

Geographic Issues of the 21st Century

Natural Resources

2
CLUSTER

SENIOR
2

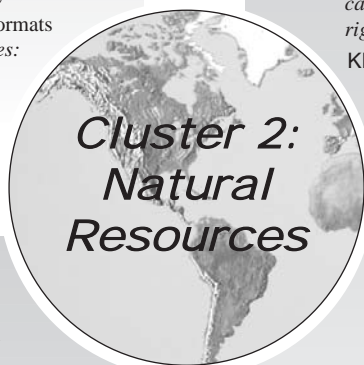


Learning Experience 2.1: Location

- KL-019 Identify major natural resources on a map of the world, map of North America, and a map of Canada. *Include: water, forestry, fossil fuels, metallic and non-metallic minerals.*
- S-100 Collaborate with others to achieve group goals and responsibilities.
- S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.
- S-201 Organize and record information in a variety of formats and reference sources appropriately. *Examples: maps, graphs, tables, concept maps...*
- S-202 Select and use appropriate tools and technologies to accomplish tasks. *Examples: Geographic Information Systems (GIS) and Global Positioning Systems (GPS)...*
- S-300 Formulate geographic questions to plan inquiry and research.
- S-403 Present information and ideas in a variety of formats appropriate for audience and purpose. *Examples: models, displays, multimedia presentations, editorials...*

Learning Experience 2.3: Sustainable Development

- KC-002 Describe sustainability issues related to natural resource extraction and consumption.
- KG-035 Identify implications of more-developed countries extracting resources from less-developed countries. *Examples: social, political, economic, environmental...*
- VP-009 Be willing to consider the implications of personal choices regarding natural resources.
- S-101 Use a variety of strategies in conflict resolution.
- S-103 Promote actions that reflect principles of environmental stewardship and sustainability.
- S-105 Recognize and take a stand against discriminatory practices and behaviours.
- S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.
- S-201 Organize and record information in a variety of formats and reference sources appropriately. *Examples: maps, graphs, tables, concept maps...*
- S-302 Draw conclusions and make decisions based on research and various types of evidence.
- S-303 Reconsider personal assumptions based on new information and ideas.
- S-307 Propose and defend innovative options or solutions to address issues and problems.
- S-400 Listen to others to understand their perspectives.
- S-403 Present information and ideas in a variety of formats appropriate for audience and purpose. *Examples: models, displays, multimedia presentations, editorials...*
- S-405 Articulate their perspectives on issues.



Learning Experience 2.2: Diverse Perspectives

- KI-004 Identify Aboriginal perspectives and rights regarding natural resources and their use. *Examples: perspectives—sacred, caretaking; resources—land claims, fishing and hunting rights, mineral rights...*
- KH-033 Identify factors that influence the changing use of natural resources over time. *Examples: technology, culture...*
- KP-041 Identify ways in which competing interests and needs influence control and use of the land and natural resources in Canada. *Examples: mining, forestry, water...*
- VI-003 Be willing to consider diverse views regarding the use of natural resources.
- S-101 Use a variety of strategies in conflict resolution.
- S-105 Recognize and take a stand against discriminatory practices and behaviours.
- S-106 Propose options that are inclusive of diverse perspectives.
- S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.
- S-201 Organize and record information in a variety of formats and reference sources appropriately. *Examples: maps, graphs, tables, concept maps...*
- S-301 Consider the context of events, accounts, ideas, and interpretations.
- S-303 Reconsider personal assumptions based on new information and ideas.
- S-306 Analyze prejudice, racism, stereotyping, and other forms of bias in the media and other information sources.
- S-400 Listen to others to understand their perspectives.
- S-401 Use language that is respectful of human diversity.
- S-402 Express informed and reasoned opinions.

Cluster 2: Natural Resources—Overview

This cluster has three learning experiences. It gives students the opportunity to learn about the variety and locations of the world’s natural resources. Natural resources influence where people live as well as their economic activities. Students identify where the major natural resources are located, consider diverse perspectives toward ownership and development, and examine issues related to sustainability of resource extraction and consumption, including the implications of their personal consumer choices.



Learning Experience 2.1: Location

In this learning experience, students focus on natural resources and their distribution throughout the world. Students define the term natural resources, and distinguish between renewable and non-renewable resources. They also locate major sources of water, forests, fossil fuels, and metallic and non-metallic minerals on maps of the world, North America, and Canada.

- KL-019 Identify major natural resources on a map of the world, a map of North America, and a map of Canada. *Include: water, forestry, fossil fuels, metallic and non-metallic minerals.*

Learning Experience 2.2: Diverse Perspectives

In this learning experience, students identify and consider differing points of view concerning natural resource ownership and development. These diverse perspectives include those of Canada's Aboriginal peoples and other stakeholders. Students also explore perspectives regarding the changing use of natural resources over time. Students are asked to consider diverse views regarding the use of natural resources.

- KI-004 Identify Aboriginal perspectives and rights regarding natural resources and their use. *Examples: perspectives—sacred, caretaking; resources—land claims, fishing and hunting rights, mineral rights...*
- KH-033 Identify factors that influence the changing use of natural resources over time. *Examples: technology, culture...*
- KP-041 Identify ways in which competing interests and needs influence control and use of the land and natural resources in Canada. *Examples: mining, forestry, water...*
- VI-003 Be willing to consider diverse views regarding the use of natural resources.

Learning Experience 2.3: Sustainable Development

In this learning experience, students examine sustainability of resource extraction and consumption. Students consider the implications of more-developed industrial countries' exploitation of the resources of less-developed nations. Students consider the implications of their personal choices regarding the use of natural resources, and their promotion of environmental stewardship and sustainability.

- KC-002 Describe sustainability issues related to natural resource extraction and consumption.
- KG-035 Identify implications of more-developed countries extracting resources from less-developed countries. *Examples: social, political, economic, environmental...*
- VP-009 Be willing to consider the implications of personal choices regarding natural resources.

Skills Outcomes for Cluster 2: Natural Resources

Skills for Active Democratic Citizenship

- S-100 Collaborate with others to achieve group goals and responsibilities.
- S-101 Use a variety of strategies in conflict resolution.
- S-103 Promote actions that reflect principles of environmental stewardship and sustainability.
- S-105 Recognize and take a stand against discriminatory practices and behaviours.
- S-106 Propose options that are inclusive of diverse perspectives.

Skills for Managing Information and Ideas

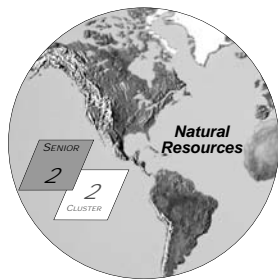
- S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.
- S-201 Organize and record information in a variety of formats and reference sources appropriately. *Examples: maps, graphs, tables, concept maps...*
- S-202 Select and use appropriate tools and technologies to accomplish tasks. *Examples: Geographic Information Systems (GIS) and Global Positioning Systems (GPS)...*

Critical and Creative Thinking Skills

- S-300 Formulate geographic questions to plan inquiry and research.
- S-301 Consider the context of events, accounts, ideas, and interpretations.
- S-302 Draw conclusions and make decisions based on research and various types of evidence.
- S-303 Reconsider personal assumptions based on new information and ideas.
- S-306 Analyze prejudice, racism, stereotyping, and other forms of bias in the media and other information sources.
- S-307 Propose and defend innovative options or solutions to address issues and problems.

Communication Skills

- S-400 Listen to others to understand their perspectives.
- S-401 Use language that is respectful of human diversity.
- S-402 Express informed and reasoned opinions.
- S-403 Present information and ideas in a variety of formats appropriate for audience and purpose. *Examples: models, displays, multimedia presentations, editorials...*
- S-405 Articulate their perspectives on issues.



Learning Experience 2.1: Location

- KL-019 Identify major natural resources on a map of the world, map of North America, and a map of Canada. *Include: water, forestry, fossil fuels, metallic and non-metallic minerals.*
- S-100 Collaborate with others to achieve group goals and responsibilities.
- S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.
- S-201 Organize and record information in a variety of formats and reference sources appropriately. *Examples: maps, graphs, tables, concept maps...*
- S-202 Select and use appropriate tools and technologies to accomplish tasks. *Examples: Geographic Information Systems (GIS) and Global Positioning Systems (GPS)...*
- S-300 Formulate geographic questions to plan inquiry and research.
- S-403 Present information and ideas in a variety of formats appropriate for audience and purpose. *Examples: models, displays, multimedia presentations, editorials...*

Description of the Learning Experience

In this learning experience, students focus on natural resources and their distribution throughout the world. Students define the term natural resources, and distinguish between renewable and non-renewable resources. They also locate major sources of water, forests, fossil fuels, and metallic and non-metallic minerals on maps of the world, North America, and Canada.

