

# GEOGRAPHY, GRADE 7

## OVERVIEW

In Grade 7 geography, students will explore opportunities and challenges presented by the physical environment and the ways in which people around the world have responded to them. They will develop an understanding of patterns in Earth's physical features and of the physical processes and human activities that create and change these features. Building on their knowledge of natural resources, students will study the extraction/harvesting and use of these resources on a global scale. They will examine the relationship between Earth's physical features and the distribution and use of natural resources while exploring ways of preserving global resources. In this grade, students will be introduced to the geographic inquiry process and to the concepts of geographic thinking. They will apply the concept of geographic perspective while investigating the impact of natural events and human activities on the physical environment and also various effects of natural resource extraction/harvesting and use. Students will continue to develop their spatial skills, extracting and analysing information from a variety of sources, including different types of maps and graphs, photographs and digital representations, and geographic information systems (GIS).

The Grade 7 geography expectations provide opportunities for students to explore a number of concepts connected to the citizenship education framework (see page 10), including *advocacy, collaboration and cooperation, perspective, and stewardship*.

The following chart presents an overview of Grade 7 geography, and is meant to provide a starting point for planning instruction. For each overall expectation (listed in the first column), it identifies a related concept (or concepts) of geographic thinking and a big idea (see pages 14 and 12 for an explanation of big ideas and the concepts of disciplinary thinking and page 58 for definitions of the concepts of geographic thinking). General framing questions are provided for each strand to stimulate students' curiosity and critical thinking and to heighten the relevance of what they are studying. These broad and often open-ended questions can be used to frame a set of expectations, a strand, or a cross-disciplinary unit. The final column suggests ways in which spatial skills can be introduced and/or developed at this grade level, and indicates specific expectations with which they can be used (see page 24 for a description of spatial skills).

Overall Expectations	Related Concepts of Geographic Thinking	Big Ideas	Framing Questions	Sample Spatial Skills/Activities to Be Introduced/ Developed
<b>Strand A. Physical Patterns in a Changing World</b>				
<b>A1.</b> analyse some challenges and opportunities presented by the physical environment and ways in which people have responded to them	Spatial Significance; Interrelationships	People’s activities are related to the physical features and processes in their region.	Why do different people have different responses to the environment and the opportunities and challenges it presents?  Why do we need to consider various perspectives when determining the impact of human activities?	<b>Graphs</b> Developing their ability to analyse and construct various types of graphs, including climate graphs, for a variety of purposes (see, e.g., A2.4, A3.8)
<b>A2.</b> use the geographic inquiry process to investigate the impact of natural events and/or human activities that change the physical environment, exploring the impact from a geographic perspective	Geographic Perspective	Natural events and human activities that change Earth’s physical features can have social, political, environmental, and economic consequences.	Why do Earth’s physical features change?	<b>Maps* and Globes</b> Analysing various types of maps, including thematic, topographical, and annotated maps (see, e.g., A2.3, A2.4, A3.3)  Constructing various types of maps, including issue-based, thematic, and annotated maps (see, e.g., A2.4)
<b>A3.</b> demonstrate an understanding of significant patterns in Earth’s physical features and of some natural processes and human activities that create and change those features	Patterns and Trends; Spatial Significance	Earth’s physical features can be created or changed by both natural processes and human activities.		Constructing cross-sectional drawings based on topographical information (see, e.g., A3.3)  Analysing digital representations for specific purposes (see, e.g., A2.2)  Constructing, analysing, and extracting information from maps using GIS (see, e.g., A2.4)  Locating global landforms on maps (see, e.g., A3.1)

(continued)

