Social Studies

Canadian Geography 1202

Interim Edition

Newfoundland Labrador

Curriculum Guide
2012

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Introduction

Background

The Atlantic Canada social studies curriculum was planned and developed by regional committees whose deliberations were guided by consideration of the learners and input from teachers. The regional committees consisted of teachers, other educators, and consultants with a diverse range of experiences and backgrounds in education. Each curriculum level was strongly influenced by current social studies research and developmentally appropriate pedagogy.

Aims of Social Studies

The vision for the Atlantic Canada social studies curriculum is to enable and encourage students to examine issues, respond critically and creatively, and make informed decisions as individuals and as citizens of Canada and of an increasingly interdependent world.

An effective social studies curriculum prepares students to achieve all essential graduation learnings. In particular, social studies, more than any other curriculum area, is vital in developing citizenship. Social studies embodies the main principles of democracy, such as freedom, equality, human dignity, justice, rule of law, and civic rights and responsibilities.

The social studies curriculum provides opportunities for students to explore multiple approaches that may be used to analyze and interpret their own world and the world of others. Social studies presents unique and particular ways for students to view the interrelationships among Earth, its people, and its systems. The knowledge, skills, and attitudes developed through the social studies curriculum empower students to be informed, responsible citizens of Canada and the world, and to participate in the democratic process to improve society.

In particular, the social studies curriculum:

- integrates the concepts, processes, and ways of thinking drawn from the diverse disciplines of the social sciences (including history, geography, economics, political science, sociology, and anthropology). It also draws from literature and the pure sciences;
- provides the multidisciplinary lens through which students examine issues affecting their lives from personal, provincial, national, academic, pluralistic, and global perspectives.

Purpose of Curriculum Guide

The overall purpose of this curriculum guide is to advance social studies education and social studies teaching and learning.

More specifically, this curriculum guide:

- provides curriculum outcomes to which educators and others refer when making decisions concerning learning experiences, instructional techniques, and assessment strategies in Canadian Geography 1202;
- informs both educators and members of the general public about the philosophy and scope of social studies education for Canadian Geography 1202.

Guiding Principles

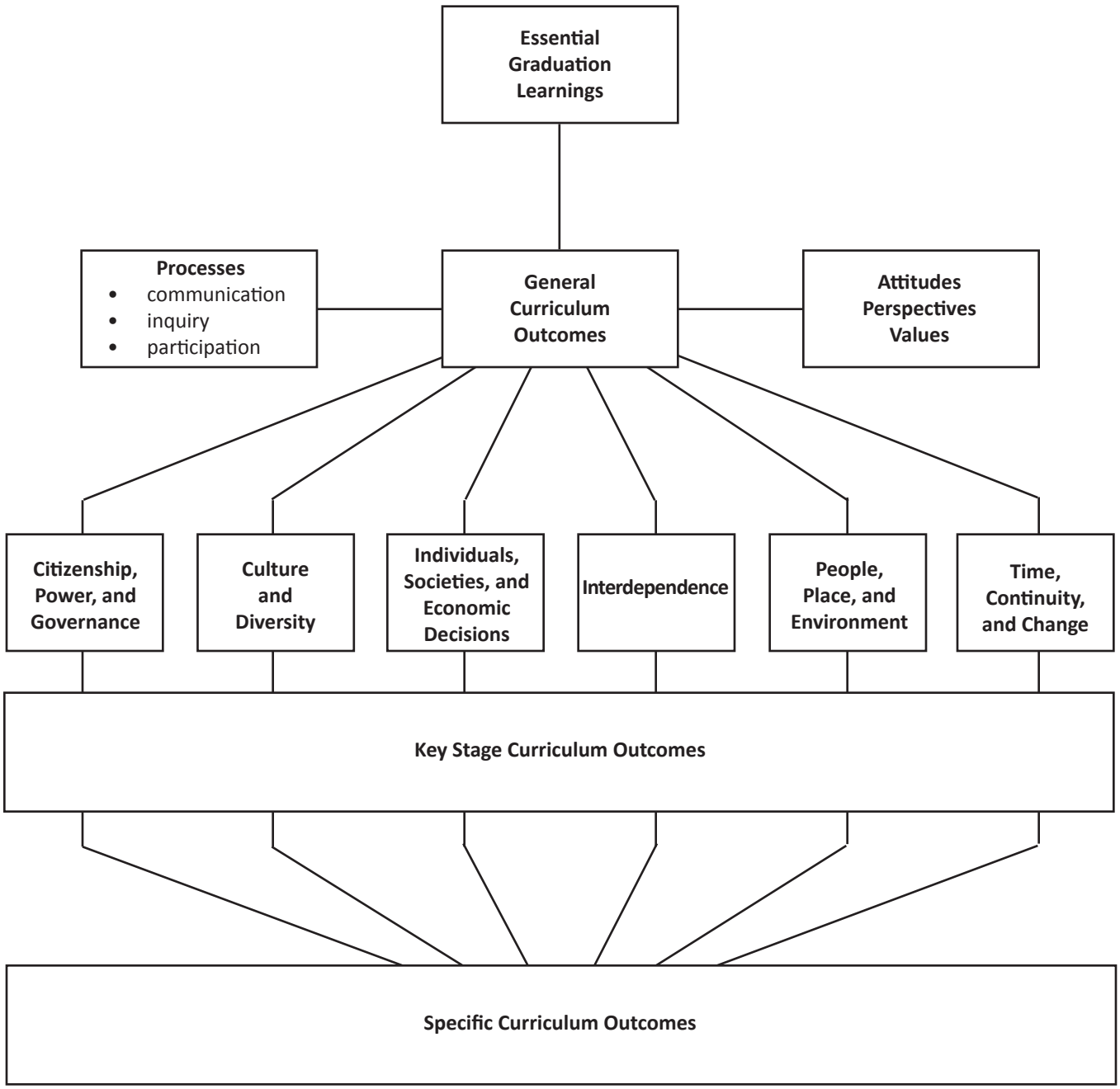
All Kindergarten to Level III curriculum and resources should reflect the principles, rationale, philosophy, and content of the Foundation for the Atlantic Canada Social Studies Curriculum (1999) by:

- being meaningful, significant, challenging, active, integrative, and issues based;
- being consistent with current research pertaining to how children learn;
- incorporating multiple perspectives;
- promoting the achievement of Essential Graduation Learnings (EGLs), General Curriculum Outcomes (GCOs), and Key-Stage Curriculum Outcomes (KSCOs);
- reflecting a balance of local, national, and global content;
- promoting achievement in the processes of communication, inquiry, and participation;
- promoting literacy through the social studies;
- developing knowledge, skills, and attitudes for lifelong learning;
- promoting the development of informed and active citizens;
- contributing to the achievement of equity and supporting diversity;
- supporting the realization of an effective learning environment;
- promoting opportunities for cross-curricular connections;
- promoting resource-based learning;
- promoting the integration of technology in learning and teaching social studies; and
- promoting the use of diverse learning and assessment strategies.

