

Course Profile

Geography of Canada

Grade 9
Academic

• *for teachers by teachers*

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Acknowledgments

Public District School Board Writing Team - Canadian and World Studies

Lead Board

Kawartha Pine Ridge District School Board
Fiona White, Manager

Course Profile Writing Team

Rob Andrews, Kawartha Pine Ridge District School Board
Charlotte Barnoski, Kawartha Pine Ridge District School Board
Ron Chasmer, York Region District School Board
Doug Hinan, Kawartha Pine Ridge District School Board
Mark Lowry, Toronto District School Board
Dan Macmaster, Kawartha Pine Ridge District School Board
Todd Pottle, Kawartha Pine Ridge District School Board
Jeanette van Loon, Kawartha Pine Ridge District School Board

Internal Review & Support Team

Laina Andrews, Kawartha Pine Ridge District School Board
Bruce Brydges, Kawartha Pine Ridge District School Board
Carol Carr, Kawartha Pine Ridge District School Board
Leigh Facey-Crowther, Kawartha Pine Ridge District School Board
Mike Filip, Kawartha Pine Ridge District School Board
Kim Kasperski, Kawartha Pine Ridge District School Board
Cec Knight, Kawartha Pine Ridge District School Board
Sonja Vandermeer, Trillium Lakelands District School Board

Unit # 1: Natural Systems

Time: 1500 minutes

Unit Developer(s):

Development Date: April 7, 1999

Unit Description

In their study of natural systems, students will use the concept of a region in their investigation of Canada's ecozones and the physical processes which shape them. Their work on National Parks and on planning a tour of ecozones will develop their decision-making skills and provide a foundation of knowledge regarding Canada's varied and extensive natural systems. Students will apply these skills and concepts in the two final activities by creating a travel brochure and participating in a simulation aimed at selecting an ecozone for protection. The culminating activity for the unit will be introduced.

Strand(s) and Expectations

Strand(s): Geographic Foundations: Space and Systems, Human-Environment Interactions, Global Connections, Understanding and Managing Change, Methods of Geographic Inquiry

Overall Expectations: SSV.01B, SSV.02B, SSV.03B, SSV.04B, SSV.05B, HEV.O1D, HEV.04D, GCV.02B, UMV.01B, MIV.01B, MIV.02B, MIV.03D

Specific Expectations: SSI.01B, SSI.02B, SSI.04B, SSI.05D, SS2.01D, SS3.01D, SS3.03D, SS3.04D, SS3.05B, HE1.03B, HE3.03D, GC1.05D, UM1.02B, MI1L01B, MI1.02B, MI2.01D, MI2.02B, MI2.03D, MI2.04B, MI2.08B, MI2.09D, MI2.10D, MI2.11D, MI2.12B, MI2.13B, MI3.04D

Activity Titles (Time and Sequence)

Activity 1	Creating a Mind Map: Geography Is Everything	75 min
Activity 2	Identifying Local Regions	150 min
Activity 3	Discovering Ecozones Using Thematic Maps and Organizers	225 min
Activity 4	Investigating Physical Processes	225 min
Activity 5	Developing a Proposal for a National Park	225 min
Activity 6	Planning a Tour Across Canada	150 min
Activity 7	Designing a Travel Brochure	300 min
Activity 8	Presenting an Ecozone Proposal	150 min

Prior Knowledge Required

This unit builds on concepts and skills developed in the elementary curriculum, especially in Grade 7 Geography where expectations relating to geographic inquiry, physical geography and natural resources are addressed. As well, students will be expected to utilize communication skills addressed in the Language curriculum and data management skills addressed in the Mathematics curriculum.

Unit Planning Notes

Review information on ecozones, an ecological land classification system developed for use by Environment Canada and Statistics Canada that represents large and very generalized land areas based on particular combinations of abiotic and biotic features in conjunction with human activities. Canada's ecological landscape is comprised of 15 terrestrial and 5 marine unique ecozones. These zones may be subdivided into eco-regions which have distinguishable characteristics, based upon the ecosystems that exist within these regions. A good starting point for information is the Environment Canada website (see Resources section on p. 9).

Teachers should ensure:

- an adequate supply of textual and graphic resources on Canada's ecozones, natural systems, tourist information, and National Parks;
- appropriate bookings of technology facilities;
- reservation and preview of appropriate videos; and
- visitation to related web sites.

Teaching/Learning Strategies

Student learning will take place in this unit through their involvement in a variety of the following:

Creating graphs	Creating maps	Data analysis
Small group discussions	Class discussion	Simulation
Oral presentation	Written interpretation	Report writing

Assessment/Evaluation

During this first unit checklists and rating scales are used to provide frequent feedback to support the development of good learning skills for the course. Self and peer assessment will enable individual goal-setting. In addition rubrics are used for the more complex tasks involved in the written reports, the brochure and presentations.

Resources

See Resources section on p. 9 - 10 for complete information on the following types of resources, which are used in many activities throughout the course.

- Texts, Periodicals and Atlases
- Geotechnology Programs and Data
- Multimedia and Software
- Organizations and Internet Sites
- Assessment and Teaching Strategies

General reference to the types of resources needed for each activity are included with the activity, along with specific information for any resource that is used in that activity only.

Activity #1: Creating a Mind Map: Geography is Everything

Time: 75 minutes

Description

Students will brainstorm the topic “What is Geography?”. Students will draw from their previous knowledge as well as the visuals displayed in the classroom. Students will then categorize the words and create a mind map using their headings and all of the words from their list. Students will add symbols to their mind map and identify where connections can be made between some of the words in different categories.

Strands and Expectations

Strands: Geographic Foundations: Space & Systems, Methods of Geographic Inquiry

Overall Expectations: SSV.04B, MIV.01B

Specific Expectations: SS1.01B, SS1.05B, MI2.04B

Planning Notes

- Have many visuals showing different aspects of Geography available in the room.
- Have prizes available (optional)
- This is a good diagnostic tool for assessing prior learning about geography

Prior Knowledge Required

From the Grade 7 and 8 curriculum for geography it is expected that the student be familiar with the five themes of geographic inquiry (location/place, environment, region, interaction, and movement), understand and identify how physical patterns affect human activity, identify natural resource and understand their economic and environmental impact, understand global patterns in human geography, economic systems and the factors that influence them, as well as the major types of migration and factors affecting mobility.

Teaching/Learning Strategies

1. The teacher will start by explaining how brainstorming works - no bad ideas, no laughing at others, put everything down and sort it out later.
2. Individually, students will generate a list of 5 to 10 concepts (use both nouns and verbs) which answer the question “What is Geography?”. Teacher can give out prizes for the students with the most words.
3. Once students have their individual list, a class list will be generated on the board. Teacher may want to prompt students so that a wide variety of concepts are used.
4. Individually, students will organize the board list into 5 or 6 categories. They must choose an appropriate title for each category (not “Other”). Option: use the five themes of geography.
5. When students finish categorizing their words, they will create a mind map with “Geography is Everything” in the middle of their paper. The teacher may want to model one facet so that students know what to do. Maps is an easy one to model as students should have many words tied to this.
6. Once students complete their mind map they are to add as many symbols as they can think of beside the words.

7. Students will complete a check list of each other's mind maps to check for completeness and creative symbols.
8. Have students answer the following questions about their mind map:
How many categories did you use? Can you think of other ways to put together your categories? Are there any connections you can see between some of the words in your different categories? Compare your mind map to another student's - what similarities and/or differences do you see? After comparing your mind map to another student's mind map, is there anything you would do differently if you could do it all over again?
9. The teacher will lead a guided discussion based on the interconnections between the elements of geography and the systems of which they are a part; e.g., ecosystems, hydrological cycle...).
10. The teacher will introduce the final two activities as the focus for the unit, so students understand that the other activities will enable them to develop the concepts and skills needed for the travel brochure and simulation activities.

Assessment/Evaluation

Tool	Purpose	Who	Activity
Checklist	formative	peer	mind map
checklist	diagnostic	teacher	mind map

Accommodations

- For students with writing difficulties - have them start by using symbols, and/or give them sample headings for their organization
- Use of atlas to generate word lists
- Work with a peer/buddy or scribe

Resources

- A variety of posters and maps for the room
- Atlases

Activity #2: Identifying Local Regions

Time: 75 minutes

Description

Students will review the concept of regions and have the opportunity to discern regions within their local community or surrounding environment or that of an area for which remotely-sensed images (aerial photos or satellite images) are available.

Strands & Expectations

Strands: Geographic Foundation: Space & Systems, Understanding and Managing Change, Methods of Geographic Inquiry

Overall Expectations: SSV.01B, SSV.03B,SSV.04B SSV.05B UMV.02B, MIV.01B, MVI.02B

Specific Expectations: SS1.01B, SS1.02B, SS1.05D, S2.01D, SS3.01D, UM1.02B, MI1.02B, MI2.01D, MI2.03D, MI2.08B, M12.09D, M12.10D, MI2.11D, MI2.12B, MI2.13B, MI3.04D

Planning Notes

- Get copies of local Ontario Base Map from a local Planning or Engineering Dept.
- Review definitions of region and transition zone.
- Have remotely-sensed images available if necessary.
- Students can simulate a GIS in this activity by drawing the boundaries of each land use or land cover onto a series of transparencies, then overlaying them to identify patterns and relationships.
- If a GPS is available, have students geo-reference their local maps.
- A possible extension to this activity is to have students identify the barriers posed to infrastructure by the land uses, land cover, or topography.

Prior Knowledge Required

From the Grade 7 and 8 Curriculum it is expected that the student be familiar with the five themes of geographic inquiry, the concepts centred around creating maps and graphs to organize and display information, be able to gather information from a variety of primary and secondary sources, demonstrate an understanding of patterns and the factors affecting population distribution and demonstrate an understanding of the concept of sustainable development and its environmental impact.

Teaching/Learning Strategies

1. Using Think-Pair-Share students will identify the various regions that are found within a community or within a wilderness area. Students will identify the factor(s) they considered when thinking of the regions.
2. (If applicable) the teacher will explain the processes involved in remote-sensing interpretation, provide the class with examples of remotely sensed images and guide students through the process of identifying different land uses or different land covers in these images.
3. The teacher will identify and explain the various types of land use such as Residential, Institutional, Industrial, Commercial, Recreational, Transportation, Agriculture, and Green Space. The teacher will identify the various forms of land cover frequently found in wilderness areas.
4. Students will either:
 - a. use the OBM (and, if available, a local remotely-sensed image) to construct a land-use map that shows how the community is divided into “land-use” regions; or,
 - b. construct a land-use map of a community for which remotely-sensed images are available; or,
 - c. use a remotely-sensed image of a wilderness area to discern regions based on dominant cover.

Note: Students will need to include all of the basic cartographic requirements in their maps.
5. Once students have completed their land use or dominant cover maps, they will either:
 - a. identify land-use patterns, and provide a rationale for the location and distribution of land-uses; Where land-uses have changed over time, have students identify possible reasons. (e.g. abandoned buildings, factories converted to other uses, houses converted into stores.) or
 - b. identify dominant cover patterns, and provide a rationale for the location and distribution of vegetation.

Resources:

Ontario Base Map
Remotely-Sensed Images (Aerial Photos or Satellite Images)
Textbooks and Atlases

Accommodations:

- stronger students can assist weaker students and work as a team
- use of peer-helpers
- have copy of note on land uses for weaker students or those with scripting problems
- maps can be constructed using desktop publishing software such as Claris Works or Corel (both Ministry Licensed), Paint or Super Paint or a GIS, such as ArcView.

Assessment/Evaluation

Tool	Purpose	Who	Activity
Checklist	formative	Peer, Teacher	Land-use map
Checklist	formative	Self, Teacher	Description of land-uses in local community

Activity #3: Discovering Ecozones Using Thematic Maps and Organizers

Time: 225 minutes

Description

This activity will introduce students to the concept of ecozones. After constructing overlay maps of Canada's Climate, Soils, Vegetation and Landform Regions they will develop maps of Canada's ecozones compare these to Canada's actual ecozones, create an organizer, and research the physical and human characteristics of each ecozone. They will examine factors affecting climate in each ecozone, relationships between physical components, and natural values. They will also use the data collected and apply a decision-making matrix to choose and report on the most suitable ecozone for them to live in the future.

Strands & Expectations

Strands: Geographic Foundations: Space and Systems, Methods of Geographic Inquiry

Overall Expectations: SSV.01B, SSV.03B, SSV.04B, MIV.01B, MIV.03D

Specific Expectations: SSI.01B, SSI.02B, MII.02B, MI2.01D, MI2.03D, MI2.09D, MI2.I0D, MI2.12B, MI2.13B

Planning Notes

1. Make overheads available if using overlay technique for analysis.
2. Book computer lab if geotechnology is used as a resource.

Prior Knowledge Required

From the Grade 7 and 8 curriculum, it is expected that the student be familiar with the five themes of geographic inquiry, use a variety of geographic representations, tools, and technologies to gather , process and communicate geographic information, demonstrate a knowledge of physical patterns and regions, and use a decision making model.

