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# Patterns in Physical Geography Geography



## Including:

- C oastal Connections
- O bserving Mother Nature
- N et Results
- N atural Phenomena
- E nvironmental Interactions
- C olossal Rivers
- T errific Waterways
- I deal Conditions
- O ... What Do I Need to Grow?
- N ecessary Conditions
- S elective Farming

A Unit for Grade 7

Written by:

**P. Mann, G. McParland, L. Price, B. Walsh, D. Overholt (Project Manager)**

Length of Unit: approximately: 21.3 hours

**August 2001**



## **Patterns in Physical Geography**

### **Geography A Unit for Grade 7**

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### **A Unit for Grade 7**

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## Patterns in Physical Geography

### Geography A Unit for Grade 7

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## Task Context

Pattern is the evident organization of physical phenomena. By examining the connections among physical features, climate, and vegetation that form detectable patterns on the earth's surface, students recognize that physical regions extend beyond political borders. They investigate the forces that contribute to these patterns, and develop an awareness of the range of opportunities the physical world provides to the people who interact with it.

### Catholic Graduate Expectations:

CGE 2a - listens actively and critically to understand and learn in light of gospel values.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 3c - thinks reflectively and creatively to evaluate situations and solve problems.

CGE 4f - applies effective communication, decision-making, problem-solving, time and resource management skills.

CGE 5b - thinks critically about the meaning and purpose of work.

CGE 7i - respects the environment and uses resources wisely.

CGE 7f - respects and affirms the diversity and interdependence of the world's peoples and cultures.

## Task Summary

Students will identify and explain land, climate, and vegetation patterns in physical geography. They will explain how these patterns are useful to the study of geography and how they affect human activity.

## Culminating Task Assessment

Students will choose a product that has global demand. Using the concepts and skills they have learned through the subtasks of the unit and the research model (define, organize, locate, record, evaluate, conclude, apply, and communicate), they will investigate and describe the process involved in growing, harvesting, and processing a plantation crop (e.g., cotton, rice, coffee, bananas, tobacco, sugar cane). Students will present their research findings in an oral presentation clearly and honestly and with sensitivity to others.

### Catholic Graduate Expectations:

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 2e - uses and integrates the Catholic faith tradition, in the critical analysis of the arts, media, technology, and information systems to enhance the quality of life.

CGE 4f - applies effective communication, decision-making, problem-solving, time and resource management skills.

## Links to Prior Knowledge

The following is a list of the knowledge and skills necessary for students to complete the activities included in

this unit:

- have knowledge of varying climates in the world;
- have knowledge of the five themes of geography;
- have knowledge of regions where natural hazards exist;
- have knowledge of distinguishing features of a country;
- be able to locate sites on a map using a number/letter grid system;
- use the eight main compass points (N, S, E, W, NE, NW, SE, SW);
- be able to present their findings in an organized oral presentation;
- use language conventions;
- locate relevant information;
- construct and read a variety of graphs, charts, and diagrams.

## Considerations

### Notes to Teacher

The following preparations are suggested before teaching this unit:

- collect a class set of atlases and a class set of one or more textbooks based on current Curriculum Guidelines;
- obtain and display wall maps/overheads of vegetative and climate regions;
- arrange resources (school library/librarian/resource centre) for the completion of the research component of the unit;
- bookmark applicable Internet sites;
- develop and display a glossary of important terms encountered throughout this unit (landforms, patterns, core, mantle, molten rock/magma, crust, plates, fold mountains, volcanic mountains, fault, earthquake).

An appropriate Religion unit to use in conjunction with this Geography unit would be *Unit 4: We Believe in God ... the Creator of Heaven and Earth* from *Believe In Me, Year 7* (Resources). Students could examine and reflect upon their own creativity and the story of creation (Genesis 1.1-2.4). Students could be prompted to respond to their own creativity, to the scientific and religious viewpoints of creation, and to our responsibility for caring for the world that God made.



**Patterns in Physical Geography**  
Geography A Unit for Grade 7

**1 Coastal Connections**

Students will locate and map different landform patterns within various countries (e.g., Niagara Falls, Canada; Grand Canyon, USA) by reading, understanding, and using written materials effectively.

**Catholic Graduate Expectations:**

CGE 2a - listens actively and critically to understand and learn in light of gospel values.

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 7f - respects and affirms the diversity and interdependence of the world's peoples and cultures.

**2 Observing Mother Nature**

Using secondary sources (atlases, student texts, videos, the Internet), students will identify, describe, and clearly communicate various climate patterns and the factors that affect them (latitude, altitude, global wind systems, air masses, proximity to large bodies of water, ocean currents).

**Catholic Graduate Expectations:**

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 7f - respects and affirms the diversity and interdependence of the world's peoples and cultures.

**3 Net Results**

Students will identify different weather patterns around the world and examine how these patterns affect weather through the effective use of written materials. A video about weather could incorporate the vocabulary and give concrete examples of the many interactions that change weather. Students will construct and compare climate graphs from available statistics. In doing so, the students will respect and affirm the diversity and interdependence of the world's peoples and cultures.

**Catholic Graduate Expectations:**

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 7f - respects and affirms the diversity and interdependence of the world's peoples and cultures.



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**4 Natural Phenomena**

Through different media, students will learn the importance of respect for the environment as they investigate and identify the effects of natural phenomena on people and the environment. They will also recognize the diversity and interdependence of the world's peoples and cultures.

**Catholic Graduate Expectations:**

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 2e - uses and integrates the Catholic faith tradition, in the critical analysis of the arts, media, technology, and information systems to enhance the quality of life.

CGE 7f - respects and affirms the diversity and interdependence of the world's peoples and cultures.

CGE 7i - respects the environment and uses resources wisely.

**5 Environmental Interactions**

Students will identify different natural vegetation patterns in Canada and locate other countries that have similar vegetation patterns. Students will then be able to compare the factors that are advantageous to particular vegetation patterns and understand the importance of respect for the environment.

**Catholic Graduate Expectations:**

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 7f - respects and affirms the diversity and interdependence of the world's peoples and cultures.

CGE 7i - A Responsible Citizen: Respects the environment and uses resources wisely.

**6 Colossal Rivers**

As students examine the water cycle and recognize rivers as an important part of the cycle, they should become aware of the quality of life that clean water provides. They will list the various parts of a river and draw a cross-sectional diagram of a river.

**Catholic Graduate Expectations:**

CGE 2a - listens actively and critically to understand and learn in light of gospel values.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 2e - uses and integrates the Catholic faith tradition, in the critical analysis of the arts, media, technology, and information systems to enhance the quality of life.

CGE 4f - applies effective communication, decision-making, problem-solving, time and resource management skills.



**Patterns in Physical Geography**  
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**7 Terrific Waterways**

Through a comparison map activity, students will identify major river systems of the world (e.g., Amazon, Nile, St. Lawrence) and describe their drainage patterns as either dendritic or trellis. Students will recognize that our actions have major impacts on the environment and that we should use resources wisely.

**Catholic Graduate Expectations:**

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 3c - thinks reflectively and creatively to evaluate situations and solve problems.

CGE 4f - applies effective communication, decision-making, problem-solving, time and resource management skills.

CGE 7f - respects and affirms the diversity and interdependence of the world's peoples and cultures.

CGE 7i - respects the environment and uses resources wisely.

**8 Ideal Conditions**

Students will explore the effect of temperature, precipitation, soil types, and competition for available nutrients on vegetation patterns through a variety of activities. They will reflect on the fact that people must cope with what they have and make the best of it, and that they must respect the environment.

**Catholic Graduate Expectations:**

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 2e - uses and integrates the Catholic faith tradition, in the critical analysis of the arts, media, technology, and information systems to enhance the quality of life.

CGE 4f - applies effective communication, decision-making, problem-solving, time and resource management skills.

CGE 7i - respects the environment and uses resources wisely.



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**9 O ... What Do I Need to Grow?**

Students will respect and affirm the diversity and interdependence of the world's peoples and cultures as they examine the three types of agriculture (subsistence, commercial, specialized) and their relation to climate, topography, and soil.

**Catholic Graduate Expectations:**

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 3c - thinks reflectively and creatively to evaluate situations and solve problems.

CGE 4f - applies effective communication, decision-making, problem-solving, time and resource management skills.

CGE 7f - respects and affirms the diversity and interdependence of the world's peoples and cultures.

CGE 7i - respects the environment and uses resources wisely.

**10 Necessary Conditions**

Students will develop respect for the environment as they construct an overlay map to describe the correlation between physical patterns and types of crops (e.g., landforms: plains/wheat, grains; climate: prairie/wheat, grains; soil: black/wheat, grains) in Canada. The climate portion of the map could be extended to include precipitation and temperature.

**Catholic Graduate Expectations:**

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 2e - uses and integrates the Catholic faith tradition, in the critical analysis of the arts, media, technology, and information systems to enhance the quality of life.

CGE 4f - applies effective communication, decision-making, problem-solving, time and resource management skills.

CGE 7i - respects the environment and uses resources wisely.



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**11 Selective Farming**

Students will choose a product that has global demand. Using the concepts and skills they have learned through the subtasks of the unit and the research model (define, organize, locate, record, evaluate, conclude, apply, and communicate), they will investigate and describe the process involved in growing, harvesting, and processing a plantation crop (e.g., cotton, rice, coffee, bananas, tobacco, sugar cane). Students will present their research findings in an oral presentation clearly and honestly and with sensitivity to others.

**Catholic Graduate Expectations:**

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 2e - uses and integrates the Catholic faith tradition, in the critical analysis of the arts, media, technology, and information systems to enhance the quality of life.

CGE 4f - applies effective communication, decision-making, problem-solving, time and resource management skills.



## Patterns in Physical Geography

### Geography A Unit for Grade 7

160 mins

### Description

Students will locate and map different landform patterns within various countries (e.g., Niagara Falls, Canada; Grand Canyon, USA) by reading, understanding, and using written materials effectively.

### Catholic Graduate Expectations:

CGE 2a - listens actively and critically to understand and learn in light of gospel values.

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 7f - respects and affirms the diversity and interdependence of the world's peoples and cultures.

### Expectations

- 7g24 A – recognize pattern as an important concept in geography (e.g., location of volcanoes along the Pacific Rim);
- 7g25 – identify and explain how land-forms are used to delineate regions;
- 7g26 A – identify and describe world land-form patterns (e.g., location of fold mountains along the west coast of North and South America);
- 7g37 A – locate relevant information from a variety of primary sources (e.g., aerial photographs, satellite images, interviews, field studies) and secondary sources (e.g., climate maps, illustrations, print materials, videos, CD-ROMs, Internet);
- 7g38 – analyse, synthesize, and evaluate data (e.g., agricultural patterns, land-form patterns);
- 7g41 A – identify patterns in physical geography, using thematic maps;
- 7g43 A – draw cross-sectional diagrams (e.g., of land-forms, river profiles).
- 7g39 A – construct a wide variety of graphs, charts, diagrams, maps, and models to organize information (e.g., river-system and watershed maps);

### Groupings

- Students Working In Pairs
- Students Working As A Whole Class

### Teaching / Learning Strategies

- Discussion
- Map Making

### Assessment

Formative assessment by the teacher of the diagrams of fold mountains, volcanic mountains, and faults and earthquakes; the world landform patterns maps; and the maps of the landform patterns in North America.

### Assessment Strategies

- Performance Task
- Questions And Answers (oral)

### Assessment Recording Devices

- Rubric
- Rating Scale

### Teaching / Learning

1. In pairs, students sketch a map of the local area locating physical features of the land (hills, water, rock cuts, valleys, trees, etc.). Groups share the maps and a class map is developed on chart paper or overhead (for most areas, a neighbourhood map can be found at the website [www.mapquest.com](http://www.mapquest.com)). Student copies are revised as necessary. Note any outstanding local physical features and develop a list. Extend the list to include outstanding landforms in Canada and the USA.
2. Ask the students to sketch and describe/label an egg. Discuss the similarities between an egg and the earth. The layers of the earth are introduced using a model or diagram from an appropriate textbook. Students draw and label the diagram using appropriate terms (core, mantle, molten rock/magma, crust, plates).
3. Using two pieces of paper, demonstrate the moving together of two of the earth's plates and the resulting fold mountains. Discuss/demonstrate how the moving apart of two plates results in the formation of volcanic mountains. Students draw and label diagrams of fold mountains, volcanic mountains, and faults and earthquakes. Examples



## Patterns in Physical Geography

### Geography A Unit for Grade 7

160 mins

of these are available in appropriate atlases and student textbooks based on current Curriculum Guidelines.

4. Using a map of the world (BLM 1.2 Map of World), students locate and label world landform patterns (plates, fold mountains, volcanoes, earthquakes). Using a map of North America (BLM 1.3) and atlases, students locate and label other outstanding land form patterns in North America (mountains, plains, plateaus, prairies, valleys, etc.).

5. Students will begin a glossary section in their notebooks to record the important terms and definitions of the unit: landforms, patterns, core, mantle, molten rock/magma, crust, plates, fold mountains, volcanic mountains, fault, earthquake.

6. Students will begin to keep a reflective journal focussing on the forces that contribute to global patterns and that affirm the diversity and interdependence of the world's peoples and cultures. It should present information and ideas clearly and honestly and with sensitivity to others. An appropriate Religion unit to use in conjunction with this Geography unit would be *Unit 4: We Believe in God ... the Creator of Heaven and Earth* from *Believe In Me, Year 7* (Resources). Students could begin by reflecting upon their own creativity (e.g., in your journal, list as many different ways as you can to use a styrofoam cup). As the unit progresses, students will reflect upon and respond to the religious and scientific stories of creation and how we are all responsible to look after the world that God made.

7. Students will complete a title page for this unit that includes the title of the unit, Patterns in Physical Geography, and coloured illustrations that depict the theme of the unit. They may be drawn or computer generated. The title page is to be on plain, three-holed paper. This page can be assigned once the students have become familiar with the elements of the unit.

8. Students will begin a contents page. The title of the unit, Patterns in Physical Geography, will be the title of the contents page. Each topic in the unit will be listed on this page that will be kept at the front of the unit.

## Adaptations

Students with special needs will be paired with students who can assist them and check their work. Teacher will provide instructions visually and verbally and monitor progress often. Teacher could also provide models of completed tasks so the student can visualize a completed map.

## Resources

	<b>Rubric for a Map</b>	
	<b>Diagram Rating Scale</b>	1.1 Diagram Rating Scale.cwk
	<b>Map of World</b>	1.2 Map of World.cwk
	<b>Map of North America</b>	1.3 Map of North America.pdf
	<b>Believe in Me</b>	CCCB
	<b>Believe in Me Teacher's Manual</b>	CCCB
	<b>Mapquest</b>	
	<b>National Atlas of Canada</b>	
	<b>WorldAtlas.com</b>	

**Patterns in Physical Geography**  
Geography A Unit for Grade 7**Notes to Teacher**

Most of the Black Line Masters for this unit are provided both in Corel WordPerfect Suite 8 - Academic Edition and in AppleWorks 5 formats. The Curriculum Planner contains AppleWorks 5. If you wish to use Corel WordPerfect Suite 8, it must be installed on your computer. It is licensed for use by the Ministry of Education and Training of Ontario, Canada.

