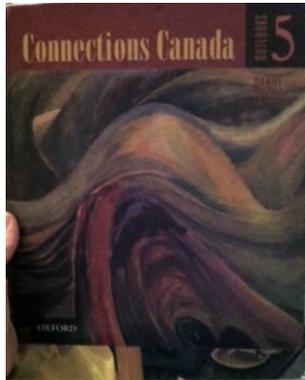
This lesson has been designed with my students in mind, taking into account a range of abilities, interests and behaviours. By including a variety of activities and teaching methods, the hope is to stimulate all students. Allowing students to work in a group setting can provide valuable language building as well as team building for all learners. The intent throughout the lesson is to scaffold learning through active practice and encourage participation through the use of activity frames. While steps have been taken to accommodate my practicum class, it is not realistic nor practical to assume that no adaptations are needed.



Further adaptations can be made for students with Individualized Education Plans, English Language Learners, behavioural challenges, and any other student who needs extra support. Assessment rubrics may be adjusted on an individual basis and extra time or attention will be paid to those who present challenges, either physically or academically. The teacher's role is to facilitate learning; by allowing students the opportunity to work with them one-on-one or in a small group would feel incredibly beneficial.

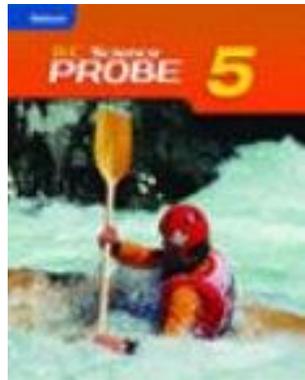
This unit could be extended in a number of ways. One such way is to include, as suggested, field trips to areas of resource development so that students can engage with the resources in a hands-on way. This unit could also become a focal point for a bulletin board, perhaps a great opportunity for early finishers. There is also further cross-curricular activities that could build on this unit. Spelling words, for example, could surround the key terms or vocab for the unit. Other social studies units may also benefit from connections, such as the Canadian symbols or government. There is a limitless number of potential ideas to explore our landscape further the key concepts. Continuing to interact with mapping is also a highly valuable skill learned or expanded on in this knowledge.

Resource Critique



Francis, D. (2000). *Connections Canada 5*. Don Mills, Ontario: Oxford University Press.

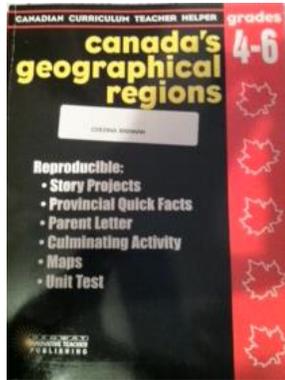
This Social Studies textbook is designed for use in grade 5 classrooms across Canada. The material itself is of a good quality, but it is difficult to use when lesson or unit planning. Because the textbook is used across Canada, there is no clear or concrete connections to local communities or, more prudently, to local curriculums. Despite being a key learning outcome in B.C.'s curriculum, I found Canada's physical regions overwhelmingly lacking from this text. There is little clear descriptions of any of the major physiographic regions of Canada and, as such, I had to turn elsewhere for source material on this subject. However, this text does demonstrate connections regarding resource use and development and was a welcome addition to this project plan.



Susan Doyle, J. B. (2006). *BC Science Probe 5*. Toronto: Nelson.

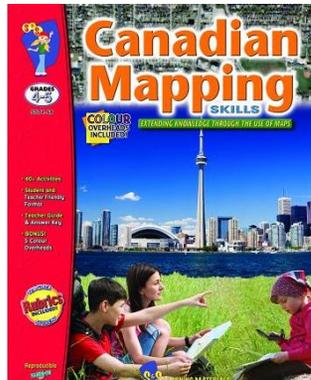
This Science textbook has been designed for use in grade 5 classrooms in British Columbia. As such, there was a lot of local context and it made reading the book easier, utilizing these connections. Because resources are also considered a Science learning outcome, this text had a wealth of knowledge that could (and did) apply to this project plan. There is an entire unit on resources which outlines each natural resource in B.C. as well as in Canada. I used many chapters from this text for my project plan. I believe that by supplementing the information from *Connections Canada* with *BC Science Probe*, there is room for a solid foundation. The images in this book are phenomenal, very clear and organized, and, of course, relevant!

Resource Critique



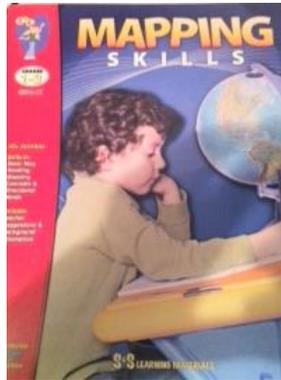
Perry-Watson, D. G. (2002). *Canada's Geographical Regions: Grades 4-6*. Edmonton: Geowat Innovative Teacher Publishing.