Teaching/Learning Strategies

1. The teacher will review the concept of regions, introduce ecozones (definition and purpose) and discuss the diversity in Canada's ecozones. The teacher will also review the principles of collaborative learning and proper cartographic conventions. This could be done by having students assist in the development of a rubric for assessing maps. The teacher will also discuss the relationships and links between natural systems using the map layers.
2. In groups of four the students will produce overlays of the following thematic maps of Canada: Landforms, Climate, Vegetation, and Soils. (These maps can be found in the Canada: Land of Diversity, 2nd ed., pages 34, 68, 80, and 91 respectively or from any Canadian Atlas.). They will then use the overlays to produce their own Ecozones map of Canada.
3. The students will compare and contrast their Ecozone map with a map of Canada's actual ecozones provided either by the teacher or found in an atlas (e.g. p. 19 of the Canadian Oxford Intermediate Atlas or p.55-56 of Canada and the World: An Atlas Resource, 2nd Ed.)
4. Students will then answer the questions such as the following based on the ecozone map: Which ecozone: is your community located in, occupies most of coastal B.C., occupies much of the Mackenzie River drainage basin, occupies most of southerly Canada, matches the area known as the Hudson Bay Lowlands, matches the area known as the Near North, matches the southern portion of the physiographic region called the Interior Plains, contains over 50% of the population of Canada, contains portions of at least 5 provinces...
5. Using available resources (see Resources section on page 9) such as:
 - The Ecozone Posters produced by Environment Canada
 - State of Canada's Environment
 - Thematic Maps of Canada from Atlases
 - ArcCanada (database for use with ArcView)
 - ArcVoyager,

students will collect and record descriptive and numerical data on the landforms, environment, relief, physiography, climate, vegetation, forests, plants, wildlife, and human activities of each ecozone and then complete the following organizer:

Ecozone	Climate Region and General Type of Climate	Factors Affecting Climate	Relationships between Physical Components	Natural Values
	e.g. Lower Lakes: cold winter with heavy snowfalls; hot humid summers (See p.17 of <u>Canadian Oxford School Atlas</u> , 6 th Ed.)	e.g. nearness to water, elevation, etc.	e.g. soils and vegetation, vegetation and wildlife	e.g. Habitat for a species at risk, see p. 55-56 of <u>Canada and the World: An Atlas Resource</u> , 2 nd . Ed.), major watershed, etc.

6. The students will select 5 candidate ecozones that they may wish to live in one day and 5 criteria from the organizer in #5 that would be helpful in making this decision. They will record this in a

decision-making matrix such as the one below, and evaluate the alternatives according to the chosen criteria.

Criteria and Weighting										
Alternatives	(Criteria 1)	w	(Criteria 2)		(Criteria 3)		(Criteria 4)		(Criteria 5)	TOTAL
Alternative 1	data	r								Total Points
		p								

w - weighting r - rank p - points Note: $p = w \times r$

7. The students will write a one page report based on the above decision-making matrix.

Assessment/Evaluation

Tool	Purpose	Who	Activity
Checklist or rubric	formative	Teacher	Maps
Checklist (App. A)	formative	Peer	Group performance
Checklist or rubric (App. B)	formative	Teacher	Written report

Resources

- Atlases and Textbooks
- Posters
- Environment Canada: Ecozone of Canada, <http://www.ec.gc.ca/~vignettes/default.htm>

Accommodations

- Make sure that examples are provided with the organizer
- Provide editing support
- Assistance in understanding each step of the assignment
- Explicit step-by-step instructions given on a checklist

Activity #4: Investigating Physical Processes

Time: 300 minutes

Description

These activities are designed to review and develop concepts related to important physical processes that have shaped Canada's ecozones. Each student will investigate the rock cycle, vulcanism, glaciation, and other tectonic processes through maps, organizers and videos.

Strands and Expectations

Strands: Space and Systems, Global Connections, Understanding Management and Change, Methods of Geographic Inquiry

Overall Expectations: SSV.01B, SSV.02D, GCV.02B, UMV.01B, MIV.01B, MIV.02B

Specific Expectations: SS1.01B, GC1.05D, UM1.02B, MI1.02B, MI2.01D, MI2.04B, MI2.11D, MI2.13B, MI3.04D

Planning Notes

- Be sure to have a variety of rock samples.
- Prepare hard boiled eggs.
- If the recommended atlases are not available, find another source that displays the appropriate tectonic information.
- Arrange for videos and book a VCR.
- Blank maps of the World and Canada are required.

Prior Knowledge Required

From the Grade 7 and 8 curriculum, it is expected that the student be familiar with the five themes of geographic inquiry, the concepts centred around creating maps, identifying and describing regions where natural hazards exist, and identifying and explaining patterns in physical geography.

Teaching/Learning Strategies

1. Students will brainstorm the various physical processes that “build up” and those that “tear down” the landscape. The teacher will review rock types and cycles if necessary.
2. The teacher will introduce the concept of plate tectonics by involving the students in the following demonstration. Distribute a hard-boiled egg to groups of 4 students and then discuss the characteristics of the egg with the students (do not tell them it is boiled). Then ask for one student to volunteer from each group to stand and on the count of three drop the egg. Allow students to touch the egg and list characteristics of the egg now. Be sure to ask students to keep the eggs intact with their shells on. Discuss with students the difference in the shell now that it is cracked. Point out that now the shell can move around somewhat on top of the rubbery egg. Draw an analogy between the egg and the earth. The surface of the earth actually consists of several pieces or plates. Remind students that the core of the earth is very hot (think of the egg yolk) and therefore not solid. The earth’s plates then can move on top of a semi-solid centre.
3. The teacher will distribute a base map of the world to the students and ask students to use a map such as the one on page 89 of the Canada and the World Atlas to draw lines on their map to show the edges of the plates that make up the crust of the earth.
4. Students will shade in the areas on their maps that experience a great number of earthquakes and volcanoes and label and title their maps World Tectonic Processes.
5. The teacher will draw students’ attention to the fault line that runs along the coast of British Columbia. Scientists predict that there will be a very major earthquake around the Vancouver area because this is a subduction zone (an area where one plate is being forced under another plate). The Pacific Plate which is being pushed under the American plate is however, stuck. When the Pacific Plate finally gives way, there will be a massive earthquake. Students should know that the original “super continent” that existed in one piece before breaking up into the continents of today was called Pangea. Pangea was formed of igneous rock. The part of Pangea that broke away to form Canada (the Canadian Shield) was therefore igneous rock.
6. The teacher will show the video “North America: Growth of a Continent” (using the guide questions below). If unavailable, look for the video “The Rock Cycle”, National Geographic “Volcano” or “Born of Fire”.

From the video: North America: Growth of a Continent

- a. What are the four main parts of our earth?
- b. Name 3 processes by which the crust is built.
- c. Name 3 processes by which the crust is eroded.

- d. What are plates?
 - e. Where are volcanic and earthquake activities found in North America?
 - g. Name 2 examples of major drainage systems in Canada.
 - h. Give 3 examples of how human systems affect ecozones.
7. The teacher will discuss with students what glaciers are and the vastness of the glaciers that once covered Canada. Tell students that the alpine glaciers that still exist in some mountainous areas are very tiny compared to the size of the continental glaciers that once covered much of North America.
8. The teacher will show the sections of the Miracle Planet (series) video Ice and Sand that deal with glaciation. This video shows scour lines in Central Park and an aerial view of the Finger Lakes and views of the Canadian Shield. The following questions may be used with the video.
- The Miracle Planet: Ice and Sand*
- a. What % of the earth's land surface is covered in ice?
 - b. What causes snow to become glacier ice?
 - c. How long was North America covered with ice?
 - d. What materials do glaciers carry along with them and eventually deposit?
 - e. What types of evidence have glaciers left behind that prove that they once existed in regions where they are no longer found?
 - f. Why do scour lines not lie in a straight North-South direction?
 - g. What do scientists believe began the cooling trends that started the Ice Age?
 - h. What makes glaciers start to flow?
 - i. What is glacial rebound and what is the result of it?
 - j. What change is taking place in our atmosphere? Explain what effect this could have.
13. Students will read a selection on glaciation such as pages 48-54 of Land of Diversity and answer questions on the reading. Be sure students understand glaciers are erosional forces. Have students check each other's answers from the video and textbook for correctness and completeness.
14. The teacher will review some of the key concepts and processes discussed during the past few classes. Teachers might want to use a "Jeopardy" style review where the students make up questions varying in difficulty with regards to physical processes.
15. Working in groups of 3 - 4, and referring to the ecozones map and information from the previous activity students will develop an organizer to identify the kinds of processes that are associated with each of the ecozones.

Assessment/Evaluation

Tool	Purpose	Who	Activity
Map rubric	formative	Teacher	World Tectonics Map
Checklist	formative	Peer	Video and textbook questions
Rubric or checklist	formative	Teacher	Organizer - ecozones and physical processes

Accommodations

- Study assistance
- Opportunities for pre-test/quiz briefing
- Opportunities for oral responses to questions
- Use of a cloze follow-up activity

Resources

Canada: Land of Diversity pages 26-39 and 414-420 (chapters 4 and 5)
Contact Canada pages 47-49 and 54-55.

Videos: “[North America: Growth of a Continent](#)”, TVOntario, “[The Rock Cycle](#)”, National Geographic “[Volcano](#)” or “[Born of Fire](#)”.

Activity #5: Developing a Proposal for a New National Park

Time: 150 minutes

Description

Students will begin by examining the amount of protected land in Canada and then select an ecozone that does not contain a National Park. Through research on physical and human characteristics, each student will select a site for a National Park and develop a comprehensive report, with pictures or sketches of the ecozone’s scenery, outlining reasons for its uniqueness and a proposal for a new National Park.

Strands & Expectations

Strand(s): Space and Systems, Global Connections, Geographic Inquiry

Overall Expectations: SSV.01B, SSV.02D, SSV.03B, SSV.04B, SSV.05B, HEV.01D, UMV.01B, MIV.01B, MIV.02B, MIV.03D

Specific Expectations: SS1.01B, SS1.02B, SS1.03B, SS2.01D, HE1.03B, UM1.02B, MI1.01B, MI1.02B, MI2.03D, MI2.08B, MI2.10D, MI2.11D, MI2.12B, MI2.13B, MI3.04D

Planning Notes

- Consult with the teacher librarian regarding availability of resources.
- Review the research skills process followed in your school or department

Prior Knowledge Required

From the Grade 7 and 8 curriculum it is expected that the student be familiar with the five themes of geographic inquiry (with a focus on understanding the environmental theme), use a variety of tools and technologies to locate relevant information from a variety of primary sources, process it, and communicate the results in an effective manner.

Teaching/Learning Strategies

1. Using the data provided in Appendix C, students will create a bar graph that shows Canada’s Protected Space by Ecozone, and answer the following questions. If the atlas [Canada and the World: An Atlas Resource 2nd Edition](#) is available, the bar graph is on page 56 and teachers might want to refer students to that page in order to save time.
 - i) Which ecozone has the lowest percentage of its area protected?
 - ii) Which ecozone has the highest percentage of its area protected?
 - iii) What land use would explain why such a small percentage of prairie ecozone is protected?
 - iv) What reasons would explain the relatively small percentage of protected mixed-wood plain?

2. Students will use the data in the appendices for Federal, Provincial, and Territorial Protected Areas to answer the following questions. Students may create a graph or teachers can refer to page 56 in Canada and the World: An Atlas Resource 2nd Edition.
 - i) In which ten-year period did the amount of protected area increase most?
 - ii) What is the total amount of protected area in Canada, as of 1990?
 - iii) By comparing the total amount of protected land with Canada's total area, calculate the percentage of Canada's total area that is protected.
 - iv) Brainstorm with another student some possible reasons why it is difficult to acquire more land to classify as "protected." List at least 7 reasons and be ready to share some with the class.
3. Teachers may use one of the introduction quizzes included in the appendices to begin this topic. This will familiarize the student with some important characteristics of Canada's National Parks. These quizzes are not to be evaluated but rather discussed as a class.
4. Students will note the locations of existing national parks on a large map. Then using a map of Canada's ecozones, pick an ecozone where there are no National Parks (or only one) and research its characteristics. Some questions are provided as a guideline to the students' research.
 - Ecozone Research: What is its location? What kind of place is it? Mountainous, low and wet, predominately desert? Is it a populous region? How do the people interact with the environment? How do they get around? What vegetation might one find? What are the climate, landforms, bodies of water?
5. Students will choose a site in the ecozone that they believe would be appropriate for "Canada's newest National Park". The site must not be in a city.
 - Designing Your National Park: What are some reasons for protecting this particular area? What name will students give the park, and why? What is the history of the land there? How will visitors reach the park? Is there a trail system? What are the rules and regulations to be? What threatens the park – poaching, overpopulation in the region, pollution, exploitation?
6. Students will prepare a National Park report which will address the above questions and provide illustrated examples of the physical landscape using pictures from magazines, the Internet, pamphlets or brochures ordered from a local tourist bureau, and sketches. Have the students paint or draw murals of the most scenic features in the park.

Assessment/Evaluation

Tool	Purpose	Who	Activity
Rubric	formative	Teacher	Written report
Rating scale (App. B)	formative	Peer	Group skills

Accommodations

- Small groupings
- Oral reports
- Use of other media (e.g., music) to present part report
- Provide well-spaced written questions
- An enrichment or extension activity could be used as follows:

In a particular area of Canada, there is a plot of forest that contains particularly unique species of plants and animals. In fact, one species of bird has been discovered in the forest which is on the "threatened" list. The forest contains a significant number of mature trees and the land is a mixture of crown and privately owned land. The problem is that a number of people want to use the forest for many other purposes. Assign groups of students the following roles:

- i) Government Officials – Their role is to mediate the dispute and finally decide on what human activity will take place.

- ii) A group of naturalists – They feel the area should be set aside and protected from all human activity.
- iii) A logging company – They want to selectively log the area for the economic benefit of the surrounding communities.
- iv) A Native group – They feel that the land is traditionally theirs and that their hunting and fishing rights extend into the forest.
- v) A resort development company – They want to build a resort on the perimeter of the forest.
- vi) You can determine other roles. After the students research their positions, conduct a public meeting to decide the fate of the forest and its inhabitants.

Resources

- Encyclopedias and Computer information databases (E-Stat)
- Internet
- Pamphlets and brochures from tourist bureaus
- Magazines (Canadian Geographic, Outdoors Canada)
- Discovery Channel’s “Great Canadian Parks” series.

Activity #6: Planning a Tour of Canada’s Ecozones

Time: (minutes) 150 minutes

Description

In this simulation, students have been contracted by Environment Canada and Tourism Canada to aid in the production of a travel documentary that will capture the diversity across Canada’s ecozones.