Program Design

Overview

This social studies curriculum is based on Foundation for the Atlantic Canada Social Studies Curriculum (1999). Specific Curriculum Outcomes (SCOs) were developed to be congruent with Key-Stage Curriculum Outcomes (KSCOs), General Curriculum Outcomes (GCOs), and Essential Graduation Learnings (EGLs). In addition, the processes of social studies, as well as the attitudes, values, and perspectives, are embedded in the SCOs.



Essential Graduation Learnings

The Atlantic provinces worked together to identify abilities and areas of knowledge considered essential for students graduating from high school. These are referred to as Essential Graduation Learnings.

Aesthetic Expression

Graduates will be able to respond with critical awareness to various forms of the arts and be able to express themselves through the arts.

Citizenship

Graduates will be able to assess social, cultural, economic, and environmental interdependence in a local and global context.

Communication

Graduates will be able to use the listening, viewing, speaking, reading, and writing modes of language(s), as well as mathematical and scientific concepts and symbols, to think, learn, and communicate effectively.

Personal Development

Graduates will be able to continue to learn and to pursue an active, healthy lifestyle.

Problem Solving

Graduates will be able to use the strategies and processes needed to solve a wide variety of problems, including those requiring language, mathematical, and scientific concepts.

Technological Competence

Graduates will be able to use a variety of technologies; demonstrate an understanding of technological applications; and apply appropriate technologies for solving problems.

Spiritual and Moral Development

Graduates will demonstrate understanding and appreciation for the place of belief systems in shaping the development of moral values and ethical conduct.

General Curriculum Outcomes

The General Curriculum Outcomes (GCOs) for the social studies curriculum are organized around six conceptual strands. These General Curriculum Outcomes statements identify what students are expected to know and be able to do upon completion of study in social studies. Specific social studies concepts are found within the conceptual strands (see *Appendix A*).

Citizenship, Power, and Governance

Students will be expected to demonstrate an understanding of the rights and responsibilities of citizenship, and the origins, functions, and sources of power, authority, and governance.

Culture and Diversity

Students will be expected to demonstrate an understanding of culture, diversity, and world view, while recognizing the similarities and differences reflected in various personal, cultural, racial, and ethnic perspectives.

Individuals, Societies, and Economic Decisions

Students will be expected to demonstrate the ability to make responsible economic decisions as individuals and as members of society.

Interdependence

Students will be expected to demonstrate an understanding of the interdependent relationships among individuals, societies, and the environment—locally, nationally, and globally—and the implications for a sustainable future.

People, Place,and Environment

Students will be expected to demonstrate an understanding of the interactions among people, places, and the environment.

Time, Continuity, and Change

Students will be expected to demonstrate an understanding of the past and how it affects the present and the future.

Processes

The social studies curriculum consists of three major processes: communication, inquiry, and participation. These processes are reflected in the "Suggestions for Learning and Assessment" found in social studies curriculum guides. These processes incorporate many skills—some of which are responsibilities shared across curriculum areas, whereas others are critical to social studies. See *Appendix B* for a Process-Skills Matrix.

Communication

Communication requires that students listen, read, interpret, translate, and express ideas and information.

Inquiry

Inquiry requires that students formulate and clarify questions, investigate problems, analyze relevant information, and develop rational conclusions supported by evidence.

Participation

Participation requires that students act both independently and collaboratively in order to solve problems, make decisions, and negotiate and enact plans for action in ways that respect and value the customs, beliefs, and practices of others.

Attitudes, Values, and Perspectives

Attitudes relate to the ways in which people view something or behave toward it, often in an evaluative way. Social studies enables students to understand how attitudes are formed and how they influence individual behaviour.

In Atlantic Canada, social studies promotes the development of attitudes that value citizenship, the democratic process, fundamental human rights and freedoms, diversity, and the learning process, Students clarify these attitudes as they examine issues, communicate, and participate with each other within their schools and their local, national, and global communities.

Listed below are major attitudes, values, and perspectives in social studies that have been organized according to the six conceptual strands and the three processes of the foundation document. Some attitudes, values, and perspectives are embedded in more than one strand or process—this is consistent with the integrative nature of social studies.

By Conceptual Strand

Citizenship, Power, and Governance
- develop attitudes that balance rights with responsibilities
- value the benefits of active, participatory citizenship

Culture and Diversity
- value the positive interaction between individuals and groups
- appreciate and value the traditions of cultures

Individuals, Societies, and Economic Decisions
- appreciate the wide range of economic decisions that they make and their effects
- recognize the varying impact of economic decisions on individuals and groups

Interdependence
- appreciate the complexity of the interactions between human and natural systems
- value the need for individual as well as collective action to support peace and sustainability

People, Place, and the Environment
- value maps, globes, and other geographic representations as valuable sources of information and learning
- recognize the complexity of global interdependence

Time, Continuity, and Change
- value their society's heritage
- recognize that the collective history influences the present

By Process

Communication

- respectfully listen to others; respect other points of view
- value the importance of communication skills

Inquiry

- appreciate that there are a variety of strategies to solve problems and make decisions
- analyze problems from a variety of different perspectives

Participation

- value both independent and group work; take increasing responsibility for their own and the group's work
- learn to recognize, analyze, and respond appropriately to discriminatory practices and behaviours

Contexts for Learning and Teaching

Equity and Diversity

The social studies curriculum is designed to meet the needs and interests of all students. The curriculum should provide for the inclusion of the interests, values, experiences, and language of each student and of the many groups within our local, regional, national, and global communities.

