Canadian Geography 1202
Government of Newfoundland and Labrador

Theme: The Natural Environment

Chapter 1 Your Space

At the end of this chapter, students should be able to:

Define the term relative location.

Using an air photo, describe the relative location of a cultural feature (e.g., your school) and a physical feature (e.g., a hill).

Using a world map or globe, describe Canada's location in terms of
 . oceans which border it
 . countries which serve as its neighbours
 . the prime meridian
 . the North Pole

Using a globe, estimate how much of Canada's landmass is north of
 . 50° N lat.
 . 60° N lat.
 . 70° N lat.

 Chapter 2 Beyond your Space

At the end of this chapter, students should be able to:

Define the terms latitude and longitude.

Define the term absolute location.

Using a topographic map, determine the absolute location of a cultural feature and a physical feature by means of a six-figure coordinate system.
Using a gazetteer or a map, determine the absolute location of the capital cities of Canada.
Using a standard location system in Canada (e.g., postal codes, or telephone area codes), identify the location of a given community.
Using a globe, rank the five largest countries by land areas.
Using a computer data base or a print resource, develop a table to test the pattern reflected in item 1.2.1.
Define the term scale.
Define the term time zone.
Explain why a time zones system is needed.
Given a time zones map and the departure time and duration of an airline flight, determine the arrival time (local).
Contrast physical distance and time distance.
Describe the physical and time distance in a journey from your home to a site of your choice (e.g., video arcade, school).
Select three Canadian cities which you would like to visit, and complete the following chart.   C For time distance, add total travel time for the different transportation modes you would use.
Given a table showing decreasing time distances resulting from the use of improved communications technology (e.g., decreases in telephone connection time during the past 60 years), write a statement to describe the pattern shown. .

Chapter 3 Landforms

At the end of this chapter, students should be able to:

Define the term igneous.
Define the term metamorphic.
Describe how mineral deposits form.
Using an air photo or a topographic map, describe the typical landscape of the Canadian Shield.
Using a map showing the physical regions of Canada, identify the provinces which share the Canadian Shield.
Define the term sedimentary.
Describe how the Interior Plains were formed.
Using a map showing the physical regions of Canada, identify the provinces which share the Interior Plains.
Define the term faulting.
Given an illustrated diagram, briefly describe the process of faulting.
Describe how the Great Lakes-St. Lawrence Lowlands were formed.
Using a map showing the physical regions of Canada, identify the provinces which share the Great Lakes-St. Lawrence Lowlands. .
Define the term folding.
Given an illustrated diagram, briefly describe the process of folding.
Describe how the Western Cordillera were formed.

Contrast the Appalachian Mountains with the Western Cordillera.
Using a map showing the physical regions of Canada, identify the provinces which share the Appalachian Mountains and Western Cordillera regions. .
Distinguish between mountain and hill.
Distinguish between plain and plateau.
On an air photo or a topographic map, identify each of the four major landforms.
Using a topographic map, construct a profile of land forms along a given line of direction.
Distinguish among the terms bay, gulf, and strait.
Define the terms tributary and delta.
On a map, identify the four major drainage basins (with their major rivers and lakes) in Canada.
Using a map, describe the factors which determine the limits of a given drainage basin.
Using a physical features map, describe each of the major landforms and water forms for a given region of Canada. .
Briefly describe how the resources of the Canadian Shield influence the kind of economic activity carried on there.
Explain why there is an absence of oil and gas activity on the Canadian Shield.
Use an atlas and locate the number of major cities (population over 100,000) found in the Interior Plains. Give reasons for this pattern.
Explain why large deposits of potash are located on the Interior Plains.

Analyze a series of photos depicting types of land use in Canada. For example, the photos could relate to a mine in a hilly area, farming in a lowland area, deep sea fishing, or a hydro-electric generating station on a riversite. Complete the following chart to show that primary activity is shaped to a large extent by the nature of the physical environment.

Photo	Type of Landscape	Land Use Activity	How Landscape Affects Human Activity

Examine a road system for a given area. Using a topographic map or air photo, determine how the system was influenced by the nature of the terrain. .

