



EXPEDITIONARY
LEARNING

Grade 5: Module 3B: Unit 2: Overview



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Unit 2: How Canada's Resources Are Used to Meet People's Needs and Wants Today

In this unit, students transition from learning about how native Inuit people of the past used the natural resources available in the Arctic to adapt and meet the needs of their community, to learning about how resources found in Canada today are used to meet the needs and wants of people (both locally and in other areas of the Western Hemisphere). In the first half of the unit, students closely read excerpts of text about the natural resources found in Canada and how they are used to make products that meet people's needs and wants. Students work in groups to closely read and answer text-dependent questions in order to build background knowledge on the topic, as well as continue practicing how to quote accurately and use the relationships between words to better understand the meaning of key terms. For the mid-unit assessment, students read and view an unfamiliar informational article then answer text-dependent and short answer questions in order to demonstrate they can support their ideas with evidence from the text and analyze

the meaning of key words by completing Frayer Models (RI.5.1, L.5.4 a and c, and L.5.5 c). In the second half of the unit, students research to answer the questions: "How are Canada's available resources used to meet the needs and wants of people today?" and "How do natural resource industries modify the physical environment?" They practice research skills in preparation for Part 1 of the End of Unit 2 assessment, in which students perform an independent research simulation using a variety of visual, quantitative, and text-based resources to answer questions about how extractive industries in Canada meet modern needs as well as how these major industries modify the physical environment (RI.5.1, RI.5.3, W.5.7 and W.5.8). Students also practice speaking and listening skills in preparation for the second part of the End of Unit 2 Assessment, in which they orally summarize and discuss their research with a small group of their peers (RI.5.3, RI.5.9 and SL.5.2).

Guiding Questions and Big Ideas

- **How are Canada's available resources used to meet people's needs and wants today?**
- **How can I integrate information from a variety of texts and media to build knowledge about a topic?**
- **How do natural resource industries modify the physical environment?**
- *Canada's natural resources are used to meet the needs and wants of people in the Western Hemisphere.*
- *Analyzing information from different types of media can deepen my understanding of an idea.*



Mid-Unit 2 Assessment	Text-Dependent and Short Answer Questions: Excerpts from “A Limited Supply” This assessment centers on NYSP12 ELA CCCLS RI.5.1, L.5.4 (a, c), and L.5.5c. students read a new excerpt of text then answer text-dependent and short answer questions by quoting accurately from the text. Students also analyze the meaning of key words from the excerpt by completing Frayer Models to show the relationships between words.
End of Unit 2 Assessment	Research and Response This is a two-part assessment. Part 1 centers on NYSP12 ELA CCLS RI.5.1, RI.5.3, RI.5.9, W.5.7, and W.5.8. For this part of the assessment, students are presented with research resources in a variety of formats (charts, graphs, images, text, videos, etc.) about natural resources found in Canada, how they are used to meet people’s needs and wants, as well as how extractive industries modify the environment in ways that both benefit and harm local communities. Students collect information on the graphic organizer they will have been using throughout the second half of the unit. Part 2 of this assessment centers on NYSP12 ELA CCLA SL.5.1 and SL.5.2. Students orally summarize and discuss their research from Part 1 of the assessment with small groups of peers, using the World Café protocol.

Content Connections

This module is designed to address English Language Arts standards as students read informational text about resource use and distribution in Canada. However, the module intentionally incorporates Social Studies Practices and Themes to support potential interdisciplinary connections to this compelling content. These intentional connections are described below.

Big ideas and guiding questions are informed by the New York State Common Core K–8 Social Studies Framework:
<http://engageny.org/sites/default/files/resource/attachments/ss-framework-k-8.pdf>

5.1 GEOGRAPHY IN THE WESTERN HEMISPHERE: The diverse geography of the Western Hemisphere has influenced human culture and settlement in distinct ways. Human communities in the Western Hemisphere have modified the physical environment.

5.1c The physical environment influences human population distribution, land use, and other forms of economic activity.