The society of Newfoundland and Labrador, like all provinces of Canada, reflects a diversity of race, ethnicity, gender, ability, values, lifestyles, and languages. Schools should foster the understanding of such diversity. Social studies curricula promote a commitment to equity by valuing, appreciating, and accepting the diverse and multicultural nature of our society, as well as by fostering awareness and critical analysis of individual and systemic discrimination.

In a school setting characterized by mutual trust, acceptance, and respect, student diversity is both recognized and valued. All students are entitled to be respected and valued and, in turn, are responsible for respecting and valuing all other people. They are entitled to an educational system that affirms their gender, racial, ethnic, and cultural identity, and promotes the development of a positive self-image. Educators should ensure that classroom practices and resources positively and accurately reflect diverse perspectives and reject prejudiced attitudes and discriminatory behaviours.

Principles Underlying the Social Studies Curriculum

The *Foundation for the Atlantic Canada Social Studies Curriculum* sets out a framework that describes the principles that characterize an empowering and effective social studies curriculum.

Meaningful

Meaningful social studies encourages students to learn through purposeful experiences designed around stimulating ideas, social issues, and themes, and discourages the memorization of disconnected pieces of information.

Significant

Significant social studies is student-centred and age appropriate. Superficial coverage of topics is replaced by emphasis on the truly significant events, concepts, and principles that students need to know and be able to apply in their lives.

Challenging

Challenging social studies involves teachers modelling high expectations for their students and themselves, promoting a thoughtful approach to inquiry, and demanding well-reasoned arguments.

Active

Active social studies encourages students to assume increasing responsibility for managing their own learning. Exploration, investigation, critical and creative thinking, problem solving, discussion and debate, decision making, and reflection are essential elements of this principle. This active process of constructing meaning encourages lifelong learning.

Integrative

Integrative social studies crosses disciplinary borders to explore issues and events, while using and reinforcing informational, technological, and application skills. This approach facilitates the study of the physical and cultural environment by making appropriate and meaningful connections to the human disciplines and to the concepts of time, space, continuity, and change.

Issues-based

Issues-based social studies considers the ethical dimensions of issues and addresses controversial topics. It encourages consideration of opposing points of view, respect for well supported positions, sensitivity to cultural similarities and differences, and a commitment to social responsibility and action.

The Social Studies Learning Environment

With the accelerating pace and scope of change, today's students cannot prepare for life by merely learning isolated facts. Problem solving, critical and creative thinking, and informed decision making are essential for success in the future. The social studies learning environment contributes significantly to the development of these critical attributes to prepare students as lifelong learners in the 21st century.

Instructional Approaches

It is recognized that the most effective instructional approach is one that is eclectic in nature. The classroom teacher employs those instructional strategies deemed most appropriate given the needs of the learner, the learning outcomes, and the resources available. One cannot be prescriptive in favour of any single teaching method in Canadian Geography 1202 since (1) students differ in interests, abilities, and learning styles, and (2) components of the course differ in terms of intent, level of conceptual difficulty, and the relative emphases on knowledge, skills, and values. Therefore, the discerning teacher will use a variety of methods in response to a variety of instructional situations.

Effective social studies teaching creates an environment that supports students as active, engaged learners. Discussion, collaboration, debate, reflection, analysis, and application should be integrated into activities when appropriate. Teaching strategies can be employed in numerous ways and combinations. It is the role of the teacher to reflect on the program outcomes, topics, resources, and nature of the class and individual students. They can then select approaches best suited to the circumstance.

In this regard, planning for instruction should be informed by a constructivist approach to learning, where students use prior knowledge as they construct new understanding. Teachers will lead students so that students can question and then search for answers as they move through the curriculum.

The Canadian Geography 1202 curriculum challenges students to think critically. The course is structured so that students can inquire into why events, ideas, people or places are significant, what has changed over time, and why change occurred. These opportunities for inquiry should be enhanced by a hands-on approach to teaching, learning, and assessment where students use a variety of methods to show their understanding of these concepts.

The Canadian Geography 1202 program builds an active learning approach for students, supporting lifelong learning skills such as problem solving, critical thinking, creative thinking, information analysis, and informed decision making. This program introduces methods and skills for social studies research and provides a context in which students can analyze and evaluate information and make appropriate interpretations.

Inquiry and Analysis

This curriculum guide will provide teachers with questions designed to encourage authentic inquiry and to promote in students the development of higher order and analytic thinking abilities.

Inquiry

Educational research suggests that students learn best when they actively and critically inquire into the subject matter. Teachers can engage students in learning about social studies by involving them in shaping questions to guide their study, giving them ownership over the directions of these investigations and requiring that students critically analyze subject matter and not merely retrieve information. In these ways, classrooms shift from places where teachers cover curriculum to places where students uncover the curriculum.

The uncovering of curriculum occurs only when students investigate questions that present meaningful problems or challenges to address. 'Critical' inquiry signals that inquiry is not merely the retrieval of information but requires reaching conclusions, making decisions, and solving problems. Although some students may enjoy gathering information, students' depth of learning and engagement are enhanced when they are invited to think critically at each step of the investigation.

The following dimensions capture the range of inquiry-related competencies within the social sciences:

1. Ask questions for various purposes
2. Locate and select appropriate sources
3. Access ideas from oral, written, visual, and statistical sources
4. Uncover and interpret the ideas of others
5. Assess options and formulate reasoned opinions
6. Present ideas to others
7. Act cooperatively with others to promote mutual interests

Critical inquiry is embedded into these areas of competence at all grade levels. From Kindergarten, students are explicitly taught and then expected to make reasoned decisions, develop interpretations and make plausible inferences based on evidence. See *Appendix C*.