Strands & Expectations

Strands: Geographic Foundations: Space & Systems, Global Connections, Methods of Geographic Inquiry

Overall Expectations: SSV.02B, SSV.04B, GCV.01D, MIV.01B, MIV.02B, MIV.03D

Specific Expectations: SS1.02B, SS2.01D, GC1.05D, MI1.01B, MI1.02B, MI2.01D, MI2.03D, MI2.04B, MI2.08B, MI2.10D, MI2.11D, MI2.12D, MI2.13B, MI3.03B, MI3.04D

Planning Notes

Teachers should ensure that:

- students have access to an adequate supply of resources on Canada’s geography (e.g. texts, atlases, books, magazines, tourist brochures, travel publications, provincial road maps, encyclopedias, CD Roms, Internet, databases, etc.);
- facilities, such as the resource centre and/or computer lab, are booked;
- students are organized into pairs;
- each pair of students is provided with a blank map of Canada or a file containing such, if maps are to be constructed using computer software.
- consider having students complete their daily logs using any wordprocessor (e.g. Corel WordPerfect, Claris Works, Microsoft Works, Microsoft Publisher, etc.: all Ministry licensed) and import photos, maps, diagrams, etc., that they have produced, scanned or downloaded.

- consider having students produce their maps using any desktop publishing software (e.g. Corel, Claris Works, etc.: both Ministry licensed), Paint or Super Paint, a GIS (e.g. ArcView, Idrisi, MapInfo, SpansMap, MF Teach, etc.), or a CAD program.

Prior Knowledge Required

From the Grade 7 and 8 curriculum, it is expected that the student be familiar with the concepts centred around mapping and graphing skills, the type, nature and importance of Canada's physical patterns and systems and their global and national implications, and be able to identify and delineate Canadian regions.

Teaching / Learning Strategies

1. The teacher will review ecozones, introduce the activity, organize students, discuss criteria for assessment, and review research skills.
2. The student will meet with their partner, review the following instructions, decide on individual responsibilities (e.g. one can be the researcher while the other is responsible for lay-out, design, and writing), determine approach and time lines, and complete the following task.

Bulletin: Environment Canada and Tourism Canada have initiated a partnership project to capture Canada's immense diversity through a travel documentary of a group of highschool students. Interviews have been conducted and you and your classmates anxiously await the results...

Congratulations!... You and a partner have been chosen as the successful candidates for this project. The details of your contract are as follows:

- You must be gone for at least 10 days.
- You must travel at least 10 000 km round trip.
- You must visit at least 10 of Canada's 15 ecozones.
- You must keep a daily log including the following information on your travel and destinations:

Travel:

- the type of transportation used;
- route that was taken (e.g. highway numbers, direction, etc.);
- km travelled that day;
- total km travelled;

Destinations:

- the ecozone you visited;
- things that you did (e.g. recreation, attractions, events, etc.)
- unique human and physical features you saw;
- details about the landscape, climate, vegetation, and wildlife found in that ecozone (BE DESCRIPTIVE!);
- pictures, diagrams, and/or maps to support any of the above;
- optional: art, music, dance, and literature related to any of the ecozones.

- You must use each of the following forms of transportation at least once: rental car, train, plane, ferry.
- You must include a map of Canada of Canada's ecozones with your route on it.

Your product will be your daily log complete with an attractive and appropriate cover page, table of contents, appendices (if applicable) and map.

Assessment/Evaluation

Tool	Purpose	Who	Activity
Rubric (for presentation see Appendix D)	summative	Teacher, Peer	Product or Presentation
Rating scale (See Appendix A)	goal setting for learning skills	Peer	Contribution of partners

A rubric could be developed with students to assess according to: creativity, detail, descriptive language, writing conventions, organization, sufficient use of effective visuals, criteria outlined in the activity, cartographic conventions and accuracy, and neatness and presentation.

Accommodations

- Instead of a daily log students could produce a multi-media slide show of their trip, a visual display, make an oral report, or use drama or music where possible
- Use of charts and cloze activities for added organization

Resources

Atlases and Textbooks
Tourist Brochures and Travel Publications
Canadian Magazines (e.g. Canadian Geographic, Nature Canada, etc.)
Provincial Road Maps
Encyclopedias and Software

Activity # 7: Designing a Travel Brochure

Time: 300 minutes

Description

Students will work in groups to produce an informative, attractive, and detailed six-panel travel brochure for an assigned or chosen ecozone that will lure prospective tourists. Possible inclusions are location, climate, soils, vegetation, wildlife, landforms, significant historical or geographic facts, camping, recreation, tours/excursions, attractions, events/festivals/celebrations, accommodations, and travel tips. This activity can be completed using Microsoft Publisher (Ministry licensed), although it can be done without computer technology.

Strands & Expectations

Strand(s): Geographic Systems: Space and Systems, Understanding and Managing Change, Methods of Geographic Inquiry

Overall Expectations: SSV.01B, 02B, 03B, 04B, 05B, UMV.01B, MIV.01B, .02B,.03D

Specific Expectations: SS1.01B, .02B, .03B, SS2.01D, SS3.01D, .03D, SS3.05B, UM1.02B, MI1.01B, .02B MI2.01D, MI2.03D,MI2 .08B, MI2.10D, MI2.11D,MI2 .12B,MI2 .13B, MI2 .14B

Planning Notes

- Teacher should obtain a substantial number of magazines, provincial and regional travel publications for student reference.
- Students should be provided with contact information for the various tourism associations and agencies and be given time to contact these for resources.
- Students should be provided with suggested web sites at which they may begin their internet research but should also be encouraged to search out their own.
- Though Microsoft Publisher has brochure templates to follow, students should be encouraged to create their own text\word art\graphics boxes, and to edit the template to meet their own needs for creativity.
- English teachers can be very helpful in assisting students with the written text of their brochures and technology teachers may assist with the computer aspects of the activity.
- Teachers should ensure that Microsoft Publisher is on the school network before commencing the project. If not, the school's computer resource person should have a copy of the Ministry Licensed CD with this program, as well as the others previously mentioned, on it.
- Teachers should make arrangements for booking the resource room, computer lab, and internet access for at least four classes to complete this project.
- If the teacher is not using Microsoft Publisher, they will need to get appropriate paper or bristol board for the brochure, scissors, glue, markers, pencil crayons, etc.

Prior Knowledge Required

From the Grade 7 and 8 curriculum, it is expected that the student be familiar with the five themes of geographic inquiry, understand the concepts centred around mapping and atlas skills, demonstrate an understanding of how physical patterns affect human activity, use a variety of geographic representations, tools, and technologies to gather, process, and communicate geographic information, and understand how patterns are useful to the study of geography.

Teaching/Learning Strategies

1. The teacher will begin by showing students samples of professional travel brochures, discussing their contents, organization and colourful language.
2. Students will work in groups of 2 or 3 and either select or be assigned one of Canada's ecozones. If using the Microsoft Publisher, they will be provided with a hard copy of the blank brochure template from this program and begin discussing possible contents and organization of their brochure as well as sources of information and graphics.
3. The teacher will provide a demonstration of scanning and exporting graphics (pictures, maps, graphs, charts, diagrams, and icons), downloading graphics from the internet and converting them to .pcx or .bmp files, accessing information from the school resource centre and/or computer data-bases and encyclopedia CD ROMS, creating graphics using desktop publishing software, and importing graphics and entering text into the brochure template in Microsoft Publisher. (See Appendix F)
4. Students will gather information and graphics from a variety of sources including the internet, computer data-bases and encyclopedias, magazines, travel publications, atlases, texts, etc., and a variety of organizations including local travel agencies and Chambers of Commerce, provincial/territorial tourist associations, and government tourism agencies. Students are encouraged to produce their own graphics using available desktop publishing software (e.g. Corel Draw/Chart/PhotoPaint, Claris Works, Microsoft Works, all Ministry licensed) and GIS (e.g. ArcView; K-12 program includes ArcCanada, an extensive data-base that contains information on all Canada's ecozones).

Note: Microsoft Publisher will not recognize .jpeg or .gif files downloaded from the internet. Students will have to use a graphics converter such as Lview Pro (shareware) to change these to .pcx or .bmp file formats. If using ArcView, students may simply export a view or layout as a Windows Bitmap.

5. Students will complete their brochure.

Assessment/Evaluation

Tool	Purpose	Who	Activity
Rubric (See Appendix G)	Summative	Teacher	Brochure

Resources

- Texts and Atlases
- Software and Encyclopedias
- Provincial and Regional Travel Publications
- Web Sites: http://canada.gc.ca/canadiana/cdaind_e.html

Accommodations

- work with peer tutor
- divide tasks within group according to strengths and abilities

Activity #8: Presenting an Ecozone Proposal

Time: 150 minutes

Description

This activity builds on “Creating a Travel Brochure”. Students will perform group presentations in front of the class simulating one of the following two scenarios:

- Students must “sell” their zone to an independent commission that has been contracted to direct government investment into promoting tourism in one or more of the ecozones
- Students must convince an independent commission to recommend the protection of their ecozone to the government

Strands & Expectations

Strand(s): Geographic Systems: Space and Systems, Human-Environment Interactions, Understanding and Managing Change, Methods of Geographic Inquiry

Overall Expectations: SSV.01B, .02B, .03B, .04B, .05B, HEV.04D, UMV.01B, MIV.01B, .02B, .03D

Specific Expectations: SS1.01B, .02B, .03B, SS3.04D, SS3.05B, UM1.02B, MI1.01B, .02B, .04B, MI2.01D, .02B, .03B, .08B, .10D, .11D, .12B, MI3.04D

Planning Notes

- Teacher needs to prepare students with the appropriate presentation skills

Prior Knowledge Required

From the Grade 7 and 8 curriculum, it is expected that the student be familiar with the five themes of geographic inquiry, produce a variety of maps, graphs, and charts to support their inquiry, use an oral presentation and/or media works to communicate geographic results.

Teaching/Learning Strategies

1. The teacher chooses one of the following two scenarios to be simulated and describes the presentation process to the class:
 - Students must “sell” their zone to an independent commission that has been contracted to direct government investment into promoting tourism in one or more of the ecozones;
 - Students must convince an independent commission to recommend the protection of their ecozone to the government)

(It may be necessary at this time to choose students to represent the independent commission. The teacher may employ this group to develop the format and conditions of the presentations). The presentations should make maximum usage of visuals (multi-media presentation may be an option offered to students), involve contributions of all group members, have a time limit of approximately 10 min., and be followed by a brief question period for the commission and audience. The commission then makes appropriate decisions based on the presentations and constructs either a report or presentation to communicate the results to the class.
2. The teacher will hand out the Group Presentation evaluation rubric (See Appendix) to discuss how the presentations are being evaluated so the students can use it as a presentation guideline.

Assessment/Evaluation

Tool	Purpose	Who	Activity
Rubric (See appendix D)	Summative	Teacher	Group presentation

Resources

- Texts and Atlases
- Magazines
- Encyclopedias and Software
- Provincial and Regional Travel Publications
- Web Sites: http://canada.gc.ca/canadiana/cdaind_e.html

Accommodations

- Provide an exemplary model
- Use heterogeneous groupings with strong and learning-disabled students

Unit # 2: Human Systems

Time: 1500 minutes

Unit Developer(s):

Development Date: April 7, 1999

Description

In this investigation of human systems students are given the opportunity to develop skills in geographic inquiry through the creation, analysis, and interpretation of a variety of geographic representations, including graphs, maps, data charts, and organizers. The relationships between human systems and ecozones are also explored. Students apply the knowledge and skills developed during the unit to a culminating task which involves planning a conference on demographic issues facing Canada.

Strand(s) & Expectations

Strand(s): Geographic Foundations: Space and Systems, Global Connections, Understanding and Managing Change, Methods of Geographic Inquiry

Overall Expectations: SSV.01B, SSV.03B, SSV.04B, SSV.05B, UMV.01B, UMV.02B, GCV.02B, MIV.01B, MIV.02B, MIV.03D

Specific Expectations: SSI.03B, SSI.04B, SSI.05D, SS2.02D, SS2.04D, SS2.05D, UM1.02B, UM1.03D, MI1.01B, MI1.02B, MI2.01D, MI2.02B, MI2.03D, MI2.04B, MI2.05B, MI2.06B, MI2.07B, MI2.08B, MI2.09D, MI2.10D, MI2.11D, M12.12B, MI2.13B, M12.14B, M13.01B, MI3.03B, MI3.04D, MI3.05B

Activity Titles (Time and Sequence)

Activity 1	Using Graphs and Maps to Examine Canada's Population Distribution	75 min
Activity 2	Using Graphs and Maps to Investigate Variations in Population Density	150 min
Activity 3	Analysing Canada's Changing Demographics	225 min
Activity 4	Investigating Immigration Patterns	200 min
Activity 5	Immigration Policy	300 min
Activity 6	Understanding the Movement of People, Goods and Ideas	250 min
Activity 7	Planning a Conference	300 min

Unit Planning Notes

1. This unit provides students multiple opportunities for analysing, communicating, and interpreting data. Check with the Mathematics teachers in your school for possible connections with the Grade 9 Mathematics course, especially the Relationships strand.
2. Review appropriate resources and the data charts in the appendix prior to starting the activities, and if desired make selections regarding how you will use them.

3. While the focus in this unit is on human systems, emphasis should be made throughout on an understanding of geographic systems in general, and how human systems operate within the natural world.
4. The data analysis activities will be more relevant to students if they are connected to their community, and to events happening in it. Collect articles from newspapers and magazines, and videotape related news clips (under current regulations these can be kept and used with classes for a month after taping) to use with your class on issues related to topics such as community change, immigration, communications and transportation.
5. Gather materials for use in the culminating activity and consult your teacher librarian for additional assistance in locating materials.
6. Many of the topics covered in this unit address the cultural diversity of Canada. It is critical that teachers be sensitive to issues that may arise in student discussions, and be active in dispelling myths and stereotypes.