**Teacher Reflections**



Patterns in Physical Geography

Geography A Unit for Grade 7

200 mins

**Description**

Using secondary sources (atlases, student texts, videos, the Internet), students will identify, describe, and clearly communicate various climate patterns and the factors that affect them (latitude, altitude, global wind systems, air masses, proximity to large bodies of water, ocean currents).

**Catholic Graduate Expectations:**

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 7f - respects and affirms the diversity and interdependence of the world's peoples and cultures.

**Expectations**

- 7g27 A – identify and describe world climate patterns;
- 7g35 – use appropriate vocabulary, including correct geographic terminology (e.g., classify, climate graph, pattern, latitude, altitude, site) to describe their inquiries and observations;
- 7g37 A – locate relevant information from a variety of primary sources (e.g., aerial photographs, satellite images, interviews, field studies) and secondary sources (e.g., climate maps, illustrations, print materials, videos, CD-ROMs, Internet);
- 7g38 – analyse, synthesize, and evaluate data (e.g., agricultural patterns, land-form patterns);
- 7g28 A – demonstrate an understanding that climate patterns result from the interaction of several factors: latitude, altitude, global wind systems, air masses, proximity to large bodies of water, ocean currents);
- 7g39 A – construct a wide variety of graphs, charts, diagrams, maps, and models to organize information (e.g., river-system and watershed maps);

**Groupings**

- Students Working As A Whole Class
- Students Working Individually

**Teaching / Learning Strategies**

- Discussion
- Inquiry

**Assessment**

Formative assessment by the teacher of the student charts.

**Assessment Strategies**

- Performance Task
- Questions And Answers (oral)

**Assessment Recording Devices**

**Teaching / Learning**

1. Have students analyse the data from a weather report. In discussion, distinguish weather (today) from climate (long term). In pairs, students complete a web diagram (BLM 2.1 What Is Weather?). Groups share results and students edit their own webs. Teacher discusses with students the movement of the earth in relation to the sun, explaining the seasons and the north and south hemispheres.
2. Using an atlas and temperature and precipitation statistics from an appropriate student textbook or Website (Resources: [www.washingtonpost.com/wp-srv/weather/historical/historical.htm](http://www.washingtonpost.com/wp-srv/weather/historical/historical.htm)), students examine how various factors affect climate (latitude, proximity to the ocean, ocean currents, and altitude). Students examine average monthly temperature and precipitation statistics at locations of different latitudes. A chart (BLM 2.3 Latitude Is a Factor of Climate) is completed by the students. The students summarize their findings about how temperature and precipitation are affected by latitude in a statement and record the statement in their notebooks. (Generally speaking, the closer a location is to the equator, the warmer is the average temperature and the greater is the amount of precipitation.)
3. Students examine and compare average monthly temperatures and precipitation at coastal locations versus inland locations (e.g., Vancouver, British Columbia; Winnipeg, Manitoba; Saint John's, Newfoundland; and North Bay, Ontario) at approximately the same latitude (BLM 2.4 Oceans Are a Factor of Climate). The students summarize their findings in a statement and record the statement in their notebooks. (Generally speaking, the closer a location is to an ocean, the warmer is the average temperature and the greater is the amount of precipitation.)
4. Students examine ocean currents. A comparison of the average monthly temperatures at locations (e.g.,



**Patterns in Physical Geography**

**Geography A Unit for Grade 7**

200 mins

Gander, Newfoundland and Stavanger, Norway) of different latitudes influenced by different ocean currents is made (BLM 2.5 Ocean Currents Are a Factor of Climate). The students summarize their findings in a statement and record the statement in their notebook. (Ocean currents can affect temperature. Generally speaking, the closer a location is to a warm ocean current, the warmer is the average temperature.)

5. Students examine the average monthly temperature at places of the same latitude (i.e. Quito, Ecuador and Manaus, Brazil) but at different altitudes (BLM 2.6 Altitude Is a Factor of Climate). The students summarize their findings in a statement and record the statement in their notebook (Generally speaking, the greater the altitude of a location, the cooler is the average temperature.).

6. Add important terms to the glossary: weather, climate, precipitation, latitude, ocean currents, altitude.

7. Record reflections in journal: What are some of the community programs available to assist people who don't have warm clothes to wear in the winter?

**Adaptations**

Students with special needs will be paired with students who can assist them and check their work. Teacher will provide instructions visually and verbally and monitor progress often.

**Resources**

-  **What Is Weather?** 2.2 What is Weather.cwk
-  **Latitude Is a Factor of Climate** 2.3 Climate Fact - Latitude.cwk
-  **Oceans Are a Factor of Climate** 2.4 Climate Fact - Oceans.cwk
-  **Ocean Currents Are a Factor of Climate** 2.5 Climate Fact - Currents.cwk
-  **Altitude Is a Factor of Climate** 2.6 Climate Fact - Altitude.cwk
-  **Historical Weather Database**

**Notes to Teacher**

**Teacher Reflections**



**Patterns in Physical Geography**  
**Geography A Unit for Grade 7**

**Description**

Students will identify different weather patterns around the world and examine how these patterns affect weather through the effective use of written materials. A video about weather could incorporate the vocabulary and give concrete examples of the many interactions that change weather. Students will construct and compare climate graphs from available statistics. In doing so, the students will respect and affirm the diversity and interdependence of the world's peoples and cultures.

**Catholic Graduate Expectations:**

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 7f - respects and affirms the diversity and interdependence of the world's peoples and cultures.

**Expectations**

- 7g28 A – demonstrate an understanding that climate patterns result from the interaction of several factors: latitude, altitude, global wind systems, air masses, proximity to large bodies of water, ocean currents);
- 7g35 – use appropriate vocabulary, including correct geographic terminology (e.g., classify, climate graph, pattern, latitude, altitude, site) to describe their inquiries and observations;
- 7g37 A – locate relevant information from a variety of primary sources (e.g., aerial photographs, satellite images, interviews, field studies) and secondary sources (e.g., climate maps, illustrations, print materials, videos, CD-ROMs, Internet);
- 7g42 A – make and interpret climate graphs;
- 7g45 A – construct and compare climate graphs;
- 7g24 A – recognize pattern as an important concept in geography (e.g., location of volcanoes along the Pacific Rim);
- 7g39 A – construct a wide variety of graphs, charts, diagrams, maps, and models to organize information (e.g., river-system and watershed maps);

**Groupings**

- Students Working As A Whole Class
- Students Working Individually

**Teaching / Learning Strategies**

- Discussion
- Demonstration

**Assessment**

Formative assessment by the teacher of the climate graphs.

**Assessment Strategies**

- Performance Task

**Assessment Recording Devices**

- Rubric

**Teaching / Learning**

1. Review and discuss the factors affecting climate. Students will watch an appropriate video about weather (from Resource Centre, Library, etc.) that will incorporate the vocabulary and give concrete examples of the many interactions that determine weather.
2. One of the ways to compare different places in the world is to use temperature and precipitation statistics. Students will construct and compare climate graphs. Provide students with the grid paper for climate graphs (BLM 3.1 Grid for Climate Graphs) and temperature and precipitation statistics for various locations (BLM 3.2 Temperature and Precipitation Statistics). Using the overhead projector, work through the procedure for constructing a climate graph with the students (Sydney, Australia). Left axis is temperature from -50°C on the bottom to 40°C at the top. A red line is used to connect the dots. Right axis is precipitation from 0 mm to 450 mm. Blue bars are used to indicate precipitation. Bottom axis is for months of the year (J F M A etc.). Title (location) is placed at the top of the graph.
3. Individually, students complete additional climate graphs (BLM 3.1 Grid for Climate Graphs) using the available



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temperature and precipitation statistics (Resources 3.2 Temperature and Precipitation Statistics for Toronto, Sydney, Vancouver, etc.).

4. Add this important term to the glossary: climate graph.

5. Record reflections in journal: If you had a choice to live anywhere in Canada, where would it be? Why?

**Adaptations**

Students with special needs will be paired with students who can assist them and check their work. Teacher will provide instructions visually and verbally and monitor progress often. Teacher could also provide models of completed tasks so the student, can visualize a completed graph.

**Resources**



**Rubric for Climate Graphs**



**Grid for Climate Graphs**

3.1 Grid for Climate Graphs.cwk



**Temperature and Precipitation Statistics**

3.2 Temp & Precip Stats.cwk



**Weather**

**Notes to Teacher**

**Teacher Reflections**



## Patterns in Physical Geography

### Geography A Unit for Grade 7

120 mins

### Description

Through different media, students will learn the importance of respect for the environment as they investigate and identify the effects of natural phenomena on people and the environment. They will also recognize the diversity and interdependence of the world's peoples and cultures.

### Catholic Graduate Expectations:

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 2e - uses and integrates the Catholic faith tradition, in the critical analysis of the arts, media, technology, and information systems to enhance the quality of life.

CGE 7f - respects and affirms the diversity and interdependence of the world's peoples and cultures.

CGE 7i - respects the environment and uses resources wisely.

### Expectations

- 7g29 A – identify, through investigation, the effects of natural phenomena (e.g., tornadoes, earthquakes, hurricanes) on people and the environment;
- 7g36 A – formulate comparative and speculative questions to guide the research of a topic of study concerning physical patterns;
- 7g37 A – locate relevant information from a variety of primary sources (e.g., aerial photographs, satellite images, interviews, field studies) and secondary sources (e.g., climate maps, illustrations, print materials, videos, CD-ROMs, Internet);
- 7g38 A – analyse, synthesize, and evaluate data (e.g., agricultural patterns, land-form patterns);
- 7g39 A – construct a wide variety of graphs, charts, diagrams, maps, and models to organize information (e.g., river-system and watershed maps);
- 7g40 A – communicate the results of inquiries for specific purposes and audiences, using media works, oral presentations, written notes and descriptions, drawings, tables, charts, and graphs.

#### Groupings

- Students Working As A Whole Class
- Students Working In Pairs

#### Teaching / Learning Strategies

- Discussion
- Technology
- Research

#### Assessment

Formative assessment by the teacher of the natural phenomenon maps and the oral presentations.

#### Assessment Strategies

- Classroom Presentation

#### Assessment Recording Devices

- Rubric

### Teaching / Learning

1. Introduce the topic of natural phenomena (e.g., tornadoes, earthquakes, hurricanes, etc.) using recent news reports. With the students, develop a list of natural phenomena. Using the six questions of inquiry (who, what, when, where, why, and how), develop a list of questions to guide the research of these phenomena. (What are the characteristics of this phenomenon? Why does this phenomenon occur? Where does this phenomenon take place? When does it take place? Who is affected by this phenomenon? How can this phenomenon be prepared for?)
3. In pairs, students will use the research/inquiry method to locate information from a variety of sources and prepare a presentation on the effects of a natural phenomenon on people and the environment (BLM 4.1 Natural Phenomenon Research Assignment).
4. Add this important term to the glossary: natural phenomena.



## Patterns in Physical Geography

### Geography A Unit for Grade 7

120 mins

5. Record reflections in journal: How can the people who are affected by these natural phenomena be helped? What do they need? How can I help?

### Adaptations

Students with special needs will be paired with students who can assist them and check their work. Teacher will provide instructions visually and verbally and monitor progress often. Teacher could also provide models of completed tasks so the students can visualize a completed project.

### Resources



Rubric for an Oral Presentation



Natural Phenomenon on Research Assignment

4.1 Natural Phenom Assign.pdf



Map of World

1.2 Map of World.cwk



News Reports

Local Newspaper

### Notes to Teacher

### Teacher Reflections



**Patterns in Physical Geography**

Geography A Unit for Grade 7

120 mins

**Description**

Students will identify different natural vegetation patterns in Canada and locate other countries that have similar vegetation patterns. Students will then be able to compare the factors that are advantageous to particular vegetation patterns and understand the importance of respect for the environment.

**Catholic Graduate Expectations:**

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 7f - respects and affirms the diversity and interdependence of the world's peoples and cultures.

CGE 7i - A Responsible Citizen: Respects the environment and uses resources wisely.

**Expectations**

- 7g30 A – demonstrate an understanding that natural vegetation patterns result from the interaction of several factors: temperature, precipitation, soil types, competition for available nutrients;
- 7g36 – formulate comparative and speculative questions to guide the research of a topic of study concerning physical patterns;
- 7g37 A – locate relevant information from a variety of primary sources (e.g., aerial photographs, satellite images, interviews, field studies) and secondary sources (e.g., climate maps, illustrations, print materials, videos, CD-ROMs, Internet);
- 7g41 A – identify patterns in physical geography, using thematic maps;
- 7g27 – identify and describe world climate patterns;
- 7g39 A – construct a wide variety of graphs, charts, diagrams, maps, and models to organize information (e.g., river-system and watershed maps);
- 7g43 A – draw cross-sectional diagrams (e.g., of land-forms, river profiles).

**Groupings**

- Students Working As A Whole Class
- Students Working In Pairs
- Students Working Individually

**Teaching / Learning Strategies**

- Discussion
- Map Making
- Note-making

**Assessment**

Formative assessment by the teacher of the maps of Canada's Growing Environments or Ecosystems, the maps of Canada's Climate Patterns, and the world maps showing the location of countries with vegetation patterns similar to Canada's.

**Assessment Strategies**

- Performance Task
- Questions And Answers (oral)

**Assessment Recording Devices**

- Rubric

**Teaching / Learning**

1. Review the basic needs of survival for human beings (food, clean water, shelter/warmth, clean air). Humans are only part of creation. All animals have the same basic needs. Can you think of anything else on God's "green" earth that has basic needs? Plants also have basic needs. Through questioning and discussion , students should realize that green plants need food/nutrients from the soil, clean water/precipitation, warmth/temperature, clean air, and light in order to survive. They should recognize that a major factor in the survival of plants is climate.
2. In pairs, students will use an atlas and a geography text containing the appropriate information to complete two maps (BLM 5.1 Map of Canada), one of Canada's Growing Environments or Ecosystems, and one of Canada's Climate Patterns.