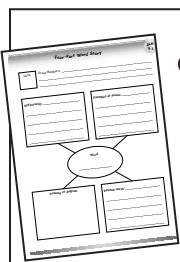
Vocabulary Focus

The following vocabulary is important for Learning Experience 2.1: Location.

alternative energy sources	geology	minerals	resource extraction
broadleaf	hardwoods	natural resources	sedimentary
coniferous	hydro-electricity	non-metallic minerals	softwoods
conventional energy	igneous rock	non-renewable resources	soil
deciduous	industrial minerals	nuclear energy	strip mine
energy	infinite	open pit mine	thermal electricity
finite	metallic minerals	ore body	underground mine
fossil fuels	metamorphic	renewable resources	

Vocabulary Study Strategies

Please see **Appendix A: Content-Area Vocabulary Study Strategies** for suggested strategies to incorporate vocabulary studies into the learning experiences. Further vocabulary strategies are found in Vocabulary Strategies 6.31–6.36 and Information Processing Strategies 6.49–6.53 in *Success for All Learners: A Handbook on Differentiating Instruction* [referred to in this document as SFAL] (Manitoba Education and Training, 1996). In addition, a number of learning experiences within the clusters include vocabulary strategies for learning. Teachers are encouraged to make use of these strategies and to avoid the less meaningful practice of having students copy dictionary definitions.



Where to Find the Blackline Masters (BLMs)

Cluster-Specific BLMs are found in Appendix B. They are coded, for example, BLM 3-2, where the “3” refers to Cluster 3 and the “2” refers to the sequential number.

General BLMs are found in Appendix C. They are coded, for example, BLM G-6, where the G refers to “General” and the “6” refers to the sequential number. They are used in multiple strategies.

Teacher Notes are found in Appendix D. They are coded TN, and are numbered sequentially (e.g., TN 3 or TN 40).

Targeted Learning Outcomes

Suggested Teaching/Learning Strategies

Students will...

KL-019 Identify major natural resources on a map of the world, map of North America, and a map of Canada. *Include: water, forestry, fossil fuels, metallic and non-metallic minerals.*

S-100 Collaborate with others to achieve group goals and responsibilities.

S-201 Organize and record information in a variety of formats and reference sources appropriately. *Examples: maps, graphs, tables, concept maps...*

KL-019 Identify major natural resources on a map of the world, map of North America, and a map of Canada. *Include: water, forestry, fossil fuels, metallic and non-metallic minerals.*

S-100 Collaborate with others to achieve group goals and responsibilities.

S-201 Organize and record information in a variety of formats and reference sources appropriately. *Examples: maps, graphs, tables, concept maps...*

KL-019 Identify major natural resources on a map of the world, map of North America, and a map of Canada. *Include: water, forestry, fossil fuels, metallic and non-metallic minerals.*

S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.

S-201 Organize and record information in a variety of formats and reference sources appropriately. *Examples: maps, graphs, tables, concept maps...*

Activating Strategies

Strategy 1: Introduction to Natural Resources

- Working in pairs, students brainstorm and list what they know about natural resources, a definition, examples, and possible locations.
- Students record their information on a KWL Plus (or Seven-Step Knowledge) organizer.
- Students share information with the class and add new details to their knowledge organizers.
- Using a wall map of the world as a guide, students identify locations that were mentioned for specific resources on an outline map of the world.
- As a class, students develop a definition of natural resources and record it in their KWL organizers.

Strategy 2: Natural Resources—Sort and Predict

- Working in small groups, students list as many specific natural resources as they can.
- Students report to class and create a master list of resources on the board or flip chart.
- Using the Sort and Predict Frame, students sort resources into the categories listed in KL-019.
- Students predict where certain categories of resources may be found. *Examples: metallic minerals in igneous shield areas, fossil fuels in lowland sedimentary regions...*
- Using prior knowledge, students identify as many of these regions as possible on a map of Canada and North America.

Strategy 3: Graffiti on the Map (Predicting Locations of Natural Resources)

- After brainstorming to develop a list of as many resources as the class can bring to mind (see previous strategy), students write the names of the resources on self-stick notes (one resource per note).
- Following a class discussion of possible locations, students predict where in the world these resources might be found, and attach the self-stick notes to appropriate locations on a wall map of the world or on a large outline map on the bulletin board.
- Students refer to atlases or resource maps to check accuracy of locations and make necessary adjustments on the map.
- Students note major patterns and record them in their course notebooks.

Suggested Assessment Strategies

Teacher Tips and Resources

Activating Strategies

- Assess the organizer and map for the student’s knowledge of natural resources, definitions, examples, and locations.
- Observe pairs for the student’s skill in collaborating with others to achieve group goals and responsibilities. (See BLM G-1.)
- Assess the organizer and map for the student’s skill in organizing and recording information.

- It is common for students to think of minerals when referring to natural resources; however, they should be aware that resources include a variety of other items, such as soils, water, and flora and fauna.
- BLM G-1: Group Performance: Assessment Scale
- BLM G-33: Map of The World
- SFAL 6.94: KWL Plus
- SFAL 6.96: Seven-Step Knowledge Chart
- Wall map of the world

- Assess the Sort and Predict Frame and map for the student’s knowledge of major natural resources and their locations in Canada and North America.
- Observe work in groups to assess the student’s skill in collaborating with others to achieve group goals and responsibilities. (See BLMs G-1, G-2.)
- Assess the Sort and Predict Frame and map for the student’s skill in organizing and recording information in appropriate formats.

- Students may be involved in a discussion about the kind and number of categories for classification. *Example: mineral resources can be classified into metallic, non-metallic, and fossil fuels, and perhaps soil, water, or flora and fauna resources...*
- Students may need some examples of locations of common resources. *Examples: nickel in Thompson, oil in Alberta, soil for agriculture in the Prairies and Great Lakes–St. Lawrence Lowlands regions...*
- BLM G-1: Group Performance: Assessment Scale
- BLM G-2: Group Performance: Self-Assessment Scale
- BLM G-31: Map of Canada
- BLM G-32: Map of North America
- SFAL 6.100: Sort and Predict Frame
- Wall maps of Canada and/or North America

- Assess the self-stick notes and their placement on the map for the student’s knowledge of locations of identified resources.
- Observe the student’s knowledge of and skill in the use of atlases and resource maps to gather further information about resource locations.
- Assess the self-stick notes and their placement on the map for the student’s skill in organizing and recording information in appropriate formats.

- Students may need some examples of resource locations in the world to assist them in locating resources. *Examples: oil in the Middle East, diamonds in Nunavut and South Africa, hardwoods in the tropical forests...*
- Atlases and wall map of the world
- Self-stick notes
- Alternatively, students could use the Rotational Graffiti strategy. (See TN 38.)

Targeted Learning Outcomes

Suggested Teaching/Learning Strategies

Students will...

KL-019 Identify major natural resources on a map of the world, map of North America, and a map of Canada. *Include: water, forestry, fossil fuels, metallic and non-metallic minerals.*

S-100 Collaborate with others to achieve group goals and responsibilities.

S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.

KL-019 Identify major natural resources on a map of the world, map of North America, and a map of Canada. *Include: water, forestry, fossil fuels, metallic and non-metallic minerals.*

S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.

S-201 Organize and record information in a variety of formats and reference sources appropriately. *Examples: maps, graphs, tables, concept maps...*

S-202 Select and use appropriate tools and technologies to accomplish tasks. *Examples: Geographic Information Systems (GIS) and Global Positioning Systems (GPS)...*

Acquiring Strategies

Strategy 1: Natural Resources—What Is Where, Why There, and Why Care?

- Students work in small groups to select and research a specific natural resource to find information pertaining to the Gritzner definition of geography (What is where, why there, and why care?).
- Students record information in an organizer, and identify the locations of the selected resource on an outline map of Canada, North America, or the world. (See BLM G-20.)
- Students present findings to the class by posting organizers and accompanying maps on a bulletin board.
- Students observe projects in a Gallery Walk.
- Students use information from the Gallery Walk to add other locations of resources to their own maps.

Strategy 2: Mapping Natural Resources

- Working with a partner, students select an outline map of Canada, North America, or the world to map the location of resources.
- With the use of atlases, maps, and Internet sources, students locate and label the major natural resources (those listed in KL-019) on their maps.
- Students use appropriate symbols and legends to identify resource categories used in the Sort and Predict Activating Strategy in this learning experience.
- Individually, students write an Exit Slip to describe and analyze any patterns they observed about the locations of natural resources.

Teacher Reflections

Suggested Assessment Strategies

Teacher Tips and Resources

Acquiring Strategies

- Assess the map and organizer for the student's knowledge of resources and their locations in Canada, North America, and the world.
- Monitor group work for the student's skill in collaborating with others to achieve group goals and responsibilities. (See BLMs G-1, G-2.)
- Observe the variety of sources the student uses to research and collect information. (See BLM G-9.)

- Students may select any of the resources listed in the Activating Strategies.
- Students may need some ideas and examples of factors that influence the location of resources.
Examples: geologic history and rock types, landforms, soil and climatic conditions...
- The map portion of this activity could be created in ArcView GIS software.
- Access to atlases and maps
- Computers with Internet access, library resources
- BLM G-1: Group Performance: Assessment Scale
- BLM G-2: Group Performance: Self-Assessment
- BLM G-9: Selecting Information: Checklist
- BLM G-20: Geography Questions Organizer
- BLM G-31: Map of Canada
- BLM G-32: Map of North America
- BLM G-33: Map of the World

- Assess the map and Exit Slip for the student's knowledge of the location of resources.
- Observe the variety and appropriateness of resources the student uses. (See BLM G-9.)
- Assess the map and Exit Slip for the student's skill in organizing and recording information.
- Assess the student's skill in selecting and using appropriate technologies and tools.