This book is amazing. A curriculum helper, this book was designed for teachers in order to fill the gaps left by standard textbooks. Unlike the main texts for this class, this book illustrated the differences between the physiographic regions in clear, easy-to-read text appropriate to the grade level. There are reproducible projects, activities, maps, and tests. Many of the students' worksheets came from this book or were adapted from its ideas. Clearly organized, this resource book is easy to use for all teachers. It would also be appropriate for teachers who home school their children. There are fun activities, such as word searches, that accompany fact sheets and comprehension-based questions. I would definitely recommend this book to all teachers. Canadian Curriculum Teacher Helper produces a number of relevant Canadian resources for a variety of subject areas.



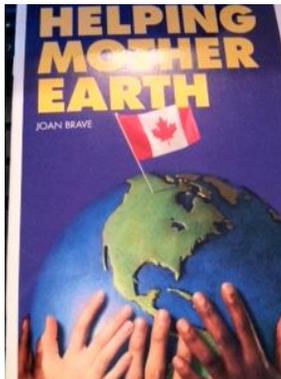
Golletz, L. (2009). *Canadian Mapping Skills: Extending Knowledge Through The Use of Maps*. Napanee, Ontario: S & S Learning Materials.

This resource book is designed for students in grades 4 through 6. It has a number of clear worksheets that may illustrate natural resources better than the textbook. Its easy to read format provides teachers, students, and parents with concrete examples of the wide variety of maps in Canada (climate, resource, political, topographic, etc.) I am eager to add this book to my personal collection. I have included a few of its worksheets to supplement my own ideas as well as those from "Canada's Geographical Regions."

Resource Critique

Komar, M. (2007). *Mapping Skills: Grades 1-3*. Napanee, Ontario: S & S Learning Materials.

This book is an excellent resource guide for introducing mapping to primary-grade students. This resource guide is published by the same company as “Canadian Mapping” and is merely one of many great resources they have produced. This book allows students to develop map skills before launching them into maps of countries or continents or even the globe. I used this book to present a review opportunity for students who need a refresher on how to use a map. It is also useful with its Canadian content and provides maps of Canada from which to build knowledge of political boundaries.



Brave, J. (2012). *Helping Mother Earth*. Don Mills, Ontario: Pearson Canada.

This book is a short, informative text that is part of a much larger series of books. Published by Pearson Canada, this text is part of “Turtle Island Voices,” a movement to incorporate Indigenous Knowledge into our curriculum. This particular text focuses on natural resources and sustainability. Using this book could provide an easy, non-threatening way of introducing this knowledge into the classroom setting. For the purposes of this assignment, it also helped develop Aboriginal knowledge learning outcomes associated to Social Studies.

Developed Lesson Plan #1

Unit:	Canadian Physical Landscape	Grade: 5
Lesson: 5	Title: Introduction to Natural Resources	
Lesson duration	60 minutes	
Essential Understanding	There are a number of natural resources that can be found in BC and Canada as a whole. Canada is fortunate in having these resources, but not all resources are renewable. Some of our resources include minerals, water, forests, and fish and marine resources. Renewable resources are those that can be replenished over time, while non-renewable resources will be gone once we have used them all up.	
Rationale	This lesson has been created as part of a unit on Canada's Physical Landscape. Its cross-curricular connections focus on Social Studies and Science curriculum objectives for grade 5. The activities in this lesson has been designed to allow students to brainstorm, predict, and explore what Canada has to offer us. By utilizing both Science and Socials Studies textbooks, this lesson attempts to look at multiple views of natural resources and engage students on a deeper level. A number of evaluation tools are used, including group work, individual contributions, class discussion, and student's presentation of engaging with the information on a comprehensive level. This lesson is designed to begin a number of lessons on the specific natural resources of Canada, in which we will continue to engage with a number of sources and materials to fully grasp the gravity of the need for resources and the need to be sustainable.	
Stated Objectives and Purpose	<u>Social Studies</u> E2 describe the location of natural resources within BC and Canada, including <ul style="list-style-type: none"> - fish and marine resources - forests - minerals - energy resources <u>Science</u> - analyse how BC's living and non-living resources are used	

PROCEDURE				
Elements of the lesson	Estimated Time	What the teacher says/does	What the students do	Material
MENTAL SET (Opener/"hook")	5 minutes	<ul style="list-style-type: none"> - Review the physical regions of Canada. - Ask students if they can recall anything special about the type of land in each region. 	<ul style="list-style-type: none"> - Recall facts about the regions. Why are they special? What is their connection to the land? 	<i>none</i>
Pre-activity (concept to be taught)	10 minutes	<ul style="list-style-type: none"> - Have class brainstorm resources. Ask students to think about resources (what is a resource? what are some examples?) Have students "Think, Pair, Share" with a partner and then report back to the class. - Have students predict the difference between renewable and non-renewable resources. Can they name some? - Start a chart of their predictions. 	<ul style="list-style-type: none"> - Brainstorm resources. Think about some ideas, share them with a partner, and be prepared to contribute to class discussion. - Think about the difference between renewable and non-renewable resources. What's the difference? - Contribute to class chart of ideas. 	SMART Board OR whiteboard