Given an account of an individual who moved from central Canada to an island community in a coastal area, describe the effect of the move on his or her lifestyle (e.g., transportation, recreational activities).

Assume the role of an individual who is living in an area which geologists claim could be subject to severe folding or faulting activity. Develop a newspaper article describing the probable impact of an earthquake on the local community. (i)

Assume the role of an early explorer or missionary traveling 500 km from the coast to the interior:
- Research a published account (e.g., a diary) of an explorer or missionary who used an inland water route to explore a region of Canada.
- Describe which tools, equipment and skills were essential for the trek.
- Reflect upon whether people today have these skills.
- Compare the difficulty of the trek with a similar trip today.

Assume the role of an investor who wishes to establish a recreation resort. Using a topographic map, select a site which (i)
- can be developed as a ski slope for winter use, and
- can be developed as a site for water sports for summer use.

Chapter 4 Climate

At the end of this chapter, students should be able to:

Define the term weather.

Define the term climate.

Given a satellite image of an area (e.g., the eastern seaboard of North America) and date of observation,
- determine the absolute location of the hurricane centre;
- describe its relative location;
- select a location and describe the probable weather conditions; and
- explain the advantage of satellite images over local radar for observing such a storm.

Given a series of statements, identify those which relate to weather and those which relate to climate.

Community	Month												
	J	F	M	A	M	J	J	A	S	O	N	D	
a													℃ mm

b														⬚C mm
c														⬚C mm
d														⬚C mm

Describe the conditions which give rise to convectional rainfall.
Describe the conditions which give rise to frontal rainfall.
Identify the type of rainfall most commonly experienced in the local area.
Based on data gathered in item 2.1.5, describe the typical climate pattern in the local area. .
Analyze a table of average monthly temperatures (for July) for selected stations in Canada. Use the grid given below to construct a scattergram to relate temperatures and latitudinal location.

75ẞ N

70ẞ N

65ẞ N

60ẞ N

55ẞ N

50ẞN
      10   12   14   16   18   20   22   24

Temperature (o C)

Describe the general pattern of temperatures from south to north.
Given a diagram, explain how the earth's shape affects the amount of solar radiation a given location receives.
Given a map displaying the distribution of temperatures for January and July, determine the validity of the following statements: • Temperatures get colder as one goes from north to south. • The difference between winter and summer temperatures in high latitudes is greater than that in the middle latitudes.
Define the terms wind and prevailing winds.
Given air temperatures above the sea and above the land, predict the wind direction.
Describe the conditions which affect wind direction.
Given a diagram displaying a generalized pattern of prevailing winds, identify the wind systems which affect climate in Canada.

Over an extended period for the local area, keep a record of wind direction and related weather conditions. Briefly describe the effect of winds on weather conditions in the local area.
Define the term wind-chill.
Using a graph showing the wind-chill values as a result of the combined effect of wind and temperature, determine the potential wind-chill effect if an individual were traveling on a snow machine at a given speed and at a given temperature (e.g., 40 km at a temperature of -20 C̆ .
Define the term ocean current.
Given a world map of currents, identify the ocean currents which affect the climate of Canada.
With reference to a world map of ocean currents, describe the conditions which give rise to ocean currents.
Given a world map of ocean currents and the climographs for two coastal locations on the same latitude in Canada (e.g., Prince Rupert and Rigolet), briefly describe how the difference in temperatures reflects the influence of ocean currents. .
Define the term elevation.
Given a table showing temperatures at different elevations on generally the same latitude, explain how elevation affects temperature.
Briefly explain why an increase in elevation results in a decrease in temperature.
Define the terms rainshadow.
Define the terms windward and leeward.
Given a set of rainfall statistics for a location on the windward side of a mountain system (e.g., the Rocky Mountains) and a location on the leeward side, briefly compare the rainfall conditions.
Briefly describe the conditions which result in orographic rainfall.
Describe how mountains may act as a barrier to influence climate patterns. .
Define the term temperature range.