Overall Expectations	Related Concepts of Geographic Thinking	Big Ideas	Framing Questions	Sample Spatial Skills/Activities to Be Introduced/ Developed
<b>Strand B. Natural Resources around the World: Use and Sustainability</b>				
<b>B1.</b> analyse aspects of the extraction/ harvesting and use of natural resources in different regions of the world, and assess ways of preserving these resources	Spatial Significance; Interrelationships	Resource development is affected by social, political, economic, and geographic factors.	Why might some countries be better able than others to extract and use natural resources in a sustainable way?  How do we determine whether the extraction and/or use of a natural resource is sustainable? Is the extraction and use of fossil fuels sustainable?  What are some of the ways in which countries around the world are practising environmental stewardship? What can we learn from these practices?	<b>Graphs</b> Developing their ability to analyse and construct various types of graphs, including climate graphs, for a variety of purposes (see, e.g., B2.4)  <b>Maps* and Globes</b> Analysing various types of maps, including thematic, topographical, and annotated maps (see, e.g., B2.4)  Constructing various types of maps, including issue-based, thematic, and annotated maps (see, e.g., B2.3, B2.6)  Constructing, analysing, and extracting information from maps using GIS (see, e.g., B3.6)
<b>B2.</b> use the geographic inquiry process to investigate issues related to the impact of the extraction/ harvesting and/or use of natural resources around the world from a geographic perspective	Geographic Perspective	The ways in which people extract and use natural resources can have social, economic, political, and environmental consequences.		
<b>B3.</b> demonstrate an understanding of the sources and use of different types of natural resources and of some of the effects of the extraction/ harvesting and use of these resources	Spatial Significance; Geographic Perspective	There is a relationship between Earth's physical features and the distribution of natural resources and how people use these resources to meet their needs and wants.		

\* The term *map* refers to print, digital, and interactive maps. Students may analyse and create maps on paper or using mapping programs.

# A. PHYSICAL PATTERNS IN A CHANGING WORLD

## OVERALL EXPECTATIONS

By the end of Grade 7, students will:

- A1. Application:** analyse some challenges and opportunities presented by the physical environment and ways in which people have responded to them (**FOCUS ON:** *Spatial Significance; Interrelationships*)
- A2. Inquiry:** use the geographic inquiry process to investigate the impact of natural events and/or human activities that change the physical environment, exploring the impact from a geographic perspective (**FOCUS ON:** *Geographic Perspective*)
- A3. Understanding Geographic Context:** demonstrate an understanding of significant patterns in Earth’s physical features and of some natural processes and human activities that create and change those features (**FOCUS ON:** *Patterns and Trends; Spatial Significance*)

## SPECIFIC EXPECTATIONS

### A1. Application: Interrelationships between People and the Physical Environment

**FOCUS ON:** *Spatial Significance; Interrelationships*

By the end of Grade 7, students will:

- A1.1** describe various ways in which people have responded to challenges and opportunities presented by the physical environment (e.g., *building dams, levees, or dikes to contain water and/or reclaim land; building terraces or irrigation systems to permit farming on inhospitable land; designing buildings suited to local climatic conditions or natural events such as earthquakes; specialized economic development such as resource towns in areas rich with ore, or tourism in areas of natural beauty or with a desirable climate*), and analyse short- and long-term effects of some of these responses (e.g., *water pollution from industry and agriculture; loss of animal habitat and wilderness areas as human settlement expands; deforestation and its consequences; the development of provincial or national parks to protect wilderness areas*)

**Sample questions:** “What are some strategies that people have developed to try to control flood waters? What effect can a dam have on a river system, both upstream and downstream?” “What types of climate and landforms lend themselves to the development of a tourism industry? What impact can tourism have on the environment?” “Why are different crops

grown in different regions? What impact can specialized agriculture have on land?”

- A1.2** compare and contrast the perspectives of some different groups (e.g., *Aboriginal peoples living on the land, organic versus large-scale farmers, industrial and agrarian societies, owners of resource-extraction companies, environmental organizations, land developers*) on the challenges and opportunities presented by the natural environment

**Sample questions:** “What perspectives might various groups have on issues surrounding the building of a new housing development on reclaimed land? Why would those groups have different perspectives?” “How might different groups view the construction of a large dam to increase irrigation to local farmland?” “What are some ways in which indigenous values regarding living in harmony with the land inform Aboriginal land use?”

- A1.3** assess the physical environment in various locations around the world to determine which environment or environments have the greatest impact on people (e.g., *develop criteria for ranking the challenges and opportunities presented by physical environments such as deserts, tropical rainforests, mountains, volcanic islands, regions with cold climates, floodplains, coastal regions*)

**Sample questions:** “What types of physical environments do you think have the greatest

impact on people? What kinds of hardships can those environments present? How do people cope with these hardships? Are they always successful in doing so? Are there aspects of the environment that cannot be controlled or that can have a devastating impact? What are the positive aspects of life in these environments? Do they outweigh the hardships?"