- Students will use physical, climate, and vegetation maps in combination with population density maps and land-use and resource distribution maps to discern patterns in human settlement and types of economic activity.



Texts

1. Minerals and Metals in Your Life, <http://www.pdac.ca/mining-matters/resources/education/mining-matters-publications/articles>
2. Video: Ground Rules: Chapter 3, <http://www.youtube.com/watch?v=xmXT1YgfoTA&feature=c4-overview-vl&list=PL31F52074D345CEA2>
3. Natural Resources and Canada's Economy, <http://actionplan.gc.ca/en/page/r2d-dr2/overview>
4. Video and Transcript: Developing a Vital Resource for Canadians and the World, <http://www.actionplan.gc.ca/en/blog/r2d-dr2/developing-vital-resource-canadians-and-world>
5. A Limited Supply, http://www.ecokids.ca/pub/eco_info/topics/canadas_north/nature/resources.cfm
6. Deforestation in Canada, <http://cfs.nrcan.gc.ca/pages/391>
7. Get Energy Wise, page 1, http://www.ecokids.ca/pub/eco_info/topics/energy/intro/index.cfm;
page 2, http://www.ecokids.ca/pub/eco_info/topics/energy/intro/intro_02.cfm



This unit is approximately 2 weeks or 10 sessions of instruction.

Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 1	Building Background Knowledge: How Canada's Natural Resources Meet the Needs and Wants of People Today	<ul style="list-style-type: none"> I can quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. (RI.5.1) I can explain the relationships between two or more individuals, events, ideas, or concepts in a technical text based on specific information in the text. (RI.5.3) I can read and comprehend informational texts, including history/social studies, science, and technical texts, independently and proficiently. (RI.5.10) 	<ul style="list-style-type: none"> I can explain how natural resources found in Canada meet the needs and wants of people today. I can use established criteria to select a text for independent reading. 	<ul style="list-style-type: none"> Gist annotations Chalk Talk charts Independent reading selection 	<ul style="list-style-type: none"> Guiding Questions anchor chart Natural Environment anchor chart Group Norms anchor chart Vocabulary Strategies anchor chart Criteria for Selecting Texts anchor chart Big Ideas anchor chart Canada's Natural Resources anchor chart Popcorn Read protocol
Lesson 2	Close Reading and Viewing: Minerals and Metals	<ul style="list-style-type: none"> I can quote accurately from the text when explaining what the text says explicitly and when making inferences. (RI.5.1) I can determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. (L.5.4) I can use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words. (L.5.5c) I can summarize information presented in diverse formats. (SL.5.2) 	<ul style="list-style-type: none"> I can explain how Canada's available natural resources are used to meet the needs and wants of people today, by quoting accurately from the text and video. I can determine the meaning of unfamiliar words and phrases, using context clues and other strategies. I can summarize information presented in diverse formats. 	<ul style="list-style-type: none"> Resource web (from homework) Text-Dependent Questions: Minerals and Metals 	<ul style="list-style-type: none"> Canada's Natural Resources anchor chart Group Norms anchor chart Natural Environment anchor chart Popcorn Read protocol



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 3	Close Reading: “Natural Resources and the Canadian Economy”	<ul style="list-style-type: none"> I can quote accurately from the text when explaining what the text says explicitly and when making inferences. (RI.5.1) I can gather relevant information from print and digital sources by paraphrasing information in notes. (W.5.8) I can determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. (L.5.4) I can use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words. (L.5.5c) 	<ul style="list-style-type: none"> I can explain how Canada’s available natural resources are used to meet the needs and wants of Canadians, by quoting accurately from the text. I can determine the meaning of unfamiliar words and phrases, using context clues and other strategies. I can gather relevant information about how Canada’s natural resources meet Canadians’ needs and wants, by paraphrasing information in notes. 	<ul style="list-style-type: none"> Minerals and Metals resource web (from homework) Text-Dependent Questions: “Natural Resources and the Canadian Economy” 	<ul style="list-style-type: none"> Canada’s Natural Resources anchor chart Popcorn Read protocol
Lesson 4	Video and Close Reading: “Developing a Vital Resource for Canadians and the World”	<ul style="list-style-type: none"> I can quote accurately from the text when explaining what the text says explicitly and when making inferences. (RI.5.1) I can determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. (L.5.4) I can use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words. (L.5.5c) I can summarize information presented in diverse formats. (SL.5.2) 	<ul style="list-style-type: none"> I can summarize information presented in diverse formats. I can explain how Canada’s available natural resources are used to meet the needs and wants of people today, by quoting accurately from the video transcript. I can determine the meaning of unfamiliar words and phrases, using context clues and other strategies. 	<ul style="list-style-type: none"> “Natural Resources and the Canadian Economy” resource web (completed for homework) “Developing a Vital Resource for Canadians and the World” note-catcher 	<ul style="list-style-type: none"> Canada’s Natural Resources anchor chart Popcorn Read protocol