**Patterns in Physical Geography**

**Geography A Unit for Grade 7**

**120 mins**

3. Using an atlas and a geography text containing the appropriate information, students will locate other countries that have similar vegetation patterns. They will complete a world map (BLM 1.2 Map of World) to show the location of these patterns.
4. A list of the various main patterns should be developed and included in students' notes. Students should understand that natural vegetation includes plants that are native to an area and grow without human interference. Students also need to be aware of how close the connection between climate and vegetation is. This connection needs to be at the forefront of all map work.
5. Students will further explore the importance of light, moisture, and heat by discussing their roles in plant growth. This information should be given and retained in their notes along with appropriate diagrams and/or charts. Students will also discuss the relevance of soil structure and its role, advantages, and contributions to the success of the natural vegetation.
6. Students complete a typical soil profile drawing from an appropriate geography textbook. They will continue to develop the glossary section of their notebooks as they establish meaning and function for the various contents of soil: moisture, organic material, air, nutrients, minerals (phosphorous, potassium), humus, topsoil. As an extension, students might examine flyer ads for various fertilizers and determine the meanings of the numbers (i.e., 7-7-7).
7. Add important terms to the glossary: needs, natural vegetation, moisture, organic material, nutrients, minerals, humus, topsoil.
8. Record reflections in journal: What are the benefits of fertilizers? What are the dangers of fertilizers? Is it a good idea to use fertilizer on my lawn?

**Adaptations**

Students with special needs will be paired with students who can assist them and check their work. Teacher will provide instructions visually and verbally and monitor progress often. He/she will allow plenty of time for copying notes and provide a print copy of chalkboard note's if necessary (e.g., photocopy of teachers or peer notes).

**Resources**

	<b>Rubric for a Map</b>	
	<b>Map Of Canada</b>	5.1 Map of Canada.cwk
	<b>Map of World</b>	1.2 Map of World.cwk
	<b>National Atlas of Canada</b>	
	<b>Atlas</b>	1

**Notes to Teacher**

**Teacher Reflections**



## Patterns in Physical Geography

### Geography A Unit for Grade 7

80 mins

### Description

As students examine the water cycle and recognize rivers as an important part of the cycle, they should become aware of the quality of life that clean water provides. They will list the various parts of a river and draw a cross-sectional diagram of a river.

### Catholic Graduate Expectations:

CGE 2a - listens actively and critically to understand and learn in light of gospel values.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 2e - uses and integrates the Catholic faith tradition, in the critical analysis of the arts, media, technology, and information systems to enhance the quality of life.

CGE 4f - applies effective communication, decision-making, problem- solving, time and resource management skills.

### Expectations

- 7g38 – analyse, synthesize, and evaluate data (e.g., agricultural patterns, land-form patterns);
- 7g39 A – construct a wide variety of graphs, charts, diagrams, maps, and models to organize information (e.g., river-system and watershed maps);
- 7g43 A – draw cross-sectional diagrams (e.g., of land-forms, river profiles).
- 7g35 – use appropriate vocabulary, including correct geographic terminology (e.g., classify, climate graph, pattern, latitude, altitude, site) to describe their inquiries and observations;

#### Groupings

Students Working As A Whole Class  
Students Working Individually

#### Teaching / Learning Strategies

Discussion

#### Assessment

Formative assessment by the teacher of the student diagrams.

#### Assessment Strategies

Performance Task

#### Assessment Recording Devices

Rating Scale

### Teaching / Learning

1. Introduce the topic with a discussion of the three steps of the water cycle: precipitation, evaporation, and condensation. Using an appropriate classroom textbook, students draw and label a diagram of the water cycle for their notes and explain each of the three stages.
2. Students need to become aware that rivers are an important part of the water cycle. Beginning with the term "source," develop a list of "river words" to enable students to develop a river profile. Additional terms should include pond, lake, swamp, glacier (sources), drainage basin, tributaries, mouth, and ocean. Students will match the list of "river words" to descriptions provided them (BLM 6.1 Profile of a River-Chart).
3. Students draw and label a cross-sectional diagram of a river. This can be drawn under the Profile of a River chart.
4. Add important terms to the glossary: water cycle, evaporation, condensation.
5. Record reflections in journal: What water resources are there in my community? Are the water resources where I live clean?

### Adaptations

**Patterns in Physical Geography**  
**Geography A Unit for Grade 7****80 mins**

Students with special needs will be paired with students who can assist them and check their work. Teacher will provide instructions visually and verbally and monitor progress often. Teacher could also provide models of completed tasks so the students can visualize a completed diagram.

**Resources****Profile of a River-Chart**

6.1 Profile of a River.cwk

**Profile of a River-Chart Answers**

6.1 Profile of a River Ans.cwk

**Diagram Rating Scale**

1.1 Diagram Rating Scale.cwk

**Notes to Teacher****Teacher Reflections**



## Patterns in Physical Geography

### Geography A Unit for Grade 7

120 mins

### Description

Through a comparison map activity, students will identify major river systems of the world (e.g., Amazon, Nile, St. Lawrence) and describe their drainage patterns as either dendritic or trellis. Students will recognize that our actions have major impacts on the environment and that we should use resources wisely.

### Catholic Graduate Expectations:

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 3c - thinks reflectively and creatively to evaluate situations and solve problems.

CGE 4f - applies effective communication, decision-making, problem-solving, time and resource management skills.

CGE 7f - respects and affirms the diversity and interdependence of the world's peoples and cultures.

CGE 7i - respects the environment and uses resources wisely.

### Expectations

- 7g31 A – identify major river systems of the world (e.g., Amazon, Nile, St. Lawrence) and describe their drainage patterns as either dendritic or trellis;
- 7g36 – formulate comparative and speculative questions to guide the research of a topic of study concerning physical patterns;
- 7g37 A – locate relevant information from a variety of primary sources (e.g., aerial photographs, satellite images, interviews, field studies) and secondary sources (e.g., climate maps, illustrations, print materials, videos, CD-ROMs, Internet);
- 7g38 – analyse, synthesize, and evaluate data (e.g., agricultural patterns, land-form patterns);
- 7g41 A – identify patterns in physical geography, using thematic maps;
- 7g39 A – construct a wide variety of graphs, charts, diagrams, maps, and models to organize information (e.g., river-system and watershed maps);

#### Groupings

- Students Working As A Whole Class
- Students Working Individually

#### Teaching / Learning Strategies

- Discussion
- Demonstration

#### Assessment

Formative assessment by the teacher of the maps and diagrams.

#### Assessment Strategies

- Performance Task

#### Assessment Recording Devices

- Rubric
- Rating Scale

### Teaching / Learning

1. Using an atlas, students will identify the major river systems of the world (e.g., Amazon, Nile, St. Lawrence) and record the name, location, and size in a comparison chart.
2. Students will identify the drainage patterns of major river systems of the world as either dendritic or trellis. Sketches and definitions will provide for discussion and explanation. Drawings should be coloured and included in notes for reference. Dendritic - the type of drainage that occurs when water flows into a river from various tributaries, which are in turn fed by smaller tributaries. The pattern that results resembles the shape of an apple tree without its leaves. e.g.: Mississippi, Amazon. Trellis - the type of drainage in which tributaries flow into a larger river at right angles.
3. Using a world map (BLM 1.2 Map of World), students will complete a map of the major rivers of our world.
4. Height of land determines the direction of water flow. Using maps of the local area and of Canada, students will



## Patterns in Physical Geography

### Geography A Unit for Grade 7

120 mins

explore how land masses known as "divides" will dictate the direction of water flow. Teacher can use the Oak Ridges Moraine in Ontario or the Great Divide in North America to discuss the effects that land height has on water drainage and the patterns they establish (i.e., river length, direction of flow, etc.). Students complete the map and place it in their notebooks.

4. The surface of the earth is scribed with complex and interesting patterns from the continuous flow of the river systems. Using models, experiments, drawings, overheads, or study sheets, students will discover how these river patterns are formed. They will use labeled diagrams to recognize how meanders and oxbow lakes are formed. They will also establish meanings for terms such as: slip-off slope, cut-off slope, curves, sediment, erosion, and neck.

5. Add important terms to the glossary: dendritic, trellis, slip-off slope, cut-off slope, curves, sediment, erosion, neck.

6. Record reflections in journal: What can I do to prevent pollution of the waterways where I live? What can I do to clean up the waterways in my community?

## Adaptations

Students with special needs will be paired with students who can assist them and check their work. Teacher will provide instructions visually and verbally and monitor progress often. Teacher can use visual aids, demonstrations, simulations, and manipulatives to ensure that students understand concepts presented. Teacher will allow plenty of time for copying notes and provide a print copy of chalkboard notes if necessary (e.g., photocopy of teacher's or peer notes). Teacher could also provide models of completed tasks so the students can visualize a completed drawing and map.

## Resources

	<b>Rubric for a Map</b>	
	<b>Diagram Rating Scale</b>	1.1 Diagram Rating Scale.cwk
	<b>Map of World</b>	1.2 Map of World.cwk
	<b>Atlas</b>	1

## Notes to Teacher

## Teacher Reflections



## Patterns in Physical Geography

### Geography A Unit for Grade 7

80 mins

### Description

Students will explore the effect of temperature, precipitation, soil types, and competition for available nutrients on vegetation patterns through a variety of activities. They will reflect on the fact that people must cope with what they have and make the best of it, and that they must respect the environment.

### Catholic Graduate Expectations:

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 2e - uses and integrates the Catholic faith tradition, in the critical analysis of the arts, media, technology, and information systems to enhance the quality of life.

CGE 4f - applies effective communication, decision-making, problem-solving, time and resource management skills.

CGE 7i - respects the environment and uses resources wisely.

### Expectations

- 7g30 A – demonstrate an understanding that natural vegetation patterns result from the interaction of several factors: temperature, precipitation, soil types, competition for available nutrients;
- 7g35 A – use appropriate vocabulary, including correct geographic terminology (e.g., classify, climate graph, pattern, latitude, altitude, site) to describe their inquiries and observations;
- 7g38 A – analyse, synthesize, and evaluate data (e.g., agricultural patterns, land-form patterns);
- 7g41 – identify patterns in physical geography, using thematic maps;
- 7g43 A – draw cross-sectional diagrams (e.g., of land-forms, river profiles).
- 7g39 A – construct a wide variety of graphs, charts, diagrams, maps, and models to organize information (e.g., river-system and watershed maps);

#### Groupings

Students Working As A Whole Class

#### Teaching / Learning Strategies

Discussion

#### Assessment

Formative assessment by the teacher of the student diagrams and experiments.

#### Assessment Strategies

Performance Task

#### Assessment Recording Devices

Rating Scale

### Teaching / Learning

1. Vegetation and soil are interdependent. Discuss. Using a web chart (BLM 8.1 What Is Soil?), students will label and discuss the basic factors and components that make up soil (i.e., humus – decaying plant material; topsoil; nutrients – released from decaying plant material; vital minerals – phosphorous, potassium, calcium; moisture – water; air; organic materials).
2. Students will discover that vegetation creates the soil it grows in to an extent. Over long periods of time, layers build up in the soil. The topsoil, or top layer, has the most nutrients and is responsible for giving the world its food.
3. Students will then come to the realization that this is also the layer that is quickly affected by human neglect, misuse (pollution), and erosion. What can they do about it?
4. There are three elements of the physical environment that are closely interrelated. They are climate, vegetation, and soil. The study of agriculture and vegetative patterns require students to have a thorough understanding of the four main principles. These should be presented for the students to copy into their notebooks:
  - Plants affect soil by the amount of humus they produce.
  - Soil affects plants by the nutrients and moisture that it contains.



## Patterns in Physical Geography

### Geography A Unit for Grade 7

80 mins

- Climate affects vegetation by the amount of heat, sunlight, and water that it provides.
- Climate affects soil by the amount of rain that falls on the soil, or the lack of rain which can result in drought. Students will draw and label a soil profile.

5. Students need to become aware that in order for soil to be fertile and produce growth, it needs humus. The more plants there are, the greater the humus. Ability to hold moisture depends upon the soil's richness in minerals. Soils rich in minerals and moisture can support more plants than dry soils with few minerals.

6. Students will complete an experiment to prove these points (BLM 8.3 Experiment Outline).

7. Add important terms to the glossary: pollution, fertile.

8. Record reflections in journal: What is composting? Is it a good idea? Do you compost?

## Adaptations

Students with special needs will be paired with students who can assist them and check their work. Teacher will provide instructions visually and verbally and monitor progress often. He/she will allow plenty of time for copying notes and provide a print copy of chalkboard notes if necessary (e.g., photocopy of teacher's or peer's notes).

## Resources

**What Is Soil?**

8.1 What is Soil.cwk

**Experiment Outline**

8.3 Experiment Outline.pdf

**Diagram Rating Scale**

1.1 Diagram Rating Scale.cwk

**Grid for Graphing**

8.2 Grid for Graphing.cwk

## Notes to Teacher

## Teacher Reflections



## Patterns in Physical Geography

### Geography A Unit for Grade 7

40 mins

### Description

Students will respect and affirm the diversity and interdependence of the world's peoples and cultures as they examine the three types of agriculture (subsistence, commercial, specialized) and their relation to climate, topography, and soil.

### Catholic Graduate Expectations:

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 3c - thinks reflectively and creatively to evaluate situations and solve problems.

CGE 4f - applies effective communication, decision-making, problem-solving, time and resource management skills.

CGE 7f - respects and affirms the diversity and interdependence of the world's peoples and cultures.

CGE 7i - respects the environment and uses resources wisely.

### Expectations

- 7g33 A – demonstrate an understanding of three types of agriculture (subsistence, commercial, specialized) and their relation to climate, topography, and soil;
- 7g37 A – locate relevant information from a variety of primary sources (e.g., aerial photographs, satellite images, interviews, field studies) and secondary sources (e.g., climate maps, illustrations, print materials, videos, CD-ROMs, Internet);
- 7g40 A – communicate the results of inquiries for specific purposes and audiences, using media works, oral presentations, written notes and descriptions, drawings, tables, charts, and graphs.
- 7g35 – use appropriate vocabulary, including correct geographic terminology (e.g., classify, climate graph, pattern, latitude, altitude, site) to describe their inquiries and observations;

#### Groupings

Students Working As A Whole Class  
Students Working In Pairs

#### Teaching / Learning Strategies

Discussion

#### Assessment

Informal assessment by the teacher of the student visual organizer.

#### Assessment Strategies

Performance Task

#### Assessment Recording Devices

### Teaching / Learning

1. Show a video or pictures (Library or Resource Centre) displaying different types of agricultural activities: subsistence, commercial, and specialized. Differences and definitions are developed through discussion and recorded in notebooks.
2. The three types of agriculture are used as headings for a visual organizer (BLM 9.1 Types of Agriculture) with their definitions. In pairs, students use an atlas to complete the chart. They will locate relevant information from a variety of world maps (agriculture, climate regions, soil, landforms) and cross-reference them in order to complete the visual organizer. They should locate at least three areas of each type of agriculture and then describe the climate region, topography/landforms, and soil type of each.
3. Add important terms to the glossary: subsistence, commercial, and specialized agriculture.
4. Record reflections in journal: Many people have a vegetable garden. What type of agriculture is this? Why do people have vegetable gardens?



## Adaptations

Students with special needs will be paired with students who can assist them and check their work. Teacher will provide instructions visually and verbally and monitor progress often. He/she will allow plenty of time for copying notes and provide a print copy of chalkboard notes if necessary (e.g., photocopy of teacher's or peer's notes).