- Students may draw on information from previous learning experiences.
- The map portion of this activity could be created using GIS computer software.
- Access to atlases, maps, and the Internet
- BLM G-9: Selecting Information: Checklist
- BLM G-31: Map of Canada
- BLM G-32: Map of North America
- BLM G-33: Map of the World
- SFAL 6.60, 6.61: Exit Slip
- TN 8: Geographic Information Systems (GIS)

Teacher Reflections

Targeted Learning Outcomes**Suggested Teaching/Learning Strategies****Students will...**

KL-019 Identify major natural resources on a map of the world, map of North America, and a map of Canada. *Include: water, forestry, fossil fuels, metallic and non-metallic minerals.*

S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.

KL-019 Identify major natural resources on a map of the world, map of North America, and a map of Canada. *Include: water, forestry, fossil fuels, metallic and non-metallic minerals.*

S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.

S-202 Select and use appropriate tools and technologies to accomplish tasks. *Examples: Geographic Information Systems (GIS) and Global Positioning Systems (GPS)...*

S-403 Present information and ideas in a variety of formats appropriate for audience and purpose. *Examples: models, displays, multimedia presentations, editorials...*

KL-019 Identify major natural resources on a map of the world, map of North America, and a map of Canada. *Include: water, forestry, fossil fuels, metallic and non-metallic minerals.*

S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.

S-300 Formulate geographic questions to plan inquiry and research.

Applying Strategies**Strategy 1: Picture Natural Resources**

- Students search magazines, newspapers, and the Internet to collect pictures of a variety of natural resources.
- Students exchange pictures and identify the resource depicted and possible countries where it might be found.
- Students place pictures at the appropriate locations on a wall map of the world to show where they are found.
- Students refer to atlases to check for correct locations.

Strategy 2: Electronic Presentation on Natural Resources

- Working in small groups, students create an electronic presentation that identifies various natural resources and the locations where each is found.
- Using an outline map of Canada, North America, or the world as the opening slide, students create additional slides describing the natural resources and identifying their respective locations.
- Students share presentations with peers.
- Class members record information presented in an organizer. Organizer headings could include: Natural Resource, Description, and Location (country or region).

Strategy 3: Natural Resources Quiz!

- Working in small groups, students develop a list of geographic questions with answers about major natural resources and their locations in Canada, North America, and the world.
- Questions are placed on a series of cards—one card for each question/answer,
- Students organize a quiz game into three categories for participants to choose from: Canada, North America, and the World.
- Each category is allocated a certain number of points for a correct response: the lowest value for Canada as it is the most familiar, then North America, and the highest value for the World category.
- Students play quiz games with other groups in class.

Suggested Assessment Strategies

Teacher Tips and Resources

Applying Strategies

- Observe and assess selection, identification, and placement of pictures of natural resources for the student's knowledge of major resources and their locations.
- Assess the student's skill in selecting information from a variety of sources. (See BLM G-9.)

- This learning activity could be implemented with a Canadian, North American, or world map. The class could also be divided into three groups so that all three maps could be created.
- Students may wish to draw on prior learning and on knowledge of resources in the local region.
- Access to newspapers and magazines for clipping
- Access to the Internet
- Access to atlases
- BLM G-9: Selecting Information: Checklist
- Wall maps of Canada, North America, and the world, or large outline maps on a bulletin board

- Assess the presentation and organizer for the student's knowledge of natural resources and their distribution around the world. (See BLMs G-9, G-4.)
- Observe the variety and type of resources the student uses for inquiry. (See BLM G-9.)
- Observe the student's use of technology and assess her or his skill in selecting and using appropriate tools and technologies to accomplish tasks.
- Assess the presentation for the student's skill in presenting information and ideas in an appropriate format.

- Information from several Activating and Acquiring Strategies in this learning experience may be helpful for this Applying activity.
- Access to computers with presentation software and Internet
- Access to scanner
- BLM G-3: Oral Presentation: Observation Checklist
- BLM G-4: Oral Presentation: Self-Assessment Checklist
- BLM G-9: Selecting Information: Checklist
- TN 8: Geographic Information Systems (GIS)
- TN 16: Creating an Electronic Presentation
- The map may be created using GIS computer software, and then imported to presentation software.

- Assess questions and answers for the student's knowledge of natural resources and their locations.
- Observe the type and variety of sources the student uses for his or her skill in gathering information. (See BLM G-9.)
- Assess questions and answers for the student's skill in formulating geographic questions.

- Information from several Activating and Acquiring Strategies in this learning experience will be helpful for this activity.
- BLM G-9: Selecting Information: Checklist
- TN 11: Asking Geographic Questions
- As an alternative format, students may use electronic templates for creating a quiz game, available on the Internet at:
<teach.fcps.net/trt10/PowerPoint.htm#temp>



Learning Experience 2.2: Diverse Perspectives

- KI-004 Identify Aboriginal perspectives and rights regarding natural resources and their use. *Examples: perspectives—sacred, caretaking; resources—land claims, fishing and hunting rights, mineral rights...*
- KH-033 Identify factors that influence the changing use of natural resources over time. *Examples: technology, culture...*
- KP-041 Identify ways in which competing interests and needs influence control and use of the land and natural resources in Canada. *Examples: mining, forestry, water...*
- VI-003 Be willing to consider diverse views regarding the use of natural resources.
- S-101 Use a variety of strategies in conflict resolution.
- S-105 Recognize and take a stand against discriminatory practices and behaviours.
- S-106 Propose options that are inclusive of diverse perspectives.
- S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.
- S-201 Organize and record information in a variety of formats and reference sources appropriately. *Examples: maps, graphs, tables, concept maps...*
- S-301 Consider the context of events, accounts, ideas, and interpretations.
- S-303 Reconsider personal assumptions based on new information and ideas.
- S-306 Analyze prejudice, racism, stereotyping, and other forms of bias in the media and other information sources.
- S-400 Listen to others to understand their perspectives.
- S-401 Use language that is respectful of human diversity.
- S-402 Express informed and reasoned opinions.

Description of Learning Experience

In this learning experience, students identify and consider differing points of view concerning natural resource ownership and development. These diverse perspectives include those of Canada’s Aboriginal peoples and other stakeholders. Students also explore perspectives regarding the changing use of natural resources over time. Students are asked to consider diverse views regarding the use of natural resources.

Vocabulary Focus

The following vocabulary is important for Learning Experience 2.2: Diverse Perspectives.

Aboriginal	Dene	inherent rights	Ojibway
Anishinabe	diverse perspectives	interest groups	Oji-Cree
band	extinguished/unextinguished	Inuit	reserves
caretaking	Aboriginal title	land claims	residential schools
ceded/unceded/land	First Nations	Métis	Royal Commission
competing interests	fishing rights	mineral rights	sacred
comprehensive treaties	gathering	negotiation	self-government
Cree	hunting rights	non-status	status
Dakota	Indian	numbered treaties	treaties

Vocabulary Study Strategies

Please see **Appendix A: Content-Area Vocabulary Study Strategies** for suggested strategies to incorporate vocabulary studies into the learning experiences. Further vocabulary strategies are found in Vocabulary Strategies 6.31–6.36 and Information Processing Strategies 6.49–6.53 in *Success for All Learners: A Handbook on Differentiating Instruction* [referred to in this document as SFAL] (Manitoba Education and Training, 1996). In addition, a number of learning experiences within the clusters include vocabulary strategies for learning. Teachers are encouraged to make use of these strategies and to avoid the less meaningful practice of having students copy out dictionary definitions.

Targeted Learning Outcomes

Suggested Teaching/Learning Strategies

Students will...

KI-004 Identify Aboriginal perspectives and rights regarding natural resources and their use. *Examples: perspectives—sacred, caretaking; resources—land claims, fishing and hunting rights, mineral rights...*

VI-003 Be willing to consider diverse views regarding the use of natural resources.

S-401 Use language that is respectful of human diversity.

KI-004 Identify Aboriginal perspectives and rights regarding natural resources and their use. *Examples: perspectives—sacred, caretaking; resources—land claims, fishing and hunting rights, mineral rights...*

S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.

S-401 Use language that is respectful of human diversity.

KH-033 Identify factors that influence the changing use of natural resources over time. *Examples: technology, culture...*

KP-041 Identify ways in which competing interests and needs influence control and use of the land and natural resources in Canada. *Examples: mining, forestry, water...*

VI-003 Be willing to consider diverse views regarding the use of natural resources.

S-400 Listen to others to understand their perspectives.

Activating Strategies

Strategy 1: Aboriginal Perspectives of Resource Use

- Working in small groups, students use the KWHL strategy to brainstorm and list (in the “K” column of the KWHL organizer) any Aboriginal land or resource issues they know about, keeping in mind the appropriate terminology when referring to Aboriginal peoples. (See TN 27.)
- Groups report to class and make a master list of Aboriginal resource issues on the board or flip chart.
- In groups, students develop questions they could ask to learn more about these issues, and record their questions in the “H” column of the organizer.
- Students then discuss a number of ways they could get answers to their questions.
- Students complete the “L” column of the organizer as they work through the remaining learning experiences in the cluster.