Given a set of temperature statistics for a location in Canada, calculate the temperature range.
Explain how land and water differ in their ability to retain heat.
Given a table showing the July temperatures for selected stations in Canada (generally on the same latitude) and the distance from the sea, describe how distance from the sea influences temperatures. .
Given a climograph, briefly describe the climate portrayed.
Describe the features of a continental climate.
Describe the features of a maritime climate.
Given a series of climographs, determine which is a continental or maritime location.
Identify the factors which most affect the climate of the local area.
Given a simplified weather map of Canada, predict the conditions which are likely to be experienced at a given location. .
Given a case study of a farm operation in Canada (e.g., fruit farming, wheat farming), relate the sequence of farming activities to the occurrence of climate conditions
Examine a travel brochure for a recreational site in Canada. Describe the degree to which climate is promoted as a positive feature of the area.
Analyze a newspaper article about a weather-related disaster. Determine the human effects of the disaster (e.g., deaths, injuries, property damage).

Describe for the local area the impact of wind at a given direction on
   • home heating costs
   • dress
   • outdoor activities

Briefly describe an example where climate helps determine the type of economic activity carried on in a given area (e.g., climatic conditions in British Columbia are ideal for growth of large trees which is the basis for the forestry industry).

Assume the role of an individual who has the option of moving to another location in Canada.

Define the term ecosystem.

Using a map illustrating the natural vegetation regions of Canada, identify the major ecosystems of Canada.

Chapter 5 Northern Character

At the end of this chapter, students should be able to:

Using a climate map and an ecosystems map, complete the following chart.

Climate Region and Characteristics	Ecosystem and Characteristics

Write a sentence to describe the relationship between climate and vegetation. .

Differentiate the terms producers, consumers, omnivores, and decomposers.

Given a brief description of a Canadian ecosystem, identify the producers, consumers, and decomposers.

Define the term food chain.

Define the term food web.
Given a brief description of a Canadian ecosystem, draw a diagram to illustrate inter-relationships among organisms for a selected food web.
For a given Canadian ecosystem, describe how a selected animal species is adapted to northern conditions.
For a given Canadian ecosystem, describe how a selected plant species is adapted to northern conditions.
Given an account of a disruption in an ecosystem (e.g., the removal of a plant specie), predict the probable impact on the ecosystem. (i).
Identify the four main components which make up soil.
Differentiate the terms accumulation of humus, leaching, eluviation, and capillary action.
Given a photo of a soil profile,   • identify the different horizons; and   • determine the ecosystem in which the soil depicted is likely to be found.
Given photos of two soil profiles, determine which is likely to be the more fertile. Explain.
Explain why tundra soils are infertile.
Given a diagram illustrating the relationship between soil fertility and precipitation, inscribe each of four given soil types in its correct position on the curve.   a. heavily leached soil   b. black prairie soil   c. brown prairie soil   d. lightly leached soil
Examine a graph or table showing the trend for the use of a given resource (e.g., the harvesting of trees, or the catching of fish). Write a sentence to describe the pattern shown.
Read a newspaper article about damage by river pollution in Canada (e.g., threat to the beluga whale in the St. Lawrence). Summarize the article according to the following organizer:

Problem:		
Causes	Effects	Possible Solution

Show that forests are an important component of the ecosystem by explaining how they prevent soil erosion and maintain watersheds.

Explain how depletion of the ozone layer may affect a given ecosystem.

Through the use of case study material, examine the views/actions of selected groups on a given environmental issue (e.g., loggers vs. environmentalists in the harvesting of trees in British Columbia; developers vs. native groups on hydro development of the Great Whale). Identify the underlying values of each group. Explain how your values on this issue compare with those held by each side. (i)

Identify an environmental issue in your area (e.g., the disposal of garbage into a landfill area).
Determine the cause of the problem, suggest strategies to correct it, and communicate these strategies in the form of a letter to the editor of the local paper. (i).

Theme: Natural Resources

Chapter 6, Agriculture

At the end of this chapter, students should be able to:

Define the term inputs.