Prior Knowledge Required

In addition to building on prior learning from Grade 7 and 8 Geography on geographic communication, students will be required to draw on learning from the Data Management and Probability strand in the Mathematics curriculum. As well they will be required to use concepts developed in understanding patterns in human geography and migration in Grade 8.

Teaching/Learning Strategies

Student learning will take place in this unit through their involvement in a variety of the following:

Creating graphs	Creating maps	Data analysis
Small group discussions	Class discussion	Simulation
Oral presentation	Written interpretation	Report writing

Assessment/Evaluation

Most of the activities in this unit involve the production of graphs, maps, and organizers followed by written or oral interpretation based on them. By providing the students with a generic rubric (see Appendix) at the beginning of the unit, they can collect their work in a portfolio and use the rubric for self and peer assessment as they work on the activities. The rubric can then be used by the teacher for assessment of student-chosen best pieces in the portfolio. The report developed in the culminating activity will require the same skills of data summary and interpretation.

Resources

See Resources section on p. 9 - 10 for complete information on the following types of resources, which are used in many activities throughout the course.

- Texts, Periodicals and Atlases
- Geotechnology Programs and Data
- Multimedia and Software
- Organizations and Internet Sites
- Assessment and Teaching Strategies

General reference to the types of resources needed for each activity are included with the activity, along with specific information for any resource that is used in that activity only.

Activity #1: Using Graphs and Maps to Examine Canada's Population Distribution

Time: 75 minutes

Description

In this activity students will map, graph, and examine the variations in provincial/territorial populations across Canada. They will study Canada's ecumene and explore reasons for the distribution of our country's people.

Strands & Expectations

Strands: Geographic Foundations : Space & Systems, Understanding & Managing Change, Methods of Geographic Inquiry

Overall Expectations: SSV.03B, SSV.05B, UMV.01B, MIV.01B, MIV.03D

Specific Expectations: SS1.04B, SS1.05D, UM1.03D, MI1.02B, MI2.01D, MI2.02B, MI2.08B, MI2.11D, MI2.13B

Planning Notes

- Students may construct choropleth maps using a GIS, such as ArcView, or a desktop publishing program such as Corel Draw or Claris Works (both Ministry licensed) or Paint or SuperPaint. In this case the teacher should provide students a .pcx or .bmp file containing a base map of Canada.
- Book facilities if students will be completing the circle graph or choropleth map using computers.

Prior Knowledge Required

Students will be expected to be familiar the concepts of rural and urban, population distribution and density, Census Metropolitan Area (CMA), primary/secondary/tertiary industries, and urbanization and with mapping and graphing skills.

Teaching/Learning Strategies

1. Using an opening question such as "Where would you like to live?" and "Why?", the teacher will show students a dot map of Canada's population distribution (e.g. the inside cover of the Canadian Intermediate Oxford Atlas or on p.10-11 of the Canada and the World: An Atlas Resource, 2nd ed.), and introduce the concepts of ecumene, population density and distribution, core and periphery, heartland and hinterland, Quebec-Windsor axis, CMAs, and urbanization and have students brainstorm patterns and rationale for the demographic variations across the country.
2. After receiving instruction on how to produce a choropleth map students will use an appropriate source to set up a table with province/territory and population, construct a choropleth map to illustrate Canada's population distribution, and describe the location of the provinces/territories with the highest and lowest populations.
3. By referring to the dot map of Canada's population distribution and other thematic maps in the Canadian section of the atlas, students will describe and account for the following patterns:
 - distribution of population in Nova Scotia and Newfoundland;
 - the clustering of population along the Ontario-Quebec border northeast of Sudbury;
 - the clustering of population around Lac-Saint-Jean near Chicoutimi-Jonquiere;

- the distribution of population in Southern Saskatchewan;
 - the clustering of population along the British Columbia-Alberta border north and west of Edmonton;
 - the ribbons of population in southern British Columbia;
 - the population pattern in the Yukon and North-west Territories.
4. The teacher will introduce the culminating activity on planning a conference by presenting the scenario from Activity #7. The teacher will emphasize that the activities throughout the unit will develop both their geographic skills and their understanding of the people who live in Canada and some of the issues that will face them in the future to enable them to plan the conference.

Assessment/Evaluation

Tool	Purpose	Who	Activity
Portion of Rubric (See appendix H)	formative	Self or Peer	Map
Portion of Rubric (See appendix H)	formative	Self or Peer	Graph

The product of this assignment can be assessed according to the:

- accuracy , neatness, and elements of the graph and map;
- the validity, completeness, detail, and depth of the analysis.

The rubric used for activity 2 could be used for self and peer assessment for this activity.

Resources

- Atlases and software

Accommodations

- Groups can be structured so that there is a strong math student in each group
- Additional time
- Chunking/dividing into manageable steps

Activity #2: Using Graphs and Maps to Investigate Variations in Canada's Population Density

Time: 150 minutes

Description

This activity is designed to establish a firm understanding of Canada's population distribution and of the concept of population density. A linkage to the previous unit is provided by the establishment of statistics for Canadian population density by ecozone. Students are re-introduced to skills of choropleth mapping and graphing.

Strands & Expectations

Strands: Geographic Foundations: Space and Systems, Understanding and Managing Change, Methods of Geographic Inquiry.

Overall Expectations: SSV.01B, SSV.03B, SSV.05, UMV.01B, MIV.01B, MIV.02B, MIV.03D

Specific Expectations: SS1.03B, SS1.04B, SS2.02D, UM1.03D, MI2.02B, MI2.11D, MI2.12B, MI2.13B, MI3.04D

Planning Notes

Teachers should be sure to understand all of the terminology and procedures involved in the activity before starting. All charts and data sheets should be prepared beforehand. Copies of the distribution assignment answers should also be present.

This activity can be completed using computer technology:

- students may construct their graph using a spreadsheet program such as Microsoft Works, Corel Chart, or Claris Works (all Ministry licensed).
- students may construct choropleth maps using a GIS, such as ArcView, or a desktop publishing program such as Corel Draw or Claris Works (both Ministry licensed) or Paint or SuperPaint. In this case the teacher should provide students a .pcx or .bmp file containing a base map of Canada.

Prior Knowledge Required

Students will be expected to have addressed the expectations from grades 7 and 8 which deal specifically with an understanding of geographic inquiry, map and graphing skills, the effect of physical patterns on human activity, the role of natural resources in population distribution, and patterns in human geography.

Teaching/Learning Strategies

1. The teacher will review the concept of “population density” and have students brainstorm :
(i) areas of Canada with high and low population densities and the explanations behind each of these patterns; (ii) how Canada’s overall population density compares with that of other countries; (iii) advantages and disadvantages of having a high or low population density in your country.
2. After reviewing construction of a bar graph and a choropleth map, students will use a base map (see Appendix K) and Data Chart 1 (see Appendix I) to complete the following:
 - i) Differentiate between the concepts of “population distribution” and “population density”.
 - ii) What does a low (high) number for population density mean? Where in Canada would you expect there to be a low (high) population density? Why do you think the population density is so low (high) in this area?
 - iii) Complete the data chart.
 - iv) Construct a bar graph to show how population density varies across Canada.
 - v) Analyse the graph and account for observations you make. (e.g. What province or territory is most densely populated?. Even though Ontario and Quebec have large populations, their population densities are not as large as some others. Why? Why are the population densities for the Yukon and NWT so low?)
 - vi) Does Canada’s overall population density give a clear picture of how Canada’s population is distributed? Why/why not?
3. Students will then relate population density to ecozones using Data Chart 2 (see Appendix I) and completing the following:
 - i) Construct a choropleth map to show how population density varies across Canada
 - ii) Analyse the map and account for observations you make.
 - iii) Why is a map more useful for this analysis than a bar graph?
 - iv) Do the population densities of the provinces/territories or the population densities of the ecozones give you a clearer picture of where most people live in Canada?

v) Suppose that 1000 people from all over Canada were coming to your school to see a concert in the auditorium. Assuming that these people are a perfect representation of Canada's demographic make-up calculate the number that are from: each province; each region (Atlantic, Central, Prairies, Western, Northern); each ecozone.

Assessment/Evaluation

Tool	Purpose	Who	Activity
Rubric (Appendix H)	formative	Teacher/Peer/Self	Map, graph, written answer

Resources

- Atlases and software

Accommodations

- Provide students with completed bar graph for interpretation questions.
- Provide examples
- Provide oral instructions and opportunities for oral presentations

Activity #3: Analysing Canada's Changing Demographics

Time: 225 Minutes

Description

The students will undertake a variety of activities designed to increase their understanding of population trends and makeup in Canada. Through the use of graphic organizers, students will analyze trends, draw conclusions and make predictions about Canada's population composition and change.

Strands and Expectations

Strands: Geographic Foundations: Space and Systems, Understanding and Managing Change, Methods of Geographic Inquiry

Overall Expectations: SSV.03B, SSV.05B, UMV.01B, MIV.01B, MIV.02B, MIV.03D

Specific Expectations: SS1.04B, SS1.05D, SS2.02D, SS2.05D, UM1.02B, UM1.03D, MI1.02B, MI2.01D, MI2.04B, MI2.08D, MI2.11D, MI2.12B, MI2.13B, MI2.14B, MI3.04D

Planning Notes

- The teacher should be prepared in advance of this activity to teach the concepts of Population Growth Rate, Percentage Population Change, Birth rate, Death rate, Rate of Natural Increase, Life Expectancy, Population Pyramid (Age-Sex Structure), and Dependency Ratio.
- Students may construct their graph using a spreadsheet program such as Microsoft Works, Corel Chart, or Claris Works (all Ministry licensed).

- Students may construct choropleth maps using a GIS, such as ArcView, or a desktop publishing program such as Corel Draw or Claris Works (both Ministry licensed) or Paint or SuperPaint. In this case the teacher should provide students a .pcx or .bmp file containing a base map of Canada.

Prior Knowledge Required

From the Grade 7 and 8 curriculum, it is expected that the student be familiar with the concepts centred around creating maps and graphs to organize information, identifying patterns of settlement, an understanding of the factors affecting population distribution, an understanding of the terms describing population characteristics, understanding the correlation between population characteristics, analysis, synthesize and evaluation of data, the identification of push and pull factors in population change, and the ability to communicate the results of specific inquiries.

Teaching/Learning Strategies

1. Using a reference to the “baby boomers” as a lead-in, the teacher will have students brainstorm the factors that account for and influence population change; speculate on the parts of Canada experiencing the largest and slowest population growth rates, the rationale behind these trends, and the problems that may result; and consider how population growth in Canada compares to that in other parts of the world and the explanations for such variations.
2. The teacher will provide instruction on the concepts related to demographics such as: Population Growth Rate, Percentage Population Change, Birth rate, Death rate, Rate of Natural Increase, Life Expectancy, Population Pyramid (Age-Sex Structure).
3. After reviewing the production of a multiple-line graph, the students will use a base map of Canada’s Provinces and Territories (see Appendix K) and Data Chart 3 (see Appendix I) to complete the following:
 - i) Produce a multiple line graph with two vertical axes to illustrate the data from Data Chart 3.
 - ii) Describe what has happened to Canada’s population since 1951.
 - iii) Describe what has happened to Canada’s growth rate since 1951.
 - iv) Why do you presume the growth rate was so high from 1951-61?
 - v) Why do you think the growth rate has fallen since this time?
 - vi) What may eventually happen to Canada’s population if the growth rates continues it’s decline? Why might this be a problem?
 - vii) How might Canada stop this from happening?
4. In groups of four, students will construct population pyramids using Data Chart 4 (see Appendix I) or be given already constructed pyramids to represent Canada’s age-sex structure for the following years: 1971, 1986, 2001, 2016: (projections for 2001 and 2016 are based on medium growth rates, and then answer the following questions (Additional data and guiding questions available in Data Chart 5 can be used to assist with these questions):
 - i) Explain the “bulge” in the younger age cohorts of the 1971 pyramid (i.e. who are they, when were they born, why are there so many of them?)
 - ii) What has happened to birth rates since this time? (i.e have the “baby-boomers” had as many children as their parents did?) How can you tell by looking at the pyramids? Why do think they have changed?
 - iii) What has happened to life expectancies since this time? How can you tell by looking at the pyramids? Why do think they have changed?
 - iv) The “baby boomers” are now in the middle age (working-class) cohorts. How might this be good and how might it be bad at the present time?
 - v) By 2016 many of the “baby boomers” will have retired. How might this be good and how might it be bad at that time?
 - vi) Once the baby-boomers begin to pass on, what may happen to Canada’s population? What are the two ways that this may be avoided? Which is Canada focusing on now? Why?

- Students will complete Data Chart 6 (See Appendix I), use the data to create a choropleth map showing the percentage population change of the provinces and territories, and then name the province/territories that have experienced percentage population change above and below the national average, providing explanations for these variations.

Assessment/Evaluation

Tool	Purpose	Who	Activity
Rubric	formative	Peer, Teacher	Maps, graphs, written answer

Resources

- Atlases and software

Accommodations

- Use taped instructions or questions
- Make sure the data charts are provided in large well-spaced print

Activity #4: Investigating Immigration Patterns

Time: 200 minutes

Strands & Expectations

Strands: Geographic Foundations: Space & Systems, Understanding & Managing Change, Methods of Geographic Inquiry.

Overall Expectations: SSV.04B., UMV.01B, UMV.03B, MIV.02B, MIV.03D

Specific Expectations: SS1.04B, SS2.03D, SS2.04D, UM1.02B, UM1.03D, MI1.02B, MI2.08B, MI2.11D, MI2.12B, MI2.14B, MI3.04D

Description

Students will explore the nature of Canada's migration patterns, what constitutes migration, factors which cause migration, trends in Canadian migration and the degree to which their local environment compares to that of the rest of the country in terms of migrational characteristics.