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 5	Mid-Unit Assessment: Text-Dependent and Short Answer Questions: Excerpts from “A Limited Supply”	<ul style="list-style-type: none"> • I can quote accurately from the text when explaining what the text says explicitly and when making inferences. (RI.5.1) • I can determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. (L.5.4) • I can use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. (L.5.4a) • I can consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. (L.5.4c) • I can use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words. (L.5.5c) 	<ul style="list-style-type: none"> • I can explain how Canada’s available natural resources are used to meet the needs and wants of people today, by quoting accurately from the text. • I can determine the meaning of unfamiliar words and phrases, using context clues and other strategies. 	<ul style="list-style-type: none"> • “Developing a Vital Resource for Canadians and the World” resource web (from homework) • Mid-Unit 2 Assessment: Text-Dependent and Short Answer Questions: Excerpts from “A Limited Supply” • Tracking My Progress, Mid-Unit 2 recording form 	<ul style="list-style-type: none"> • Canada’s Natural Resources anchor chart



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 6	Research Skills, Part 1: Natural Resource Development and How It Modifies the Physical Environment	<ul style="list-style-type: none"> I can quote accurately from a text when explaining what the text says explicitly and when drawing inferences. (RI.5.1) I can explain important relationships between people, events, and ideas in a historical, scientific, or technical text using specific details in the text. (RI.5.3) I can integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. (RI.5.9) I can conduct short research projects that use several sources to build knowledge about multiple aspects of a topic. (W.5.7) I can gather relevant information from print and digital sources, summarize information in notes and finished work, and provide a list of sources. (W.5.8) 	<ul style="list-style-type: none"> I can build knowledge about how Canada's resources meet people's needs and wants and how resource industries modify the environment, by using several types of sources to conduct research. I can explain how Canada's resources meet people's needs and wants and how resource industries modify the environment, by quoting accurately from sources. I can synthesize my research by paraphrasing information from a variety of texts and providing a list of sources. 	<ul style="list-style-type: none"> "A Limited Supply" resource web (from homework) Research notes 	<ul style="list-style-type: none"> Canada's Natural Resources anchor chart Quote/Paraphrase anchor chart Research Skills and Processes anchor chart Popcorn Read protocol