Strategy 2: Aboriginal Resource Issues: Headlines and Images

- Students examine newspapers, magazines, and Internet sites for recent news stories and images concerning Aboriginal land claims, fishing and hunting rights, mineral rights, or other resource issues.
- Students clip/print the articles, noting the date and source of each, and organize them into categories based on issue type.
- Students post articles and images and present them to the class as a Gallery Walk.
- Students make notes on the Aboriginal resource issues displayed in the Gallery Walk.
- Students complete Exit Slips identifying at least two issues they have explored. (See SFAL 6.60-6.61.)

Strategy 3: Natural Resource and Land Use Conflict

- In small groups, students brainstorm local, national, or international examples of conflicts over use of resources or land. *Examples: debate over logging in provincial parks, hydro dam construction in the North...*
- Groups report examples to class and create a master list on the board or flip chart.
- Students use the Focused Free-write strategy to write “What I know about natural resources and land use conflict,” and share their writings with the class. (See SFAL 6.30.)
- Class members record examples listed in their course notebooks.

Suggested Assessment Strategies

Teacher Tips and Resources

Activating Strategies

- Assess the KWHL organizer for the student's knowledge of Aboriginal resource issues.
- Monitor group discussions for the student's attention to other perspectives and willingness to consider diverse views.
- Monitor discussions and assess the KWHL Organizer for the student's skill in using language that is respectful.

- Students may need several examples of Aboriginal resource issues to assist them in identifying their own examples.
- Teachers may wish to provide a mini-lesson on Aboriginal names and terms to help students become familiar with language that is respectful of human diversity.
- BLM G-19: KWHL
- TN 11: Asking Geographic Questions
- TN 12: Asking Questions
- TN 27: Aboriginal Names and Terminology
- TN 41: Aboriginal Perspectives of Sustainable Development

- Assess notes and the Exit Slip for the student's knowledge of Aboriginal resource issues.
- Assess the student's skill in selecting information from a variety of sources. (See BLM G-9.)
- Monitor the report and assess notes and Exit Slip for the student's skill in using language that is respectful of human diversity.

- Current and recent newspapers and magazines
- Access to the Internet
- Access to Aboriginal publications such as *Windspeaker*, *Drum*, *Southeast Times*, *Alberta Sweetgrass*, *Raven's Eye*, and *Saskatchewan Sage*
- The articles and images collected for this activity may be saved for possible use in a subsequent Acquiring Strategy.
- BLM G-9: Selecting Information: Checklist
- SFAL 6.60-6.61: Exit Slips
- SFAL 6.80: Gallery Walk
- TN 27: Aboriginal Names and Terminology
- TN 41: Aboriginal Perspectives of Sustainable Development

- Assess the group report, Free-write responses, and notes for the student's understanding of factors that influence the changing use of natural resources over time.
- Assess the group report, Free-write responses, and notes for the student's understanding of ways in which competing interests and needs influence control and use of the land and natural resources in Canada.
- Monitor group discussion and the report for evidence of the student's willingness to consider diverse views regarding the use of natural resources.
- Monitor group discussion to assess the student's skill in listening to others to understand their perspectives. (See BLM G-5.)

- Students may need a few examples of issues to help them generate their own list. *Examples: local zoning controversy, debate over logging in provincial parks, hydro dam construction in the North, oil explorations in Alaska game reserves...*
- Students may need encouragement to listen to others and respect viewpoints differing from their own without argument.
- BLM G-5: Listening Skills: Observation Checklist
- SFAL 6.30: Focused Free-write
- TN 41: Aboriginal Perspectives of Sustainable Development

Targeted Learning Outcomes

Suggested Teaching/Learning Strategies

Students will...

KH-033 Identify factors that influence the changing use of natural resources over time. *Examples: technology, culture...*

KP-041 Identify ways in which competing interests and needs influence control and use of the land and natural resources in Canada. *Examples: mining, forestry, water...*

VI-003 Be willing to consider diverse views regarding the use of natural resources.

S-400 Listen to others to understand their perspectives.

Activating Strategies

Strategy 4: Personal Resource-Use Logs—Now and Then

- For one week, individual students keep a daily Resource-Use Log of what resources they use, and the resources that were used in the production of items they purchased and used. *Examples: fuel for transportation, water for personal, household and recreational uses, electricity/batteries for household appliances and personal gadgets...*
- Students interview their parents, grandparents, and Elders to determine the resources they used as teenagers. Students create a contrasting Resource-Use log based on this information.
- Students interview Elders on factors that influenced past use of resources, and how these may have changed over time.
- Students conduct an interview, tape or transcribe it, and share their findings with classmates.
- Students write an Exit Slip to express what they have learned about changing uses of resources over time.

Students will...

KI-004 Identify Aboriginal perspectives and rights regarding natural resources and their use. *Examples: perspectives—sacred, caretaking; resources—land claims, fishing and hunting rights, mineral rights...*

VI-003 Be willing to consider diverse views regarding the use of natural resources.

S-303 Reconsider personal assumptions based on new information and ideas.

S-400 Listen to others to understand their perspectives.

Acquiring Strategies

Strategy 1: Learning from the Elders

- In preparation for an Aboriginal speaker, students work in small groups to develop questions they want the speaker to address dealing with Aboriginal perspectives on resource use.
- Students listen to an Aboriginal storyteller or Elder telling about traditional Aboriginal attitudes towards the land and use of natural resources.
- Students ask questions of the speaker to clarify ideas and information.
- Students use the LAPS Frame to listen for and summarize new information. (See SFAL 6.108.)
- If the class made use of the KWHL strategy in a previous Activating activity, students may use this new information to add items to the L (learned) column of their organizers.

Suggested Assessment Strategies

Teacher Tips and Resources

Activating Strategies

- Assess the Resource-Use Log and Exit Slip for the student's knowledge of factors and competing interests that have changed resource use over time.
- Monitor responses for evidence of the student's willingness to consider diverse views.
- Assess the student's skill in listening to others to understand their perspectives. (See BLM G-5.)

- Students may wish to keep their Resource-Use Logs for a subsequent activity in the learning experience on sustainable development.
- BLM G-5: Listening Skills: Observation Checklist
- SFAL 6.60, 6.61: Exit Slips
- TN 14: Conducting an Interview
- Although the purpose of the Federal Government's One-Tonne Challenge of 2004–2005 was to reduce greenhouse gases, many of the suggestions for personal action involve changes in the way we use natural resources. Students might get information for their Resource-Use Logs by perusing this site, and working through the "challenge calculator." This site can be accessed at <www.climatechange.gc.ca> and follow the links: One-Tonne Challenge/ Calculator.

Acquiring Strategies

- Assess the LAPS Frame (and KWHL organizer if applicable) for the student's knowledge of Aboriginal perspectives and rights regarding resource use.
- Monitor attention, interest, and response to the Aboriginal guest for evidence of the student's willingness to consider diverse views regarding the use of natural resources.
- Observe the student's skill in reconsidering personal assumptions based on new information and ideas presented by the speaker.
- Assess the student's skill in listening to others to understand their perspectives. (See BLM G-5.)

- Aboriginal students in the class or school may have suggestions for speakers. Alternatively, check with the nearest First Nations Band Office or Friendship Centre.
- Check whether the speaker requires an honorarium, transportation, or other assistance. In many First Nations cultures, it is appropriate to provide a small gift of tobacco to express appreciation. This could be done by a member of the class.
- BLM G-5: Listening Skills: Observation Checklist
- SFAL 6.10, 6.11: Active Listening provides various listening strategies that teachers may wish to consider
- SFAL 6.54; 6.108: LAPS Frame (Listen, Ask, Picture, Summarize)
- TN 12: Asking Questions
- TN 41: Aboriginal Perspectives of Sustainable Development
- As an alternative learning strategy, students might read "Chief Seattle's Reply" expressing Aboriginal perspectives on land and resource use in a letter written in 1854 as a response to the U.S. government's plan to establish Indian Reservations. A copy of the letter can be found in "Connecting Canada: A Resource For Canadian Students," (Canadian Education Association, Toronto, 1992), distributed to all school boards in Canada. It can also be found on the Internet at <www.essentia.com> and follow the links: Book of Knowledge/Historical References/Chief Seattle's Reply.

Targeted Learning Outcomes

Suggested Teaching/Learning Strategies

Students will...

KI-004 Identify Aboriginal perspectives and rights regarding natural resources and their use. *Examples: perspectives—sacred, caretaking; resources—land claims, fishing and hunting rights, mineral rights...*

S-105 Recognize and take a stand against discriminatory practices and behaviours.

S-306 Analyze prejudice, racism, stereotyping, and other forms of bias in the media and other information sources.

S-402 Express informed and reasoned opinions.

KH-033 Identify factors that influence the changing use of natural resources over time. *Examples: technology, culture...*

S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.

S-201 Organize and record information in a variety of formats and reference sources appropriately. *Examples: maps, graphs, tables, concept maps...*

S-301 Consider the context of events, accounts, ideas, and interpretations.