Analysis

Recent scholarship in relation to effective teaching and learning in the social sciences confirms the view that there is a positive correlation between student engaged with authentic tasks and achievement. The research of Peter Seixas, Roland Case and Mike Denos, Kamilla Bahbahnani and Miem Tu Huynh, and others, suggests that the application of second order concepts to an area

of inquiry allows for effective and powerful leaning. Extending from this body of knowledge, this curriculum articulates a set of six concepts related to analysis which is intended enable students to "think deeply" about the ideas they will encounter in this course:

1. Use Information (abbreviated UI)
2. Make Comparisons (abbreviated MC)
3. Identify Cause and Consequence (abbreviated CC)
4. Consider Perspective (abbreviated CP)
5. Determine Significance (abbreviated DS)
6. Make Value Judgments (abbreviated VJ)

These competencies are embedded in the social studies curriculum at all grade levels. Students are explicitly taught how to apply these concepts as part of the inquiry process. See *Appendix C*.

Resource-Based Learning

Effective social studies teaching and learning actively involves students, teachers, and teacher-librarians in the effective use of a wide range of print, non-print, and human resources. Resource-based learning fosters the development of individual students by accommodating their diverse backgrounds, learning styles, needs, and abilities. Students who use a wide range of resources in various media have the opportunity to approach a theme, issue, or topic in ways that allow for differences in learning styles and abilities.

Resource-based learning supports students as they develop information literacy: accessing, interpreting, evaluating, organizing, selecting, producing, and communicating information in and through a variety of media technologies and contexts. When students engage in their own research with appropriate guidance, they are more likely to take responsibility for their learning and to retain the information they gather for themselves.

In a resource-based learning environment, students and teachers make decisions about appropriate sources of information and tools for learning and how to access these. A resource-based approach raises the issues of selecting and evaluating a wide variety of information sources, with due crediting of sources and respect for intellectual property. The development of critical skills needed for these tasks is essential to the social studies processes.

The range of possible resources include:

- print – books, magazines, newspapers, documents, and publications
- visuals – maps, illustrations, photographs, pictures, and study prints
- artefacts – concrete objects, educational toys, and games
- individuals and community – interviews, museums, field trips

- multimedia – films, audio and video tapes, laser and video discs, television, and radio
- information technology – computer software, databases, CD-ROMs
- communication technology – Internet connections, bulletin boards, e-mail

Literacy Through Social Studies

Literacy has always been an important component of social studies education. In recent years, however, through the promotion of research in critical theory, the meaning of literacy has broadened to encompass all media and forms of communication. In today's social studies classrooms, learners are encouraged to examine, compose, and decode spoken, written, and visual texts to aid in their understanding of content and concepts and to better prepare them for full and effective participation in their community. Additionally, the goals of literacy include not only language development, but also critical engagement with text, visuals, and auditory information. These goals have implications for the role of the social studies teacher.

The ability to read is critical for success in school. Therefore, it is vital that social studies teachers develop and use strategies that specifically promote students' abilities to read, comprehend, and compose text, no matter what form that text might take. Similarly, writing as a process should be stressed as a means that allows students to communicate effectively what they have learned and what further questions they need to ask.

Critical literacy in social studies curriculum addresses several goals. Through the implementation of various strategies, teachers will develop students' awareness of stereotyping, cultural bias, author's intents, hidden agendas, silent voices, and omissions. Students are encouraged to be aware that authors construct texts with specific purposes in mind. Further critical literacy helps students comprehend texts at a deeper level by encouraging them to view content and ideas from a variety of perspectives and to interpret the various levels of meaning, both explicit and implicit, in a given text.

In this regard, the level and focus of questioning becomes very important. The depth of student response will often be determined by the depth of questioning and inquiry. Teachers need to pose high-level, open-ended questions that allow students to use their prior knowledge and experiences and provide opportunity for sustained engagement before, during, and after reading or viewing text.

Strategies that promote literacy through social studies include helping students comprehend the meaning of words, symbols,

pictures, diagrams, and maps in a variety of ways. Students will engage in many learning opportunities designed to challenge and enhance their communication in a variety of modes (such as writing, debating, persuading, and explaining) and in a variety of mediums (such as the artistic and technological). In the Social Studies classroom, all literacy strands are significant: reading, writing, speaking, listening, viewing, and representing.

In the context of social studies, literacy also addresses the promotion of citizenship. Literacy for active citizenship involves understanding different perspectives on key democratic struggles, learning how to investigate current issues, and participating creatively and critically in community problem-solving and decision-making. Exercising civic rights and responsibilities is a practical expression of important social values and requires specific personal, interpersonal, and advocacy skills. Through this important focus, the social studies program will help students become more culturally sensitive and effective cross-cultural communicators in a world of increasing cultural and linguistic diversity.

Integration of Technology

Technology, including Information and Communication Technology (ICT), plays a major role in the learning and teaching of social studies. Computers and related technologies are valuable classroom tools for the acquisition, analysis, and presentation of information. These technologies provide further opportunity for communication and collaboration, allowing students to become more active participants in research and learning.

ICT and related technologies (digital video and digital cameras, scanners, CD-ROMs, DVD ROMs, word processing software, graphics software, video-editing software, html editors, and the Internet (including the World Wide Web, databases, electronic discussions, e-mail, audio, and video conferencing) afford numerous possibilities for enhancing learning. Computers and other technologies are intended to enhance the learning of social studies. In that context, technological resources can provide a variety of opportunities.

- The Internet increases access to extensive and current information. Research skills are key to efficient use of these resources. Questions of validity, accuracy, bias, and interpretation must be applied to information available on the Internet.
- Interactions and conversations via e-mail, video and audio conferencing, student-created websites, and online discussion groups provide connections between students and people from cultures around the world. This exposure to first-hand information will enable students to directly employ inquiry skills.
- Students present what they have learned in a wide variety of

forms (e.g., graphs, maps, text, graphic organizers, websites, multimedia presentations) that fit their learning styles. These presentations can be shared with others, both in their classroom and beyond.

- Students are actively involved in their learning through controlling information gathering, processing, and presentation. For example, Geographic Information Systems (GIS) software enables students to collect data on a community, plot the data using Global Positioning Systems (GPS), and analyze and present their findings by creating maps that demonstrate their learning.