Activity & concept to be modelled with 1 or 2 activities	20 minutes	<ul style="list-style-type: none"> - Read text on resources. Discuss as a class, were their predictions correct? 	<ul style="list-style-type: none"> - Follow along with text, making note of their ideas and the information the text provides. - Be prepared to compare the information with their predictions. 	<p>Connections Canada 5, 134-136</p> <p>BC Science Probe 5, 160-173, 176-179</p>
Post-activity: further practice guided by the teacher & includes 1 form of evaluation	15 minutes	<ul style="list-style-type: none"> - Preview questions with students. - Have students answer questions from the textbook. 	<ul style="list-style-type: none"> - Pay attention to previewed questions; these may be some of the ones that will be asked! - Independently answer the questions from the textbook reading. 	<p>Questions from text</p> <p>Writing tools</p>
Extension activity completed in class for early finishers	Time may vary	<ul style="list-style-type: none"> - Tell the students about their upcoming project and ask them to start to think about a resource they'd like to learn more about. Let students know that they will be researching a resource for their final project, but will get in-class time to work on it. 	<ul style="list-style-type: none"> - Start to think about a resource you want to know more about. Begin brainstorming ways to find out more information and what you want to know. - Create a list of questions to ask during your research. 	<p>Writing tools</p> <p>Texts</p>

Closure: summary of what was taught/learned	10 minutes	<ul style="list-style-type: none">- Review questions will class.- Check to see where most students are, and mark these together.- Assign homework.	<ul style="list-style-type: none">- Self-check individual work.- Follow along with class to ensure you have the main ideas or points.- Unfinished questions will be assigned for homework.	<i>none</i>
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Developed Lesson Plan #2

Unit:	Canadian Physical Landscape	Grade: 5
Lesson: 8	Title: Minerals	
Lesson duration	50 minutes	
Essential Understanding	Mining is an important industry and minerals are an important resource in Canada. Minerals are very useful, but they are also a non-renewable resource. Minerals are one of two non-renewable resources that we depend on in BC.	
Rationale	This lesson has been developed as part of a unit on Canada's Physical Landscape. Although the unit is primarily based on Social Studies' learning objectives, this lesson is heavily grounded in Science-based, factual information. This lesson will examine what a mineral is and why it is important. Students will actively engage with a number on minerals and learn about how and why we mine them and what impact this has on the environment. Students will identify key characteristics of a number of minerals, interacting with them in a hands-on activity which will be followed by some textual information and independent work. Assessment in this lesson is particularly participation-based and will allow students to engage with one another.	
Stated Objectives and Purpose	<u>Social Studies</u> E2 describe the location of natural resources within BC and Canada, including - fish and marine resources <u>Science</u> - identify methods of extracting or harvesting and processing BC's resources	

PROCEDURE				
Elements of the lesson	Estimated Time	What the teacher says/does	What the students do	Material
MENTAL SET (Opener/"hook")	15 minutes	<ul style="list-style-type: none"> - Bring a selection of minerals in the classroom and set up centres. Students will move in groups of 4 and work together to answer a series of questions about the mineral. (What do they think it is? What does it look like? Feel like? Where do they think it's from?) 	<ul style="list-style-type: none"> - In groups of 4, interact with a set of minerals, moving between centres to complete a worksheet chart of their findings. 	Set of minerals Guiding chart
Pre-activity (concept to be taught)	5 minutes	<ul style="list-style-type: none"> - After each group has had 2 mins with each mineral, ask students to share their findings. Why did they guess that? - After students are done sharing, reveal the answers. Check for reactions. 	<ul style="list-style-type: none"> - Share findings with class. 	Answer sheet

Activity & concept to be modelled with 1 or 2 activities	15 minutes	<ul style="list-style-type: none"> - Read text selection from BC Science Probe 5. - Have a class discussion about mining. Why is it important? Why do we mine? What impact does it have on the environment? 	<ul style="list-style-type: none"> - Follow along with text, noting the importance of minerals and the impact of mining. 	BC Science Probe 5, 208-218
Post-activity: further practice guided by the teacher & includes 1 form of evaluation	10 minutes	<ul style="list-style-type: none"> - Have students brainstorm the impact of minerals and why they are important. - Building on class discussion, students should record some of these ideas. - Conclude by asking students to identify on map key areas where mining is a main industry, using page 135 of Connections Canada 5 as a reference. 	<ul style="list-style-type: none"> - Brainstorm the impact of mining and why minerals are important. - Record ideas. - Complete map. 	Connections Canada 5
Extension activity completed in class for early finishers	Time may vary	<ul style="list-style-type: none"> - Provide in-class time for students to work on resource presentation. 	<ul style="list-style-type: none"> - Use time to research resource for final project. 	Research material
Closure: summary of what was taught/learned	5 minutes	<ul style="list-style-type: none"> - Collect assignments. - Ask students to share their map. 	<ul style="list-style-type: none"> - Hand-in assignment. - Uncompleted work will be for homework. 	<i>none</i>