KP-041 Identify ways in which competing interests and needs influence control and use of the land and natural resources in Canada. *Examples: mining, forestry, water...*

VI-003 Be willing to consider diverse views regarding the use of natural resources.

S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.

S-201 Organize and record information in a variety of formats and reference sources appropriately. *Examples: maps, graphs, tables, concept maps...*

Acquiring Strategies

Strategy 2: Analyzing Current Resource and Land Use Issues and Conflicts

- Working with a partner, students examine newspapers, magazines, and Internet sites for recent news stories and images concerning Aboriginal land claims, fishing and hunting rights, mineral rights, or other resource issues. (Articles may have been saved from Activating Strategy 2.)
- Students clip/print the articles, noting date and source of each.
- Students analyze articles using the Article Analysis organizers. (See SFAL 6.114 and 6.115.)
- Students post articles and present analyses to the class.
- Class members make a list in their notes of issues and conflicts presented.

Strategy 3: Changing Use of Natural Resources Over Time

- Using print and electronic resources, students research factors that influence the changing use of natural resources over time.
- Students consider factors such as changes in technology (evolution of motor vehicles or recent electronic technology), availability and scarcity of resources (fossil fuels, uranium, water), and cultural factors (consumerism, changing values, concerns about the environment, leisure time).
- Students organize findings using electronic presentation software or poster format.
- Students present findings to their peers.
- Students organize and record information from the presentations.

Strategy 4: Conflict over Land and Resource Use in Canada

- Working with a partner, students use print and electronic resources to research a current or recent conflict surrounding competing interests and needs relating to land and resource use in Canada. *Examples: hydro development versus maintaining the natural environment in northern Manitoba, development of new suburbs versus preserving agricultural land near urban centres, allowing logging/mining in provincial parks versus maintaining their natural state...*
- Students identify the parties involved in the dispute and their respective rationales regarding land/resource use.
- Students organize their findings using electronic presentation software or poster format.
- Students present their findings to their peers.
- Students summarize information from presentations in an organizer. Organizer headings could include: Nature of Issue or Conflict, Location, and Parties Involved and Their Respective Positions.

Suggested Assessment Strategies

Teacher Tips and Resources

Acquiring Strategies

- Assess the article analysis organizer and notes for the student's knowledge and understanding of Aboriginal perspectives and rights regarding natural resources and their use.
- Assess the student's skill in recognizing discriminatory practices and behaviours.
- Assess the article analysis organizer for the student's skill in analyzing prejudice, racism, stereotyping, and other forms of bias in the media and other information sources.
- Assess the article analysis organizer for the student's skill in expressing informed and reasoned opinions.

- Access to current and recent newspapers and magazines, and to the Internet
- Access to Aboriginal publications such as *Windspeaker*, *Drum*, *Southeast Times*, *Alberta Sweetgrass*, *Raven's Eye*, and *Saskatchewan Sage*
- SFAL 6.114, 6.115: Fact/Issue-Based Article Analysis
- As an alternative activity, students analyze a video that focuses on conflicting views on resource and land use issues. *Example: CBC News In Review...*
- TN 41: Aboriginal Perspectives of Sustainable Development

- Assess the presentation and organizer for the student's knowledge and understanding of factors that influence the changing use of resources.
- Assess the student's skill in selecting information from a variety and types of sources. (See BLM G-9.)
- Assess the presentation and organizer for the student's skill in organizing and recording information.
- Assess the presentation and organizer for the student's skill in considering the context of events, accounts, ideas, and interpretations about the changing use of resources.

- Students may be able to use information from their personal Resource-Use Logs (see previous Activating Strategy).
- Access to current and recent newspapers and magazines, news broadcasts, and news clips
- Access to library resources, the Internet, and computers with presentation software
- Poster paper and art materials as required
- BLM G-9 Selecting Information: Checklist
- TN 16: Creating an Electronic Presentation
- TN 18: Creating a Poster
- TN 24: The Inquiry Process (Conducting Research)

- Assess the presentation and organizer for the student's knowledge and understanding of competing interests and needs over use of resources.
- Assess the student's skill in selecting information from a variety of sources. (See BLM G-9.)
- Assess the presentation and organizer for the student's skill in organizing and recording information. (See BLM G-8.)
- Observe the student's willingness to understand differing views regarding resource use.

- Students may be able to use information from a previous Activating Strategy dealing with current resource or land use conflicts.
- Access to current and recent newspapers and magazines
- Library resources, access to the Internet
- Poster paper and art materials as required
- BLM G-7: Checklist for Creating Visuals
- BLM G-8: Assessment Guide for Visuals
- BLM G-9: Selecting Information: Checklist
- TN 16: Creating an Electronic Presentation
- TN 18: Creating a Poster
- TN 34: Dealing with Controversial Issues

Targeted Learning Outcomes

Suggested Teaching/Learning Strategies

Students will...

KI-004 Identify Aboriginal perspectives and rights regarding natural resources and their use. *Examples: perspectives—sacred, caretaking; resources—land claims, fishing and hunting rights, mineral rights...*

KP-041 Identify ways in which competing interests and needs influence control and use of the land and natural resources in Canada. *Examples: mining, forestry, water...*

VI-003 Be willing to consider diverse views regarding the use of natural resources.

S-101 Use a variety of strategies in conflict resolution.

S-106 Propose options that are inclusive of diverse perspectives.

S-401 Use language that is respectful of human diversity.

KH-033 Identify factors that influence the changing use of natural resources over time. *Examples: technology, culture...*

KP-041 Identify ways in which competing interests and needs influence control and use of the land and natural resources in Canada. *Examples: mining, forestry, water...*

S-301 Consider the context of events, accounts, ideas, and interpretations.

Applying Strategies

Strategy 1: Royal Commission on Resource Use

- Students work together as a class to prepare for and stage a Royal Commission hearing on an issue relating to Aboriginal perspectives and competing interests over use of land and natural resources.
- The class identifies the specific issue to be dealt with by the Royal Commission. *Example: construction of hydro dam in northern Manitoba...*
- Students develop a list of roles to play during the hearing. (See TN 28.)
- Using an organizer, students prepare for their character roles by collecting information and developing arguments to support their point of view. (See BLM G-16.)
- Students present arguments at the hearing.
- Members of the Royal Commission make and announce a decision on the course of action regarding the resource or land use issue.

Strategy 2: Use of Resources—A Glimpse into the Future

- Working with a partner, students select a specific time period in the future, and predict possible changes in the use of resources and factors that might influence these changes. *Examples: technology, culture, environmental concerns...*
- Students imagine what life might be like in the time period they have selected, and develop an imaginary daily Resource-Use Log for a week, listing the resources they might use or rely on. *Examples: fuel for transportation; water for personal, household, and recreational uses; electricity/batteries for household appliances and personal gadgets; resources used in the production of items they purchased...*
- Students identify possible factors that might influence changes in resource use in the future.
- Students present Resource-Use Logs to the class.
- Students discuss the different Resource-Use Logs presented and seek consensus on which might be the most realistic prediction.

Teacher Reflections

Suggested Assessment Strategies

Teacher Tips and Resources

Applying Strategies

- Assess the student’s character sheet and presentation to the Royal Commission for her or his knowledge and understanding of Aboriginal rights regarding natural resources and/or competing interests over land use and resources. (See BLM G-17.)
- Monitor the proceedings of the hearing for evidence of the student’s willingness to consider diverse use of natural resources.
- Monitor the proceedings for the student’s skill in using the Royal Commission as an effective conflict resolution strategy.
- Monitor the presentation and arguments for the student’s skill in proposing options that are inclusive of diverse perspectives while using language that is respectful of human diversity.

- Students may select any of the issues and make use of any information they have already collected in previous learning experiences.
- Students may also use appropriate props and costumes to enhance roles.
- BLM G-13: Controversial Issues Checklist (This resource may be of use in clarifying the issues.)
- BLM G-16: Role-Play Character Sheet
- BLM G-17: Role-Play Rubric
- TN 28: Royal Commission Role-Play
- TN 29: Role-Play in Social Studies
- TN 34: Dealing with Controversial Issues
- TN 41: Aboriginal Perspectives of Sustainable Development
- Alternative strategies to express differing viewpoints include debates, writing editorials, or writing from a different point of view. (See SFAL 6.77: RAFT.)

- Assess the Resource-Use Log for the student’s understanding of factors that influence the changing use of natural resources over time, including competing interests and needs.
- Monitor work in pairs and assess the Resource-Use Log for the student’s skill in considering the context of events, accounts, ideas, and interpretations.

- Students may find it helpful to review the Activating Strategy “Personal Resource-Use Logs—Now and Then” in this learning experience.
- A pre-activity class discussion on possible changes in lifestyles and use of natural resources in the future may be helpful for students to develop ideas for the Resource-Use Log of the future.
- The teacher may assign a specific time period for all groups, or allow groups to select their own time period.

Teacher Reflections

Targeted Learning Outcomes

Suggested Teaching/Learning Strategies

Students will...