## Resources

**Types of Agriculture**

9.1 Types of Agriculture.cwk

## Notes to Teacher

Teacher may need to address the meaning of bias, and caution students not to judge the different types of agricultural activities without considering the culture and background of the people involved.

## Teacher Reflections



## Patterns in Physical Geography

### Geography A Unit for Grade 7

160 mins

### Description

Students will develop respect for the environment as they construct an overlay map to describe the correlation between physical patterns and types of crops (e.g., landforms: plains/wheat, grains; climate: prairie/wheat, grains; soil: black/wheat, grains) in Canada. The climate portion of the map could be extended to include precipitation and temperature.

### Catholic Graduate Expectations:

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 2e - uses and integrates the Catholic faith tradition, in the critical analysis of the arts, media, technology, and information systems to enhance the quality of life.

CGE 4f - applies effective communication, decision-making, problem-solving, time and resource management skills.

CGE 7i - respects the environment and uses resources wisely.

### Expectations

- 7g32 A – describe the correlation between physical patterns and types of crops (e.g., land-forms: plains/grains; climate: tropics/ bananas);
- 7g37 A – locate relevant information from a variety of primary sources (e.g., aerial photographs, satellite images, interviews, field studies) and secondary sources (e.g., climate maps, illustrations, print materials, videos, CD-ROMs, Internet);
- 7g38 – analyse, synthesize, and evaluate data (e.g., agricultural patterns, land-form patterns);
- 7g40 A – communicate the results of inquiries for specific purposes and audiences, using media works, oral presentations, written notes and descriptions, drawings, tables, charts, and graphs.
- 7g41 A – identify patterns in physical geography, using thematic maps;
- 7g39 A – construct a wide variety of graphs, charts, diagrams, maps, and models to organize information (e.g., river-system and watershed maps);
- 7g44 A – investigate and describe how specialized forms of agriculture (e.g., sheep, beef, dairy farming) relate to world patterns of land-forms, climate, and vegetation;

### Groupings

Students Working As A Whole Class  
Students Working In Small Groups

### Teaching / Learning Strategies

Discussion

### Assessment

Informal assessment of the students working in their groups. Formative assessment by the teacher of the student overlay maps.

### Assessment Strategies

Performance Task

### Assessment Recording Devices

Rubric

### Teaching / Learning

1. Discuss with students the factors that affect the type of crops that can be grown (landforms, climate/temperature/precipitation, and soil type).
  2. Have students locate maps in an atlas that provide information on each of these factors.
- In small groups (four to six), students will construct an overlay map (BLM 5.1 Map of Canada) to describe the correlation between physical patterns and types of crops (e.g., landforms: plains/wheat, grains; climate: prairie/wheat, grains; soil: black/wheat, grains) in Canada. The climate portion of the map could be extended to

**Patterns in Physical Geography****Geography A Unit for Grade 7**

include precipitation and temperature. The base map, agriculture, will be completed and the other maps, completed on acetate/transparencies, will be placed over the base map.

3. Each group should describe any correlation they observe between physical patterns and types of crops. The results should be discussed with the whole class and a summary note should be constructed for all students to include in their notebooks.

4. Add important terms to the glossary: physical patterns, crops.

5. Record reflections in journal: Some countries have similar conditions and physical patterns to Canada. Give reasons why they might not be able to produce the same crops.

**Adaptations**

Students with special needs will be dispersed among the groups and paired with students to assist them and check their work. Teacher will provide instructions visually and verbally and monitor progress often. He/she will allow plenty of time for copying notes and provide a print copy of chalkboard notes if necessary (e.g., photocopy of teacher's or peer's notes).

**Resources****Rubric for a Map****Map of Canada**

5.1 Map of Canada.cwk

**Notes to Teacher****Teacher Reflections**



## Description

Students will choose a product that has global demand. Using the concepts and skills they have learned through the subtasks of the unit and the research model (define, organize, locate, record, evaluate, conclude, apply, and communicate), they will investigate and describe the process involved in growing, harvesting, and processing a plantation crop (e.g., cotton, rice, coffee, bananas, tobacco, sugar cane). Students will present their research findings in an oral presentation clearly and honestly and with sensitivity to others.

### Catholic Graduate Expectations:

CGE 2b - reads, understands, and uses written materials effectively.

CGE 2c - presents information and ideas clearly and honestly and with sensitivity to others.

CGE 2e - uses and integrates the Catholic faith tradition, in the critical analysis of the arts, media, technology, and information systems to enhance the quality of life.

CGE 4f - applies effective communication, decision-making, problem-solving, time and resource management skills.

## Expectations

- 7g33 A – demonstrate an understanding of three types of agriculture (subsistence, commercial, specialized) and their relation to climate, topography, and soil;
- 7g36 A – formulate comparative and speculative questions to guide the research of a topic of study concerning physical patterns;
- 7g37 A – locate relevant information from a variety of primary sources (e.g., aerial photographs, satellite images, interviews, field studies) and secondary sources (e.g., climate maps, illustrations, print materials, videos, CD-ROMs, Internet);
- 7g38 A – analyse, synthesize, and evaluate data (e.g., agricultural patterns, land-form patterns);
- 7g40 A – communicate the results of inquiries for specific purposes and audiences, using media works, oral presentations, written notes and descriptions, drawings, tables, charts, and graphs.
- 7g44 – investigate and describe how specialized forms of agriculture (e.g., sheep, beef, dairy farming) relate to world patterns of land-forms, climate, and vegetation;
- 7g46 A – investigate and describe the process involved in growing, harvesting, and processing a plantation crop (e.g., cotton, rice, coffee, bananas, tobacco, sugar cane).
- 7g34 A – identify the six major factors which influence commercial agriculture: location, climate, raw materials, market, labour, and transportation.
- 7g35 A – use appropriate vocabulary, including correct geographic terminology (e.g., classify, climate graph, pattern, latitude, altitude, site) to describe their inquiries and observations;

### Groupings

- Students Working As A Whole Class
- Students Working Individually

### Teaching / Learning Strategies

- Discussion
- Research

### Assessment

Formative assessment by the teacher of students' oral presentations.

### Assessment Strategies

- Performance Task
- Classroom Presentation

### Assessment Recording Devices

- Rubric



## Teaching / Learning

1. Review the types of agriculture (subsistence, commercial, specialized) and the factors that influence them (climate, topography, and soil).
2. Use a local commercial crop/product to demonstrate the six major factors that influence commercial agriculture: location, climate, raw materials, market, labour, and transportation, and how specialized forms of agriculture (e.g., sheep, beef, dairy farming) relate to world patterns of landforms, climate, and vegetation. A note is developed and recorded in student notebooks referring to the local example and how the community satisfies the factors.
3. Introduce examples of plantation crops to the students (e.g., cotton, rice, coffee, bananas, tobacco, sugar cane). Each student will choose a product that has global demand. Using the concepts and skills they have learned through the subtasks of the unit and the research model (define, organize, locate, record, evaluate, conclude, apply, and communicate, BLM 11.1 Research Organizer), they will investigate and describe the process involved in growing, harvesting, and processing a plantation crop (e.g., cotton, rice, coffee, bananas, tobacco, sugar cane). Students will present their research findings in an oral presentation.
4. Add important terms to the glossary: location, raw materials, market, labour, transportation, plantation crops.
5. Record reflections in journal: Would you like to work on a plantation? Why or why not?

## Adaptations

Students with special needs will be paired with students who can assist them and check their work. Teacher will provide instructions visually and verbally and monitor progress often. He/she will allow plenty of time for copying notes and provide a print copy of chalkboard notes if necessary (e.g., photocopy of teacher's or peer's notes). Teacher could also provide models of completed tasks so the students can visualize a completed project.

## Resources



**Rubric for an Oral Presentation**



**Research Organizer**

11.1 Research steps.pdf

## Notes to Teacher

## Teacher Reflections



# **Appendices**

## **Patterns in Physical Geography**

### **Geography**

**Resource List:**  
**Black Line Masters:**  
**Rubrics:**  
**Unit Expectation List and Expectation Summary:**



# Patterns in Physical Geography

## Geography A Unit for Grade 7



### Rubric

- Rubric for a Map** ST 1  
3  
A rubric to assist in the assessment of student maps.
- Rubric for a Map** ST 5  
3  
A rubric to assist in the assessment of student maps.
- Rubric for a Map** ST 7  
3  
A rubric to assist in the assessment of student maps.
- Rubric for a Map** ST 10  
3  
A rubric to assist in the assessment of student maps.
- Rubric for an Oral Presentation** ST 4  
2  
A rubric to assist in the assessment of the student Oral Presentations.
- Rubric for an Oral Presentation** ST 11  
2  
A rubric to assist in the assessment of the student Oral Presentations.
- Rubric for Climate Graphs** ST 3  
3  
A rubric to assist in the assessment of student Climate Graphs.



### Blackline Master / File

- Altitude Is a Factor of Climate** ST 2  
2.6 Climate Fact - Altitude.cwk  
Patterns in Physical Geography Subtask 2.6 Altitude is a Factor of Climate.
- Diagram Rating Scale** ST 1  
1.1 Diagram Rating Scale.cwk  
A rating scale that can be used to assess student Diagrams.
- Diagram Rating Scale** ST 6  
1.1 Diagram Rating Scale.cwk  
A rating scale that can be used to assess student Diagrams.
- Diagram Rating Scale** ST 7  
1.1 Diagram Rating Scale.cwk  
A rating scale that can be used to assess student Diagrams.
- Diagram Rating Scale** ST 8  
1.1 Diagram Rating Scale.cwk  
A rating scale that can be used to assess student Diagrams.
- Experiment Outline** ST 8  
8.3 Experiment Outline.pdf  
Patterns in Physical Geography Subtask 8.3 Experiment Outline for soil experiment.
- Grid for Climate Graphs** ST 3  
3.1 Grid for Climate Graphs.cwk  
Patterns in Physical Geography Subtask 3.1 Grid for Climate Graphs.
- Grid for Graphing** ST 8  
8.2 Grid for Graphing.cwk  
Patterns in Physical Geography Subtask 8.2 Grid for Graphing.
- Latitude Is a Factor of Climate** ST 2  
2.3 Climate Fact - Latitude.cwk  
Patterns in Physical Geography Subtask 2.3 Latitude is a Factor of Climate.
- Map Of Canada** ST 5  
5.1 Map of Canada.cwk  
A Map of Canada available at [www.atlas.gc.ca](http://www.atlas.gc.ca)
- Map of Canada** ST 10  
5.1 Map of Canada.cwk  
A Map of Canada available at [www.atlas.gc.ca](http://www.atlas.gc.ca)
- Map of North America** ST 1  
1.3 Map of North America.pdf  
A Map of North America available at [www.worldatlas.com](http://www.worldatlas.com)
- Map of World** ST 1  
1.2 Map of World.cwk  
A Map of the World available at [www.worldatlas.com](http://www.worldatlas.com)
- Map of World** ST 4  
1.2 Map of World.cwk  
A Map of the World available at [www.worldatlas.com](http://www.worldatlas.com)



## Patterns in Physical Geography

### Geography A Unit for Grade 7

- |  |       |   |
|--|-------|---|
| <input type="checkbox"/> <b>Map of World</b>   | ST 5  |  <b>Print</b>                                  |
| 1.2 Map of World.cwk<br>A Map of the World available at <a href="http://www.worldatlas.com">www.worldatlas.com</a>         |       |   |
| <input type="checkbox"/> <b>Map of World</b>   | ST 7  |   |
| 1.2 Map of World.cwk<br>A Map of the World available at <a href="http://www.worldatlas.com">www.worldatlas.com</a>         |       |   |
| <input type="checkbox"/> <b>Natural Phenomenon on Research Assignment</b>  | ST 4  | <input type="checkbox"/> <b>Believe In Me</b> <b>Unit</b>   |
| 4.1 Natural Phenom Assign.pdf<br>Patterns in Physical Geography Subtask 4.1 Natural Phenomena Research Assignment outline. |       | CCCB<br>ISBN 0-88997-314-8<br>This student text is the Year 7 catechetical resource of the "We Are Strong Together" series.     |
| <input type="checkbox"/> <b>Ocean Currents Are a Factor of Climate</b>   | ST 2  | <input type="checkbox"/> <b>Believe in Me</b> <b>ST 1</b>   |
| 2.5 Climate Fact - Currents.cwk<br>Patterns in Physical Geography Subtask 2.5 Ocean Currents are a Factor of Climate.      |       | CCCB<br>ISBN 0-88997-314-8<br>This student text is the Year 7 catechetical resource of the "We Are Strong Together" series.     |
| <input type="checkbox"/> <b>Oceans Are a Factor of Climate</b>   | ST 2  | <input type="checkbox"/> <b>Believe In Me Teacher's Manual</b> <b>Unit</b>  |
| 2.4 Climate Fact - Oceans.cwk<br>Patterns in Physical Geography Subtask 2.4 Oceans are a Factor of Climate.                |       | CCCB<br>ISBN 0-88997-315-6<br>This Teacher's Manual is the Year 7 catechetical resource of the "We Are Strong Together" series. |
| <input type="checkbox"/> <b>Profile of a River-Chart</b>   | ST 6  | <input type="checkbox"/> <b>Believe in Me Teacher's Manual</b> <b>ST 1</b>  |
| 6.1 Profile of a River.cwk<br>Patterns in Physical Geography Subtask 6.1 Profile of a River chart.                         |       | CCCB<br>ISBN 0-88997-315-6<br>This Teacher's Manual is the Year 7 catechetical resource of the "We Are Strong Together" series. |
| <input type="checkbox"/> <b>Profile of a River-Chart Answers</b>   | ST 6  | <input type="checkbox"/> <b>Discovering the Phycial World</b> <b>Unit</b>   |
| 6.1 Profile of a River Ans.cwk<br>Patterns in Physical Geography Subtask 6.1 Profile of a River Chart Answers.             |       | Christine Hannell, Stewart Dunlop<br>ISBN 0-19-541313<br>A 2000 edition geography textbook based upon new curriculum.           |
| <input type="checkbox"/> <b>Research Organizer</b>   | ST 11 |   |
| 11.1 Research steps.pdf<br>Patterns in Physical Geography Subtask 11.1 Steps to follow when researching.                   |       |   |
| <input type="checkbox"/> <b>Temperature and Precipitation Statistics</b>   | ST 3  |   |
| 3.2 Temp & Precip Stats.cwk<br>Patterns in Physical Geography Subtask 3.2 Temperature and Precipitation Statistics.        |       |   |
| <input type="checkbox"/> <b>Types of Agriculture</b>   | ST 9  |   |
| 9.1 Types of Agriculture.cwk<br>Patterns in Physical Geography Subtask 9.1 Types of Agriculture visuap organizer.          |       |   |
| <input type="checkbox"/> <b>What Is Soil?</b>  | ST 8  |   |
| 8.1 What is Soil.cwk<br>Patterns in Physical Geography Subtask 8.1 Web Template for What is Soil?                          |       |   |
| <input type="checkbox"/> <b>What Is Weather?</b>   | ST 2  |   |
| 2.2 What is Weather.cwk<br>Patterns in Physical Geography Subtask 2.2 A Web Diagram template for What is Weather?          |       |   |