**A1.4** assess ways in which different peoples living in similar physical environments have responded to challenges and opportunities presented by these environments, and assess the sustainability of these responses (e.g., *land reclamation and flood control in low-lying areas such as the Netherlands, the Mississippi delta, the Mekong River; nomadic lifestyles of peoples in the Gobi or Sahara Desert versus extensive irrigation to create cities such as Las Vegas in the Mojave Desert; the development of ecotourism in the Costa Rican rainforest versus the clear-cutting of rainforests in the Amazon or Madagascar*)

**Sample questions:** "How have people living in the tropical rainforests of Southeast Asia and Central Africa adapted to their environment? Have they been successful in responding to the challenges and opportunities it presents? Are their practices sustainable?" "How do traditional Inuit, Nenets, and Chukchi lifestyles reflect the challenges of life in Arctic regions? How do these people use available resources? Is their lifestyle sustainable? What types of factors might affect its sustainability?"

## A2. Inquiry: Investigating Physical Features and Processes

**FOCUS ON:** *Geographic Perspective*

By the end of Grade 7, students will:

**A2.1** formulate questions to guide investigations into the impact of natural events and/or human activities that change the physical environment (e.g., *the social, political, economic, and environmental impact of natural events such as earthquakes, volcanic eruptions, drought, floods, hurricanes, typhoons, or tsunamis; the economic and environmental impact of industrial pollution on a river system; the social, economic, and environmental impact of agricultural practices; the social, political, economic, and environmental impact of land-reclamation projects; the political, economic, and environmental impact of transportation systems*), ensuring that their questions reflect a geographic perspective

**Sample questions:** "What impact did this earthquake have on this city? How did it affect the people, their homes, schools, and businesses?"

What political impact did the disaster have on the city, and on the country in which it is situated? Was the economic impact felt only within the city, or was its reach regional, national, or global? In what ways did the damage caused by the earthquake affect the natural environment?"

**A2.2** gather and organize data and information from a variety of sources, and using various technologies, on the impact of natural events and/or human activities that change the physical environment, ensuring that their sources reflect more than one perspective (e.g., *data and information as well as online maps on climate change from the International Panel on Climate Change and the United Nations; digital representations showing changes to a river system as a result of irrigation, data on agricultural productivity on irrigated lands, and information from wildlife advocacy groups on the impact of the loss of wetlands; data and information from the U.S. National Hurricane Center on the number and severity of hurricanes over the past few years, documentaries on the impact of Hurricane Katrina, and photographs of New Orleans before and after the hurricane*)

**Sample questions:** "Where might you locate photographs of the same region taken over a long period of time to help you to assess the level of drought in that region? What additional information or data would you need in order to explore the impact of the drought?" "How might you find out about various ecotourism operators and their practices? Why is it important not to rely solely on information from tourism operators when conducting your investigation?" "What are some sources of information and data on extreme weather occurrences in the past ten years and their relation to climate change?"

**A2.3** analyse and construct maps as part of their investigations into the impact of natural events and/or human activities that change the physical environment, with a focus on investigating the spatial boundaries of the impact (e.g., *construct a map showing sources of pollution along a river system and the communities that rely on the water source; analyse thematic maps to help them determine the interrelationship between soil erosion and loss of habitat in some parts of the world; select appropriate data for a GIS online map that shows areas that may be affected by rising sea levels*)

**Sample questions:** "What types of maps could you use to help you understand the social and economic implications of earthquakes?" "What kind of map might you create to show the spatial boundaries of air pollution from a coal-fired electrical plant? How might this information

help you understand the political implications of air pollution?" "What types of information would you need to include on a map showing the impact of tourism on an ecologically sensitive region?"