KI-004 Identify Aboriginal perspectives and rights regarding natural resources and their use. *Examples: perspectives—sacred, caretaking; resources—land claims, fishing and hunting rights, mineral rights...*

KH-033 Identify factors that influence the changing use of natural resources over time. *Examples: technology, culture...*

KP-041 Identify ways in which competing interests and needs influence control and use of the land and natural resources in Canada. *Examples: mining, forestry, water...*

VI-003 Be willing to consider diverse views regarding the use of natural resources.

S-201 Organize and record information in a variety of formats and reference sources appropriately. *Examples: maps, graphs, tables, concept maps...*

KI-004 Identify Aboriginal perspectives and rights regarding natural resources and their use. *Examples: perspectives—sacred, caretaking; resources—land claims, fishing and hunting rights, mineral rights...*

KH-033 Identify factors that influence the changing use of natural resources over time. *Examples: technology, culture...*

KP-041 Identify ways in which competing interests and needs influence control and use of the land and natural resources in Canada. *Examples: mining, forestry, water...*

VI-003 Be willing to consider diverse views regarding the use of natural resources.

S-103 Promote actions that reflect principles of sustainability.

S-105 Recognize and take a stand against discriminatory practices and behaviours.

S-106 Propose options that are inclusive of diverse perspectives.

Applying Strategies

Strategy 3: Reviewing Aboriginal Perspectives and Resource Issues

- Students view a video that discusses Aboriginal perspectives regarding natural resources, or ways in which competing interests and needs influence control over the use of land and natural resources. (See BLM G-28.)
- Students record what they already know about the topic on the B-D-A Viewing Worksheet.
- Students view video and complete remaining sections in the B-D-A Viewing Worksheet.
- Students share reasons why information from the video is important to remember, as well as the sketch map, chart, or drawing from the B-D-A Viewing Worksheet.
- Students use the three possible quiz questions they have created on the B-D-A Viewing Worksheet to quiz each other on the content of the video as a review.

Strategy 4: Taking Action on Wise Use of Natural Resources

- Working with a partner or in a small group, students select a specific issue that focuses on Aboriginal perspectives and rights relating to natural resources, or ways in which competing interests and needs influence control and use of land and resources in Canada.
- Students develop a publicity brochure, electronic presentation, or TV commercial to educate and convince members of the public to support a course of action relating to issues they have selected.
- Students present plans to the class and, if appropriate and time permits, carry out their publicity project.
- Students discuss strengths, weaknesses, and potential impact of suggested courses of action.

Suggested Assessment Strategies

Teacher Tips and Resources

Applying Strategies

- Assess the B-D-A Viewing Worksheet for the student's understanding of Aboriginal perspectives, changing use of resources, and/or ways in which competing interests and needs influence control and use of land and resources.
- Monitor sharing and assess the B-D-A sheet for the student's willingness to consider diverse views regarding the use of natural resources.
- Assess the B-D-A sheet for the student's skill in organizing and recording information appropriately.

- Check the Instructional Resources Unit Library of Manitoba Education Citizenship and Youth for appropriate videos. A number of videos from the *CBC News in Review* series or from the Suzuki Foundation are relevant.
- BLM G-28: B-D-A Viewing Worksheet

- Assess the presentation for the student's knowledge of diverse perspectives regarding issues relating to natural resource use.
- Monitor group work and discussions for evidence of the student's willingness to consider diverse views regarding the use of natural resources.
- Assess the presentation for the student's skill in promoting actions that reflect principles of environmental stewardship and sustainability.
- Monitor group work and assess the presentation for the student's skill in recognizing and taking a stand against discriminatory practices.
- Assess the presentation for the student's skill in proposing actions that are inclusive of diverse perspectives.

- Depending on the area of interest, students may wish to review details of treaties, both historical and modern, signed with Aboriginal peoples.
- Previous learning in this learning experience may clarify and support students' positions regarding resource and land use issues.
- Access to computers, presentation software, or poster and art materials
- BLM G-7: Checklist for Creating Visuals
- TN 15: Creating a Brochure
- TN 16: Creating an Electronic Presentation
- TN 20: Creating a TV Commercial
- TN 25: Persuasive Writing
- TN 41: Aboriginal Perspectives of Sustainable Development



Learning Experience 2.3: Sustainable Development

- | | |
|--------|--|
| KC-002 | Describe sustainability issues related to natural resource extraction and consumption. |
| KG-035 | Identify implications of more-developed countries extracting resources from less-developed countries. <i>Examples: social, political, economic, environmental...</i> |
| VP-009 | Be willing to consider the implications of personal choices regarding natural resources. |
| S-101 | Use a variety of strategies in conflict resolution. |
| S-103 | Promote actions that reflect principles of sustainability. |
| S-105 | Recognize and take a stand against discriminatory practices and behaviours. |
| S-200 | Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary. |
| S-201 | Organize and record information in a variety of formats and reference sources appropriately. <i>Examples: maps, graphs, tables, concept maps...</i> |
| S-302 | Draw conclusions and make decisions based on research and various types of evidence. |
| S-303 | Reconsider personal assumptions based on new information and ideas. |
| S-307 | Propose and defend innovative options or solutions to address issues and problems. |
| S-400 | Listen to others to understand their perspectives. |
| S-403 | Present information and ideas in a variety of formats appropriate for audience and purpose. <i>Examples: models, displays, multimedia presentations, editorials...</i> |
| S-405 | Articulate their perspectives on issues. |

Description of the Learning Experience

In this learning experience, students examine the sustainability of resource extraction and consumption. Students consider the implications of more-developed industrial countries exploiting the resources of less-developed nations. Students consider the implications of their personal choices regarding the use of natural resources, and their promotion of environmental stewardship and sustainability.

Vocabulary Focus

The following vocabulary is important for Learning Experience 2.3: Place and Identity.

civil society	discriminatory practices	non-governmental organizations	public ownership
consumption	exploitation	personal choices	resource extraction
control	globalization	plantation	social implications
controversy	less-developed country	power	subsistence farming
development assistance	more-developed country	private ownership	sustainable development
development education	multinational company		traditional values

Vocabulary Study Strategies

Please see **Appendix A: Content-Area Vocabulary Study Strategies** for suggested strategies to incorporate vocabulary studies into the learning experiences. Further vocabulary strategies are found in Vocabulary Strategies 6.31–6.36 and Information Processing Strategies 6.49–6.53 in *Success for All Learners: A Handbook on Differentiating Instruction* [referred to in this document as SFAL] (Manitoba Education and Training, 1996). In addition, a number of learning experiences within the clusters include vocabulary strategies for learning. Teachers are encouraged to make use of these strategies and to avoid the less meaningful practice of having students copy out dictionary definitions.

Targeted Learning Outcomes

Suggested Teaching/Learning Strategies

Students will...

KC-002 Describe sustainability issues related to natural resource extraction and consumption.

VP-009 Be willing to consider the implications of personal choices regarding natural resources.

S-303 Reconsider personal assumptions based on new information and ideas.

S-405 Articulate their perspectives on issues.

Activating Strategies

Strategy 1: Dependence on Natural Resources—A Question of Sustainability

- Students view an overhead or slide of “Every American born will need...” (See Teacher Tips and Resources.)
- Using the Listen-Think-Pair-Square strategy, students view and individually write about the image.
- Students join a partner and discuss their perspectives of the image and questions that arise, and add new information to a Listen-Think-Pair-Square organizer.
- Pairs discuss the possible implications of every individual in the world using the quantity of resources identified on the overhead/slide.
- Students join another pair (Square), discuss the importance of issues relating to resource use and sustainability, and complete the organizer.
- Students complete an Exit Slip to reflect on their perception of the overhead or slide and its implications regarding resource use. (See SFAL 6.60, 6.61.)

KC-002 Describe sustainability issues related to natural resource extraction and consumption.

VP-009 Be willing to consider the implications of personal choices regarding natural resources.

S-103 Promote actions that reflect principles of sustainability.

S-400 Listen to others to understand their perspectives.

Strategy 2: Personal Resource-Use Reassessment

- Individually, students keep a Resource-Use Log, for a day or a week, of what resources they use or rely on in their everyday lives. *Examples: fuel for transportation; water for personal, household, and recreational uses; electricity/batteries for household appliances and personal gadgets; resources used in the construction of their homes, vehicles, and in the production of items they purchased...*
- Students identify additional resources and items they would likely have used or purchased if they could have afforded them.
- Students make predictions about changing their behaviours and needs to reduce reliance on resources during the time covered in their log. *Examples: walking or cycling instead of driving, reusing and recycling items...*
- Students share findings by posting logs and discussing the implications of their resource use.
- Classmates record information by writing notes about possible changed behaviours and needs to reduce reliance on resources used. Students create an organizer that lists the resources they used on a given day and behaviours they have changed to reduce resource use.