# Patterns in Physical Geography

## Geography A Unit for Grade 7



### Media

- News Reports** **ST 4**  
Local Newspaper  
News Reports about Weather
- Weather** **ST 3**  
Patterns in Physical Geography Subtask 3: a video on weather



### Website

- AgView** **Unit**  
<http://agview.com>  
AgView is a search and index tool to help navigate the internet for data, information, and resources related to Agriculture.
- Canadian Catholic Organization For Development and Peace** **Unit**  
<http://www.dev.org>  
The Canadian Catholic Organization for DEVELOPMENT AND PEACE is one of Canada's leading international development agencies. Since 1967 it has helped improve living and working conditions in 70 countries around the globe, providing \$375 million for human rights, community development and humanitarian aid in Africa, the Middle East, Asia, Latin America and the Caribbean.
- Canadian Communities Atlas** **Unit**  
<http://cgdi.gc.ca/ccatlas>  
Contains information under 4 headings: Where are we in Canada?, Physical Geography, Economic Geography, and Human Geography.
- Electric Library Canada** **Unit**  
<http://www.rogerseducation.com>  
Online research site. Includes newspapers, magazines, photos, transcripts, reference, and maps.
- Free The Children** **Unit**  
<http://freethechildren.org>  
Learn about child labour, education, children in war, children's rights, child poverty, and abuse.
- Historical Weather Database** **ST 2**  
<http://www.washingtonpost.com/wp-srv/weather/historical/historical.htm>  
Historical Weather Database: Provides weather statistics for the name of the city and country you enter.
- MapQuest** **Unit**  
<http://www.mapquest.com>  
Enter an address and get a map!
- Mapquest** **ST 1**  
<http://www.mapquest.com>  
A map of your school neighbourhood can be found by typing in the address of your school.
- National Atlas of Canada** **ST 1**  
<http://atlas.gc.ca>  
Free on-line resource that looks at Canada's geography from a national point of view. It includes an interactive on-line mapping tool, geography quizzes, student projects, facts on Canada's geography, and links to satellite imagery.
- National Atlas of Canada** **ST 5**  
<http://www.atlas.gc.ca>  
On-line resource that looks at Canada's geography from a national point of view. It includes an interactive on-line mapping tool, geography quizzes, student projects, facts on Canada's geography, and links to satellite imagery.
- Say It Right** **Unit**  
<http://cfc-efc.ca/ccrc/sir>  
Information about the UN Convention on the Rights of the Child, an international agreement that applies to the lives of young people all over the world. Information about your rights, as well as about the realities that other youth are living in Canada and around the world.
- The National Atlas of Canada** **Unit**  
<http://atlas.gc.ca>  
Free on-line resource that looks at Canada's geography from a national point of view. It includes an interactive on-line mapping tool, geography quizzes, student projects, facts on Canada's geography, and links to satellite imagery.
- The Ontario Software Acquisition Program** **Unit**  
<http://www.osapac.org>  
Outlines the software acquisition process, the software database, and offers curriculum connections for Ontario Educators.
- WorldAtlas.com** **ST 1**  
<http://worldatlas.com>  
Contains a variety of maps including a World Map and a Map of North America.



# Patterns in Physical Geography

## Geography A Unit for Grade 7

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### Material

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- Atlas** **ST 5**  
1  
per person  
Displaying Canada's Growing Environments or  
Ecosystems and Canada's Climate Patterns.
  
- Atlas** **ST 7**  
1  
per person

## 1.1 Diagram Rating Scale

\_\_\_\_\_

date

name

Your diagram was assessed using the following scales. The higher the number, the better the diagram is at showing the information to the viewer.

	<b>Incomplete</b>			<b>Excellent</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Heading</b> -includes date and name				
<b>Title</b> -correctly placed and neat	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Diagram</b> -neatly and accurately drawn	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Labels</b> -neatly printed and easy to read	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Overall Appearance</b> -neatly coloured	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Total</b>				<hr/> 20

## 1.2 Map of World



### 1.3 Map of North America

date \_\_\_\_\_

name \_\_\_\_\_



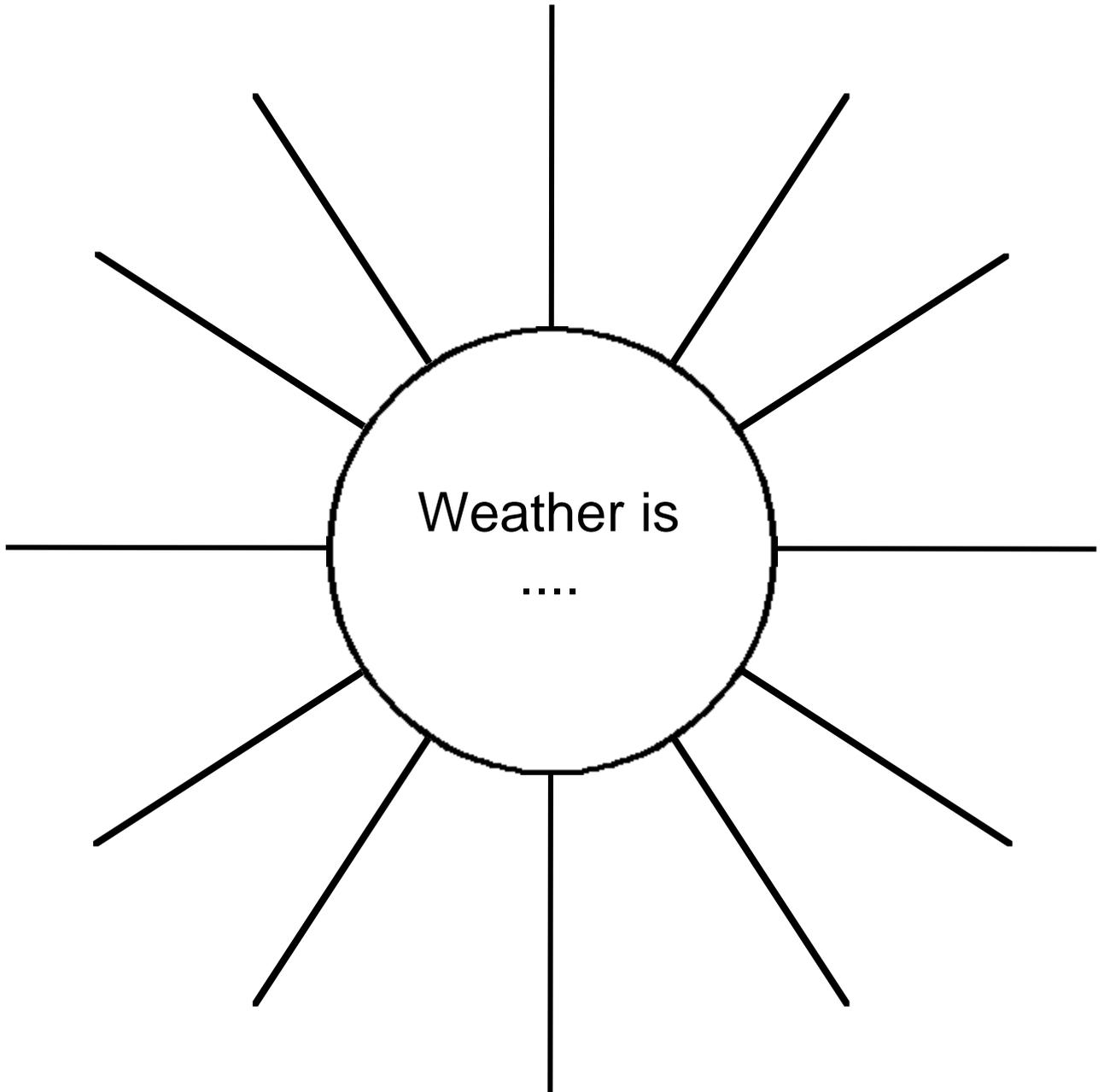
## 2.2 What Is Weather?

\_\_\_\_\_

date

\_\_\_\_\_

name



## 2.3 Latitude Is a Factor of Climate

\_\_\_\_\_ date

\_\_\_\_\_ name

Settlement and Location (° Latitude)	January Temperature (°C)	January Precipitation (mm)	July Temperature (°C)	July Precipitation (mm)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

1. Make a general statement concerning the pattern you notice when you relate temperature and precipitation to latitude.

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---

## 2.4 Oceans Are a Factor of Climate

\_\_\_\_\_ date

\_\_\_\_\_ name

1. Use an atlas to find the latitude of each of the following locations.
2. Complete the chart by filling in the average monthly temperatures and the average monthly precipitation for each of the locations.

### Winnipeg, Manitoba (Latitude \_\_\_\_\_ )

	J	F	M	A	M	J	J	A	S	O	N	D
°C												
mm												

### Vancouver, British Columbia (Latitude \_\_\_\_\_ )

	J	F	M	A	M	J	J	A	S	O	N	D
°C												
mm												

### North Bay, Ontario (Latitude \_\_\_\_\_ )

	J	F	M	A	M	J	J	A	S	O	N	D
°C												
mm												

### Saint John's, Newfoundland (Latitude \_\_\_\_\_ )

	J	F	M	A	M	J	J	A	S	O	N	D
°C												
mm												

3. Find the average temperature for each location.  
\_\_\_\_\_
4. Find the total precipitation for each location.  
\_\_\_\_\_
5. Make a general statement concerning the pattern you notice when you relate temperature and precipitation to closeness to the ocean.  
\_\_\_\_\_  
\_\_\_\_\_

## 2.5 Ocean Currents Are a Factor of Climate

\_\_\_\_\_ date

\_\_\_\_\_ name

- Use an atlas to find the latitude of each of the following locations.
- Complete the chart by filling in the average monthly temperatures and the average monthly precipitation for each of the locations.

### Gander, Newfoundland (Latitude \_\_\_\_\_ )

	J	F	M	A	M	J	J	A	S	O	N	D
°C												
mm												

### Stavanger, Norway (Latitude \_\_\_\_\_ )

	J	F	M	A	M	J	J	A	S	O	N	D
°C												
mm												

- Find the average temperature for each location.  
\_\_\_\_\_
- Find the temperature range for each location.  
\_\_\_\_\_
- Which location has temperatures more typical of a northern climate?  
\_\_\_\_\_
- Name the ocean current that affects the temperature at Gander.  
\_\_\_\_\_
- Name the ocean current that affects the temperature at Stavanger.  
\_\_\_\_\_
- Make a general statement concerning the pattern you notice when you relate temperature to ocean currents.  
\_\_\_\_\_  
\_\_\_\_\_

## 2.6 Altitude Is a Factor of Climate

\_\_\_\_\_ date

\_\_\_\_\_ name

1. Use an atlas to find the latitude of each of the following locations.
2. Complete the chart by filling in the average monthly temperatures and the average monthly precipitation for each of the locations.

### Quito, Ecuador (Latitude \_\_\_\_\_ )

Month	J	F	M	A	M	J	J	A	S	O	N	D
°C												
mm												

### Manaus, Brazil (Latitude \_\_\_\_\_ )

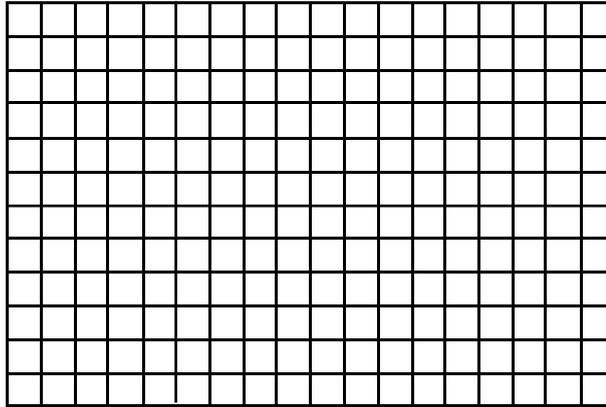
Month	J	F	M	A	M	J	J	A	S	O	N	D
°C												
mm												

3. Find the average temperature for each location.  
\_\_\_\_\_
4. Find the temperature range for each location.  
\_\_\_\_\_
5. Which of the two locations has temperatures more typical of a its latitude?  
\_\_\_\_\_
6. Find the elevation of Quito.  
\_\_\_\_\_
7. Find the elevation of Manaus.  
\_\_\_\_\_
8. Make a general statement concerning the pattern you notice when you relate temperature to altitude.  
\_\_\_\_\_  
\_\_\_\_\_

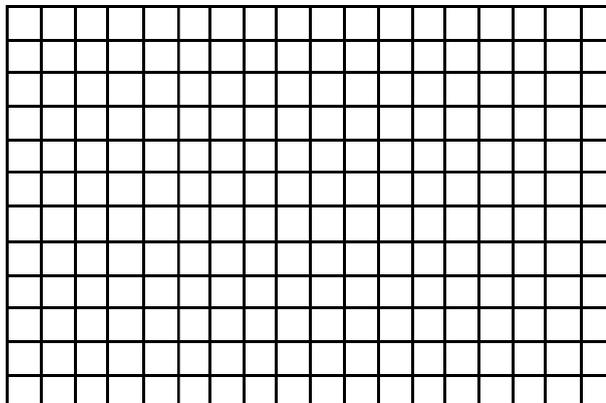
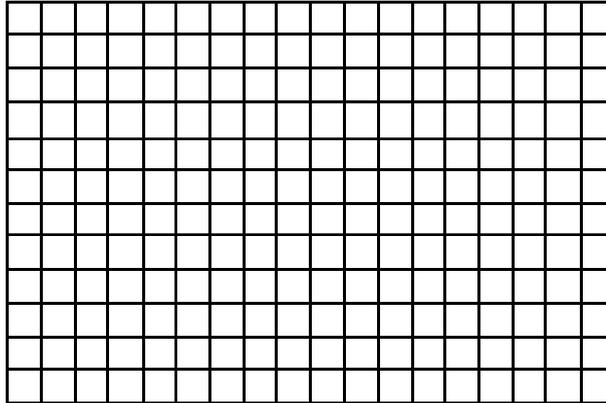
**Temperature °C**

3.1

0



**Precipitation in mm**



### 3.2 Temperature and Precipitation Statistics

date \_\_\_\_\_

name \_\_\_\_\_

#### Sydney, Australia

	J	F	M	A	M	J	J	A	S	O	N	D
°C	22	22	21	18	15	12	11	12	15	17	19	21
mm	101	114	132	106	99	132	63	81	55	78	86	78

#### Phoenix, Arizona

	J	F	M	A	M	J	J	A	S	O	N	D
°C	12	14	16	21	26	31	34	33	29	23	16	12
mm	17	17	22	5	3	3	21	24	21	16	16	25

#### Toronto, Ontario

	J	F	M	A	M	J	J	A	S	O	N	D
°C	-6	-5	0	6	12	17	21	20	15	8	3	-2
mm	48	45	58	66	66	66	71	81	71	63	66	60

#### Vancouver, British Columbia

	J	F	M	A	M	J	J	A	S	O	N	D
°C	3	5	6	9	12	15	17	17	14	10	6	3
mm	144	121	101	68	55	48	30	38	58	116	154	172

#### Perth, Australia

	J	F	M	A	M	J	J	A	S	O	N	D
°C	24	24	22	18	16	13	12	13	14	16	18	21
mm	7	12	15	45	106	175	162	116	68	48	25	12

#### Kano, Nigeria

	J	F	M	A	M	J	J	A	S	O	N	D
°C	30	32	36	38	37	34	31	29	31	34	33	30
mm	0	0	2	7	68	114	208	312	139	12	0	0

## 4.1 Natural Phenomenon Research Assignment

\_\_\_\_\_ date

\_\_\_\_\_ name

1. Choose one of the following natural phenomena.

hurricane	earthquake	blizzard	tornado
avalanche	volcanic eruption	forest fire	tsunami (tidal wave)
landslides	other		

2. Use the research/inquiry method to locate information from a variety of sources and prepare a presentation on the effects of this natural phenomenon on people and the environment.