Education for Sustainable Development

Education for sustainable development (ESD) involves incorporating the key themes of sustainable development – such as poverty alleviation, human rights, health, environmental protection, and climate change – into the education system. ESD is a complex and evolving concept. It requires learning about the key themes from a social, cultural, environmental, and economic perspective and explores how those factors are inter-related and inter-dependent.

With this in mind, it is important that all teachers, including social studies teachers, attempt to incorporate these key themes in their subject areas. One tool that may be used is the searchable on-line database *Resources for Rethinking*, found at r4r.ca/en. It provides teachers with access to materials that integrate ecological, social, and economic spheres through active, relevant, interdisciplinary learning.

Assessing and Evaluating Student Learning

Assessment is the systematic process of gathering data on student learning. Evaluation is the process of analyzing patterns in the data, forming judgments about possible responses to these patterns, and making decisions about future actions.

An integral part of the planned instructional cycle is the evaluation of learning and evaluation for learning. Evaluation of learning focuses on the degree to which students have achieved the intended outcomes and the extent to which the learning environment was effective toward that end. Evaluation for learning, given what evaluation of learning reveals, focuses on the designing of future learning situations to meet the needs of the learner.

The quality of assessment and evaluation has a link to student performance. Regular monitoring and feedback are essential to improving student learning. What is assessed and evaluated, how it is assessed and evaluated, and how the results are communicated send clear messages to students and other stakeholders about what is really valued—what is worth learning, how it should be learned, what elements of quality of performance are most important, and how well students are expected to perform.

Assessment

To determine how well students are learning, assessment strategies are used to systematically gather information on the achievement of curriculum outcomes. In planning assessments, teachers should use a broad range of data sources, appropriately balanced, to give students multiple opportunities to demonstrate their knowledge, skills, and attitudes. Many sources of assessment data can be used to gather such information. Some examples include, but are not limited to the following:

formal and informal observations
work samples
anecdotal records
conferences
teacher-made and other tests
portfolios
learning journals
questioning
essay writing
performance assessments
peer and self-assessments
multimedia presentations
interviews
rubrics
simulations
checklists
questionnaires
oral presentations
role play
debates
rating scales
case studies
panel discussions
graphic representations

Evaluation

Evaluation is a continuous, comprehensive, and systematic process. It brings interpretation, judgments, and decisions to data collected during the assessment phase. How valid and reliable is the data gathered? What does the data suggest in terms of student achievement of course outcomes? Does student performance confirm instructional practice or indicate the need to change it? Are students ready to move on to the next phase of the course or is there need for remediation?

Teacher-developed assessments and the evaluations based on them have a variety of uses:

- providing feedback to improve student learning
- determining if curriculum outcomes have been achieved
- certifying that students have achieved certain levels of performance
- setting goals for future student learning
- communicating with parents about their children's learning
- providing information to teachers on the effectiveness of their teaching, the program, and the learning environment
- meeting goals of guidance and administrative personnel

Evaluation is conducted within the context of the outcomes, which should be clearly understood by learners before teaching and evaluation take place. Students must understand the basis on which they will be evaluated and what teachers expect of them. The evaluation of a student's progress may be classified as pre-instructional, formative, or summative—depending on the purpose.

Pre-instructional evaluation is conducted before the introduction of unfamiliar subject matter or when learners are experiencing difficulty. It gives an indication of where students are and is not a measure of what they are capable of doing. The purpose is to analyze the student's progress to date in order to determine the type and depth of instruction needed. This type of assessment is mostly conducted informally and continuously.

Formative evaluation is conducted throughout the process of instruction. Its elementary purpose is to improve instruction and learning. It is an indication of how things are going. It identifies a student's strengths or weaknesses with respect to specific curriculum outcomes so that necessary adaptations can be made.

Summative evaluation occurs at the end of a designated period of learning. It is used, along with data collected during the formative stage, to determine learner achievement. This assessment is used in order to report the degree to which curriculum outcomes have been achieved.

Guiding Principles

In order to provide accurate, useful information about the achievement and instructional needs of students, certain guiding principles for the development, administration, and use of assessments must be followed.

The *Principles for Fair Student Assessment Practices for Education in Canada* (1993)* articulates five basic assessment principles:

- Assessment strategies should be appropriate for and compatible with the purpose and context of the assessment.
- Students should be provided with sufficient opportunity to demonstrate the knowledge, skills, attitudes, or behaviours being assessed.
- Procedures for judging or scoring student performance should be appropriate for the assessment strategy used and be consistently applied and monitored.
- Procedures for summarizing and interpreting assessment results should yield accurate and informative representations of a student's performance in relation to the curriculum outcomes for the reporting period.
- Assessment reports should be clear, accurate, and of practical value to the audience for whom they are intended.

These principles highlight the need for assessment that ensures:

- the best interests of the student are paramount
- assessment informs teaching and promotes learning
- assessment is an integral and ongoing part of the learning process and is clearly related to the curriculum outcomes
- assessment is fair and equitable to all students and involves multiple sources of information

While assessments may be used for different purposes and audiences, all assessments must give each student optimal opportunity to demonstrate what he/she knows and can do.

** The Principles for Fair Student Assessment Practices for Education in Canada was developed by a Working Group guided by a Joint Advisory Committee representing national educational organizations including (but not limited to): Canadian Teachers' Federation, Canadian Council for Exceptional Children, Provincial and Territorial Ministers, and Departments of Education. While there has not been a revision of the Principles since the original date of publication, the Principles are considered current by educational stakeholders and have been published in assessment documents with copyright dates of 2009. These Principles are informing best practice in the 21st century, e.g., the Principles are the foundation of the Student Evaluation Standards published in the United States by Corwin Press in 2003 and are referenced in the Alberta government's student assessment study (2009) to name but two examples. The Principles continue to be cited as their accompanying guidelines are timely and sound.*

Curriculum Overview

Course Summary

The world which students inhabit is becoming increasing interdependent. As a consequence, actions in one area may have a multitude of effects in a variety of other places.

Canadian Geography 1202 is designed to introduce students to systems thinking. Systems thinking is an approach used to guide inquiries in order to understand how things influence one another within a whole. In physical geography systems thinking is used to understand how elements such as climate, soil, water and vegetation interact to create ecosystems. In human geography people create structures and processes that interact in order to bring about a desired result, such as a transportation system.