Planning Notes

The teacher should be sure to prepare the graphical and map data before hand and where necessary to reproduce charts in a form the student may readily use. Be prepared to teach or review the necessary skills in graphing and mapping required to complete the exercises.

Prior Knowledge Required

Students will need to draw upon prior learning in Grade 7 and 8 which focused upon an understanding of the movement theme, graphing, charting and mapping, factors affecting population distribution, characteristics of areas with high and low densities, decision based migration, push and pull factors, the cultural effects of immigration and the historical effect on Canada's development of migration.

Teaching/Learning Strategies

1. The teacher will discuss with students that all of us come from somewhere and challenge students to:
 - i) find out origins of their family and when they came to Canada (this data will be collected and used for a later activity); and,
 - ii) bring an item to class that is unique to the culture from which they came such as an old photo, musical recording, work of art, piece of literature, food sampling (Students can use these to do a brief "show and tell" to the class or the teacher can have them do brief write-ups and organize a "gallery tour".)
2. The teacher will then continue with a discussion that all Canadians are either First Nations, foreign born, or descendants from immigrants, and survey the class to determine the number of students in each of the above categories, converting this data to percentages. After comparing the class data to that for Canada as a whole (First Nations, 2.1%; Foreign Born, 16.1%, Descendants of Immigrants, 81.8%) students will write a paragraph comparing the two sets of data and suggesting reasons for the differences noted.
3. In small groups students will use Data Chart 7 (Appendix I) to construct a circle graph for each province/territory for display on a blank map of Canada (see Appendix), list which provinces/territories appear to have the greatest ethnic diversity and which have the least, and provide explanations for why.
4. The teacher will ask the class whether your local area is experiencing a net gain or a net loss in population as a result of people moving and ask what evidence there is in your area that this gain or loss is occurring. Then the students will use Data Chart 8 (Appendix I) to construct a multiple line graph to illustrate Canada's immigration and emigration since 1851. The vertical scale should be divided into two sections by a zero at its midpoint. The upper part of the graph is to represent immigrants and the bottom part is to represent emigrants.
5. Net Migration (NM) is calculated by subtracting the number of emigrants by the number of immigrants (i.e. $NM = Im - Em$). A positive number means that Canada experienced a net gain during that period while a negative number means that Canada suffered a net loss. Students may also calculate the net migration for each of the time periods in the above table and add a line to the graph to represent this data.
6. Students will use the graph to help them answer the following:
 - i) Explain the pattern created by the immigration and emigration lines (hint: when one is high the other is generally ? Why do you think this is so?)
 - ii) Identify the periods of peak immigration and attempt to explain each.
 - iii) Identify the periods of peak emigration and attempt to explain each.
 - iv) Identify and attempt to explain the major periods of net migration gain and net migration loss.
 - v) Certain qualities, called pull factors, attract immigrants to a new country, What are the pull factors, past and present, that have made or make Canada a desirable place to live for new immigrants?
 - vi) Other factors, called push factors, encourage people to move away from their home country. Identify some "push factors" and provide examples wherever possible.
7. Students will work in pairs, with one partner constructing a multiple line graph to illustrate the Data Chart 9 (one line for each birthplace of immigrants) (see Appendix I) and the other using a blank map of the world to construct a flow line map to illustrate the flow of immigrants into

Canada from their places of birth from 1991-96. (The width of each arrow should be based on 1mm = 10 000 immigrants.). They will then answer the following questions.

- i) What has happened to the total number of immigrants coming into Canada?
 - ii) How have the origins of Canada's immigrant population changed since pre-1961? What explanations can you provide for these changes?
 - iii) What impact my these trends have on Canada's economic, social, and cultural life?
8. Students will examine where immigrants settle when they come to Canada by examining the Data Chart 10 (Appendix I) summarizing which provinces have the greatest and the least percentage of their population classified as immigrant and explaining why.
 9. Students will complete their study of immigration by constructing a bar graph based on Data Chart 11 (See Appendix I) and describing how destinations have changed since 1913, and suggesting possible explanations.

Assessment/Evaluation

Tool	Purpose	Who	Activity
Rubric	formative	Self or Teacher	Maps, graphs and questions

Resources

The data provided should suffice as necessary information required in the completion of this activity.

Accommodations

To encourage speedy progress, students may be grouped. The groups should be small, and results should be reproduced for all group members. The grouping may also allow for a division of tasks, which will favour students with strengths in the areas of visual intelligence, logical intelligence, musical intelligence and both intra and inter personal intelligence.

Activity # 5: Immigration Policy

Time: 300 minutes

Description

In this activity students will learn about the Canadian legislation and policies which govern immigration into Canada. By applying their own interpretation of the legislation to a hypothetical practice of immigration screening, students will gain insight into the intended purpose of Canada's immigration laws. Decision making skills and evaluation of criteria are critical skills which the students will have an opportunity to develop in this activity.

Strands & Expectations

Strands: Geographic Foundations: Space & Systems, Global Connections, Understanding & Managing Change, Methods of Geographic Inquiry.

Overall Expectations: SSV.05B., GCV.02B, UMV.03B, MIV.02B, MIV.03D

Specific Expectations: SS1.04B, GC1.04D, UM1.03D, UM3.01D, MI1.02B, MI2.06B, MI2.07B, MI2.08B, MI2.11D, MI2.12B, MI3.03B

Planning Notes

The teacher should be sure to prepare the graphical and map data beforehand and where necessary to reproduce charts in a form the student may readily use. Current information is provided in Appendix J. Teachers should be aware that much of the current textbook material is out of date. The teacher should be familiar with the material before attempting to present it to the class as they will require this knowledge in order to allow for paraphrasing of the legal materials in a manner which students may readily understand and use. Asking regular questions to keep the students involved and focused would be of help in teaching the initial stages of this activity. The students will have questions for which the teacher must be knowledgeable about the material. Sensitivity to the issues that may arise as students express opinions is critical. Strategies to dispel myths and stereotypes, especially regarding immigrants, should be considered.

Prior Knowledge Required

Students will need to draw upon prior learning in Grade 7 and 8 which focused upon an understanding of the movement theme, graphing, and charting, factors affecting population distribution, push and pull factors, and the cultural effects of immigration. In addition the ability to make a criteria set and base decisions upon a weighted set of these criteria will be important to success in the activity.

Teaching/Learning Strategies

1. The teacher will begin a discussion by asking students who comes to live in Canada whether anyone can move to Canada. Current issues related to immigration or refugees can be mentioned here. The teacher can then provide information on Canada's Immigration Law which is expressed in the *Immigration Act and Regulations*. This act is based on such fundamental principles as non-discrimination, family reunion, humanitarian concern for refugees and the promotion of Canada's social, economic, demographic and cultural goals. (Current information is provided in the appendix)
2. In pairs students will use Data Chart 12 (Appendix I) to construct two bar graphs (one for the Immigrant Category and one for the Refugee Category) to illustrate Canada's Immigration Plan, 1999. Each bar should show both the minimum and maximum numbers in the range given. Students will then study the graph and discuss how it reflects the fundamental principles of the *Immigration Act and Regulations*: non-discrimination, family reunion, humanitarian concern for refugees and the promotion of Canada's social, economic, demographic and cultural goals, summarizing their discussion in point form notes.
3. The teacher will outline the screening process that potential immigrants to Canada must first go through based on a points system and have students discuss in small groups why this might be necessary.
4. In groups of three students will
 - a. list the criteria that they feel should be assessed in an immigration screening process.
 - b. compare their criteria to the fundamental principles of the *Immigration Act and Regulations* (non-discrimination, family reunion, humanitarian concern for refugees and the promotion of Canada's social, economic, demographic and cultural goals) and make any necessary edits.
 - c. for each criterion, indicate why they feel it is an important factor to assess when screening potential immigrants.
 - d. decide on the points that will be allocated to each of the criteria they have listed.
 - e. determine how points will be broken down for each criterion (e.g. if education is worth 10 points, then 10 points may mean post-secondary training in a field for which there is a demand in Canada, 7 points may mean a highschool graduation diploma or equivalent, etc.)
 - f. determine:

- i.) the maximum number of points that an applicant can receive; and,
- ii.) the number of points that an applicant must acquire to be admitted into Canada.
- g. record each of the above criteria and point break-down into a selection criteria template that could be used in screening applicants:

Criteria	Maximum Points	Points Breakdown	Applicant 1	Applicant 2	Applicant 3
Total Points (possible- ?, to be accepted - ?)					
			A R	A R	A R

A - accepted R - rejected

- h. invent three hypothetical immigrant applicants (all unique and different) and write profiles for each that would provide sufficient information to assess each of the criteria outlined in the template created above.
 - i. simulate an immigration screening process using the following roles and filling in the template as they go:
 Student 1 - Applicant
 Student 2 - Immigration Officer
 Student 3 - Observer
 (Students must rotate roles as they go from one applicant to the next so that each student ends up playing each role.)
 - j. each choose one of the applicants and write a letter to him/her to inform them of the acceptance or rejection of their application. A rationale must also be provided to the applicant for the decision.
 - k. discuss how they felt when role-playing the immigration officer and how they felt when role-playing the applicant.
 - l. discuss how they felt about the screening process, i.e. should all people wanting to come to Canada have to go through this same process?
 - m. prepare a brief presentation to the class that includes the following:
 - i) the template they constructed for the screening process;
 - ii) the profiles they created of the hypothetical applicants;
 - iii) the results of the screening simulation;
 - iv) their feelings about the screening process.
5. The teacher will inform students that the “points system” that they simulated in the last activity is only used to assess independent immigrants, ask students for feedback on why they think it might not be appropriate to assess all applicants using this points system. and provide students with information about the actual selection criteria used to assess independent immigrants.

Assessment/Evaluation

Tool	Purpose	Who	Activity
Checklist	formative	Peer	Group
Rubric (see Appendix B)	formative	Teacher	Criteria development and application

Assessment may be completed by the student’s peers on their group work participation and contributions. The teacher should assess the understanding of the concepts taught and the skill of criteria development and application.

Resources

The data provided should suffice as necessary information required in the completion of this activity.

For more information on Immigration in Canada, see the Citizenship and Immigration web site at <http://cinet.ci.gc.ca>

Accommodations

Teachers may wish to create heterogeneous groupings of students according to their preferences for given tasks in the activity - this may help to provide for the various learning styles and intelligence types of the students. The last task could be extended to allow students to apply the real criteria to their hypothetical characters created earlier.

Activity # 6: Understanding the Movement of People, Goods, and Ideas

Time: 250 minutes

Description

Students will investigate Canada's infrastructure, examining various modes of transportation and communication and the role they play in the movement of goods, people, and ideas.

Strand(s): Geographic Foundations: Space and Systems, Human-Environment Interactions, Global Connections, Methods of Geographic Inquiry, Understanding and Managing Change

Overall Expectations: SSV.01B, SSV.03B, SSV.04B, SSV.05B, HEV.01D, GCV.02B, MIV.01B, MIV.02B, MIV.03D, UMV.01B

Specific Expectations: SS1.04B, SS1.05D, SS1.06D, SS2.01P, HE1.03B, MI1.02B, MI2.03D, MI2.04B, MI2.11D, MI2.12B, MI2.14B, MI3.02D

Planning Notes

- When brainstorming, accept all creative comments (electric car, spaceship, skipping, smoke signals, morse code) but for the accompanying exercises, focus on the main modes.
- Make sure students realize that even as passive radio or television listeners/viewers, they are receivers in a communication process.
- Develop the worksheet and organizers needed.
- Locate a version of The Railroad Trilogy.

Prior Knowledge Required

- demonstrate an understanding of region and movement as well as the factors affecting transportation and communication
- produce a wide variety of graphs and charts to organize and present information
- locate information from primary sources
- identify regions of Canada with high and low population density
- communicate the results of inquiries using charts and maps
- demonstrate an awareness of an economic system and how goods are distributed

Teaching/Learning Strategies

1. “There was a time in this fair land when the railway did not run
When the wild majestic mountains stood alone against the sun
Long before the white man, long before the wheel,

When the green dark forest was too silent to be real”

From Canadian Railroad Trilogy, Gordon Lightfoot

The teacher will use this quotation or play a version of the song to lead into a discussion of Canada as an extensive area of natural systems which we have overlaid with human systems.

What are the systems that we have built? How do we use them? How do we rely on them in our daily life? What activities do we use them for? How have they changed with time?

2. Students will brainstorm a list of different modes of transportation and then read together (or individually) Canada: Land of Diversity, pg. 216-220 or similar excerpt from another text.
3. Students will, individually or in partners, complete a worksheet on Comparing Modes of Transportation (rail, road, water, air, pipeline) with a column for advantages and a column for disadvantages.
4. Students will complete an Organizer for “Which mode is best?” (The teacher may use the following as a starting point) – using real situations, each student will decide on a mode of transportation and provide reasoning to support their decision along with information on principal transportation networks from an atlas to support the decision.

Cargo	Mode of Transportation	Reasoning for your decision	Atlas Information to support decision
Meat from Regina to Winnipeg			
1000 textbooks from Toronto to Ottawa			
Oil from Alberta to Ontario			
Live lobsters from PEI to Ottawa			
25 000 t of potash from Saskatchewan to the Netherlands			
Fresh Tomatoes from Leamington to Churchill Man.			
6 cars from Oshawa to a dealer in Moncton NB.			