Distinguish between natural inputs and human inputs.
Define the terms farming processes and outputs.
Analyze a case study of a Canadian farm and record the components of the farming system in the following chart.

Inputs		Processes	Outputs
Natural	**Human**		

apply the following concept to the farming operation described in the above case study.   Natural environmental conditions help determine whether an area is suitable for a particular farming operation.
Explain how climate affects the yearly round or cycle of farming activities.
Given a case study of a wheat farming operation in Canada, briefly explain • how climatic conditions poses risks for wheat farmers; • how the soil is suited to wheat farming; • how the terrain is an advantage for the wheat farmer; • the ratio of labour-to-land; • how the farmer attempts to combat natural hazards.

Given a case study of a beef cattle grazing operation,
- describe how the carrying capacity of the land is related to rainfall;
- identify the products obtained from the animals;
- explain how products are marketed;
- determine the share of national beef production held by a given province (e.g., Alberta).

Given a case study of a tender fruit operation,
- describe how local environmental conditions make the area suited to the growing of tender fruit;
- identify the variety of crops grown;
- describe the annual cycle of farming activities;
- explain how the demand for seasonal workers is met;
- explain why it is important to be located near the markets.

Given a case study of mixed farming, briefly describe
- the types of crops grown and products produced;
- the conditions conducive to mixed farming;
- the crop rotation for one field;
- why crop rotation is necessary;
- where and how the products are marketed.

Given a case study of a market gardening operation, briefly describe
- the nature of the soil;
- how high yields are maintained;
- the importance of access to local markets.

For one of the case studies given above, identify the inputs, farming processes, and the outputs.

Briefly describe the main characteristics of an agribusiness. .

Use an agricultural map of Canada to identify areas which specialize in given types of farming.

Examine a map showing the suitability of Canada's land area, classified according to the Canada Land Inventory categories.
- Estimate the proportion of Canada's land area which is deemed good to excellent.
- Determine the land use in areas classified as poor to very poor.
- Select an area classified as good to excellent; by referring to a climate map and an ecosystems map explain why this area is suited to farming.
- Select a region (e.g., the Canadian Shield) classified as poor to very poor; explain why it is ill-suited to farming.
- Write a brief statement to identify the location of good quality farmland in Canada.

Examine a table showing the percentage of land in each province classified as good to excellent.
- Rank the provinces from highest to lowest in terms of land quality.
- Graph the pattern shown.

From the table in item 4.3.2,
- select the province with the best quality land;
- refer to a soils map and identify the soil type;
- explain how the composition of the soil makes it suitable for agriculture.

Given a table showing agricultural output by province, determine if there is a relationship between agricultural production and the percentage of land ranked as good to excellent.

Define the term growing degree day.

Given a map showing the distribution of growing degree days in Canada and a table showing the required growing degree days for selected crops,
- select an area which is most suited to the growing of a given crop once its required number of growing degree days is stated;
- select the area with the highest number of growing degree days and identify factors which account for this pattern.

Given a table indicating the average farm size by province and for the country,
- identify the province with the largest farms and describe the factors which account for this pattern;
- identify the province with the smallest farms and describe the factors which account for this pattern.

Given a case study related to the loss of farmland in Canada from 1981 to the present,
- determine the number of farms lost in Canada;
- identify the province with the highest loss of farmland;
- briefly describe the factors which explain why farmland is being lost in Canada.

Given a case study on the loss of soil,
- list the environmental conditions which often result in soil loss;
- on a map, identify the areas of Canada where soil loss is highest;
- describe the actions which a farmer may take to reduce soil loss.

Assume the role of an owner of a construction company who wishes to construct homes on high quality farmland at the edge of a large Canadian city.
- List the arguments you would use to obtain your construction permit.
- Contrast these arguments with those of a young farmer who wishes to purchase land to expand his or her farm.

Given a case study about economic aspects of operating a farm,
- identify factors which tend to cause a cost-price squeeze;
- identify international conditions which may also induce a cost-price squeeze;
- describe the strategies which farmers may adopt to help address the problem of shrinking   profits.