This program empowers students to use systems thinking as a means to examine and respond to issues where individual factors are viewed as parts of an overall structure. Thus, rather than viewing an issue in narrow terms – potentially leading to actions that may further compound the issue due to unintended consequences – factors are examined in the context of how they relate to the whole.

This approach acknowledges that the world is inherently complex. Therefore problems should be carefully analyzed in order to develop responses that achieve designed goals. Multiple perspectives are valued for the insights they offer, enabling people from a variety of backgrounds to work together to create a preferred future.

Upon completion of this course, students should have a deeper understanding of Canada's natural and human systems. Further, they should be able to use a systems thinking approach to address issues in both personal and community contexts.

Table of Specifications and Pacing Guidelines

When planning for instruction it is critical for evaluation to be aligned with outcomes and instruction. Thus, the relative emphasis on cognitive levels during instruction must be reflected in the assessment of students' work. For the purpose of this guide, cognitive levels are defined as:

- Level 1 (knowledge and comprehension),
- Level 2 (application and analysis) and
- Level 3 (evaluation and synthesis)

The following information is provided to help with instructional planning - for pacing and evaluation purposes.

Pacing Guidelines		
Unit	**Percentage of Instructional Time**	**Completion Date**
Integrated Concepts and Processes	*Integrated*	
Unit One: Natural and Human Systems	**27**	
Unit Two: Human Population Issues in Canadian Geography	**30**	
Unit Three: Economic Issues in Canadian Geography	**26**	
Unit Four: Global Issues in Canadian Geography	**17**	
Total	**100**	

Students enrolled in Canadian Geography 1202 may be required to write a district or school level summative examination at the completion of a unit of study, at mid-year, and / or at year-end. It is critical, then, that there is a positive correlation between instruction and evaluation. This congruence must be evidenced at two levels:

- The scope of the course in terms of relative emphasis among curriculum outcomes must be reflected on the assessment instrument.

- The relative emphasis among cognitive levels (i.e., thinking skills: Level 1 (knowledge and comprehension), Level 2 (application and analysis) and Level 3 (evaluation and synthesis)) during the instructional phase must be reflected in the assessment instrument.

To help achieve this correlation, the following Table of Specifications is provided. From the Table of Specifications, the examination format may be derived. An analysis of the Table of Specifications provides parameters for ensuring that there is a match between instruction and the assessment.

Table of Specifications

Unit	**Cognitive Levels**			
	Level 1	Level 2	Level 3	Total
Integrated Concepts and Processes	*Integrated*			
Unit One: Natural and Human Systems	8%	8	11%	**27%**
Unit Two: Human Population Issues in Canadian Geography	9%	9%	12%	**30%**
Unit Three: Economic Issues in Canadian Geography	8%	8%	10%	**26%**
Unit Four: Global Issues in Canadian Geography	5%	5%	7%	**17%**
Total	**30%**	**30%**	**40%**	**100%**

How to Use the Four Column Curriculum Layout

Outcomes and Delineations

Each column contains one specific curriculum outcome and an accompanying set of delineations. The delineations provide specificity in relation to key ideas. Each delineation is given an entire two-page spread, which is offset by the ▶ symbol and is ***bolded and italicized***.

Focus for Learning

The purpose of this feature is to assist teachers with instructional planning. The intent of this feature is to provide clarity in terms of scope and depth of treatment of ideas.

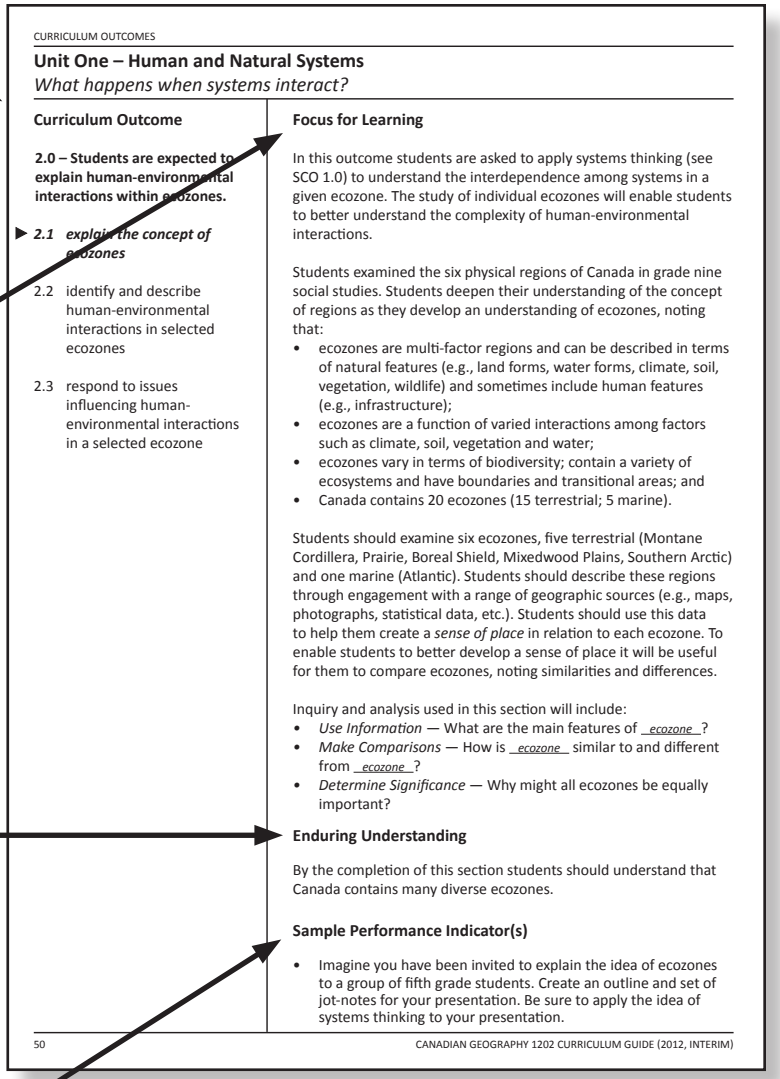
Enduring Understanding

The intent of this feature is to summarize in one or two sentences the salient idea of the delineation.