**A2.4** interpret and analyse data and information relevant to their investigations, using various tools and spatial technologies (*e.g., analyse photographs and thematic maps to determine the impact of invasive species in Australia; interpret graphs, charts, and/or diagrams in order to extract data on changes in agricultural production and population patterns as a result of long-term drought in Africa; interpret information from GIS to determine potential population shifts in response to rising sea levels*)

**Sample questions:** "Why might it be helpful to use a decision-making template when you are analysing various perspectives on your topic?" "What type of information can you extract from this GIS map? Does it support the information from your other sources?" "What do these photographs tell you about the size and flow of this river? What are the main differences between the earlier and later photos? What are the social and economic implications of what you see in these photos?"

**A2.5** evaluate evidence and draw conclusions about the impact of natural events and/or human activities that change the physical environment

**Sample questions:** "What did you find out about the social, environmental, and economic impact of long-term drought in Ethiopia? Why is this problem so difficult to solve?" "What social and economic impact does ecotourism have on different groups of people? What impact does it have on the environment? Do you think ecotourism ought to be more widely developed? Why or why not?"

**A2.6** communicate the results of their inquiries, using appropriate vocabulary (*e.g., climate, land use, landforms, vegetation, drought, flood, climate change, agriculture, ecotourism, land reclamation*) and formats appropriate for specific audiences (*e.g., an editorial outlining the impact of increasing settlement on a floodplain and arguing for or against increased settlement; an oral presentation or photo essay for a specific audience about how the construction of a dam affected a river system; a newspaper article for the local or school paper on the impact of pollution on their local community*)

**Sample questions:** "Which presentation form is best suited to an audience made up of your peers? Why? Would this format be appropriate for a presentation at a community meeting?"

"How might you use photos or charts in your presentation? How might you use these elements to give your audience a sense of the complexity of the impact of climate change?"

### A3. Understanding Geographic Context: Patterns in the Physical Environment

**FOCUS ON:** *Patterns and Trends; Spatial Significance*

By the end of Grade 7, students will:

**A3.1** identify the location and describe the physical characteristics of various landforms (*e.g., mountains, plateaus, plains, valleys*)

**Sample questions:** "Where are mountains located in the world? What are the characteristics of a mountain? Are there different types of mountains? What characteristics make each type unique?" "What type of landform is represented in this photograph? Does the landform in the photos have any unique characteristics that might suggest where it is located?"

**A3.2** describe some key natural processes and human activities (*e.g., tectonic forces, weathering and erosion, deposition, glaciation, mining, land-reclamation projects*) that create and change landforms

**Sample questions:** "Why are there mountains along the west coast of North and South America?" "How do tectonic forces create volcanoes? Are all volcanoes mountains?" "How do land-reclamation projects affect the landscape?"

**A3.3** demonstrate the ability to extract information from and analyse topographical maps (*e.g., construct a cross-section of a landform based on the information from a topographical map*)

**Sample questions:** "What are some uses for topographical maps?" "What conventions about topographical maps do you need to understand before being able to extract information from such maps?" "What type of landform is represented by contour lines that are very close together on a topographical map?"

**A3.4** describe patterns and physical characteristics of some major water bodies and systems around the world (*e.g., river systems, drainage basins, lakes, oceans*)

**Sample questions:** "What are the patterns of the world's major ocean currents?" "What is the difference between an ocean and a body of fresh water? Are all lakes fresh water?" "What are wetlands? Why are they important?"

**A3.5** describe some key natural processes and human activities (*e.g., changes in rainfall, melting of glaciers, erosion, rising sea levels, climate change, constructing dams, irrigation, bottling water from aquifers*) that create and change water bodies and systems

**Sample questions:** “How do land formations affect drainage patterns?” “How has the Three Gorges dam project affected the flow of the Yangtze River?” “What effect has irrigation had on the Aral Sea?” “Why are some rivers straight and fast while others are meandering and slow?”

**A3.6** describe patterns and characteristics of major climate regions around the world (*e.g., characteristics and location of tropical, dry, temperate, continental, and polar climate regions*)

**Sample questions:** “What are the characteristics of a continental climate region? Where are the major continental climate regions on the globe?”