Developed Lesson Plan #3

Unit:	Canadian Physical Landscape	Grade: 5
Lesson: 10	Title: Energy Resources	
Lesson duration	55 minutes	
Essential Understanding	Resources aren't limited to things we eat or use, some resources are things that can be used for energy (heat, fuel, etc.). Like other resources, energy resources can be renewable or non-renewable. There are a number of energy resources that BC is known for, while others Canada as a whole has at its disposal. Some energy resources are clean with little impact to the environment, but energy resources range towards energy resources which are considered harmful to the environment.	
Rationale	This lesson has been developed as part of a combined Social Studies and Science unit plan for a grade 5 class. This lesson expands on previous lessons, combining the concepts of physical landscapes and resources. Focusing on resources used for energy, this lesson provides students with the opportunity to utilize the knowledge they have gained during the unit to reiterate themes of renewable and non-renewable resources, Canadian geography, while introducing the subject of sustainability, to be concluded in the following lesson. There is also the opportunity to expand on knowledge from this lesson by a follow-up or introductory field trip to a dam (perhaps Stave Lake Dam) to learn specifically about hydro-electricity. In addition, this lesson will incorporate Indigenous Knowledge by connecting how Aboriginal peoples interact with these resources, examining them, in one activity, through the eyes of Aboriginal peoples. Students will be asked to brainstorm some ideas, accessing their funds of knowledge developed throughout this unit, and create a graphic organizer to frame their points of view and main ideas of the unit. This assignment will act to form the assessment for this lesson.	
Stated Objectives and Purpose	<u>Social Studies</u> E2 describe the location of natural resources within BC and Canada, including - energy resources <u>Science</u> - analyse how BC's living and non-living resources are used	

PROCEDURE				
Elements of the lesson	Estimated Time	What the teacher says/does	What the students do	Material
MENTAL SET (Opener/"hook")	5 minutes	<ul style="list-style-type: none"> - Ask students to "Think, Pair, Share" and brainstorm what it means to be an "energy resource." Can they think of any examples? 	<ul style="list-style-type: none"> - Students should think about what an energy resource is and come up with a few examples. - Students will then pair up and share ideas, building their list and ideas. 	<i>none</i>
Pre-activity (concept to be taught)	10 minutes	<ul style="list-style-type: none"> - Have students pair up with 2 other groups, forming groups of 6. First share their findings with each other, then read "Helping Mother Earth" by Joan Brave. Ask students to add to their list. - Discuss as a class. Review renewable vs. non-renewable resources. Create a class list. 	<ul style="list-style-type: none"> - Each pair of students will join with 2 other groups, forming groups of 6. - Share their findings with each other and compile a larger list of ideas. - Read "Helping Mother Earth." Build to list or refine ideas. - Contribute to class discussion. 	<p>"Helping Mother Earth" by Joan Brave</p> <p>SMART Board or whiteboard</p>

<p>Activity & concept to be modelled with 1 or 2 activities</p>	15 minutes	<ul style="list-style-type: none"> - Read text selections from BC Science Probe 5 and Connections Canada 5. - Add any new resources to the list as we go through reading. 	<ul style="list-style-type: none"> - Follow along with text selections. - Take notes to add to list. - Identify key vocab or unfamiliar words or phrases. 	<p>BC Science Probe 5, 204-207, 224-226, 198-199</p> <p>Connections Canada 5, 138</p> <p>SMART Board or white board</p>
<p>Post-activity: further practice guided by the teacher & includes 1 form of evaluation</p>	15 minutes	<ul style="list-style-type: none"> - Review what a graphic organizer is. Provide examples of general graphic organizers. - Assignment: create a graphic organizer that illustrates the energy resources we have in Canada and whether they are renewable or non-renewable. - Provide examples for students of completed assignments. - Finally, ask students to identify on map where Canadians get their energy resources from. Use map on page 135 of Connections Canada 5 for reference. 	<ul style="list-style-type: none"> - Create a graphic organizer that illustrates the energy resources we have in Canada and whether they are renewable or non-renewable. 	<p>Connections Canada 5</p> <p>Sample graphic organizers</p> <p>Writing tools</p> <p>Colouring tools</p>