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 7	Research Skills, Part 2: Natural Resource Development and How It Modifies the Physical Environment	<ul style="list-style-type: none"> I can quote accurately from a text when explaining what the text says using explicitly and when drawing inferences. (RI.5.1) I can explain important relationships between people, events, and ideas in a historical, scientific, or technical text using specific details in the text (RI.5.3) I can integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. (RI.5.9) I can conduct short research projects that use several sources to build knowledge about multiple aspects of a topic. (W.5.7) I can gather relevant information from print and digital sources, summarize information in notes and finished work, and provide a list of sources. (W.5.8) 	<ul style="list-style-type: none"> I can build knowledge about how Canada's resources meet people's needs and wants and how resource industries modify the environment, by using several sources to conduct research. I can explain how Canada's resources meet people's needs and wants and how resource industries modify the environment, by quoting accurately from sources. I can synthesize my research by paraphrasing information from a variety of texts and providing a list of sources. 	<ul style="list-style-type: none"> Modifying the Physical Environment research web (from homework) Research notes 	<ul style="list-style-type: none"> Canada's Natural Resources anchor chart Research Skills and Processes anchor chart Popcorn Read protocol
Lesson 8	<ul style="list-style-type: none"> Speaking and Listening Skills: Practice 	<ul style="list-style-type: none"> I can engage effectively in a range of collaborative discussions with diverse partners. (SL.5.1) I can summarize information presented in diverse media and formats, including visually, quantitatively, and orally. (SL.5.2) 	<ul style="list-style-type: none"> I can explain how Canada's natural resources are used to meet people's needs and wants and how resource industries modify the environment, by engaging in collaborative discussions with peers. During peer discussions, I can support my ideas by summarizing information from a variety of sources, including my notes. 	<ul style="list-style-type: none"> Modifying the Physical Environment: Lesson 7 resource web (from homework) Self-assessment on research and response rubric 	<ul style="list-style-type: none"> Canada's Natural Resources anchor chart World Café protocol



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 9	End of Unit Assessment, Part 1: Research and Response	<ul style="list-style-type: none"> I can quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. (RI.5.1) I can explain the relationships between two or more individuals, events, ideas, or concepts in a technical text based on specific information in the text. (RI.5.3) I can integrate information from several texts on the same topic in order to speak about the subject knowledgeably. (RI.5.9) I can conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. (W.5.7) I can gather relevant information from print and digital sources. (W.5.8) I can paraphrase information in notes and finished work, and provide a list of sources. (W.5.8) 	<ul style="list-style-type: none"> I can explain how Canada's natural resources meet people's needs and wants and how resource industries modify the environment, by quoting accurately from a variety of sources. I can synthesize my research by paraphrasing information from a variety of texts and providing a list of sources. I can prepare to speak knowledgeably about how Canada's natural resources meet people's needs and wants and how resource industries modify the environment, by integrating information from a variety of sources. 	<ul style="list-style-type: none"> End of Unit 2 Assessment, Part 1: Research and Response 	<ul style="list-style-type: none"> Canada's Natural Resources anchor chart
Lesson 10	End of Unit Assessment, Part 2: Research and Response	<ul style="list-style-type: none"> I can engage effectively in a range of collaborative discussions with diverse partners. (SL.5.1) I can summarize information presented in diverse media and formats, including visually, quantitatively, and orally. (SL.5.2) 	<ul style="list-style-type: none"> I can explain how Canada's natural resources are used to meet people's needs and wants today and how resource industries modify the environment, by engaging in collaborative discussions with peers. I can support my ideas by summarizing information from a variety of sources. 	<ul style="list-style-type: none"> Modifying the Physical Environment: Lesson 9 resource web (from homework) End of Unit 2 Assessment, Part 2: Research and Response 	<ul style="list-style-type: none"> Canada's Natural Resources anchor chart World Café protocol



Optional: Experts, Fieldwork, and Service

Experts:

- Invite a geologist to bring mineral artifacts and share with the class how minerals are formed, extracted, and used to make products that people want and/or need.

Fieldwork:

- Arrange for a visit to a local natural history and science museum with a minerals exhibit so students can explore first-hand what minerals are, where and how they are mined, as well as how the various products that people want and need are developed from them.

Service:

- As students learn about the impact that resource industries can have on the physical environment, encourage them to research and/or become involved with local organizations working on reclamation and/or public awareness projects.

Optional: Extensions

- The focus of this unit is related to Social Studies rather than Science content; therefore, instructional time spent addressing the meaning of relatively synonymous terms mentioned throughout various texts in this unit (e.g. *minerals, metals, coal, gas, oil, petroleum, energy*, and so forth) serves primarily to support students' understanding of how natural resources meet the needs and wants of people today and how their related industries modify the physical environment. In the "Preparation and Materials" section of this unit overview, a "Glossary of Terms: Teacher Resource" document has been included for your reference (see page below). Use this as needed to ensure that students' comprehension of big ideas is not hindered by their lack of understanding of scientific terminology.
- Consider conducting a scientific investigation with students about the similarities and differences between the resources mentioned and/or extending students' work with Frayer Models to help them recognize how the terms are both related and different.