**A3.7** describe some key natural processes and other factors, including human activities (*e.g., ocean currents, wind systems, latitude, elevation, bodies of water, landforms, deforestation, human activities that result in greenhouse gas emissions*) that create and change climate patterns

**Sample questions:** “Why are continental climate regions particularly susceptible to drought?” “What are El Niño and La Niña? Why do meteorologists study ocean currents to make seasonal weather predictions?” “How do latitude and elevation influence climate patterns?” “How do greenhouse gasses affect global climate?”

**A3.8** analyse and construct climate graphs to gather information on and illustrate climate patterns for a specific location (*e.g., to analyse the trend in precipitation and temperature in Singapore, Khartoum, or Warsaw over the course of a year*)

**Sample question:** “What conclusions can you make about the climate of this city based on the climate graph you are reading?”

**A3.9** describe patterns and characteristics of major natural vegetation regions around the world (*e.g., the location and characteristics of grasslands, boreal forests, tropical rain forests, tundra*)

**Sample questions:** “What are the characteristics of a tropical rainforest region? What are the main tropical rainforest regions of the world?” “In what vegetation region do you think this photograph was taken? Why do you think that?”

**A3.10** describe some key natural processes and human activities (*e.g., natural and human-influenced climate change, erosion of top soil, deforestation, the use of chemical fertilizers and practice of monoculture, grazing of domestic animals, activities that introduce invasive species into an environment*) that create and change natural vegetation patterns

**Sample questions:** “What impact has deforestation in Indonesia or the Amazon region had on local soils and vegetation? What can we learn from these regions about the importance of vegetation to an ecosystem?”

**A3.11** describe how different aspects of the physical environment interact with each other in two or more regions of the world (*e.g., the interrelationship between vegetation, landforms, and climate in desert regions; between landforms and vegetation in a volcanic region*)

**Sample question:** “How do different aspects of the physical environment interact on the Hawaiian Islands?”

# B. NATURAL RESOURCES AROUND THE WORLD: USE AND SUSTAINABILITY

## OVERALL EXPECTATIONS

By the end of Grade 7, students will:

- B1. Application:** analyse aspects of the extraction/harvesting and use of natural resources in different regions of the world, and assess ways of preserving these resources (**FOCUS ON:** *Spatial Significance; Interrelationships*)
- B2. Inquiry:** use the geographic inquiry process to investigate issues related to the impact of the extraction/harvesting and/or use of natural resources around the world from a geographic perspective (**FOCUS ON:** *Geographic Perspective*)
- B3. Understanding Geographic Context:** demonstrate an understanding of the sources and use of different types of natural resources and of some of the effects of the extraction/harvesting and use of these resources (**FOCUS ON:** *Spatial Significance; Geographic Perspective*)

## SPECIFIC EXPECTATIONS

### B1. Application: Natural Resources and Sustainability

**FOCUS ON:** *Spatial Significance; Interrelationships*

By the end of Grade 7, students will:

- B1.1** analyse interrelationships between the location/accessibility, mode of extraction/harvesting, and use of various natural resources (*e.g., with reference to the relationship between mining techniques and the type and location of the deposit; types of electrical power generation in different regions of Europe; methods of harvesting trees*)  
  
*Sample questions:* “Why does the process used to extract a natural resource depend on where the resource is located?” “Where in the world could the power of the tides be harnessed to generate electricity? What challenges are associated with generating energy from tides?” “What differences are there in the way oil is extracted in the North Sea and in the Middle East? Why do these differences exist?”
- B1.2** analyse natural resource extraction/harvesting and use in some specific regions of the world (*e.g., forestry practices in the Amazon or in Sweden;*

*international trawlers fishing off the coast of West Africa; coal-fired electricity production in China), including the sustainability of these practices*

*Sample questions:* “How is most of China’s electricity generated? Do you think this approach to energy production is sustainable? Why or why not?” “What is the relationship between poverty and unsustainable resource extraction in some developing countries?”

- B1.3** assess the efforts of some groups, agencies, and/or organizations (*e.g., the United Nations Environment Programme; non-governmental organizations [NGOs] such as Friends of the Earth International, Rainforest Alliance, or the Nature Conservancy; indigenous groups; different national governments*) in helping to preserve natural resources

*Sample questions:* “What are some of the ways in which the Maori have acted to preserve the natural resources in their territories?” “What strategies does this environmental advocacy group use to promote sustainable resource use? What else do you think it could do?” “What are some of the ways in which this government has attempted to regulate the fishing or forestry industry to try to ensure sustainability? How successful have these approaches been?”