Extension activity completed in class for early finishers	Time may vary	<ul style="list-style-type: none"> - Provide in-class time for students to work on resource presentation. 	<ul style="list-style-type: none"> - Use class time to complete research for presentation. At this point, students should be writing their formal presentation. 	Research materials
Closure: summary of what was taught/learned	10 minutes	<ul style="list-style-type: none"> - Provide the students with the opportunity to share their graphic organizers with the class. Ask students to explain what they came up with. - Collect assignments. 	<ul style="list-style-type: none"> - Share their graphic organizers with the class. - Be prepared to explain your illustration. - Hand-in assignments. 	<i>none</i>

Appendix A: Field Trip Overview

Topic	Potential Field Trips	Programs
<p>Introduction of Physical Regions</p>	<p>FlyOver Canada at Canada Place</p> 	<div style="text-align: center;">  </div> <p>See Canada like never before at Vancouver's new must-see attraction! At its core, FlyOver Canada is a breathtaking, all-ages, flight simulation ride like no other! You will take off into a huge dome screen with the latest in projection and ride technology creating a true flying experience (complete with wind, scents, and mist!).</p> <p>At FlyOver Canada you will spend approximately 30 minutes getting introduced to our great country. You will first enter the preshow area where you will be immersed in an audio-visual show of Canada "up close and personal" before heading to the boarding zone for your pre-flight briefing. You will then hit your flight deck and spend 8 minutes on the unforgettable Ultimate Flying Ride soaring east to west over some of the most spectacular scenery the country has to offer.</p>

Topic	Potential Field Trips	Programs
Forestry	Surrey Nature Centre	<p>Forester For A Day</p> <p>What is the value of a forest? Interview, listen to and measure calculate the dollar value of a tree. Determine if the dollar value is a fair price when considering all the other things trees provide us.</p> <p>See more at: http://www.surrey.ca/culture-recreation/5999.aspx#sthash.XYU7jvla.dpuf</p>
Fish and Marine Resources	Fish Hatcheries	<p>There are a number of fish hatcheries in B.C. which each have public tours and school programs.</p> <p>Find a complete listing here: http://www.pac.dfo-mpo.gc.ca/sep-pmvs/hatcheries-ecloseries-eng.html</p>
Minerals	Britannia Mines 	<p>Mining: Is it worth it?</p> <p>BC is built on mining. The opening-up of our province by the gold rushes led to prospecting for other minerals, which in turn led to large-scale hard rock mining such as at Britannia. Using the Britannia Mines' experience, backdrop and facilities, this program examines how mining comes at a cost. What should we expect of the mining industry, government and ourselves when it comes to the harvesting and use of mined materials? Your students will be asked pre-trip to look at issues facing mining today, both issues our province once faced and issues that could become more common as mining in the developing world increases. Even today, artisanal gold miners risk their health and their lives in the hope of a better life, just as BC gold prospectors did 150 years ago. People want and need mining. The question posed to your students via this program is not if mining is worth it, but when is it worth it and under what conditions?</p> <p>For more information, visit: http://www.britanniamuseum.ca/assets/mining-is-it-worth-it.pdf</p>

Topic	Potential Field Trips	Programs
Energy Resources	Stave Lake Dam	<p>Power House at Stave Lake</p> <p>Start your self-guided tour with a nine-minute video, "Rain", in our theatre. It introduces you to the life and times of the early 1900s. Play with experiments on the solar energy workbench in the "Alternative Energy" area. Go through the "Science of Electricity" area and test your knowledge with interactive displays that will "shock" you. Enter the "Generator Hall" and see the actual turbines and generators from 1912!</p> <p>Go back in time in the Historic Gallery to when electricity was a vague promise for the future and TVs and computers were still a half-century away. Appreciate the hardships and effort to build the Power House and hear the stories of intolerable mosquitoes and no safety equipment. Experience the changes made to lifestyles as the years went by.</p>

Appendix B: Map Quiz

Give students a series of maps of Canada (like the one shown here) and ask them the following questions:

Map 1:

1. Label each province and territory with their full name.
2. State each province's capital.
3. State the capital of Canada.
4. Bonus: Provide the abbreviation for each province.
5. Bonus: Mark the approximate location of each capital city.

Map 2:

1. Draw the approximate boundaries of each of the physiographic regions of Canada.
2. Label the regions.
3. Bonus: Create a legend for your map and colour it accordingly.

Map 3:

1. Using the legend provided (a series of symbols to represent each resource), mark where the resources are found within Canada.
2. Bonus: Colour the map!



These map quizzes may be done together as part of the review process or after individual lessons.