Preparation and Materials

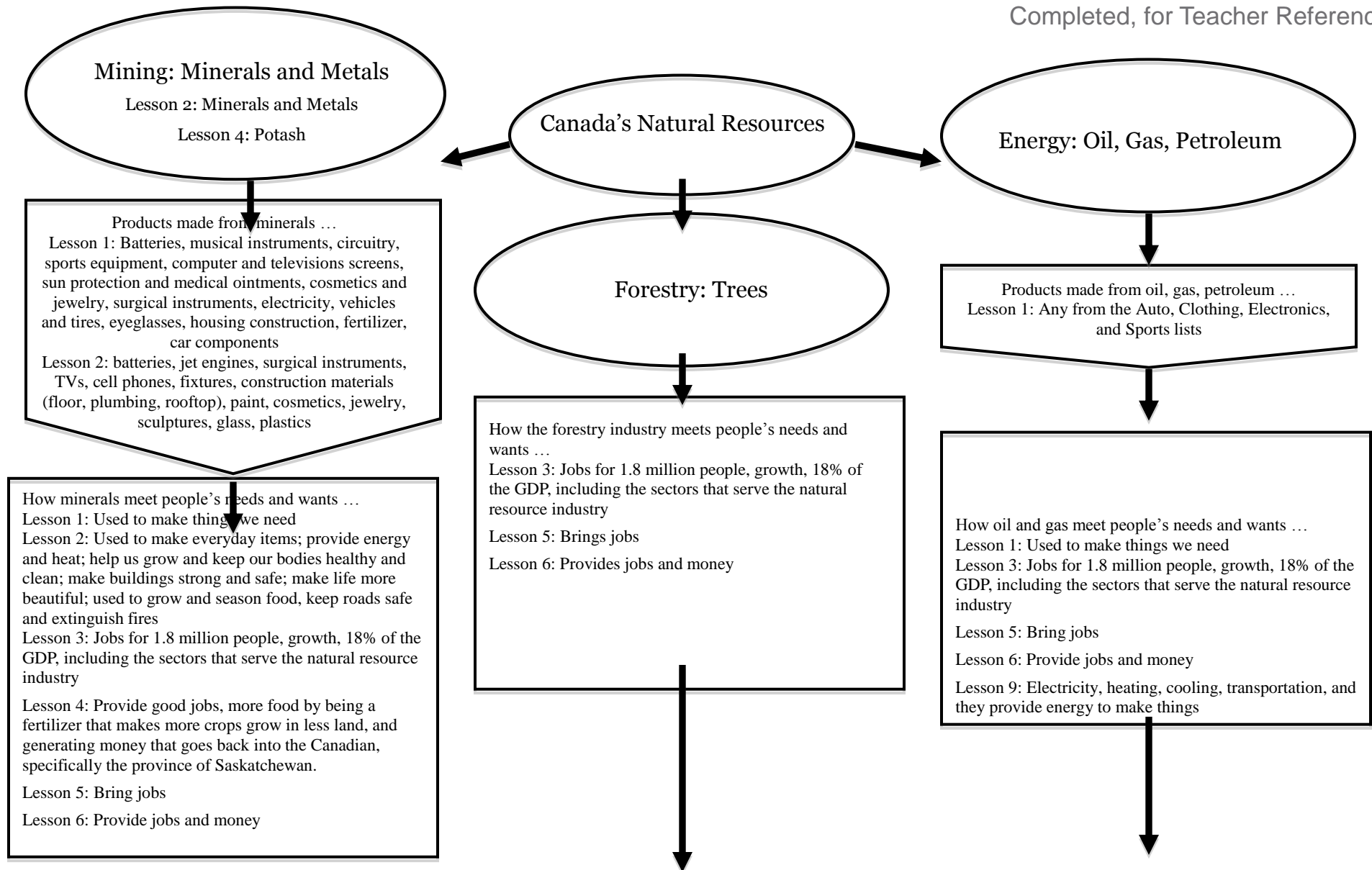
This unit includes a number of routines that involve stand-alone documents.