1. **Focus:** Ask questions about the natural phenomenon. Be sure to include the six question of inquiry (who, what, when, where, why, and how).

What are the characteristics of this phenomenon?

Why does this phenomenon occur?

Where does this phenomenon take place?

When does it take place?

Who is affected by this phenomenon?

How can this phenomenon be prepared for?

2. **Organize:** Prepare to answer the focus questions. A “plan of action” is a commonly used organizer.

3. **Locate:** Find resources that have the information you need to answer the focus questions (atlas, Internet sites, textbooks, magazines, charts, maps).

4. **Record:** Summarize and record the information located on maps, sketches, charts, and graphs.

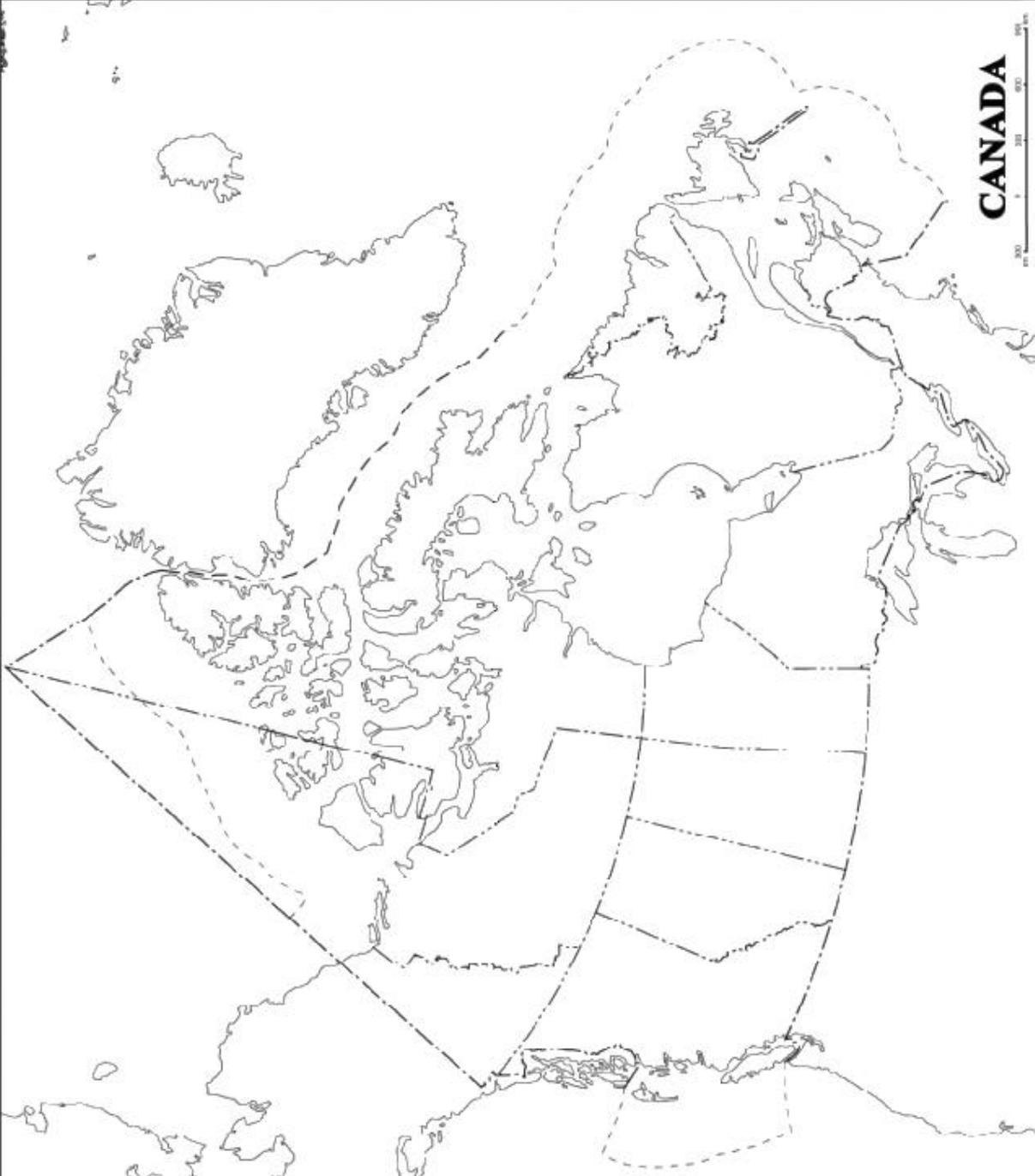
5. **Evaluate:** Decide which information is most useful and make any necessary changes.

6. **Conclude:** Combine all the useful information.

7. **Communicate:** Present your information to others in an oral presentation. Be sure to include diagrams, maps, and charts.

**CANADA**

0 100 200 300 400 500 km



## 6.1 Profile of a River Answers

\_\_\_\_\_ date

\_\_\_\_\_ name

Term	Description
drainage basin	an area of the earth's surface drained by a river system
ocean	large bodies of salt water
source or headwaters	the place where a river or stream begins
tributaries	small creeks or rivers that drain water from the surrounding land
mouth	the point where a river or stream empties into another stream, river, lake, or ocean
delta	a formation that occurs where river mud or silt is dropped or deposited at the mouth of a river
meander	a large twist or turn in a river
oxbow lake	a part of a river that has been cut off
confluence	the place where two rivers meet
ground water	water that comes to the surface
melting glaciers and surface runoff	most of the water in a river system comes from this source

## 6.1 Profile of a River Chart

\_\_\_\_\_ date

\_\_\_\_\_ name

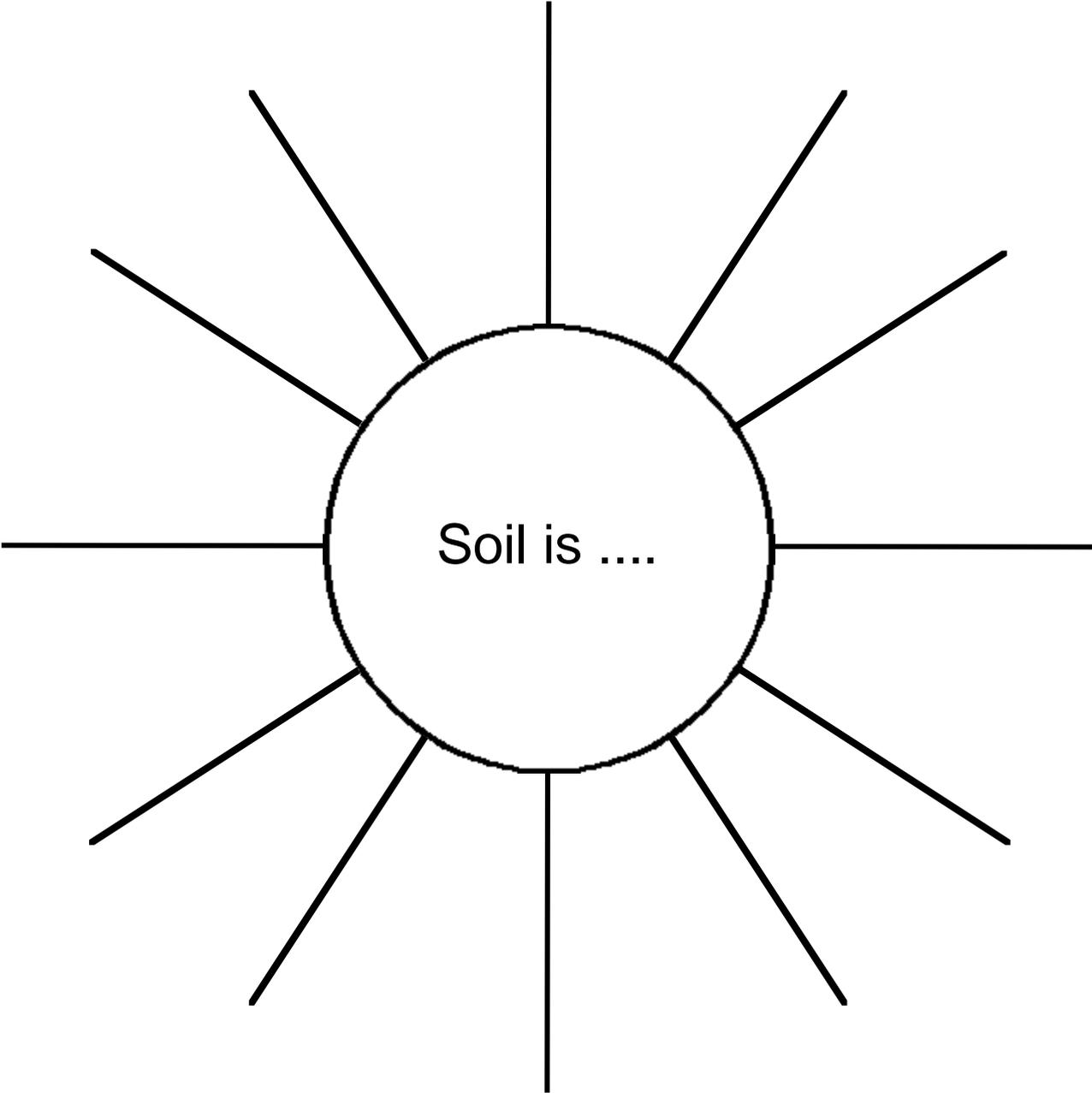
Match this list of "river words" to descriptions provided below: meander, source or headwaters, oxbow lake, melting glaciers and surface runoff, drainage basin, ground water, tributaries, confluence, mouth, delta, and ocean.

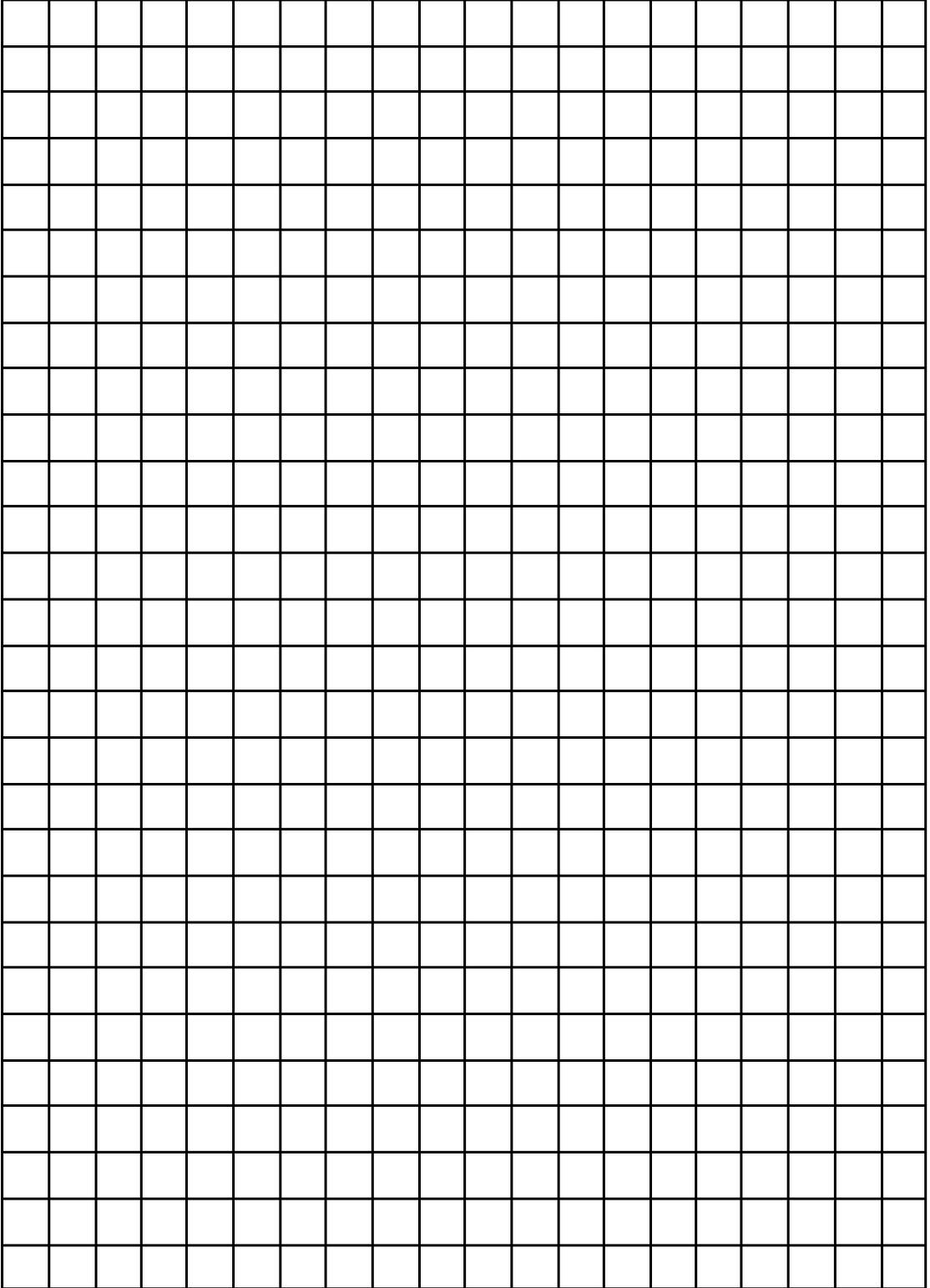
Term	Description
	an area of the earth's surface drained by a river system
	large bodies of salt water
	the place where a river or stream begins
	small creeks or rivers that drain water from the surrounding land
	the point where a river or stream empties into another stream, river, lake, or ocean
	a formation that occurs where river mud or silt is dropped or deposited at the mouth of a river
	a large twist or turn in a river
	a part of a river that has been cut off
	the place where two rivers meet
	water that comes to the surface
	most of the water in a river system comes from this source

8.1 What Is Soil?

\_\_\_\_\_ date

\_\_\_\_\_ name





## 8.3 Experiment Outline

\_\_\_\_\_ date

\_\_\_\_\_ name

### Soil Absorbency and Plant Growth

**Purpose:** To observe which soil type is best able to hold water and to observe which soil type is best able to grow seeds.