Assume the role of a farmer who is forced to sell his or her farm due to falling prices and rising costs (e.g., for borrowing and for energy). Write a letter to an editor of a newspaper to argue for government intervention in such instances. (i)

Chapter 10 Mining

At the end of this chapter, students should be able to:

Define the term mineral.

Distinguish between metallic and non-metallic minerals.

Given a series of minerals, classify each as metallic, non-metallic, or fossil fuel.

Using a map showing the location of the principal mineral areas of Canada, briefly describe the location of
- metallic minerals
- non-metallic minerals.

Describe the techniques used today to find new mineral deposits.

Given a case study of an open-pit mining operation (e.g., Timmins),
- develop a chart to list the inputs, mining processes, and outputs;
- describe the conditions under which open-pit mining is carried on.

Given a case study of an underground mine (e.g., Hemlo Gold),
- develop a chart to list the inputs, mining processes, and outputs;
- describe the conditions under which underground mining is carried on.

Describe the conditions which are likely to result in strip mining.

Describe the conditions which are likely to result in drilling for oil and gas. .

Identify the type of mining activity which is likely to be most hazardous. Explain.

Assume the role of the president of a mining firm. Prospectors for your company have identified a promising body of ore. Develop a list of physical, economic, and social conditions you will have to consider before making a decision to open a mine. (i)

Research newspapers to identify a mining operation which experienced an accident or disaster. Write a brief report to examine
- the cause of the accident or disaster;
- its impact in terms of lives lost, injuries, and damage to property;
- the response of the company to the incident;
- the response of the community

Examine a case study of a town where the mining operation closed down. Describe
- the factors which led to the close-down;
- the immediate effects that the mine closing had on the town;
- how the experiences would likely affect family life;
- long-term survival strategies adopted by the town;
- efforts of the company to clean up the environment.

A mining company has just decided to open a mine near your community. Assume each of the following roles and pose a question you would ask company officials at a public meeting: (i)
- an environmentalist
- an unemployed worker
- a road contractor.

Chapter 9 Forestry (Completed in 2002 and 2003) OPTIONAL

At the end of this chapter, students should be able to:

Analyze a map showing the forest regions of Canada and a map showing the climate zones of Canada,
- Identify specific regions of Canada which are not forested.
- Describe the relationship between climate and the distribution

Given a table showing (by province, territory, and for Canada) the area of the total forest land and productive forest land.
- Identify the two areas with the highest percentage of forest land classified as productive.
- Identify the two areas with the lowest percentage of productive forest land

Describe the natural conditions which determine if a forest is of commercial value

Given a table showing the number of workers in the forest industry and the volume of timber cut for a selected time period,
- describe the trend in the number of workers employed;
- describe the trend in the volume of timber harvested;
- explain how these two trends are interrelated

Given a case study on a logging operation today and one early in this century, briefly describe
- the changes in working conditions;
- the differences in the kinds of technology used;
- how the labour/capital ratio has changed.

Given a case study of a wood harvesting operation in Canada, describe
- the effect of climatic conditions and topography on the operation;
- the kinds of equipment used;
- how trees are harvested and marketed;
- the forest management practices engaged in.

Given a case study of a pulp and paper operation,
- list the key factors which made the location an attractive site for a pulp and paper mill;
- explain why an abundance of water was important;
- describe the conditions which resulted in "down time";
- comment on the importance of the operation to the local economy.

Define the term sustained yield.

Identify objections which a timber harvesting company may have to a sustained yield policy.

List five strategies which may be used to reduce the threat from insect infestation.

Given a case study about a human-made threat (e.g., forest fires, acid rain, clear cutting) to the forest ecosystem,
- identify the source of the threat;
- describe the impact it has on the forest ecosystem;
- describe the human efforts to reduce the threat;
- list opposing views to these efforts and identify who holds these opposing views;
- describe the potential economic effects if the threat went unchecked.

Conduct research and write a brief report on possible uses for discarded outputs from the forestry industry (e.g., wood bark).