**B1.4** create a personal plan of action outlining how they can contribute to more sustainable natural resource extraction/harvesting and/or use (e.g., a plan to use FSC-certified wood or reclaimed lumber in a construction project, to reduce energy use in their home or school, to publicize more sustainable approaches to extraction/harvesting, or to reduce personal consumption of consumer goods)

**Sample questions:** “What are some ways in which you could help preserve natural resources?” “What could you do to increase people’s awareness of strategies aimed at more sustainable resource extraction or use?”

## B2. Inquiry: Investigating Issues Related to Natural Resources

**FOCUS ON:** *Geographic Perspective*

By the end of Grade 7, students will:

**B2.1** formulate questions to guide investigations into issues related to the impact of the extraction/harvesting and/or use of natural resources around the world from a geographic perspective (e.g., the social, economic, political, and environmental impact of overfishing; the economic, social, and environmental impact of deforestation and the adequacy of reforestation programs; the social and economic impact on indigenous people of resource extraction in their traditional territories; the economic, political, and environmental impact of developments in the alternative energy sector; the economic, political, and environmental impact of using fossil fuels)

**Sample questions:** “What impact would mining in Yanomami territory in Brazil have on the Yanomami people? On their land and its wildlife? What impact would it have on the Brazilian economy? What is the political fallout of controversies surrounding such mining?”

**B2.2** gather and organize data and information from a variety of sources on the impact of resource extraction/harvesting and/or use, ensuring that their sources reflect more than one perspective (e.g., satellite imagery showing the area flooded after the construction of a hydroelectric dam and data on the amount of hydroelectricity generated; news stories on the positions of various countries and/or NGOs with respect to the environmental and economic impact of ocean fishing or whaling; documentaries and government data on the impact of climate change; information on the impact of

resource extraction from indigenous people in the area and employment data from the corporation(s) involved)

**Sample questions:** “How might you use photographs of various resource extraction methods in assessing their environmental impact? Where might you find information on the economic costs of the various methods? Do these costs take damage to the environment into account?” “Where might you find information on the impact of resource extraction/harvesting on local people? Do you think the website of the resource companies involved would be a good source for such information? Why or why not?” “How can you be sure that the information you have gathered is accurate and reliable?”

**B2.3** analyse and construct maps as part of their investigations, with a particular focus on exploring the spatial boundaries of and, where applicable, patterns relating to their topics (e.g., interpret layers of information in a GIS related to air pollution generated by coal-fired electrical plants; analyse thematic maps to determine the extent of clear-cutting and reforestation; construct a map to show the spread of the emerald ash borer in American forests; construct a thematic or annotated map to show the short- and long-term impact of a resource industry on a local ecosystem)

**Sample questions:** “What types of maps might you use to help you determine the impact of an oil spill?” “Why might an annotated map help you sort out and show varying opinions on aggregate mining?”

**B2.4** interpret and analyse data and information relevant to their investigations, using various tools and spatial technologies (e.g., extract information from graphs and diagrams on declining fish stocks and their impact on various regions; interpret photographs or other images to determine how mining has affected an area; analyse data to determine the economic and environmental impact of resource extraction and/or processing in a community; use a computer-based geographic tool to determine changes in rivers, lakes, and/or aquifers as a result of agricultural irrigation or commercial use of water)

**Sample questions:** “What type of graphic organizer could you use to help you assess the impact of a new hydroelectric dam?” “What types of data would you plot on a line graph or bar graph to help you analyse the impact of fishing by factory trawlers?” “How might you use a matrix to help you analyse the social, economic, political, and environmental impact of bottled water?”

**B2.5** evaluate evidence and draw conclusions about issues related to the impact of natural resource extraction/harvesting and/or use around the world

*Sample questions:* “What have you learned about the oil industry in the Middle East? What social and economic benefits are associated with the industry, both in this region and around the world? What political and environmental challenges are associated with oil consumption? How should we respond to those challenges?” “What is the current impact of the global consumption of fresh water? What is likely to be the economic and environmental impact in the near future? What political action do you think should be taken to protect the world’s fresh water?”