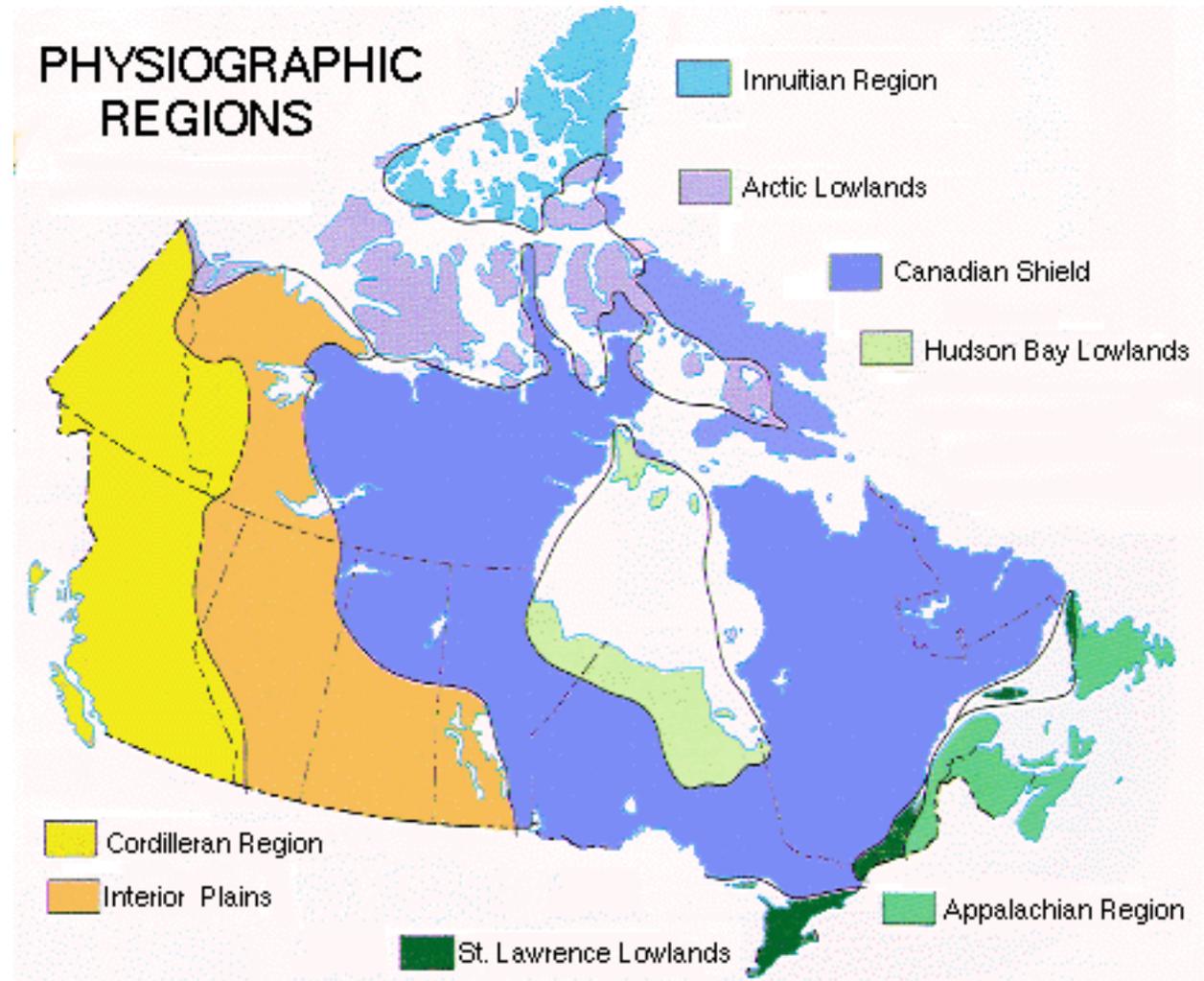
Evaluation:

Map 1: /27 (one mark each) –
BONUS: Students may earn up to 13 bonus points (.5 point per correct answer), making the highest score possible 40.

Map 2: /14 (one mark each) –
BONUS: Students will earn one point if they colour the map and three additional points if they create a legend for the map, making the highest possible score 18.

Map 3: /10 (one mark for each correct placement) – BONUS: Students will get two additional points if they colour their map.

Total: The total quiz is marked out of 51, but 70 total points are available.



Appendix C: Unit Test

The unit test will be a culmination of previous activities and a source for assessing students' knowledge. A formal unit test has intentionally not been included with this presentation due to the changing nature of the lessons and varying teaching styles. The following is meant to guide teachers in their evaluation process with some concrete examples or ideas.

Part One: Matching – This section could include matching the physiographic regions to their descriptions, capitals to their provinces, or provinces to their resources. This part should make up no more than 15% of the total grade.

Part Two: Fill-in-the-Blanks – This section could include informational sentences with key vocab blanked out. Alternatively, this section may be true or false questions. This part should make up no more than 15% of the total grade.

Part Three: Mapping – This section is an adaptation of the map quiz, providing students with materials previously engaged with. This part should make up no more than 30% of the total grade.