5. Students will brainstorm modes of communication. The teacher will write them on the board (try to get as detailed as possible to demonstrate the variety of modes) and then develop definitions for the terms direct and indirect communication (e.g. Investigating Canada, pg. 226). Students will then develop an organizer that displays the modes of communication (suggested list included in Appendix 5), whether each one is indirect or indirect, and the time required to receive the information.
6. The teacher will ask the students what their most frequently used modes of communication are. What are some factors that would prevent you from using these modes? Have them complete an activity such as a worksheet comparing a variety of communications (e.g., Toronto business ordering materials from an English manufacturer; Kingston business ordering paper supplies from a Toronto supplier; family in Smalltown, Ontario announcing the birth of a child to their family in Ireland; student asking for information on a university program in Boston, USA; students in Ontario communicating with students in Alberta, sending birthday greetings to someone who lives in the same town or city etc.) as to how they would have been carried out 100 years ago, today, and in the future. Students will describe how and why communications have changed.
7. The teacher will discuss the use of directories to help us locate information so that people can communicate more easily and quickly. Your local phone book and the Canadian Postal Code Directory (a copy is probably available in the school office) can be used as examples. The students will complete an assignment to carry out a comparison of how geographically-based codes are used for phone and postal systems using the headings: coding systems; geographic pattern of codes; size of code areas; reason for variation of size; information needed to use the directory (e.g., name, address) codes for all Canadian capital cities. Questions requiring use of the directories to locate specific information can be included. As an extension discuss how the

internet can be used to locate address information (e.g., 411site). And how do you find out what someone's email address is?

8. The teacher will introduce the idea of the increasing costs with distance travelled using e.g., a taxi's fare as an example. Then students will examine rate structures of various transportation and communication modes either by being given the data or collecting the data by themselves as a homework assignment (using the Internet or making some phone calls). Each student in a group will create a scatter graph for one of the sets of data. Have them share their results with the rest of the group, describing the correlation the graph produces.
9. Students will then use the data to consider four destinations (local, provincial, national, and international) and decide which mode of transportation/communication would be most economic and efficient for the movement of people, goods, and ideas (Students can locate the destinations on a world map.) In each of the destination columns, decide which mode is most economical/efficient for the movement of people, goods, and ideas. In a brief sentence, explain your decision below.

Mode	To Nearest City	Other Ontario City	To Vancouver	To Sydney Australia
Road				
Rail				
Air				
Water				
Pipeline				
Mail				
Radio				
Satellite				
Fax				
Internet				

10. Students will develop and complete a chart to compare the cost of having six people from two different cities in two different time zones (give each pair of students a different pair of cities) meet in person or have a conference call. Have them describe any problems created by the different time zones, and how they would solve them.

Assessment/Evaluation

Tool	Purpose	Who	Activity
Rubric	formative	Self or Teacher	Organize

Resources

- Textbooks and Atlases

Accommodations

- Provide a set of reference notes
- Have students tape interviews with parents or grandparents as to how they used modes of communication when they were young e.g., phone systems, telegrams, long-distance calls, postal system

Activity #7: Planning a Conference on Demographic Issues Facing Canada in the New Millennium

Time: 350 minutes

Description

The following is a culminating activity that allows small groups of students to apply the knowledge and skills developed in the previous activities in unit 2. This activity can be completed with or without the use of computer technology.

The Scenario: The Ministry of Employment and Immigration has decided to host a three day conference on Demographic Issues Facing Canada in the New Millennium for 100 students from across Canada. A committee has been formed by the Ministry to organize this conference. The committee's responsibilities are as follows:

- a) Decide on a location for the conference within Canada (criteria: centrality of location, economic constraints, and economic benefits to the host locality)
- b) Decide on the participants (criteria: conference participants must be representative of major regions within Canada)
- c) Make transportation arrangements and prepare a transportation budget for the conference.
- d) Decide on the issues for seminar sessions at the conference.
- f) Choose three topics for keynote presentations for the conference.
- g) Decide on a list of at least 10 people (by what they do or by their name) that should be invited as presenters.
- h) Choose corporate sponsors that they should solicit as important to the conference both from profile and funding.

Students will be preparing a proposal and draft conference pamphlet/brochure to be presented to the Ministry.

Strands and Expectations

Strands: Geographic Foundations - Space and Systems, Understanding and Managing Change, Methods of Geographic Inquiry

Overall Expectations: SSV.01B, SSV.03B, SSV.04B, SSV.05B, UMV.01B, UMV.02B, MIV.01B, MIV.02B, MIV.03D

Specific Expectations: SS1.04B, .05D, SS2.02D, .04D, UM1.01B, .02B, .03D, UM3.01D, MI1.01B, .02B, MI2.01D, .02B, .03D, .04B, .08B, .10D, .11D, .13B, MI3.04D

Planning Notes

- Teacher will need examples of conference pamphlets or brochures
- Book the computer room (if applicable)
- Share assessment with students
- Students may use their notebooks and class texts as resources to develop the conference
- Collect current newspapers and magazines to help students to address current issues

Prior Knowledge

From the Grade 7 and 8 curriculum, students are expected to be familiar with the five themes of geographic inquiry, use a variety of geographic representations, tools, and technologies to gather information, be able to analyze, synthesize and evaluate the information, communicate the results of inquiries stating different points of view on an issue using maps, graphs, charts, reports, and oral presentations, understand factors affecting population distribution, understand how human activities are affected by patterns in human geography, an understanding of the characteristics of basic economic systems and an understanding of migration and the factors affecting mobility.

Teaching / Learning Strategies

1. The teacher will review the scenario and then show the students samples of professional conference pamphlets or brochures, especially ones for student conferences, discussing their contents, organization, and construction.
2. The teacher will have the students brainstorm a list of demographic issues that the students could use as a starting point for their committee work such as:
 - ethnic diversity in various areas of Canada
 - Migration (who is coming from where?)
 - Crime
 - Homelessness
 - Income and Housing
 - Transportation and Communication
 - the aging population
 - population diversity in Nunavut
 - education
3. In groups of 3 - 4, students will work as conference planning committees to complete the task as set out by the Ministry. Individuals within the group will be assigned specific tasks, however all group members should decide upon the issues to be addressed at the conference.
4. Students will determine the location of the conference, either in their groups or as a class. The teacher can use a brainstorming activity. This is a good place to review time zones and geographical location skills (latitude and longitude). The OAGEE Grade 9 Geotechnologies toolkit can be used for these activities.
5. Each group will:
 - a) prepare a proposal to be presented to the Ministry. The proposal will include:
 - a written explanation outlining the decisions made concerning location, participants, transportation budget, sponsors, keynote topics, presenters, and transportation arrangements (maps and statistical information should be included to back up your decisions). It should also include a brief outline of the issues that will be addressed at the conference and what their focus will be.
 - b) create a draft conference pamphlet or brochure
 - c) deliver a persuasive presentation to the class, emphasizing that their conference plan is the most desirable.

Assessment / Evaluation

Tool	Purpose	Who	Activity
Rubric	Summative	Teacher	Brochure
Rubric (Appendix D)	Summative	Teacher	Group presentation
Rubric	Summative	Teacher	Written proposal

Accommodations

- The unique challenges, talents, and experiences of individuals should be allowed to play a role in the decision making of the group. Students that have these qualities should be given expert status and could be interviewed by other groups. This activity could be done as part of the community schools atlas project or it could be done as a virtual conference over the schools website where the experts actually did present their views and students from across the country were able to be interactively involved.
- Provide exemplary pamphlet or brochure and/or a template to organize the pamphlet.

Resources

- Conference brochures/pamphlets
- Transportation schedules: Via Rail, Air Canada, Greyhound, Grey Coach etc.
- Canada Year Book
- Internet resources: Stats Canada website
- Library resources

Appendix B: Decision Making Matrix Report Evaluation Rubric

Categories	50-59% (Level 1)	60-69% (Level 2)	70-79% (Level 3)	80-100% (Level 4)
Knowledge / Under- standing	The Student:	The Student:	The Student:	The Student:
	Demonstrates a limited understanding of criteria Demonstrates a limited understanding of concepts	Demonstrates some understanding of criteria Demonstrates some understanding of concepts	Demonstrates a considerable understanding of criteria Demonstrates a considerable understanding of concepts	Demonstrates a thorough understanding of criteria Demonstrates a thorough understanding of concepts
Thinking / Inquiry	analyzes the criteria with limited effectiveness. Is creative in the establishment of their criteria to a limited degree shows limited organization and research	analyzes the criteria with some effectiveness. Is creative in the establishment of their criteria to some degree shows some organization and research	analyzes the criteria with considerable effectiveness. Is creative in the establishment of their criteria to a considerable degree shows considerable organization and research	analyzes the criteria with extensive effectiveness. Is creative in the establishment of their criteria to a great degree shows extensive organization and research
Communi- cation	communicates information with limited clarity Writes report script which flows in a limited manner and/or is disjointed Has a writing style which limits expression of the main ideas	communicates information with some clarity Writes report script which flows in a somewhat fluid manner and is not disjointed Has a writing style which does not limit expression of the main ideas	communicates information with considerable clarity Writes report script which flows Has a writing style which clearly expresses the main ideas	communicates information with a high degree of clarity Writes report script which flows in a completely fluid manner and is almost free from error Has a writing style which enhances expression of the main ideas
Application	applies the use of criteria-based analysis in a limited manner applies the concept of weighted scoring in a limited manner applies the organizational structure of the matrix to the report in a limited manner	applies the use of criteria based analysis to some degree applies the concept of weighted scoring to some degree applies the organizational structure of the matrix to the report with some effectiveness	applies the use of criteria based analysis to a considerable degree applies the concept of weighted scoring to a considerable degree applies the organizational structure of the matrix to the report with considerable effectiveness	applies the use of criteria based analysis in a highly effective manner applies the concept of weighted scoring to a high degree applies the organizational structure of the matrix to the report in a highly effective manner

Overall Level: Mark: Student Name:

Appendix C: National Parks Information

Protected Space By Ecozone

Ecozone	% Protected	Ecozone	% Protected	Ecozone	% Protected
Tundra Cordillera	4	Boreal Cordillera	11	Pacific Maritime	12
Boreal Plain	4	Taiga Plain	8	Prairie	6
Taiga Shield	3	Boreal Shield	11	Southern Arctic	12
Northern Arctic	4	Arctic Cordillera	18	Montane Cordillera	14
Mixed-wood Plain	6	Atlantic Maritime	6	Hudson Bay Plain	19

Federal, Provincial and Territorial Protected Areas

Year	Cumulative Area in Thousands of km sq.	Year	Cumulative Area in thousands of km sq.
1880-89	15	1940-49	180
1890-99	25	1950-59	230
1900-09	40	1960-69	375
1910-19	60	1970-79	590
1920-29	100	1980-89	720
1930-39	155	1990-99	?

Source: Canada and the World: An Atlas Resource, 2nd edition

Getting to Know Your National Parks Quiz #1

<ul style="list-style-type: none"> • 1. In my park you will see the world's highest tides. • You can visit up to 19 shipwrecks in my marine environment. • I am Canada's first national park, established over 114 years ago. • My park is dominated by hundreds of glaciers, and I am the farthest north. • When you are in my park you are as far south as some parts of California. • You will find me in the Canadian Shield on the north shore of Lake Superior. • I am located in Atlantic Canada and am noted for my geological features and deep-sea fiords. • The word mountain is in my name, even though I am located in one the Prairie provinces. • I am located on Vancouver Island and have some of the biggest and oldest trees in Canada. • I am located near Rogers Pass and my name means large chunk of ice. 	<ul style="list-style-type: none"> • I am Pukaskwa National Park. • I am Banff National Park. • I am Riding Mountain National Park. • I am Point Pelee National Park. • I am Glacier National Park. • I am Fundy National Park. • I am Pacific Rim National Park. • I am Ellesmere Island National Park. • I am Fathom Five National Park. • I am Gros Morne National Park.
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Appendix D: Presentation Evaluation Rubric

Categories	50-59% (Level 1)	60-69% (Level 2)	70-79% (Level 3)	80-100% (Level 4)
Communication	<p>The presenter(s):</p> <p>rarely demonstrated a confident voice tone with appropriate variance or eye contact, frequently “read off”, and lacked enthusiasm and mobility;</p> <p>did not engage the audience in two-way dialogue, thought-provoking questions, and/or participatory activities;</p>	<p>occasionally demonstrated a confident voice tone with appropriate variance, maintained eye contact, an avoidance of “reading off”, and enthusiasm and mobility;</p> <p>rarely engaged the audience in two-way dialogue, thought-provoking questions, and/or participatory activities;</p>	<p>frequently demonstrated a confident voice tone with appropriate variance, maintained eye contact, an avoidance of “reading off”, and enthusiasm and mobility;</p> <p>occasionally engaged the audience in two-way dialogue, thought-provoking questions, and/or participatory activities;</p>	<p>consistently demonstrated a confident voice tone with appropriate variance, maintained eye contact, an avoidance of “reading off”, and enthusiasm and mobility;</p> <p>frequently engaged the audience in effective two-way dialogue, thought-provoking questions, and participatory activities;</p>
Presentation	<p>did not deliver an introduction that provided sufficient background information;</p> <p>rarely demonstrated a clear focus and effective sequencing;</p> <p>rarely maintained smooth flow, pace, and timing;</p> <p>lacked uniqueness and creativity, involving only one presentation technique, and lacked usage of audios and/or visuals;</p> <p>no apparent conclusion,</p>	<p>delivered an introduction that provided sufficient background information;</p> <p>occasionally demonstrated a clear focus and effective sequencing;</p> <p>occasionally maintained smooth flow, pace, and timing;</p> <p>was somewhat unique, creative, and interesting, involving more than one presentation technique, and making usage of an audio and/or visual;</p> <p>ended with a conclusion,</p>	<p>delivered an introduction that caught the audience’s attention and provided sufficient background information;</p> <p>frequently demonstrated a clear focus and effective sequencing;</p> <p>frequently maintained smooth flow, pace, and timing;</p> <p>was unique, creative, and interesting, involving a variety of presentation techniques, and making usage of a variety of audios and/or visuals;</p> <p>ended with a conclusion that affected the audience, delivering “food for thought” and/or a “call to action”.</p>	<p>delivered an intriguing introduction that grasped the audience’s attention and provided ample background information;</p> <p>consistently demonstrated a clear focus and effective sequencing;</p> <p>consistently maintained smooth flow, pace, and timing;</p> <p>was extremely unique, creative, and interesting, involving several presentation techniques, and making effective usage of a wide variety of audios and/or visuals;</p> <p>ended with a powerful conclusion that impacted the audience, delivering compelling “food for thought” and/or an emphatic “call to action”.</p>
Knowledge	<p>did not provide the audience with a summary sheet;</p> <p>rarely demonstrated a detailed and in-depth understanding of the issue;</p> <p>provided little evidence to validate the thesis.</p>	<p>provided the audience with a summary sheet;</p> <p>occasionally demonstrated a detailed and in-depth understanding of the issue;</p> <p>provided some evidence to validate the thesis.</p>	<p>provided the audience with a somewhat effective, informative, and interesting summary sheet.</p> <p>frequently demonstrated a detailed and in-depth understanding of the issue;</p> <p>provided sufficient evidence to conclusively validate the thesis.</p>	<p>provided the audience with a highly effective, informative, and interesting summary sheet.</p> <p>consistently demonstrated a detailed and in-depth understanding of the issue;</p> <p>provided ample evidence to conclusively validate the thesis.</p>