Sample Performance Indicator(s)

The intent of this feature is to provide a summative, higher order question, where the answer provided by the student would serve as a data source to help teachers assess the degree to which the student has achieved the outcome in relation the delineation.

Performance indicators are typically presented as a question, which may include an introduction to establish a context. To answer the question students are required to use both first order (knowledge) and second order concepts (analysis). Performance indicators would be assigned at the end of the teaching period allocated for the delineation.



CURRICULUM OUTCOMES

Unit One – Human and Natural Systems

What happens when systems interact?

Curriculum Outcome

2.0 – Students are expected to explain human-environmental interactions within ecozones.

▶ ***2.1 explain the concept of ecozones***

2.2 identify and describe human-environmental interactions in selected ecozones

2.3 respond to issues influencing human-environmental interactions in a selected ecozone

Focus for Learning

In this outcome students are asked to apply systems thinking (see SCO 1.0) to understand the interdependence among systems in a given ecozone. The study of individual ecozones will enable students to better understand the complexity of human-environmental interactions.

Students examined the six physical regions of Canada in grade nine social studies. Students deepen their understanding of the concept of regions as they develop an understanding of ecozones, noting that:

- ecozones are multi-factor regions and can be described in terms of natural features (e.g., land forms, water forms, climate, soil, vegetation, wildlife) and sometimes include human features (e.g., infrastructure);
- ecozones are a function of varied interactions among factors such as climate, soil, vegetation and water;
- ecozones vary in terms of biodiversity; contain a variety of ecosystems and have boundaries and transitional areas; and
- Canada contains 20 ecozones (15 terrestrial; 5 marine).

Students should examine six ecozones, five terrestrial (Montane Cordillera, Prairie, Boreal Shield, Mixedwood Plains, Southern Arctic) and one marine (Atlantic). Students should describe these regions through engagement with a range of geographic sources (e.g., maps, photographs, statistical data, etc.). Students should use this data to help them create a *sense of place* in relation to each ecozone. To enable students to better develop a sense of place it will be useful for them to compare ecozones, noting similarities and differences.

Inquiry and analysis used in this section will include:

- *Use Information* — What are the main features of *_ecozone_*?
- *Make Comparisons* — How is *_ecozone_* similar to and different from *_ecozone_*?
- *Determine Significance* — Why might all ecozones be equally important?

Enduring Understanding

By the completion of this section students should understand that Canada contains many diverse ecozones.

Sample Performance Indicator(s)

- Imagine you have been invited to explain the idea of ecozones to a group of fifth grade students. Create an outline and set of jot-notes for your presentation. Be sure to apply the idea of systems thinking to your presentation.

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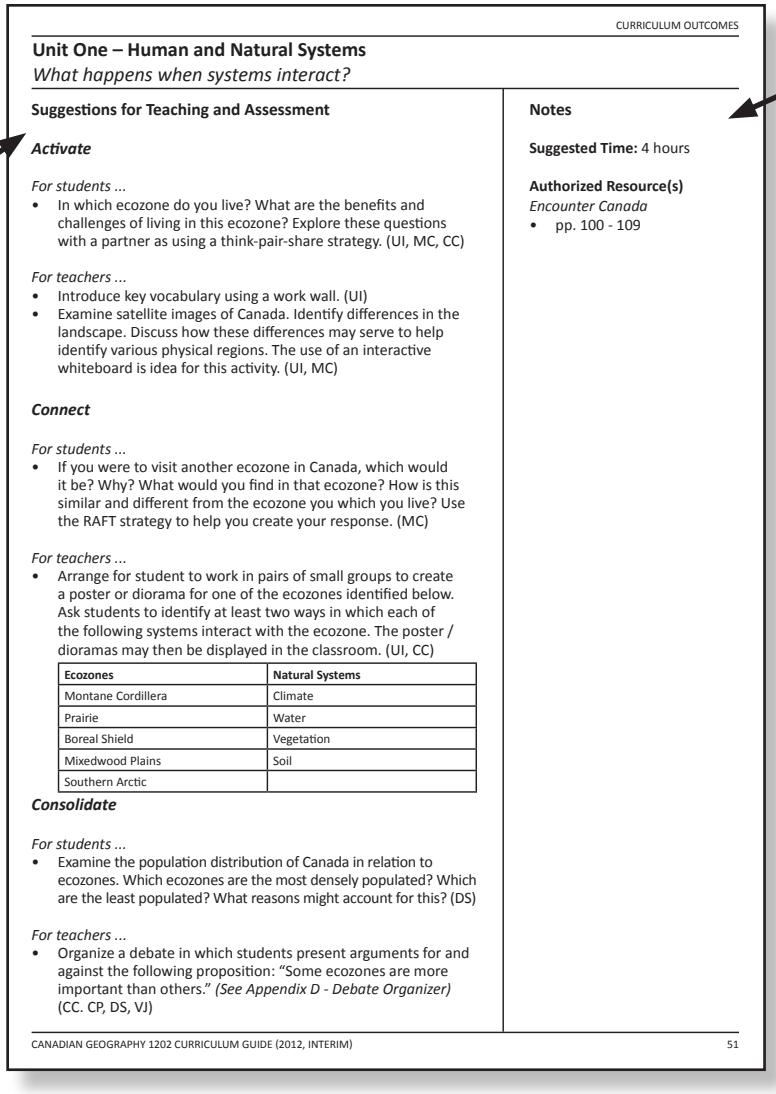

CURRICULUM OUTCOMES

Unit One – Human and Natural Systems
What happens when systems interact?