**Materials:** 4 same sized containers (cans with small wholes in bottom or flowerpots)  
4 soil samples of the same amount: a forested area, a sand box, a grassy field, an area of limited growth  
wristwatch or clock  
4 shallow bowls  
measuring cup  
south-facing window (sunlight)  
measuring cup  
8 to 12 bean seeds  
grid paper for graphing

**Method:**

1. Number the containers 1 to 4.
2. Loosely place one type of soil in each of the labeled containers to within 2 cm from the top.
3. On a chart, record the container number, texture, colour, and appearance (granule size).
4. Leave the soil in a sunny window or low oven to completely dry out.
5. Place each container in one of the shallow bowls.
6. Add 500 mL of water to container 1.
7. Collect and measure the amount of water that drains from the container after 10 seconds.
8. Record your results in a chart.
9. Repeat step 6 - 8 for each of the containers.
10. Rank each container from least to most absorbent and record.
11. Place 2 - 3 bean seeds in each container at the same depth (1 cm).
12. Place the four cans in the same window location.
13. Measure and record the growth in each container over the next several days.

**Observations:** Construct charts and/or diagrams to display your observations. Construct a bar graph to show the growth that occurred in each of the containers.

**Conclusions:** Make statements concerning which soil type is best able to hold water and which soil type is best able to grow seeds.

\_\_\_\_\_ date

\_\_\_\_\_ name

### 9.1 Types of Agriculture

Type of Agriculture	Location	Climate Region	Topography/ Landform	Soil
<b>Subsistence</b> (grow just enough to feed self) i.e., vegetables	1. 2. 3.			
<b>Commercial</b> (sell to others) i.e., wheat, potatoes, beef, hogs	1. 2. 3.			
<b>Specialized</b> (only one product) i.e., sheep, beef, dairy farming	1. 2. 3.			

**Rubric for an Oral Presentation**  
**for use with Subtask 4 : Natural Phenomena**  
 from the Grade 7 Unit: **Patterns in Physical Geography**



**Student Name:** \_\_\_\_\_  
**Date:** \_\_\_\_\_

**Expectations for this Subtask to Assess with this Rubric:**

- 7g29** – identify, through investigation, the effects of natural phenomena (e.g., tornadoes, earthquakes, hurricanes) on people and the environment;
- 7g37** – locate relevant information from a variety of primary sources (e.g., aerial photographs, satellite images, interviews, field studies) and secondary sources (e.g., climate maps, illustrations, print materials, videos, CD-ROMs, Internet);
- 7g39** – construct a wide variety of graphs, charts, diagrams, maps, and models to organize information (e.g., river-system and watershed maps);
- 7g40** – communicate the results of inquiries for specific purposes and audiences, using media works, oral presentations, written notes and descriptions, drawings, tables, charts, and graphs.

<b>Category/Criteria</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>
<b>Understanding of Concepts</b> – shows understanding of the effects of natural phenomena on people and the environment	– shows little understanding of the effects of natural phenomena on people and the environment	– shows some understanding of the effects of natural phenomena on people and the environment	– shows good understanding of the effects of natural phenomena on people and the environment	– shows complete understanding of all (or almost all) of the effects of natural phenomena on people and the environment
<b>Developing Inquiry/Research and Communication Skills</b> – applies skills and strategies required to locate relevant information about the effects of natural phenomena on people and the environment	– applies few of the skills and strategies required to locate relevant information about the effects of natural phenomena on people and the environment – rarely uses appropriate terminology and vocabulary	– applies some of the skills and strategies required to locate relevant information about the effects of natural phenomena on people and the environment – sometimes uses appropriate terminology and vocabulary	– applies most of the skills and strategies required to locate relevant information about the effects of natural phenomena on people and the environment – usually uses appropriate terminology and vocabulary	– applies all (or almost all) of the skills and strategies required to locate relevant information about the effects of natural phenomena on people and the environment – consistently uses appropriate terminology and vocabulary
<b>Developing Map and Globe skills</b> – applies the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies few of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies some of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies most of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies all (or almost all) of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed
<b>Applying Concepts and Skills in Various Contexts</b> – gives complete explanations about the effects of natural phenomena on people and the environment	– rarely gives complete explanations about the effects of natural phenomena on people and the environment	– sometimes gives complete explanations about the effects of natural phenomena on people and the environment	– usually gives complete or nearly complete explanations about the effects of natural phenomena on people and the environment	– consistently gives complete explanations about the effects of natural phenomena on people and the environment

**Rubric for an Oral Presentation**  
**for use with Subtask 11 :                      S elective Farming**  
**from the Grade 7 Unit: Patterns in Physical Geography**



**Student Name:** \_\_\_\_\_  
**Date:** \_\_\_\_\_

**Expectations for this Subtask to Assess with this Rubric:**

- 7g33** – demonstrate an understanding of three types of agriculture (subsistence, commercial, specialized) and their relation to climate, topography, and soil;
- 7g35** – use appropriate vocabulary, including correct geographic terminology (e.g., classify, climate graph, pattern, latitude, altitude, site) to describe their inquiries and observations;
- 7g40** – communicate the results of inquiries for specific purposes and audiences, using media works, oral presentations, written notes and descriptions, drawings, tables, charts, and graphs.
- 7g46** – investigate and describe the process involved in growing, harvesting, and processing a plantation crop (e.g., cotton, rice, coffee, bananas, tobacco, sugar cane).

<b>Category/Criteria</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>
<b>Understanding of Concepts</b> – understanding of the process involved in growing, harvesting, and processing a plantation crop	– shows little understanding of the process involved in growing, harvesting, and processing a plantation crop	– shows some understanding of the process involved in growing, harvesting, and processing a plantation crop	– shows good understanding of the process involved in growing, harvesting, and processing a plantation crop	– shows complete understanding of all (or almost all) of the process involved in growing, harvesting, and processing a plantation crop
<b>Developing Inquiry/Research and Communication Skills</b> – applies skills and strategies required to locate relevant information about the process involved in growing, harvesting, and processing a plantation crop – uses appropriate terminology and vocabulary	– applies few of the skills and strategies required to locate relevant information about the process involved in growing, harvesting, and processing a plantation crop – rarely uses appropriate terminology and vocabulary	– applies some of the skills and strategies required to locate relevant information about the process involved in growing, harvesting, and processing a plantation crop – sometimes uses appropriate terminology and vocabulary	– applies most of the skills and strategies required to locate relevant information about the process involved in growing, harvesting, and processing a plantation crop – usually uses appropriate terminology and vocabulary	– applies all (or almost all) of the skills and strategies required to locate relevant information about the process involved in growing, harvesting, and processing a plantation crop – consistently uses appropriate terminology and vocabulary
<b>Developing Map and Globe skills</b> – applies required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies few of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies some of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies most of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies all (or almost all) of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed
<b>Applying Concepts and Skills in Various Contexts</b> – gives complete explanations about the process involved in growing, harvesting, and processing a plantation crop	– rarely gives complete explanations about the process involved in growing, harvesting, and processing a plantation crop	– sometimes gives complete explanations about the process involved in growing, harvesting, and processing a plantation crop	– usually gives complete or nearly complete explanations about the process involved in growing, harvesting, and processing a plantation crop	– consistently gives complete explanations about the process involved in growing, harvesting, and processing a plantation crop

Student Name: \_\_\_\_\_  
 Date: \_\_\_\_\_

for use with Subtask 1 :  
 from the Grade 7 Unit: Patterns in Physical Geography

**Rubric for a Map**  
**C oastal Connections**



**Expectations for this Subtask to Assess with this Rubric:**

- 7g26** – identify and describe world land-form patterns (e.g., location of fold mountains along the west coast of North and South America);
- 7g37** – locate relevant information from a variety of primary sources (e.g., aerial photographs, satellite images, interviews, field studies) and secondary sources (e.g., climate maps, illustrations, print materials, videos, CD-ROMs, Internet);
- 7g39** – construct a wide variety of graphs, charts, diagrams, maps, and models to organize information (e.g., river-system and watershed maps);
- 7g41** – identify patterns in physical geography, using thematic maps;

Category/Criteria	Level 1	Level 2	Level 3	Level 4
<b>Understanding of Concepts</b> – shows understanding of world landform patterns	– shows little understanding of world landform patterns	– shows some understanding of world landform patterns	– shows good understanding of world landform patterns	– shows complete understanding of world landform patterns
<b>Developing Inquiry/Research and Communication Skills</b> – applies skills and strategies required to locate relevant information about world landform patterns – use of appropriate terminology and vocabulary	– applies few of the skills and strategies required to locate relevant information about world landform patterns – rarely uses appropriate terminology and vocabulary	– applies some of the skills and strategies required to locate relevant information about world landform patterns – sometimes uses appropriate terminology and vocabulary	– applies most of the skills and strategies required to locate relevant information about world landform patterns – usually uses appropriate terminology and vocabulary	– applies all (or almost all) of the skills and strategies required to locate relevant information about world landform patterns – consistently uses appropriate terminology and vocabulary
<b>Developing Map and Globe Skills</b> – applies required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies few of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies some of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies most of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies all (or almost all) of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed

# Rubric for Climate Graphs

for use with Subtask 3 : **Net Results**  
 from the Grade 7 Unit: **Patterns in Physical Geography**



Student Name: \_\_\_\_\_  
 Date: \_\_\_\_\_

## Expectations for this Subtask to Assess with this Rubric:

- 7g24** – recognize pattern as an important concept in geography (e.g., location of volcanoes along the Pacific Rim);
- 7g28** – demonstrate an understanding that climate patterns result from the interaction of several factors: latitude, altitude, global wind systems, air masses, proximity to large bodies of water, ocean currents);
- 7g39** – construct a wide variety of graphs, charts, diagrams, maps, and models to organize information (e.g., river-system and watershed maps);
- 7g42** – make and interpret climate graphs;
- 7g45** – construct and compare climate graphs;

Category/Criteria	Level 1	Level 2	Level 3	Level 4
<b>Understanding of Concepts</b> – understanding of pattern as an important concept in geography	– shows little understanding of pattern as an important concept in geography	– shows some understanding of pattern as an important concept in geography	– shows good understanding of pattern as an important concept in geography	– shows complete understanding of pattern as an important concept in geography
<b>Developing Inquiry/Research and Communication Skills</b> – applies skills and strategies required to locate relevant information about climate patterns – uses appropriate terminology and vocabulary	– applies few of the skills and strategies required to locate relevant information about climate patterns – rarely uses appropriate terminology and vocabulary	– applies some of the skills and strategies required to locate relevant information about climate patterns – sometimes uses appropriate terminology and vocabulary	– applies most of the skills and strategies required to locate relevant information about climate patterns – usually uses appropriate terminology and vocabulary	– applies all (or almost all) of the skills and strategies required to locate relevant information about climate patterns – consistently uses appropriate terminology and vocabulary
<b>Developing Map and Globe Skills</b> – applies required conventions for completing a climate graph: title, date, and name; neatly and accurately printed axes labels; neatly coloured and displayed	– applies few of the required conventions for completing a climate graph: title, date, and name; neatly and accurately printed axes labels; neatly coloured and displayed	– applies some of the required conventions for completing a climate graph: title, date, and name; neatly and accurately printed axes labels; neatly coloured and displayed	– applies most of the required conventions for completing a climate graph: title, date, and name; neatly and accurately printed axes labels; neatly coloured and displayed	– applies all (or almost all) of the required conventions for completing a climate graph: title, date, and name; neatly and accurately printed axes labels; neatly coloured and displayed

# Rubric for a Map



Student Name: \_\_\_\_\_  
Date: \_\_\_\_\_

for use with Subtask 5 :  
from the Grade 7 Unit: **Patterns in Physical Geography**

## Expectations for this Subtask to Assess with this Rubric:

- 7g30** – demonstrate an understanding that natural vegetation patterns result from the interaction of several factors: temperature, precipitation, soil types, competition for available nutrients;
- 7g37** – locate relevant information from a variety of primary sources (e.g., aerial photographs, satellite images, interviews, field studies) and secondary sources (e.g., climate maps, illustrations, print materials, videos, CD-ROMs, Internet);
- 7g39** – construct a wide variety of graphs, charts, diagrams, maps, and models to organize information (e.g., river-system and watershed maps);
- 7g41** – identify patterns in physical geography, using thematic maps;

Category/Criteria	Level 1	Level 2	Level 3	Level 4
<b>Understanding of Concepts</b> – shows understanding that natural vegetation patterns result from the interaction of several factors	– shows little understanding that natural vegetation patterns result from the interaction of several factors	– shows some understanding that natural vegetation patterns result from the interaction of several factors	– shows good understanding that natural vegetation patterns result from the interaction of several factors	– shows complete understanding that natural vegetation patterns result from the interaction of several factors
<b>Developing Inquiry/Research and Communication Skills</b> – applies skills and strategies required to locate relevant information about natural vegetation patterns – uses appropriate terminology and vocabulary	– applies few of the skills and strategies required to locate relevant information about natural vegetation patterns – rarely uses appropriate terminology and vocabulary	– applies some of the skills and strategies required to locate relevant information about natural vegetation patterns – sometimes uses appropriate terminology and vocabulary	– applies most of the skills and strategies required to locate relevant information about natural vegetation patterns – usually uses appropriate terminology and vocabulary	– applies all (or almost all) of the skills and strategies required to locate relevant information about natural vegetation patterns – consistently uses appropriate terminology and vocabulary
<b>Developing Map and Globe Skills</b> – applies required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies few of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies some of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies most of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies all (or almost all) of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed

**Rubric for a Map  
Terrific Waterways**  
from the Grade 7 Unit: **Patterns in Physical Geography**



Student Name: \_\_\_\_\_  
Date: \_\_\_\_\_

for use with Subtask 7 :