- Closely review the **Canada's Natural Resource anchor chart (complete, for teacher reference)**, provided below, to become familiar with the arrangement of information on the web and how it is added to during the Opening of Lessons 2–9.
- Review and refer to the **Glossary of Terms: Teacher Resource**, also provided below, to help students access key information from text and media sources included in this unit.
- Determine whether students will remain in their same groups from Unit 1 or whether you will assign them to new groups of four.
- Review the Recommended Texts list for this unit and consider working with a media specialist to collect a variety of books for students to choose from for independent reading, starting with Lesson 1.



Canada's Natural Resources Anchor Chart

Completed, for Teacher Reference





How it modifies the physical environment ...

Lesson 6: Disrupts wildlife, pollutes water, cuts down trees that are slow to regrow and totally changes the landscape

Lesson 7: Cut down trees, pollute water with lead

How it modifies the physical environment ...

Lesson 6: Disrupts wildlife, pollutes water, cuts down trees that are slow to regrow and totally changes the landscape

Lesson 7: Cut down trees

How it modifies the physical environment ...

Lesson 6: Disrupts wildlife, pollutes water, cuts down trees that are slow to regrow and totally changes the landscape; reclamation projects try to return the land to its natural state



Glossary of Terms:
Teacher Resource

Term	Definition
Mining products “Mining products provide many of the essential items that we use every day.”	Mining is the extraction, or pulling out, of a variety of minerals or geologic materials. The materials miners are mining for are sometimes in their raw form and must be processed or refined before they can be used for consumer goods.
Petroleum, oil, and gas “What products are made from oil and gas? What’s the first thing that comes to mind when you think about something made from petroleum?”	Petroleum is a crude material extracted from the ground. It can be separated and refined into oil and gas.
Petroleum-based products “Even if you don’t drive a car or carry your groceries home in plastic bags, you still use dozens—or even hundreds—of petroleum-based products every day.”	These are any products that are derived from petroleum—they all come from the same mining product (petroleum).
Minerals and metals “Minerals and metals are a part of everyday life.”	<p>Minerals are chemical compounds—they can be found in rocks, underground. There are a large number of minerals, and they can be identified by studying their shape, color, structure, and properties.</p> <p>Minerals are chemical substances. Some, like gold or silver, are made of only one element. Other minerals, like quartz, are combinations of elements.</p> <p>Metal is an element. Most metals are naturally present as minerals. Metals are more reactive than minerals. Metals and the respective materials of those metals have different appearances. Pure metals cannot be broken down into anything else.</p>



<p>Reserves of energy</p> <p>“This country has enormous natural wealth, from huge reserves of energy to massive tracts of forest and an abundance of minerals and metals.”</p>	<p>Estimated quantities of energy (in the form of oil, coal, or gas) that are known, with reasonable certainty, to exist and can be recovered with present technology</p>
<p>Energy, mining, and forestry industries</p> <p>“The energy, mining, and forestry industries provide over \$30 billion a year in revenue to governments—money that supports critical social programs such as health, education, and public pensions.”</p>	<p>Forest industry = logging Mining industry = extraction of resources (coal, iron) Energy industries = drilling for petroleum, refinement of coal (i.e., turning it into electricity), hydropower</p>
<p>Resource extraction</p> <p>“As more areas of the north are opened up for resource extraction, more roads are needed for transportation.”</p>	<p>This means pulling crude oil (petroleum) out of ground, mining for coal, drilling for natural gas.</p>
<p>Ore</p> <p>“Metallic ores including iron, copper, lead, zinc, gold, and silver are mined in the Arctic, as well as limestone, diamonds, and uranium.”</p>	<p>An ore is a type of rock that contains minerals with important elements including metals. Ores are extracted through mining; then they are refined to extract the valuable metal.</p>