Teacher Reflections

Suggested Assessment Strategies

Teacher Tips and Resources

Activating Strategies

- Assess the Listen-Think-Pair-Square organizer and Exit Slip for the student's understanding of resource sustainability issues.
 - Observe the student's changing assumptions (if any) based on new information.
 - Monitor discussions to assess the student's skill in articulating her or his perspectives on issues. (See BLM G-10.)
 - Monitor discussions and assess organizers and Exit Slips for evidence of the student's willingness to consider the implications of personal choices regarding natural resources.
- See Mining Information Institute website <www.mii.org> for "Every American born will need..."
 - Website data (in imperial units) is updated annually; for example, the site currently indicates that the average American required 860 pounds more resources than a year ago, raising obvious questions about sustainability.
 - SFAL 6.13: Listen-Think-Pair-Share strategy
 - BLM G-10: Articulating Perspectives: Observation Checklist
 - SFAL 6.60, 6.61: Exit Slips
 - TN 33: Articulating Perspectives on Issues
 - For information on education for sustainable development, visit the Manitoba Education, Citizenship and Youth website at <www.edu.gov.mb.ca/ks4/esd>, and the International Institute for Sustainable Development at <www.iisd.org>.
 - TN 42: Manitoba's Principles and Fundamental Guidelines of Sustainable Development
-
- Assess the Resource-Use Log and notes for the student's knowledge of issues related to resource use and sustainability.
 - Monitor the Resource-Use Log and discussions for evidence of the student's willingness to consider the implications of her or his personal actions.
 - Assess the Resource-Use Log and monitor discussions for the student's skill in promoting actions that reflect stewardship and sustainability.
 - Observe and monitor class discussions for the student's skill in listening to others. (See BLM G-5.)
- If students developed a Resource-Use Log as an Activating Strategy in the Diverse Perspectives learning experience, they may wish to make use of the log for the first step in this learning activity.
 - Students may need some clarification and examples regarding environmental stewardship and sustainability.
 - BLM G-5: Listening Skills: Observation Checklist

Teacher Reflections

Targeted Learning Outcomes

Suggested Teaching/Learning Strategies

Students will...

KG-035 Identify implications of more-developed countries extracting resources from less-developed countries. *Examples: social, political, economic, environmental...*

VP-009 Be willing to consider the implications of personal choices regarding natural resources.

S-303 Reconsider personal assumptions based on new information and ideas.

Activating Strategies

Strategy 3: Resource Extraction in Less-Developed Countries

- Students use the LINK strategy to brainstorm knowledge and ideas about the implications of more-developed countries extracting resources from less-developed countries.
- Individually, students analyze a picture or image related to resource extraction in a less-developed country, and list (L in LINK) perceptions they have about the local impact of extracting resources in less-developed countries.
- Students share perceptions with peers and develop a list of responses on the board or flip chart.
- In small groups, students ask for clarification (Inquire) about the points listed.
- Students write, list, or draw (Note) what they have learned about the impact of resource extraction in less-developed countries.
- In a summary class discussion, students listen and confirm what they have learned (Know).
- Students create an organizer to compile all of their LINK responses.

Students will...

KC-002 Describe sustainability issues related to natural resource extraction and consumption.

S-201 Organize and record information in a variety of formats and reference sources appropriately. *Examples: maps, graphs, tables, concept maps...*

S-103 Promote actions that reflect principles of sustainability.

S-302 Draw conclusions and make decisions based on research and various types of evidence.

S-303 Reconsider personal assumptions based on new information and ideas.

S-400 Listen to others to understand their perspectives.

S-405 Articulate their perspectives on issues.

Acquiring Strategies

Strategy 1: Sustainable Development Timeline

- Individually, students review the Sustainable Development Timeline. (See TN 43.)
- In collaborative groups, students sort and classify the items listed on the timeline into categories of their own choosing. *Examples: meetings of international groups, government legislation, individual initiatives, environmental disasters...*
- In a class discussion, groups share their classifications.
- In their course notebooks, students reflect on the importance of individual organizational and government action with respect to sustainable development.

Teacher Reflections

Suggested Assessment Strategies

Teacher Tips and Resources

Activating Strategies

- Assess the LINK organizer for the student's knowledge and understanding of the implications of resource control by wealthy countries.
- Monitor group and class discussions and assess the LINK organizer for evidence of the student personalizing choices regarding resource use.
- Observe and monitor individual responses for the student's skill in reconsidering personal assumptions based on new information and ideas.

- Teachers accumulate appropriate pictures or images. *Examples: labourers in a less-developed country working on a farm or in an industry whose products are exported to more-developed countries, scenes of poverty due to low wages and exploitation, scene of Caucasian managers overseeing indigenous workers in a mining operation...*
- Some students may need background related to exploitation of resources, multinationals, fair trade, and causes of poverty.
- SFAL 6.27: LINK (List, Inquire, Note, Know)
- Alternatively, students may use the Anticipation Guide for this learning experience. (See SFAL 6.25, 6.98.)

Acquiring Strategies

- Assess the reflection for the student's understanding of the importance of individual, organizational, and government action regarding sustainable development.
- Assess the student's ability to draw conclusions based on research and evidence.

- TN 42: Manitoba's Principles and Fundamental Guidelines of Sustainable Development
- TN 43: Sustainable Development Timeline
A full-colour version of this timeline is available from the International Institute for Sustainable Development. <www.iisd.org>.

Teacher Reflections

Targeted Learning Outcomes

Suggested Teaching/Learning Strategies

Students will...

KC-002 Describe sustainability issues related to natural resource extraction and consumption.

S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.

S-201 Organize and record information in a variety of formats and reference sources appropriately. *Examples: maps, graphs, tables, concept maps...*

KG-035 Identify implications of more-developed countries extracting resources from less-developed countries. *Examples: social, political, economic, environmental...*

VP-009 Be willing to consider the implications of personal choices regarding natural resources.

S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.

S-403 Present information and ideas in a variety of formats appropriate for audience and purpose. *Examples: models, displays, multimedia presentations, editorials...*

Acquiring Strategies

Strategy 2: Analyzing a Current Resource Extraction/Consumption Issue

- Working in pairs, students select a current issue related to resource extraction and/or consumption and search for related newspaper and Internet articles. *Examples: oil/gas wells, mining, logging, quarrying...*
- Students select an article and, using the Collaborative Reading strategy, begin by skimming the headings and reading the first and last paragraphs of the article.
- Students take turns reading a section aloud, each commenting on what they have read and connecting it to a personal experience or idea before proceeding to the next section.
- Students complete the reading and use the Information Mapping strategy to identify the main ideas and supporting details.
- Students share findings with the class and post their Information Maps for a Gallery Walk.
- Students create a list of resource issues identified by the class and note in their course notebooks the respective locations of each.

Strategy 3: Case Study: Extracting Resources in Less-Developed Countries

- Working in small groups, students use print and electronic resources to research a case study of a multinational company extracting resources from less-developed countries for export to more-developed countries. *Examples: Talisman Energy extracting oil and gas in South America and Asia, INCO mining nickel in Indonesia, BP extracting oil in Angola, food companies such as Nestle and Libby's operating plantations in Africa and Latin America to produce food for export...*
- Students consider the social, economic, and political implications of resource extraction for both less-developed and more-developed countries.
- Students organize findings using electronic presentation software or poster format.
- Students present findings to their peers.
- Students record the case studies presented and summarize key details for each in an organizer. (See BLM 2-1.)

Teacher Reflections

Suggested Assessment Strategies

Teacher Tips and Resources

Acquiring Strategies

- Assess the Information Map and notes for the student's knowledge and understanding of sustainability issues related to resource extraction and consumption.
- Assess the student's skill in selecting information from a variety of appropriate sources. (See BLM G-9.)
- Assess the Information Map and notes for the student's skill in organizing and recording information.

- Access to current and recent newspapers and magazines
- Access to the Internet
- BLM G-9: Selecting Information: Checklist
- SFAL 6.45: Collaborative Reading
- SFAL 6.49: Information Mapping
- SFAL 6.80: Gallery Walk
- Alternatively, students view a video that focuses on resource extraction and consumption and analyze the information. *Examples: CBC News In Review, The Nature of Things...*

- Assess the presentation and organizer for the student's knowledge of the implications of resource extraction in less-developed countries.
- Assess the student's skill in selecting information from a variety of appropriate sources. (See BLM G-9.)
- Assess the presentation for the student's skill in presenting information and ideas in a format appropriate for audience and purpose.
- Observe the student's willingness to consider the implications of personal choices regarding natural resources.

- Students may need examples and background on the operations of multinational companies, and on the implications of the flow of resources to the more-developed world.
- Note that viewers must first accept certain conditions before they can enter the Talisman Energy website. Students may wish to consider the purpose and implications of this requirement.
- Access to current and recent newspapers and magazines and the Internet
- BLM 2-1: Case Studies: Extracting Resources in Less-Developed Countries
- BLM G-9: Selecting Information: Checklist
- TN 16: Creating an Electronic Presentation
- TN 18: Creating a Poster
- TN 24: The Inquiry Process (Conducting Research)

Teacher Reflections

Targeted Learning Outcomes**Suggested Teaching/Learning Strategies****Students will...**

KC-002 Describe sustainability issues related to natural resource extraction and consumption.

KG-035 Identify implications of more-developed countries extracting resources from less-developed countries. *Examples: social, political, economic, environmental...*

VP-009 Be willing to consider the implications of personal choices regarding natural resources.

S-103 Promote actions that reflect principles of sustainability.