**Expectations for this Subtask to Assess with this Rubric:**

- 7g31** – identify major river systems of the world (e.g., Amazon, Nile, St. Lawrence) and describe their drainage patterns as either dendritic or trellis;
- 7g37** – locate relevant information from a variety of primary sources (e.g., aerial photographs, satellite images, interviews, field studies) and secondary sources (e.g., climate maps, illustrations, print materials, videos, CD-ROMs, Internet);
- 7g39** – construct a wide variety of graphs, charts, diagrams, maps, and models to organize information (e.g., river-system and watershed maps);
- 7g41** – identify patterns in physical geography, using thematic maps;

Category/Criteria	Level 1	Level 2	Level 3	Level 4
<b>Understanding of Concepts</b> – shows understanding of the major river systems of the world	– shows little understanding of the major river systems of the world	– shows some understanding of the major river systems of the world	– shows good understanding of the major river systems of the world	– shows complete understanding of the major river systems of the world
<b>Developing Inquiry/Research and Communication Skills</b> – applies skills and strategies required to locate relevant information about the major river systems of the world – uses appropriate terminology and vocabulary	– applies few of the skills and strategies required to locate relevant information about the major river systems of the world – rarely uses appropriate terminology and vocabulary	– applies some of the skills and strategies required to locate relevant information about the major river systems of the world – sometimes uses appropriate terminology and vocabulary	– applies most of the skills and strategies required to locate relevant information about the major river systems of the world – usually uses appropriate terminology and vocabulary	– applies all (or almost all) of the skills and strategies required to locate relevant information about the major river systems of the world – consistently uses appropriate terminology and vocabulary
<b>Developing Map and Globe Skills</b> – applies required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies few of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies some of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies most of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies all (or almost all) of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed

# Rubric for a Map



for use with Subtask 10 :

Necessary Conditions  
from the Grade 7 Unit: Patterns in Physical Geography

Student Name: \_\_\_\_\_  
Date: \_\_\_\_\_

## Expectations for this Subtask to Assess with this Rubric:

- 7g32** – describe the correlation between physical patterns and types of crops (e.g., land-forms: plains/grains; climate: tropics/ bananas);
- 7g37** – locate relevant information from a variety of primary sources (e.g., aerial photographs, satellite images, interviews, field studies) and secondary sources (e.g., climate maps, illustrations, print materials, videos, CD-ROMs, Internet);
- 7g40** – communicate the results of inquiries for specific purposes and audiences, using media works, oral presentations, written notes and descriptions, drawings, tables, charts, and graphs.
- 7g41** – identify patterns in physical geography, using thematic maps;
- 7g44** – investigate and describe how specialized forms of agriculture (e.g., sheep, beef, dairy farming) relate to world patterns of land-forms, climate, and vegetation;

Category/Criteria	Level 1	Level 2	Level 3	Level 4
<b>Understanding of Concepts</b> – shows understanding of the correlation between physical patterns and types of crops	– shows little understanding of the correlation between physical patterns and types of crops	– shows some understanding of the correlation between physical patterns and types of crops	– shows good understanding of the correlation between physical patterns and types of crops	– shows complete understanding of the correlation between physical patterns and types of crops
<b>Developing Inquiry/Research and Communication Skills</b> – applies skills and strategies required to locate relevant information about the correlation between physical patterns and types of crops – uses appropriate terminology and vocabulary	– applies few of the skills and strategies required to locate relevant information about the correlation between physical patterns and types of crops – rarely uses appropriate terminology and vocabulary	– applies some of the skills and strategies required to locate relevant information about the correlation between physical patterns and types of crops – sometimes uses appropriate terminology and vocabulary	– applies most of the skills and strategies required to locate relevant information about the correlation between physical patterns and types of crops – usually uses appropriate terminology and vocabulary	– applies all (or almost all) of the skills and strategies required to locate relevant information about the correlation between physical patterns and types of crops – consistently uses appropriate terminology and vocabulary
<b>Developing Map and Globe Skills</b> – applies required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies few of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies some of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies most of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed	– applies all (or almost all) of the required conventions for completing a map: title, date, and name; compass rose; legend; neatly and accurately printed labels; neatly coloured and displayed



**Patterns in Physical Geography**  
**Geography A Unit for Grade 7**

Selected **Assessed**

**Geography---Patterns in Physical Geography**

<input type="checkbox"/> 7g24	– recognize pattern as an important concept in geography (e.g., location of volcanoes along the Pacific Rim);		<b>2</b>
<input type="checkbox"/> 7g25	– identify and explain how land-forms are used to delineate regions;	1	
<input type="checkbox"/> 7g26	– identify and describe world land-form patterns (e.g., location of fold mountains along the west coast of North and South America);		<b>1</b>
<input type="checkbox"/> 7g27	– identify and describe world climate patterns;	1	<b>1</b>
<input type="checkbox"/> 7g28	– demonstrate an understanding that climate patterns result from the interaction of several factors: latitude, altitude, global wind systems, air masses, proximity to large bodies of water, ocean currents);		<b>2</b>
<input type="checkbox"/> 7g29	– identify, through investigation, the effects of natural phenomena (e.g., tornadoes, earthquakes, hurricanes) on people and the environment;		<b>1</b>
<input type="checkbox"/> 7g30	– demonstrate an understanding that natural vegetation patterns result from the interaction of several factors: temperature, precipitation, soil types, competition for available nutrients;		<b>2</b>
<input type="checkbox"/> 7g31	– identify major river systems of the world (e.g., Amazon, Nile, St. Lawrence) and describe their drainage patterns as either dendritic or trellis;		<b>1</b>
<input type="checkbox"/> 7g32	– describe the correlation between physical patterns and types of crops (e.g., land-forms: plains/grains; climate: tropics/bananas);		<b>1</b>
<input type="checkbox"/> 7g33	– demonstrate an understanding of three types of agriculture (subsistence, commercial, specialized) and their relation to climate, topography, and soil;		<b>2</b>
<input type="checkbox"/> 7g34	– identify the six major factors which influence commercial agriculture: location, climate, raw materials, market, labour, and transportation.		<b>1</b>
<input type="checkbox"/> 7g35	– use appropriate vocabulary, including correct geographic terminology (e.g., classify, climate graph, pattern, latitude, altitude, site) to describe their inquiries and observations;	4	<b>2</b>
<input type="checkbox"/> 7g36	– formulate comparative and speculative questions to guide the research of a topic of study concerning physical patterns;	2	<b>2</b>
<input type="checkbox"/> 7g37	– locate relevant information from a variety of primary sources (e.g., aerial photographs, satellite images, interviews, field studies) and secondary sources (e.g., climate maps, illustrations, print materials, videos, CD-ROMs, Internet);		<b>9</b>
<input type="checkbox"/> 7g38	– analyse, synthesize, and evaluate data (e.g., agricultural patterns, land-form patterns);	5	<b>3</b>
<input type="checkbox"/> 7g39	– construct a wide variety of graphs, charts, diagrams, maps, and models to organize information (e.g., river-system and watershed maps);		<b>9</b>
<input type="checkbox"/> 7g40	– communicate the results of inquiries for specific purposes and audiences, using media works, oral presentations, written notes and descriptions, drawings, tables, charts, and graphs.		<b>4</b>
<input type="checkbox"/> 7g41	– identify patterns in physical geography, using thematic maps;	1	<b>4</b>
<input type="checkbox"/> 7g42	– make and interpret climate graphs;		<b>1</b>
<input type="checkbox"/> 7g43	– draw cross-sectional diagrams (e.g., of land-forms, river profiles).		<b>4</b>
<input type="checkbox"/> 7g44	– investigate and describe how specialized forms of agriculture (e.g., sheep, beef, dairy farming) relate to world patterns of land-forms, climate, and vegetation;	1	<b>1</b>
<input type="checkbox"/> 7g45	– construct and compare climate graphs;		<b>1</b>
<input type="checkbox"/> 7g46	– investigate and describe the process involved in growing, harvesting, and processing a plantation crop (e.g., cotton, rice, coffee, bananas, tobacco, sugar cane).		<b>1</b>



## Patterns in Physical Geography Geography A Unit for Grade 7

### English Language

7e1	7e2	7e3	7e4	7e5	7e6	7e7	7e8	7e9	7e10
7e11	7e12	7e13	7e14	7e15	7e16	7e17	7e18	7e19	7e20
7e21	7e22	7e23	7e24	7e25	7e26	7e27	7e28	7e29	7e30
7e31	7e32	7e33	7e34	7e35	7e36	7e37	7e38	7e39	7e40
7e41	7e42	7e43	7e44	7e45	7e46	7e47	7e48	7e49	7e50
7e51	7e52	7e53	7e54	7e55	7e56	7e57	7e58	7e59	7e60
7e61	7e62	7e63	7e64	7e65	7e66	7e67	7e68	7e69	7e70

### French as a Second Language

7f1	7f2	7f3	7f4	7f5	7f6	7f7	7f8	7f9	7f10
7f11	7f12	7f13	7f14	7f15	7f16	7f17			

### Mathematics

7m1	7m2	7m3	7m4	7m5	7m6	7m7	7m8	7m9	7m10
7m11	7m12	7m13	7m14	7m15	7m16	7m17	7m18	7m19	7m20
7m21	7m22	7m23	7m24	7m25	7m26	7m27	7m28	7m29	7m30
7m31	7m32	7m33	7m34	7m35	7m36	7m37	7m38	7m39	7m40
7m41	7m42	7m43	7m44	7m45	7m46	7m47	7m48	7m49	7m50
7m51	7m52	7m53	7m54	7m55	7m56	7m57	7m58	7m59	7m60
7m61	7m62	7m63	7m64	7m65	7m66	7m67	7m68	7m69	7m70
7m71	7m72	7m73	7m74	7m75	7m76	7m77	7m78	7m79	7m80
7m81	7m82	7m83	7m84	7m85	7m86	7m87	7m88	7m89	7m90
7m91	7m92	7m93	7m94	7m95	7m96	7m97	7m98	7m99	7m100
7m101	7m102	7m103	7m104	7m105	7m106	7m107	7m108	7m109	

### Science and Technology

7s1	7s2	7s3	7s4	7s5	7s6	7s7	7s8	7s9	7s10
7s11	7s12	7s13	7s14	7s15	7s16	7s17	7s18	7s19	7s20
7s21	7s22	7s23	7s24	7s25	7s26	7s27	7s28	7s29	7s30
7s31	7s32	7s33	7s34	7s35	7s36	7s37	7s38	7s39	7s40
7s41	7s42	7s43	7s44	7s45	7s46	7s47	7s48	7s49	7s50
7s51	7s52	7s53	7s54	7s55	7s56	7s57	7s58	7s59	7s60
7s61	7s62	7s63	7s64	7s65	7s66	7s67	7s68	7s69	7s70
7s71	7s72	7s73	7s74	7s75	7s76	7s77	7s78	7s79	7s80
7s81	7s82	7s83	7s84	7s85	7s86	7s87	7s88	7s89	7s90
7s91	7s92	7s93	7s94	7s95	7s96	7s97	7s98	7s99	7s100
7s101	7s102	7s103	7s104	7s105	7s106	7s107	7s108	7s109	7s110
7s111	7s112	7s113	7s114	7s115	7s116	7s117	7s118	7s119	7s120
7s121	7s122	7s123	7s124	7s125	7s126	7s127	7s128	7s129	7s130
7s131									

### History

7h1	7h2	7h3	7h4	7h5	7h6	7h7	7h8	7h9	7h10
7h11	7h12	7h13	7h14	7h15	7h16	7h17	7h18	7h19	7h20
7h21	7h22	7h23	7h24	7h25	7h26	7h27	7h28	7h29	7h30
7h31	7h32	7h33	7h34	7h35	7h36	7h37	7h38	7h39	7h40
7h41	7h42	7h43	7h44	7h45	7h46	7h47	7h48	7h49	7h50
7h51	7h52	7h53	7h54	7h55	7h56	7h57			

### Geography

7g1	7g2	7g3	7g4	7g5	7g6	7g7	7g8	7g9	7g10													
7g11	7g12	7g13	7g14	7g15	7g16	7g17	7g18	7g19	7g20													
7g21	7g22	7g23	7g24	2	7g25	1	7g26	1	7g27	1	7g28	2	7g29	1	7g30	2						
7g31	1	7g32	1	7g33	2	7g34	1	7g35	4	2	7g36	2	7g37	2	7g38	9	5	3	7g39	9	7g40	4
7g41	1	7g42	1	7g43	4	7g44	1	7g45	1	7g46	1	7g47		7g48		7g49		7g50				
7g51		7g52		7g53		7g54		7g55		7g56		7g57		7g58		7g59		7g60				
7g61		7g62		7g63		7g64																

### Health & Physical Education

7p1	7p2	7p3	7p4	7p5	7p6	7p7	7p8	7p9	7p10
7p11	7p12	7p13	7p14	7p15	7p16	7p17	7p18	7p19	7p20
7p21	7p22	7p23	7p24	7p25	7p26	7p27	7p28	7p29	7p30
7p31	7p32	7p33	7p34	7p35	7p36	7p37	7p38	7p39	7p40
7p41	7p42								

### The Arts

7a1	7a2	7a3	7a4	7a5	7a6	7a7	7a8	7a9	7a10
7a11	7a12	7a13	7a14	7a15	7a16	7a17	7a18	7a19	7a20
7a21	7a22	7a23	7a24	7a25	7a26	7a27	7a28	7a29	7a30
7a31	7a32	7a33	7a34	7a35	7a36	7a37	7a38	7a39	7a40
7a41	7a42	7a43	7a44	7a45	7a46	7a47	7a48	7a49	7a50
7a51	7a52	7a53	7a54	7a55	7a56	7a57	7a58	7a59	7a60
7a61	7a62	7a63	7a64	7a65	7a66	7a67	7a68	7a69	7a70
7a71	7a72	7a73	7a74	7a75	7a76	7a77	7a78		



# Patterns in Physical Geography

## Geography A Unit for Grade 7

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### Analysis Of Unit Components

- 11 Subtasks
- 70 Expectations
- 56 Resources
- 68 Strategies & Groupings
- Unique Expectations --
- 23 Geography Expectations

### Resource Types

- 7 Rubrics
  - 26 Blackline Masters
  - 0 Licensed Software
  - 5 Print Resources
  - 2 Media Resources
  - 14 Websites
  - 2 Material Resources
  - 0 Equipment / Manipulatives
  - 0 Sample Graphics
  - 0 Other Resources
  - 0 Parent / Community
  - 0 Companion Bookmarks
- 

### Groupings

- 11 Students Working As A Whole Class
- 4 Students Working In Pairs
- 1 Students Working In Small Groups
- 6 Students Working Individually

### Teaching / Learning Strategies

- 2 Demonstration
- 11 Discussion
- 1 Inquiry
- 2 Map Making
- 1 Note-making
- 2 Research
- 1 Technology

### Assessment Recording Devices

- 4 Rating Scale
- 7 Rubric

### Assessment Strategies

- 2 Classroom Presentation
- 10 Performance Task
- 3 Questions And Answers (oral)