Given a case study of a silviculture operation, (i)
- describe the silviculture methods used;
- determine if the data indicates an increase in silviculture activity;
- decide whether you agree with the expenditure of money into a program which will take a long time to show results.

Given two letters to a newspaper editor in which opposing stands are taken on the cutting practices of a commercial logging operation, (i)
- identify the issue(s) from the two writers' point of view;
- determine the underlying values of the writers;
- choose the position you would take on the issue; explain why.

Assume the role of the president of the local Chamber of Commerce in a town where the largest employer is a pulp and paper mill. Management at the mill has just announced that a drop in newsprint prices will result in serious "down time" at the mill. Write a report to be given at the next meeting of municipal council describing the possible effects of the situation on the town. (i).

Chapter 8 Fishing

At the end of this chapter, students should be able to:

Define the term habitat.

Distinguish between zooplankton and phytoplankton.

Define the terms banks and continental shelf.

Describe the conditions which make each of the following areas suitable as a fish habitat.
- The waters off Canada's Pacific coast.
- The waters off Canada's Atlantic coast.

Given a diagram of a food web in the marine ecosystem,
- identify a food chain;
- describe the possible impact of the removal of a specie on other species in the food web.

Conduct research about an aquacultural operation to determine how it tries to replicate natural environmental conditions (e.g., water temperature, sunlight, feeding patterns). Present your findings in a brief report. .

Briefly distinguish between the terms inshore fishery and the offshore fishery.

Given a graph showing the northern cod landings, 1960 to the present, briefly describe how the catch for the inshore fishery compares with that of the offshore fishery.

Given a case study about the inshore fishery, describe
- the type of gear used;
- species caught;
- activities during a typical working day;
- the annual cycle of activity; and
- approaches to ensure quality control.

Given a case study about the offshore fishery, describe how this fishery is similar to and different from the inshore fishery for the five features listed in item 5.2.3.

Given a bar graph showing the catches by major fishing fleets for selected species off Canada's Atlantic coast, identify
- the two species with the highest landings;
- the country which harvests the greatest portion of these two species; and
- the species which Canada harvests the least amount of. Explain.

Compare the Atlantic fishery with the Pacific coast fishery in terms of
- the most predominate species caught;
- the number of people employed;
- the value of landings;
- types of technology used.

Select a type of fishing technology (e.g., the otter trawl),
- describe why it was introduced;
- the impact upon the fishery.

Identify a quality control condition expected in the market place and describe how the fishing industry attempts to meet it.

Define the term aquaculture.

Given a case study about an aquaculture operation (e.g., mussels), describe
- the factors which affected the selection of the site for the operation;
- the obstacles the entrepreneur had to overcome to make the operation viable;
- the life cycle of the species;
- how the species is marketed; and
- problems with meeting the conditions expected in the marketplace.

Select an exotic specie (e.g., wolffish) which fishery scientists think has potential for fish farming. Conduct research to determine why it has potential in the marketplace.

Interview an individual who engages in the harvesting of a non-traditional ocean resource (e.g., sea urchins, Irish moss).
- Find out the individual became involved in this kind of activity.
- Describe some of the processes associated with the activity.
- Identify the market and uses made of the resource.

Interview a manager of a food-based business operation (e.g., a restaurant). Examine the trend in customer preference for groups of foods (e.g., chicken, meat, fish). Account for the degree to which fish is consumed compared to other food groups. Based on the information gathered, prepare an article to be included in the food column of a newspaper. (i).

Describe the effect that a given source of pollution (e.g., ships pumping their bilges into the sea) has on the ocean environment.

Given a bar graph showing cod landings from Canadian Atlantic waters,
- briefly describe the pattern shown;
- give reasons for this pattern; and
- explain why Canada decided to extend its offshore jurisdiction from 22 km to 370 km on January 1, 1977.

Given an account of a fishing dispute between Canada and another jurisdiction (e.g., St. Pierre et Miquelon), describe
- the central issue in the dispute;
- the claims of each country; and
- how the dispute was settled.