Overall Level: Mark:

Appendix E: Provincial and Territorial Tourism Associations

<p>Pacific Rim Institute of Tourism P.O. Box 12101 930 - 555 West Hastings Street Vancouver, BC, V6B 4N6 (604) 682-8000</p> <p>Alberta Tourism Education Council 1700 Standard Life Center 10405 Jasper Avenue Edmonton, AB ,T5J 3N4 (403) 422-0781</p> <p>Tourism Industry Association of the Yukon 20~208 Main Street Whitehorse, Yr, Y1A 2A9 (403) 668-3331</p> <p>Saskatchewan Tourism Education Council 8th Fl., 601 Spadina Saskatoon, Cres. E., S7K 3G8 (306) 244-1529</p>	<p>Tourism Industry Association of Northwest Territories #4480749th Street Yellowknife, NT, X1A 3T5 (403) 873-2122</p> <p>Manitoba Tourism Education Council 202 - 63 Albert Street Winnipeg, MN, R3B 1G4 (204) 957-7437</p> <p>Ontario Tourism Education Council 2275 Lakeshore Blvd. W., #503 Toronto, Ontario M8V 3Y3 (416) 253-4697</p> <p>L'Association des hoteliers de la Province de Quebec 014 - 425 Sherbrooke St., E. Montreal, Qu'bec, H2L 1J9 (514) 282-5135</p>	<p>Hospitality Newfoundland and Labrador 2nd Fl., Confederation Life Building P.O. Box 13516, 251 Empire Ave St. John's, NF, A1B 4B8 (709) 722-2000</p> <p>Tourism Industry Association of Prince Edward Island P.O. Box 2050 62 Great George St. Charlottetown, P.E.I. C1A 7N7 (902) 566-5008</p> <p>The Tourism Industry of Nova Scotia Suite 513, World Trade & Convention Center 1800 Argyle Street Halifax, N.S. B~ 3N8 (902) 422-5853</p> <p>Tourism Education N.B./Education en tourisme (N.B.) #217-1133 rue Regent Street Fredericton, NB/N-B E3B 3Z2 (506) 450-2685</p>
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Government Tourism Agencies

The ministries responsible for tourism are listed below and should be contacted for up-to-date information concerning the status of tourism in their jurisdiction. In certain cases, it may be appropriate for the government representative to refer you to a colleague in another ministry such as Education.

<p>B.C. Ministry of Tourism and Ministry Responsible for Culture Room 24 Parliament Bldgs Victoria, BC, V8V 1X4 (604) 387-1683</p> <p>Alberta Economic Development & Tourism 10155 - 102nd Street Edmonton, AB, TM 4L6 (403) 427-2280</p> <p>Yukon Department of Tourism P.O. Box 2703 Whitehorse, Yr, Y1A 2C6 (403) 667-5340</p> <p>Tourism Saskatchewan 1919 Saskatchewan Drive Regina, SK, S4P 3V7 (306) 787-2321</p>	<p>Northwest Territories Department of Economic Development and Tourism P.O. Box 1320 Yellowknife, N.W.T.', X1A 2L9 (403) 873-7200</p> <p>Manitoba Department of Industry, Trade and Tourism 155 Carlton Street, 5th Floor Winnipeg, MB, R3C 3H8 (204) 983-8036</p> <p>Ontario Ministry of Culture, Tourism and Recreation 77 Bloor St. W. Toronto, ON. M7A 2R9 (416) 314-7400</p> <p>Ministere du Tourisme du Quebec 2, place Quebec - bureau 336 Quebec, PQ G1R 2B5 (418) 643-5959</p> <p>Newfoundland Department of Tourism & Culture 4th Flr, West Block, P.O. Box 8700 Confederation Bldg Complex St. John's, NF, A1B 4J6 (709) 729-5600</p>	<p>Prince Edward Island Department of Economic Development & Tourism P.O. Box 2000, 105 Rochford St Charlottetown, PE C1A 7N8 (902) 368-5500</p> <p>Nova Scotia Tourism, Culture & Recreation P.O. Box 456, 1601 Lower Water St Halifax, NS, B~ 2RS (902) 424-5000</p> <p>New Brunswick Economic Development, Tourism Marysville Place P.O. Box 12345 Fredericton, NB, E3B 5C3 (506) 453-3984</p> <p>Tourism Canada 4th Floor East, 235 Queen Street Ottawa, ON, K1A OH5 (613) 954-3943</p>
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Appendix F: Downloading *jpeg*s from the Internet and Converting to *bmp* files to Import into *Microsoft Publisher* (Lview Pro)

<ol style="list-style-type: none"> 1. Right-click on any picture or icon on a web page 2. Select Save as... 3. Insert disk into drive 	<ol style="list-style-type: none"> 4. Change drive to a: 5. Type an appropriate name in the File name field 6. Click O.K.
<p>(Since most graphics on the internet are <i>jpeg</i> or <i>gif</i> files, you must convert them into <i>bmp</i> or <i>pcx</i> format so they may be imported into <i>Microsoft Publisher</i>)</p>	
<ol style="list-style-type: none"> 1. Start LView Pro 2. Click on the File menu 3. Insert your disk into the drive 4. Change the drive to a: 5. Change the File type to jpeg 	<ol style="list-style-type: none"> 6. Double-click on the file you want 7. After the picture appears, click on the File menu again 8. Select Save as... 9. Change the File type to bmp 10. Click O.K.
<p>(Repeat the above steps for each of your <i>jpeg</i> files)</p>	

Travel Brochure Assignment (scanner) (PaperPort)

<ol style="list-style-type: none"> 1. Click Start 2. Go to Programs, then PaperPort, then click the PaperPort option 3. Place picture on the Scanning Bed and Close Lid 4. Click Scan Button on Task Bar 5. Accept default and Click Scan Button 6. Click Options Button 7. Click on the ruler 8. Click on Specify Custom Size Option 9. Change the number in the Width field so that the file will fit on your disk 10. Click O.K. button 11. Click Accept Button 	<ol style="list-style-type: none"> 12. Click File in the Pull-down Menus 13. Click Export Option 14. Ensure “Export Files of Type” is set to Bit Map (*.BMP) 15. Change “Drives” is to a: 16. Click in the “File Name” Field, delete “*.bmp”, and type in the a name of your picture 17. Click O.K. Button 18. Close this Window (REPEAT STEPS 3-18 FOR ALL PICTURES) 19. Click File in the pull-down menus 20. Click Exit Option 21. Close PaperPort Window
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Travel Brochure Assignment (importing graphics and entering text) (Microsoft Publisher)

<ol style="list-style-type: none"> 1. Start Microsoft Publisher 2. Select Use a Page Assistant Wizard and choose three-panel brochure 3. Follow instructions on screen, then click O.K. and close the Cue Cards 4. Click on any text box and delete contents 5. Begin entering your text (Font size, type, colour, and style can be changed in Format - Character) (REPEAT STEPS 3-5 for all text boxes) 	<ol style="list-style-type: none"> 6. Click on any graphics box 7. Click File in the pull-down menus 8. Select Import Picture 9. Change Drive to a: (make sure your disk is in) 10. Toggle down to ?.bmp under Picture Name and click on it 11. Click O.K. 12. Select Frame to fit the Picture 13. Click O.K. (REPEAT STEPS 6-13 for all graphics boxes)
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NOTE: Graphics and text boxes can be created by clicking on picture and text icons on the left side tool bar then left-clicking and dragging . Graphics and text boxes can be resized by selecting them and grabbing dragging their handles. When resizing graphics boxes, hold down the “shift” key while you click and drag to preserve the dimensions of the pictures and avoid distortion.

Appendix G: Travel Brochure Evaluation Rubric

Categories	50-59% (Level 1)	60-69% (Level 2)	70-79% (Level 3)	80-100% (Level 4)
Text	<p>The brochure: addresses a minimal number of ecozone components: climate, vegetation, wildlife, landforms;</p> <p>contains only minimal colourful and descriptive, yet concise and accurate, language with appropriate style and a confident tone;</p> <p>contains frequent spelling and grammatical errors;</p> <p>contains text that has all been copied directly from information sources.</p>	<p>The brochure: addresses some ecozone components: climate, vegetation, wildlife, landforms;</p> <p>contains some colourful and descriptive, yet concise and accurate, language with appropriate style and a confident tone;</p> <p>contains occasional spelling and grammatical errors;</p> <p>contains some text that is written in the personal language of the student.</p>	<p>The brochure: addresses most ecozone components: climate, vegetation, wildlife, landforms;</p> <p>contains considerable colourful and descriptive, yet concise and accurate, language with appropriate style and a confident tone;</p> <p>contains rare spelling and grammatical errors;</p> <p>contains text that is mostly written in the personal language of the student.</p>	<p>The brochure: addresses all ecozone components: climate, vegetation, wildlife, landforms;</p> <p>contains a multitude of colorful and descriptive, yet concise and accurate, language with appropriate style and a confident tone;</p> <p>is free of spelling and grammatical errors;</p> <p>contains text that is all written in the personal language of the student.</p>
Graphics	<p>incorporates a minimal number of different types of graphics such as pictures, maps, graphs, charts, etc.;</p> <p>rarely demonstrates clear linkages between graphics and text;</p> <p>contains graphics that reflect some of the components of the ecozone;</p> <p>contains no student-generated graphics.</p>	<p>incorporates some different types of graphics such as pictures, maps, graphs, charts, etc.;</p> <p>occasionally demonstrates clear linkages between graphics and text;</p> <p>contains graphics that reflect some of the components of the ecozone;</p> <p>contains at least one student-generated graphic.</p>	<p>incorporates a considerable variety of graphics such as pictures, maps, graphs, charts, etc.;</p> <p>frequently demonstrates clear linkages between graphics and text;</p> <p>contains graphics that reflect a variety of the components of the ecozone;</p> <p>contains at least one well developed, student-generated graphic.</p>	<p>incorporates all types of graphics including pictures, maps, graphs, charts, etc.;</p> <p>consistently demonstrates clear linkages between graphics and text;</p> <p>contains graphics that reflect most of the components of the ecozone;</p> <p>contains well developed, student-generated graphics.</p>
Organization / Lay-out	<p>contains frequent flaws in the logical arrangement of content;</p> <p>contains frequent inconsistencies in font type, size, and style between similar sections;</p> <p>does not demonstrate appropriate and balanced emphasis on the various ecozone components.</p>	<p>contains occasional flaws in the logical arrangement of content;</p> <p>contains occasional inconsistencies in font type, size, and style between similar sections;</p> <p>demonstrates some degree of appropriate and balanced emphasis on the various ecozone components.</p>	<p>frequently demonstrates a logical arrangement of content;</p> <p>displays considerable consistency in font type, size, and style between similar sections;</p> <p>demonstrates a high degree of appropriate and balanced emphasis on the various ecozone components.</p>	<p>consistently demonstrates a flawless logical arrangement of content;</p> <p>displays perfect consistency in font type, size, and style between similar sections;</p> <p>demonstrates appropriate and balanced emphasis on the various ecozone components.</p>
Creativity	<p>demonstrates minimal creative use of colour, backgrounds, borders, textual style, and graphics;</p> <p>demonstrates no template alterations (e.g. additions, deletions, and resizing of graphics and text boxes)</p>	<p>demonstrates occasional creative use of colour, backgrounds, borders, textual style, and graphics;</p> <p>demonstrates at least one template alteration suitable to purpose (e.g. additions, deletions, and resizing of graphics and text boxes)</p>	<p>demonstrates some creative use of colour, backgrounds, borders, textual style, and graphics;</p> <p>demonstrates occasional template alterations suitable to purpose (e.g. additions, deletions, and resizing of graphics and text boxes)</p>	<p>demonstrates frequent creative use of colour, backgrounds, borders, textual style, and graphics;</p> <p>demonstrates several template alterations suitable to purpose (e.g. additions, deletions, and resizing of graphics and text boxes)</p>

Overall Level: Mark:

Appendix H: Rubric for use with Human Systems Activities

Categories	50-59% (Level 1)	60-69% (Level 2)	70-79% (Level 3)	80-100% (Level 4)
Knowledge / Understanding	The Student: Demonstrates a limited understanding of concept; Has difficulty creating choropleth maps;	The Student: Demonstrates some understanding of concept; Demonstrates some understanding of choropleth maps;	The Student: Demonstrates a considerable understanding of concept and can apply the understanding to problems; Can create and explain a choropleth map;	The Student: Demonstrates a high degree of understanding of concepts and can apply the understanding to problems; Demonstrates a thorough understanding of choropleth mapping, could apply the concept to another project without further instruction;
Thinking / Inquiry Weight x 0.20	Is able to use information from the graphs with limited effectiveness; Limited organization evident with some aspects; Has difficulty seeing relationships between many concepts;	Is able to get some information from the graphs; Information is organized and mostly complete; Is able to make some conclusions about concepts and their relationship;	Is able to draw facts from the graphs; Information is clearly organized and is complete; Draws clear relationships between concepts addressed;	Uses the graphs to see relationships, trends and can make predictions from the graph; Information is organized in highly effective manner, concisely and completely; Relationships between concepts are very effectively presented;
Communication Weight x 0.10	Communicates information through graphs with limited clarity; Cannot clearly illustrate concepts through mapping ; Has a writing style which limits expression of the main ideas.	Communicates information through graphs with some clarity; Uses maps with some effectiveness; Has a writing style which allows the expression of the main ideas.	Communicates information through graphs with considerable clarity; Communicates information through maps with clarity; Has a writing style which clearly expresses and supports the main ideas.	Is able to create maps which are clear, informative and pleasing to look at; Communicates information through maps with a high degree of clarity; Has a writing style which increases the reader's understanding of the main ideas and shows strong supporting ideas.
Application Weight x .40	Demonstrates difficulty in applying the concepts; Has difficulty applying the information in graphs; Has difficulty applying the information in choropleth maps; Applies calculations and data to extended circumstances in a limited manner.	Demonstrates some understanding of the concepts; Applies the information in graphs in some instances to solve other problems Applies the information in choropleth maps in some instances to solve other problems Applies calculations and data to extended circumstances with some effectiveness	Clearly understands and uses the concepts; Applies the information in graphs without any apparent difficulty. Applies the information in choropleth maps without any apparent difficulty. Applies calculations and data to extended circumstances with considerable effectiveness.	Understands and uses concepts effectively; Applies the graph information in a highly effective manner and with ease. Applies the choropleth map information in a highly effective manner and with ease. Applies calculations and data to extended circumstances in a highly effective manner.