Part Four: Multiple Choice – This section presents simple multiple choice-style questions, possibly a set of which of these don't belong. Alternatively, teachers may choose to include a "Who am I?" section referring to provinces, regions, or resources. For example, "I live in mines, deep in the earth, the Canadian Shield is my home" with the answer being minerals. This part should take up no more than 20% of the total grade.

Part Five: Short Answer – A short answer section is a good way to extend comprehension. Questions would likely cover those topics not demonstrated in the previous sections. This section would range in weight of the total grade, up to 20%.



Appendix D: Assessment Rubrics

Assessment Plan	Criteria	Not Yet Meeting Expectations	Approaching Expectations	Meeting Expectations	Exceeding Expectations
Lesson 4: Group Project on Region	Content	<ul style="list-style-type: none"> - Limited or no understanding of the region - Undeveloped ideas - Little to no effort - Incomplete assignment 	<ul style="list-style-type: none"> - Shows some understanding of the region - Ideas not fully developed, but shows effort - Assignment complete 	<ul style="list-style-type: none"> - Understanding of the region, good summary - Developed ideas - Use of supporting details - Completion of assignment on time 	<ul style="list-style-type: none"> - Clearly developed ideas by using interesting supporting details and explanations - Genuine interest in the topic
	Writing	<ul style="list-style-type: none"> - Many spelling or grammatical errors - No revision process - Incomplete sentences 	<ul style="list-style-type: none"> - Some spelling or grammatical errors - Uses revision or peer evaluation to improve writing - In point form or incomplete sentences 	<ul style="list-style-type: none"> - Clear and organized writing, minor errors will be allowed - Use of proper punctuation and grammar 	<ul style="list-style-type: none"> - Free of errors - Sentence fluency through clear, well-constructed sentences that demonstrate a variety of sentence lengths and patterns
	Use of Resources	<ul style="list-style-type: none"> - Inaccurate information - Copy word for word from resource or don't use resources - No images 	<ul style="list-style-type: none"> - All information may not be accurate or factual - Uses textbook as primary resource, limited paraphrasing - Minimal images 	<ul style="list-style-type: none"> - Accurate, factual information, well-supported, but limited to textbook and class resources - Some incorporation of images 	<ul style="list-style-type: none"> - Use of a variety of sources (online, library) - Use images to expand on main ideas - Factual information with evidence of paraphrasing and use of own words
	Group Work	<ul style="list-style-type: none"> - Failure to work as a team or complete assignment 	<ul style="list-style-type: none"> - Limited team work, but able to complete assignment 	<ul style="list-style-type: none"> - Able to work together to complete assignment 	<ul style="list-style-type: none"> - Work very well together, demonstrate teamwork

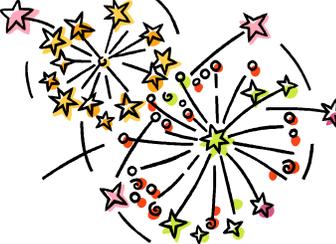
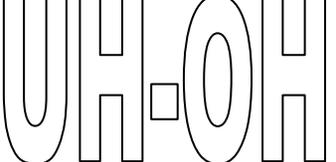
Assessment Plan	Criteria	Not Yet Meeting Expectations	Approaching Expectations	Meeting Expectations	Exceeding Expectations
Lesson 5: Class Discussion	Contribution	- Does not contribute in class or group discussions	- Contributes once during the lesson or shares others' ideas	- Contributes a minimum of once during the lesson	- Contributes multiple times during class at constructive times
	Ideas	- Shows little attentiveness or interest	- May have idea, but is unable to express it - Repeats previous idea	- Good, solid ideas - Could comment on previous ideas	- Original ideas or expanding on previous ideas
Lesson 8: Participation	Participation in Activity	- Does not visit most stations or does not participate at all - Takes no notes - Little to no group contribution - Incomplete or uncompleted worksheet (or does not hand in)	- Visits most stations - Uses worksheet, but is not complete - Takes limited notes - Little group contribution - Little active participation	- Visits each station and engages with minerals - Uses worksheet to make observations - Takes some notes - Some group contribution	- Visit each station and actively engage with minerals while making good predictions - Uses educated guesses and funds of knowledge to guide thoughts and ideas - Takes comprehensive notes - Contributes ideas to the group discussion that are helpful to determining what mineral it is
	Class Discussion	- Does not contribute - Shows little attentiveness or interest	- Contributes once during the lesson or shares others' ideas - Repeats previous idea	- Contributes a minimum of once during the lesson - Good solid ideas or comments on others'	- Contributes multiple times during class at constructive times - Original ideas or expanding on previous ideas