Describe the conditions which contributed to the serious depletion of cod stocks in Canada's Atlantic waters that began in the 1970s.

Examine a newspaper article, or another media source, about the cod moratorium imposed in July 1992. (i)
- Describe the impact of the moratorium on a fisher person and his or her family.
- Describe how you would feel if you were in this situation.

Theme: The New Economy

Chapter 12, Population Challenges

At the end of this chapter, students should be able to:

Given a population dot map for each of two areas, determine
- which area represented has the more evenly distributed population;
- which area has the more dispersed population distribution; and
- which area has the higher population density.

Given a table showing the population and area for each province and territory,
- calculate the population density for each province; and
- rank the provinces by population density (highest to lowest).

Given a population distribution map of Canada, state your agreement or disagreement with the following statement. Explain.
Canadians live in "islands" of population strung along the southern border.

Examine a landforms map of Canada. Select an area (e.g., Rocky Mountain region) and describe how landforms contribute to an uneven distribution of population.

Select a densely populated area (e.g., Niagara Peninsula) and a sparsely populated area (e.g., North West Territories). Examine a climate map and explain how climate affects the   distribution of population.

Describe the impact of resource centres on the distribution of population in Canada.

Examine a table showing the provincial share of population employed in manufacturing and a table showing the population by province. Describe the relationship between manufacturing and population size. .

Given a population line graph (10-year intervals), describe the change in Canada's population.

Examine a multiple line graph showing the population growth rate for each province.
- Identify the province which has experienced the highest growth rate.
- Describe the social and economic conditions which help explain this trend.

Define the terms birth rate and growth rate.

Define the term natural increase.

Examine a table showing the birth rate and death rate (5-year intervals) for the past 75 years.
- Calculate the rate of natural increase for each 5-year interval and present in table form.
- Describe what is happening to Canada's rate of natural increase over the 75-year period.
- Briefly describe some of the social conditions help explain the pattern in the rate of natural increase.

Given a table showing the number of families and average number of children per family (for the period 1941 to present),
- describe what is happening to family size; and
- compare this trend with that reflected in item 8.3.5.

List reasons which help explain why Canada's rate of natural increase is shrinking. .
Define the term population pyramid.
Given a population pyramid for Canada, • compare the total percentage of females to that of males; • compare the total percentage of females over age 65 to that of males over age 65; and • explain why the base of the population pyramid is relatively narrow.
Define the term dependency load.
From the population pyramid in item 8.4.2, calculate the dependency load.
Describe the potential impact of a high dependency load on such conditions as • housing, • tax levels for the working population; and • job opportunities.
Examine a population pyramid for native people in Canada and the population pyramid in item 8.4.2. Determine whether the following statements are valid and explain why. • Native people in Canada have a higher birth rate than the general population does. • Compared to the general population, a higher percentage of the native population lives to reach age 70 and older.
Define the term migration.
Distinguish between the terms immigration and emigration.
Define the term actual change.
Given a table showing Canada's migration totals (1985 to the present), • calculate the net migration figure for each year; and • calculate the total number of immigrants and emigrants within this period.
Given the number of deaths, births, emigrants, and immigrants for a given year, calculate the actual change in population.

Given a bar graph showing trends in immigration to Canada from 1867 to the present and a socio-economic descriptor for given periods (e.g., the Depression), explain how the number of immigrants is affected by social and economic conditions in Canada.

Examine a table showing net inter-provincial migration in Canada.
- Identify the provinces which have been experiencing a net outflow of people.
- Identify the provinces which have been experiencing a net inflow of people.
- List factors which account for the migration of people from one province to another.

Assume the role of the premier of a province which is the destination for large numbers of migrants from other provinces. (i)
- Adopt a position which either supports or does not support this trend.
- Develop strategies which would help promote this position.

Assume that you are to move to another province. (i)
- Determine which province you would choose. Explain why.
- List possible obstacles to this move.

Chapter 15, Urban Growth

At the end of this chapter, students should be able to:

Define the term rural.

Define the term urban.

Given a series of photographs, classify each one as either rural or urban.