Overall Level: Mark Student Name:

Appendix I: Data Chart #1

Province/ Territory	Population (people)	Area (km ²)	Population Density (people km ⁻²)	% of Canada's Total Pop.
NF	551792	371634.6	1.48	1.91
PEI	134557	5660.4	23.77	0.47
NS	909282	52840.8	17.21	3.15
NB	738133	71569.2	10.31	2.56
Que	7138795	1357811.7	5.26	24.75
ON	10753573	916733.7	11.73	37.28
Man	1113898	547703.8	2.03	3.86
Sask	990237	570113.5	1.74	3.43
Alta	2696826	638232.7	4.23	9.35
BC	3724500	892677	4.17	12.91
Yukon	30766	531843.6	0.06	0.11
NWT	64402	3246389.5	0.02	0.22
Canada	28846761	9203210.5	3.13	100

(1996).

Data Chart #2

Ecozone	Population (People)	Area (km ²)	Population Density (People km ⁻²)	% of Canada's Total Pop.
1	1047	239216	0.00438	0.00428
2	16328	1433362	0.0114	0.0667
3	10314	775734	0.0133	0.0422
4	21429	563241	0.038	0.0876
5	33589	1268623	0.0265	0.137
7	2510203	196449	12.8	10.3
8	14016101	113431	123.6	57.3
9	707695	656970	1.08	2.89
10	3851089	440537	8.74	15.7
11	309	245865	0.126	0.00126
12	30839	432128	0.0714	0.126
13	2504393	195554	12.8	10.2
14	751761	461198	1.67	3.07
15	9938	350318	0.0284	0.0406

Data Chart #3

Canada	1951	1956	1961	1966	1971	1976	1981	1986	1991	1996
Population (millions)	14.0	16.1	18.2	20.0	21.6	23.0	24.3	25.3	27.3	28.9
Growth Rate (%)		14.8	13.4	9.7	7.8	6.6	5.9	4.0	7.9	5.7

Data Chart #4

Year	0-4m	0-4f	5-9m	5-9f	10-14m	10-14f	15-19m	15-19f	20-24m	20-24f
'1971	4.27%	4.08%	5.27%	5.04%	5.41%	5.18%	5.01%	4.85%	4.54%	4.50%
'1986	3.61%	3.43%	3.59%	3.40%	3.55%	3.39%	3.91%	3.70%	4.83%	4.61%
'2001	3.10%	2.94%	3.35%	3.18%	3.42%	3.25%	3.41%	3.26%	3.39%	3.25%
'2016	2.84%	2.69%	2.87%	2.71%	2.92%	2.76%	3.04%	2.87%	3.28%	3.12%

Year	25-29m	25-29f	30-34m	30-34f	35-39m	35-39f	40-44m	40-44f	45-49m	45-49f
'1971	3.83%	3.66%	3.13%	2.99%	3.02%	2.84%	2.99%	2.86%	2.84%	2.86%
'1986	4.83%	4.70%	4.38%	4.38%	3.99%	3.92%	3.24%	3.14%	2.58%	2.53%
'2001	3.46%	3.37%	3.74%	3.68%	4.32%	4.23%	4.28%	4.24%	3.75%	3.78%
'2016	3.40%	3.28%	3.47%	3.37%	3.45%	3.36%	3.41%	3.35%	3.47%	3.45%

Year	50-54m	50-54f	55-59m	55-59f	60-64m	60-64f	65-69m	65-69f	70-74m	70-74f
'1971	2.40%	2.45%	2.18%	2.21%	1.76%	1.82%	1.36%	1.49%	0.95%	1.16%
'1986	2.39%	2.37%	2.32%	2.38%	2.05%	2.30%	1.61%	1.93%	1.25%	1.61%
'2001	3.36%	3.36%	2.57%	2.61%	2.00%	2.08%	1.74%	1.88%	1.48%	1.75%
'2016	3.77%	3.75%	3.59%	3.65%	3.03%	3.19%	2.56%	2.75%	1.79%	2.04%

Year	75-79m	75-79f	80-84m	80-84f	85-89m	85-89f	90+m	90+f
'1971	0.64%	0.85%	0.39%	0.54%	0.19%	0.27%	0.06%	0.11%
'1986	0.81%	1.17%	0.45%	0.75%	0.19%	0.40%	0.08%	0.21%
'2001	1.09%	1.52%	0.63%	1.07%	0.31%	0.66%	0.12%	0.40%
'2016	1.18%	1.48%	0.78%	1.14%	0.44%	0.81%	0.22%	0.67%

Data Chart #5

Average Family Size					
1971	1976	1981	1986	1991	1996
3.7	3.5	3.3	3.1	3.1	3.0

Canadian Families by Number of Children at Home						
YEAR	0	1	2	3	4	5
1976	30	23.5	23.5	12.5	6	4
1991	35	26.5	26	9.5	2	.5

(Notice: How have the number of children had by Canadian families changed? How might this impact Canada's population size and structure in the future?)

Family Structure		
	1976	1991
Husband-Wife Families	90.2	87.0
Female Lone-Parent Families	8.1	10.7
Male Lone-Parent Families	1.7	2.3

(Notice: What's happening to the traditional family structure of the past? Will this impact on the number of children families choose to have? How and why?)

Percentage of Married Males/Females for Selected Age Groups										
YEAR	20-24		25-29		30-34		35-39		40-44	
	m	f	m	f	m	f	m	f	m	f
1976	32	54	71	81	85	87	89	88	90	87
1991	17	33	51	65	70	75	78	78	81	78

(Notice: Are people waiting longer to get married these days? Why? and, Are a greater or lesser percentage of us getting married as compared to before? Is there a relationship between these two trends and the number of children people are having today?)

Life Expectancy at Birth															
1920-22		1930-32		1940-42		1950-52		1960-62		1970-72		1980-82		1990-92	
m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f
59	61	60	62	63	66	66	71	68	74	69	76	72	79	75	81

(Notice: What has happened to Canada's life expectancy? How will this impact on our population structure in the future? What will it mean for Canadians?)

Data Chart #6

Province / Territory	1996	1991	Absolute Change	Percentage Change
Canada	28 846 761	27 296 859	1 549 902	5.7%
Nfld	551 792	568 474	16 682	-2.9%
PEI	134 557	129 765	4792	3.7%
NS	909 282	899 942	9340	1.0%
NB	738 133	723 900	14 233	2.0%
Que	7 138 795	6 895 963	242 832	3.5%
ON	10 753 573	10 084 885	668 688	6.6%
Man	1 113 898	1 091 942	21 956	2.0%
Sask	990 237	988 928	1309	0.1%
Alta	2 696 826	2 545 553	151 273	5.9%
BC	3 724 500	3 282 061	442 439	13.5%
Yukon	30 766	27 797	2969	10.7%
NWT	64 402	57 649	6753	11.7%

(1996).

Data Chart 7

Population by Mother Tongue

Note: All numbers have been rounded to the nearest thousand. All numbers are expressed in thousands.

Canada	NF	PEI	NS	NB	QB	ON	MN	SK	AB	BC	YK	NT
English	539	125	836	473	586	7695	813	817	2195	2785	26	36
French	2	6	35	239	5700	479	48	19	52	53	1	1
Non-official Language	5	2	24	10	658	2297	221	127	424	801	3	26

Data Chart 8

Immigration and Emigration since 1851

Note: Numbers are expressed in thousands.

		186 1-71	187 1-81	188 1-91	189 1- 190 1	190 1-11	191 1-21	192 1-31	193 1-41	1941 -51	195 1-61	196 1-71	197 1-81	1981 -91
Im	352	260	350	680	250	155 0	140 0	120 0	149	548	154 3	142 9	182 4	1876
Em	170	411	404	836	380	739	108 9	971	241	379	462	707	858	639
NM	?	?	?	?	?	?	?	?	?	?	?	?	?	?

Data Chart 9

Canada's Immigrant Population by Place of Birth.

Birthplace	Pre-1961	1961-70	1971-80	1981-90	1991-96
United States	45 050	50 200	74 015	46 405	29 025
Central and South America	6370	17 410	67 470	106 230	76 335
Caribbean and Bermuda	8390	45 270	96 025	72 405	57 315
United Kingdom	265 580	168 140	132 950	63 445	25 420
Other Northern and Western Europe	284 205	90 465	59 850	48 095	31 705
Eastern Europe	175 430	40 855	32 280	111 370	87 900
Southern Europe	228 145	244 380	131 620	57 785	52 455
Africa	4945	25 685	58 150	64 265	76 260
West-Central Asia and Middle East	4975	15 165	30 980	77 685	82 050
Eastern Asia	20 555	38 865	104 940	172 715	252 340
South-east Asia	2485	14 040	111 700	162 490	118 265
Southern Asia	4565	28 875	80 755	99 270	140 055
Oceania and Other	4250	9240	15 420	10 240	9875

Data Chart 10

Percentage of Provincial/Territorial Population Classified as Immigrant:

NF	PEI	NS	NB	QB	ON	MN	SK	AB	BC	YK	NT
1.5	3.2	4.4	3.3	8.6	23.7	12.7	5.8	15.1	22.2	4.8	10.7

Data Chart 11

Destination of Immigrants Coming to Canada:

Province	1913	1955	1992
British Columbia	15%	13%	14%
Prairies	35%	13%	11%
Ontario	31%	52%	51%
Quebec	15%	20%	22%
Atlantic Provinces	4%	2%	1%

Appendix J: Background Information on Immigration Policy

Summary of the Immigration Act and Regulations

- links the immigration movement to Canada's population and labour market needs;
- provides for an annual announcement of the number of immigrants Canada can comfortably absorb, after mandatory consultations with provincial and territorial governments. Groups in the private and voluntary sectors, and individuals may also be consulted;
- allows Canadian citizens and permanent residents residing in Canada to sponsor close relatives;
- confirms Canada's commitment and responsibilities to refugees under the United Nations Convention;
- requires immigrants and visitors to obtain visas or authorizations abroad;
- introduces security measures to protect Canada from international terrorism and organized crime;
- safeguards the civil rights of immigrants and visitors through a quasi-judicial inquiry;
- provides short-term alternatives to permanent deportation for cases involving less serious violations of immigration law; and
- states in specific terms the powers granted to the government and its officials.

Section 6 of the Act identifies 3 classes of immigrants:

I. Family class - Canadian citizens and permanent residents, aged 19 and over, and living in Canada, have the right to sponsor the applications of certain close relatives who wish to immigrate to Canada.

Unlike the class of independent and other immigrants, family class applicants are not assessed under the point system, but they must meet the basic standards of good health and character. As well, before an immigrant visa can be issued to applicants in the family class, the sponsoring relative in Canada is required to sign an undertaking of support. In this statement, the sponsor promises to provide for the housing, care and maintenance of the applicant and accompanying dependants for up to ten years.

II. Refugees - Groups of at least five Canadian citizens or permanent residents 19 years of age or older, or local organizations which are legally incorporated may sponsor Convention refugees, members of a designated class and their families. Undertaking a sponsorship agreement means agreeing to provide settlement assistance for the refugee(s) for a period of one year. The definition of a refugee in the Act is based on the definition in the United Nations Convention and Protocol Relating to the Status of Refugees..

III. Independent immigrants - includes assisted relatives, skilled workers, entrepreneurs, investors, and self-employed persons, applying on their own initiative. Immigrants in the independent class are assessed against the factors in the selection criteria.

Not every independent applicant is assessed against all of the selection criteria. Applicants are rated only according to those factors which actually affect their ability to become successfully established in Canada. For example, entrepreneurs and investors who create jobs for Canadians are not assessed on occupation factors. Since intended occupation is not a relevant factor in selecting a self-employed applicant, it is not assessed for this category either. However, more emphasis is placed on ability and experience by making it possible to gain bonus units for being self-employed. Assisted relatives are assessed against the same factors as are other independent immigrants. They receive bonus units of assessment if they have a relative in Canada.