**B2.6** communicate the results of their inquiries using appropriate vocabulary (*e.g., non-renewable, renewable, flow resources; extraction; sustainability; deforestation; fossil fuels; aquifer*) and formats appropriate for specific audiences (*e.g., an essay on the impact of water use, concluding with a plan of action to preserve the world’s fresh water; a thematic or annotated map showing the extent of damage to a water system from mine tailings; a fictionalized narrative about a person or animal affected by a natural resource extraction processes; a web page that includes links to sites providing varying opinions on the development of alternative energy; a public service announcement educating people about the economic and environmental impact of invasive species*)

*Sample questions:* “Which format do you think would be the most appropriate for communicating the findings of your investigation? Would it suit both your strengths and the interests of your intended audience?” “Which format could you use to help your audience understand various perspectives on the impact of coltan mining?”

### B3. Understanding Geographic Context: Using Natural Resources

**FOCUS ON:** *Spatial Significance; Geographic Perspective*

By the end of Grade 7, students will:

**B3.1** identify Earth’s renewable, non-renewable, and flow resources (*e.g., renewable: trees, natural fish stocks, soil, plants; non-renewable: fossil fuels, metallic minerals; flow: solar, running water, ocean currents, tides, wind*), and explain their relationship to Earth’s physical features

*Sample questions:* “Why are oil deposits and/or fertile plains likely to be located in an area

where an ocean or body of water once existed?” “What are the similarities between Brazil and Malaysia with respect to natural resources? What accounts for these similarities?”

**B3.2** describe ways in which people use the natural environment, including specific elements within it, to meet their needs and wants (*e.g., rock is quarried to make building materials, roads; trees are used for lumber for buildings, wood for furniture, pulp for paper, logs for fuel; fossil fuels are used for heating and cooling, to generate energy for industry, to power vehicles, to make plastics; water is used for drinking, irrigation, to produce electricity, to cool nuclear reactors; animals are used for food, clothing, recreation; the natural environment enables people to live off the land and provides opportunities for relaxation, education, and/or recreation*)

*Sample questions:* “Why are gravel pits (aggregate quarries) usually close to an urban centre?” “Do you think water is one of our most precious resources? Why or why not?” “What is nature deficit disorder? Do you think that spending time in natural surroundings is a human need?”

**B3.3** identify significant short- and long-term effects of natural resource extraction/harvesting and use on people and the environment (*e.g., deforestation, desertification, smog, acid rain, climate change, soil contamination, habitat destruction, flooding*)

*Sample questions:* “What impact does smog have on people’s health and on health care spending in Europe?” “What are the results of clearing rainforest for farmland in Brazil or Malaysia?” “What happens to people who do not have access to clean water?” “What are some endangered species in Africa? In South Asia? Why are they endangered?”

**B3.4** describe the perspectives of different groups (*e.g., a traditional indigenous community, an environmental organization, a multinational mining or forestry company, the residents of a resource town*) regarding the use of the natural environment to meet human needs

*Sample questions:* “How have the Maori or Aborigines traditionally approached using the natural environment to meet their needs?” “What are the main concerns of a resource extraction company?”

**B3.5** describe some responses to social and/or environmental challenges arising from the use of natural resources (*e.g., the increased use of wind, solar, or tidal energy; reduced consumption; promotion of energy-saving strategies such as the*

*use of energy-efficient appliances; promotion of fair trade; marketing of “ethical” products such as “ethical oil” or “ethical diamonds”; boycotting less sustainable products or companies using unsustainable practices)*

**Sample questions:** “What is meant by the term *boycott*?” “How do you know whether a wood product is ‘sustainable’?” “What is a ‘blood diamond’? Why was this term coined?”

**B3.6** demonstrate the ability to extract information from, analyse, and construct GIS maps relating to natural resources around the world (e.g., to determine the location of oil refineries and their proximity to population centres and agricultural land; to show areas of deforestation and current land use on previously forested land)