Examine a bar graph showing the percentage of rural and urban population in Canada for the past 100 years.
- Determine for each time interval the change in the percentage of Canadians living in rural areas.
- Determine for each time interval the change in the percentage of Canadians living in urban areas.
- Describe what has been happening to the rural-urban balance in Canada over the past 100 years.

Define the term urbanization.
Describe the conditions which account for the increasing rate of urbanization in Canada.
Define the term Census Metropolitan Area (CMA).
Examine a table showing the population of the twenty largest CMAs in Canada for the last four census returns (i.e., twenty years) and the percentage change in their population. • Calculate the percentage of the total Canadian population found in these cities. • On an outline map of Canada, indicate the location of each CMA; at each point, draw a vertical bar to indicate the percentage change in the population of each CMA. • Identify the province which experienced the greatest growth in size of its CMAs. Explain why. • Identify the five provinces cities which experienced the greatest percentage. • Determine if this pattern is related to your findings about inter-provincial migration. Explain. • Select a large city which did not experience a high percentage of population growth. Explain why.
Define the term site.
Given a case study, describe how the needs of settlers were matched with the resource advantages of a particular site.
With reference to a Canadian example, explain how a protected site which provided a military advantage helped a settlement to get established.
Given a case study, describe how a settlement was established as the result of the transportation advantages a site provided.
Support the following statement by referring to a specific example. *Climatic conditions help make a location attractive for settlement.*
Conduct a study of the local community and determine the main conditions that influenced the decision of settlers to locate there. .
Define the term situation.
Given a series of brief statements, identify those which refer to site and those which refer to situation.
Given a case study of a Canadian city, identify the situational factors which led to its growth in size and importance.

Conduct a study of the local community and identify the factors which caused it to grow. .
Define the terms low-order services, middle-order services, and high-order services.

Community	Population	Order of Services		
		Low	Middle	High

(cont'd)
-     Describe the relationship between the size of the community and the range of services it provides

    Assuming that you live in a rural community, conduct a survey to determine if shoppers would make a purchase in the local community or in another community in order to meet each of the following needs. Present the information in the following chart.
.

Need	Where need would be met		Population
	Local	Other	
bread			
ice cream			
gasoline			
newspaper			
electrical supplies			
auto repairs			
prescription drugs			
art			
dental services			
expensive jewelry			
legal services			
computer repairs			

rock concert			
open heart surgery			
symphony orchestra			

(cont'd)
- Cite evidence to support the following statement.
- The greater the size of community the greater the range of services it provides to neighbouring communities.
- Explain how the distance one may travel depends upon the type of need to be met.

Given a case study, describe a service centre in terms of
- size,
- site,
- situation, and
- range of services provided.

Conduct research on a Canadian city to
- classify it by its major function (e.g., manufacturing, administrative, transportation); and
- determine the factors which led to its rise in importance for this major function.

Course Requirements

Theme	Understandings	SCOs	Required/ Optional	Total
The Natural Environment	2.1.1 2.1.2 2.1.3	1.1, 1.2, 1.3, 1.4, 1.5 -------------------- ------ 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8 ------------------------- 3.1, 3.2, 3.3, 3.4	Do all SCOs	3
Natural Resources	2.1.4 2.1.5	4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 4.10 ------------------------- 5.1, 5.2, 5.3, 5.4, 5.5	Do SCOs 4 OR 5	1
The New Economy	2.1.6 2.1.7 2.1.8 2.1.9	6.1, 6.2, 6.3, 6.4 ------------------------- 7.1, 7.2, 7.3 ------------------------- 8.1, 8.2, 8.3, 8.4, 8.5 ------------------------- 9.1, 9.2, 9.3, 9.4, 9.5	Do TWO of SCOs 6, 7, 8 OR 9	2
Connections	2.1.10 2.1.11	10.1, 10.2, 10.3, 10.4 10.5, 10.6 ------------------------- 11.1, 11.2, 11.3, 11.4, 11.5, 11.6	Do SCO 10 OR 11	1

A total of 7 Understanding must be completed
June 11, 2003