Acquiring Strategies**Strategy 4: Natural Resources: A Question of Lifestyles and Sustainability**

- Students view a video/DVD focusing on sustainability issues and/or implications of resource extraction at home and abroad.
- Using the Listen-Think-Pair-Share strategy, students view the video and individually list in an organizer things they remember seeing and learning.
- Students then work with a partner to add to the ideas generated individually and to clarify misconceptions.
- Students share information with the class.
- Students write Exit Slips to reflect on what they have learned personally and from classmates about sustainability issues and/or the implications of resource extraction.

Students will...

KC-002 Describe sustainability issues related to natural resource extraction and consumption.

VP-009 Be willing to consider the implications of personal choices regarding natural resources.

S-103 Promote actions that reflect principles of sustainability.

S-303 Reconsider personal assumptions based on new information and ideas.

S-307 Propose and defend innovative options or solutions to address issues and problems.

Applying Strategies**Strategy 1: Publicity Campaign Promoting Sustainable Development**

- Students work individually or with a partner to develop a public advertisement specifically aimed at young people that encourages the sustainable use of natural resources and environmental stewardship.
- Students use the advertisement to explain sustainable development, promote its importance, and identify suggested actions and activities young people can practise to demonstrate environmental stewardship and sustainability.
- Students select a medium to present their advertisement to the class. *Examples: brochure, poster, TV/videotape, or presentation software...*
- Students present advertisements to the class.
- Class members list in their course notebooks suggested actions presented.

Suggested Assessment Strategies

Teacher Tips and Resources

Acquiring Strategies

- Assess the organizer and Exit Slip for the student's knowledge and understanding of sustainability issues and implications of resource extraction for less-developed countries.
- Monitor pairs' discussions and class sharing for evidence of the student's willingness to consider personal choices and actions.
- Assess the Exit Slip for the student's skill in promoting actions that reflect principles of stewardship and sustainability.

- Check with development, non-governmental, and religious agencies for a list of video resources
Examples: Manitoba Council for International Cooperation, The Marquis Project, Canadian International Development Agency, The Mennonite Central Committee, United Church of Canada, The Red Cross/Crescent...
- Other video sources include the Instructional Resources Unit of Manitoba Education, Citizenship and Youth, The National Film Board, and *CBC News in Review*.
- SFAL 6.13: Listen-Think-Pair-Share
- SFAL 6.60-61: Exit Slips
- BLM G-28: B-D-A Viewing Worksheet could be used in this learning experience.
- Useful background information on sustainable development is available at <www.iisd.org>.

Applying Strategies

- Assessment criteria for this project could be developed in collaboration with students upon introduction of the learning experience.
- Assess the advertisement and notes for the student's knowledge and understanding of sustainability issues relating to resource extraction and consumption.
- Observe and record anecdotal evidence of the student's willingness to reconsider personal assumptions and to consider implications of personal choice regarding natural resources.
- Assess the advertisement for the student's skill in promoting actions reflecting stewardship and sustainability and in proposing and defending innovative solutions to address issues and problems.
- Monitor discussions and the presentation for the student's skill in reconsidering personal assumptions based on new information.

- Students may find it helpful to explore a variety of posters, print advertisements, and other visuals to acquire ideas for content and form of presentation.
- Access to newspapers, magazines, copies of publicity relating to environmental stewardship and resource sustainability
- Art materials and poster paper
- Access to video cameras, computers, scanners, digital cameras
- BLM G-7: Checklist for Creating Visuals
- TN 15: Creating a Brochure
- TN 16: Creating an Electronic Presentation
- TN 18: Creating a Poster
- TN 20: Creating a TV Commercial
- TN 25: Persuasive Writing
- TN 42: Manitoba's Principles and Fundamental Guidelines of Sustainable Development
- Alternative strategy: Collect existing public relations materials relating to stewardship and sustainability and analyze their effectiveness as a means to capture public attention and interest, especially that of young people.

Targeted Learning Outcomes**Suggested Teaching/Learning Strategies****Students will...**

KC-002 Describe sustainability issues related to natural resource extraction and consumption.

KG-035 Identify implications of more-developed countries extracting resources from less-developed countries. *Examples: social, political, economic, environmental...*

S-303 Reconsider personal assumptions based on new information and ideas.

S-400 Listen to others to understand their perspectives.

Applying Strategies**Strategy 2: Pen Pals—Learning about Another Point of View**

- In a class discussion, students review the impact of resource extraction on life in less-developed countries and of resource consumption on life in more-developed countries.
- Working in pairs, students use the RAFT strategy to write a letter to an imaginary pen pal in a less-developed country that includes references to a Canadian company that is extracting a resource in the less-developed country.
- As a Canadian, one student in the pair writes about his or her impressions of the benefits of resource extraction in the less-developed country and the benefit to Canada of access to additional resources. *Examples: jobs, income, skills, and foreign exchange from exports...*
- The other student in the pair assumes the role of the pen pal in the less-developed country and replies to the letter, explaining some of the negative environmental, social, and political aspects of resource extraction by the Canadian company, and how these affect life there. *Examples: environmental damage to landscape, water pollution, erosion of traditional community values, increased crime, poor working conditions, exploitation of labour, concentration of wealth in government...*
- Students share each other's letters with the class.
- Students record information in two columns in their course notebooks: one for negative impacts and one for positive impacts of resource extraction in less-developed countries.

Teacher Reflections

Suggested Assessment Strategies

Teacher Tips and Resources

Applying Strategies

- Assess the letter and notes for the student’s knowledge and understanding of sustainability issues and implications of extraction of resources from less-developed countries.
- Observe and record anecdotal evidence of the student’s willingness to reconsider personal assumptions based on new information relative to natural resources.
- Observe and monitor dialogue and sharing for the student’s skill in listening to understand others’ perspectives. (See BLM G-5.)

- Students may need some preparation to understand different perspectives, particularly those that could be perceived as a threat to the Canadian way of doing things.
- Some classes may have recent immigrant or refugee students who can personally identify with some issues; therefore, it is imperative that teachers handle the situation with openness and respect to help students achieve the learning outcomes of the lesson. Prepare students with a discussion of the need to be sensitive to others’ perspectives.
- Recent immigrants to the community or exchange teachers in the school might be used as resource persons to present an “outsider’s” perspective.
- BLM G-5: Listening Skills: Observation Checklist
- SFAL 6.77: RAFT (Role, Audience, Format, Topic)
- Students may need to review the format of the letter in preparation for their RAFT.

Teacher Reflections

Targeted Learning Outcomes**Suggested Teaching/Learning Strategies****Students will...**

KG-035 Identify implications of more-developed countries extracting resources from less-developed countries. *Examples: social, political, economic, environmental...*

VP-009 Be willing to consider the implications of personal choices regarding natural resources.

S-101 Use a variety of strategies in conflict resolution.

S-105 Recognize and take a stand against discriminatory practices and behaviours.

S-302 Draw conclusions and make decisions based on research and various types of evidence.

Applying Strategies**Strategy 3: Simulation Game: The Control and Use of Natural Resources**

- Students either develop a simulation game relating to the control and use of natural resources in more-developed and less-developed countries and the potential implications therein, or participate in an available simulation activity in the school or the community. (See Teacher Tips and Resources.)
- Students play the simulation game developed or participate in an available simulation activity.
- Students complete appropriate components of a Learning Log before, during, and after the simulation. (See SFAL 6.56, 6.57.) Alternatively, students may use the Admit and Exit Slip strategy. This reflective writing will also provide a conclusion to communicate their learning through the strategies.

Teacher Reflections

Suggested Assessment Strategies

Teacher Tips and Resources

Applying Strategies

- Monitor participation in the simulation and assess the Learning Log or Admit/Exit Slip for the student's understanding of the implications of resource extractions from less-developed countries.
- Monitor participation in the simulation and assess the Learning Log or Admit/Exit Slip for evidence of the student's willingness to consider implications of personal choices.
- Observe and monitor proceedings for the student's skill in using the simulation as a strategy in conflict resolution.
- Assess the student's skill in recognizing and taking a stand against discriminatory practices and behaviours. (See BLM G-14.)
- Observe and assess the student's skill in drawing conclusions and making decisions based on evidence.

- Contact various development, education, and non-governmental agencies for simulation game ideas.
- The Marquis Project (Brandon) has a publication, "99 Neighbours," that presents a scenario of equitable distribution of wealth and resources based on population of various regions of the world. See <www.marquisproject.com>.
- The Marquis Project has also developed The Fair Game. For details, visit <www.marquisproject.com/fairgame.html>.
- Global Change Game is a simulation that educates students about global issues and encourages them to take action to resolve these issues. See <www.mts.net/~gcg> for information.
- Additional simulation activities can be found at the following websites:
 - Food For Thought: <www.populationconnection.org> and follow the links: Education/Food For Thought/Download PDF
 - The Scramble for Wealth and Power: <eycb.coe.int> and follow the links: Compass/Compass/Scramble for Wealth and Power (2.41)
- BLM G-14: Discriminatory Practices: Self-Assessment
- SFAL 6.56, 6.57: Learning Log
- SFAL 6.60, 6.61: Admit and Exit Slips
- TN 36: Recognizing and Acting against Discriminatory Practices
- TN 39: Simulation Games

Teacher Reflections