Assessment Plan	Criteria	Not Yet Meeting Expectations	Approaching Expectations	Meeting Expectations	Exceeding Expectations
Lesson 10: Graphic Organizer	Content	<ul style="list-style-type: none"> - Inaccurate information - No mention of the difference between energy resources (possibly one list) - Includes one or fewer energy resources (possibly includes other resources) 	<ul style="list-style-type: none"> - Information may not be completely accurate or is incomplete - Includes renewable and non-renewable resources, but may not clearly state the difference - Includes one or two energy resources - May not be able to differentiate between natural resources and those used for energy purposes 	<ul style="list-style-type: none"> - Accurate information - Includes renewable and non-renewable resources - Includes a minimum of 3 energy resources 	<ul style="list-style-type: none"> - Accurate information - Includes and differentiates between renewable and non-renewable resources - Includes more than 4 energy resources - Displays <u>where</u> the resource can be found (BC, Canada, etc.) - Is able to explain the graphic organizer to peers
	Use of Visuals	<ul style="list-style-type: none"> - No or limited visuals (possibly list form) - No differentiation 	<ul style="list-style-type: none"> - Use of shapes - Limited use of images or colour 	<ul style="list-style-type: none"> - Some level of differentiation - Use of images or shapes 	<ul style="list-style-type: none"> - Clear differentiation, perhaps a map, Venn Diagram - Clear visuals, excellent use of colour and images
	Overall Work	<ul style="list-style-type: none"> - Messy, disorganized - Incomplete assignment or does not hand in 	<ul style="list-style-type: none"> - Good effort - Complete assignment 	<ul style="list-style-type: none"> - Clear, organized work - Complete assignment 	<ul style="list-style-type: none"> - Well-presented and organized - Summative - Assists in the learning of others (demonstrates a keen awareness of peer mentorship)

Assessment Plan	Criteria	Not Yet Meeting Expectations	Approaching Expectations	Meeting Expectations	Exceeding Expectations
Lesson 12: Individual Resource Project	Content	- Incomplete, no main points or unclear idea of what the assignment is - No use of visuals or graphic organizers	- Names resource and a few main points - Uses visuals, but limited	- Clear, organized thoughts and ideas - Used visuals	- Main point with supporting details - Clear, organized, and original thoughts and ideas - Used a number of visuals to illustrate key points
	Use of Resources	- Used limited sources - No paraphrasing (clear plagiarism)	- Uses a minimum of one source or copied main ideas from source (limited original ideas or paraphrasing)	- Used a minimum of two sources - Utilized one main source for information and supplemented with other sources	- Used three or more sources - Good variety of sources
	Presentation	- Is unable to share orally or produce any substantial written work	- Completes only written work, but is unable to share orally (or vice versa)	- Clear speaking voice for oral presentations - Work was neat and organized - Poster: highlights main points	- Both oral demonstration of knowledge and written work in either poster or report format - Organized, neat work
	Overall Work	- Assignment incomplete	- Assignment complete, or nearly complete, or not handed in on time	- Assignment complete, handed in on time - Meets criteria of assignment (to choose a resource and prepare a presentation on the topic)	- Assignment complete, handed in on time - Succinct, clear, and organized - Representation of thought process

Appendix E: Self-Evaluation

This self-evaluation is designed to be used to determine students' work ethic after completing the work booklet.

		<ul style="list-style-type: none"> ✓ I completed my work independently on time and with care. ✓ I added details and followed instructions without help. ✓ I understand and can talk about what I have learned.
		<ul style="list-style-type: none"> ✓ I completed my work on time and with care. ✓ I followed the instructions with almost no help. ✓ I understand and can talk about what I have learned.
		<ul style="list-style-type: none"> ✓ I completed my work. ✓ I followed the instructions with some help. ✓ I understand and can talk about most of what I have learned.
		<ul style="list-style-type: none"> ✓ I need to complete my work on time and with care. ✓ I should ask for help when I need it ✓ I understand and can talk about a few of the things that I have learned.

This self-evaluation is meant to be done at the end of the unit. Students will circle one answer.

1 = not at all	2 = a little	3 = doing better	4 = Now I have it!
I can locate and name major cities on a map of Canada.	1 2 3 4	I can make and read simple maps to locate information.	1 2 3 4
I can name and locate Canada's physical regions.	1 2 3 4	I recognize that there are different types of maps and can identify their uses.	1 2 3 4
I recognize that the landforms of a region help determine how people live.	1 2 3 4	I can create legends for maps.	1 2 3 4
I can name and locate Canada's economic regions.	1 2 3 4	I can use appropriate map vocabulary.	1 2 3 4
I can compare two or more places using geographic information.	1 2 3 4	I can use maps to locate information about Canada's natural resources.	1 2 3 4
I can name all the provinces and territories of Canada and their capitals.	1 2 3 4	I can locate major bodies of water in Canada and recognize their role.	1 2 3 4
I can put together a map of Canada without reference.	1 2 3 4	I can locate my own province on a map.	1 2 3 4