Suggestions for Teaching and Assessment

Activate

For students ...
- In which ecozone do you live? What are the benefits and challenges of living in this ecozone? Explore these questions with a partner as using a think-pair-share strategy. (UI, MC, CC)

For teachers ...
- Introduce key vocabulary using a work wall. (UI)
- Examine satellite images of Canada. Identify differences in the landscape. Discuss how these differences may serve to help identify various physical regions. The use of an interactive whiteboard is idea for this activity. (UI, MC)

Connect

For students ...
- If you were to visit another ecozone in Canada, which would it be? Why? What would you find in that ecozone? How is this similar and different from the ecozone you which you live? Use the RAFT strategy to help you create your response. (MC)

For teachers ...
- Arrange for student to work in pairs of small groups to create a poster or diorama for one of the ecozones identified below. Ask students to identify at least two ways in which each of the following systems interact with the ecozone. The poster / dioramas may then be displayed in the classroom. (UI, CC)

Ecozones	Natural Systems
Montane Cordillera	Climate
Prairie	Water
Boreal Shield	Vegetation
Mixedwood Plains	Soil
Southern Arctic	

Consolidate

For students ...
- Examine the population distribution of Canada in relation to ecozones. Which ecozones are the most densely populated? Which are the least populated? What reasons might account for this? (DS)

For teachers ...
- Organize a debate in which students present arguments for and against the following proposition: "Some ecozones are more important than others." *(See Appendix D - Debate Organizer)* (CC. CP, DS, VJ)

Notes

Suggested Time: 4 hours

Authorized Resource(s)
Encounter Canada
- pp. 100 - 109

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Notes

This feature references supplementary information and possible resources for use by teachers.

Sample Teaching and Assessment Strategies

The purpose of this feature is to provide teachers with ideas for instruction and assessment. In this way instructional activities are recognized as possible sources of data for assessment purposes. Frequently, appropriate techniques and instruments for assessment purposes are recommended.

The ideas for this feature support a constructivist approach to learning. Suggestions for instruction and assessment are organized sequentially:
- Activate - suggestions that may be used to activate prior learning and establish a context for the instruction;
- Connect - suggestions that scaffold student learning to focus on the main ideas of the outcome; and
- Consolidate - suggestions that help student summarize their learnings before moving on to subsequent SCOs and / or delineations.

Curriculum Outcomes

Unit i
Integrated Concepts and Processes (ICPs)

Specific Curriculum Outcomes

icp.0 Students are expected to demonstrate proficiency in utilizing concepts and processes from the social sciences.

Overview

The social studies curriculum (K-12) is designed to enable students to explore the world in which they live using the disciplines of economics, geography, history and political science.

Associated with these disciplines are concepts and processes which are used in the social sciences as a whole. When planning for instruction it is important that educators provide students opportunity to:

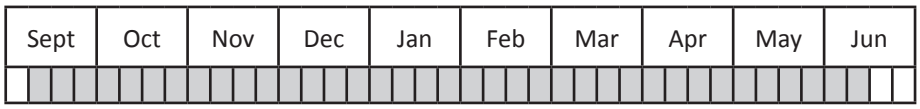
- become proficient in applying these concepts and processes within the context of Canadian Geography 1202, and
- to develop capacity to transfer these concepts and processes to real life situations.

The specific curriculum outcome that is associated with this set of concepts and processes is labeled as “icp” because these concepts and processes are to be *integrated* throughout the curriculum as a whole. In the two-page spreads that follow, columns two and three provide clarification and examples of how this can be achieved.

Please see *Contexts for Teaching and Learning: Inquiry and Analysis* (pp. 12 – 13), and *Appendix C* (pp. 115 – 122) for further information.

Instructional Time

This outcome is <u>not</u> to be taught in isolation. It is designed to be incorporated during the teaching of each specific curriculum outcome.



The GCOs shaded below are the primary area of focus for this unit.

1. Citizenship, Power, and Governance Students will be expected to demonstrate an understanding of the rights and responsibilities of citizenship, and the origins, functions, and sources of power, authority, and governance.	**2. Culture and Diversity** Students will be expected to demonstrate an understanding of culture, diversity, and world view, while recognizing the similarities and differences reflected in various personal, cultural, racial, and ethnic perspectives.	**3. Individuals, Societies, and Economic Decisions** Students will be expected to demonstrate the ability to make responsible economic decisions as individuals and as members of society.
4. Interdependence Students will be expected to demonstrate an understanding of the interdependent relationships among individuals, societies, and the environment—locally, nationally, and globally—and the implications for a sustainable future.	**5. People, Place,and Environment** Students will be expected to demonstrate an understanding of the interactions among people, places, and the environment.	**6. Time, Continuity, and Change** Students will be expected to demonstrate an understanding of the past and how it affects the present and the future.

The processes and skills of social studies used in this unit.

Communication Students listen, read, interpret, translate, and express ideas and information.	**Inquiry** Students formulate and clarify questions, investigate problems, analyze relevant information, and develop rational conclusions supported by evidence.	**Participation** Students act both independently and collaboratively in order to solve problems, make decisions, and negotiate and enact plans for action in ways that respect and value the customs, beliefs, and practices of others.

Integrated Concepts and Processes

Curriculum Outcome

icp.0 – Students are expected to demonstrate proficiency in utilizing concepts and processes from the social sciences.

▶ ***icp.1 use an inquiry model to create, explore and resolve significant questions***

icp.2 analyze events, ideas, issues, patterns and trends

icp.3 make judgments based on appropriate criteria

Focus for Learning

This course provides students with the opportunity to explore issues that relate to human-environmental interactions in the context of Canada geography.

Students should be familiar with the inquiry process of asking and answering questions. In this course, students are asked to consider *complex questions* (questions that do not have simple answers) and *issues* (questions that have multiple responses which may all seem plausible).

It is expected that students will develop proficiency with issues analysis, whereby they:

- identify the issue,
- activate prior learning,
- examine available data,
- state facts and make inferences based on the data,
- reach a conclusion that is carefully argued and supported with evidence,
- identify and respond to counter-arguments, and
- acknowledge strengths and weaknesses in their position.

In order to respond effectively to issues, it is important that students think deeply about the topic. In particular, students should have sufficient data to inform their inquiry and have opportunity to discuss the issue with others to aid in considering other points of view.

When there are two (or more) solutions which seem equally plausible, students should be encouraged to explore the possibility of finding a mutually agreeable resolution that is “win-win” for all sides. Students should avoid compromise as a means to finding a resolution, but rather focus on underlying principles which are valued by both sides.

It is expected that students clearly articulate their arguments when establishing and supporting a position. While it is not always necessary to formulate a formal essay response, if abbreviated formats are used (such as jot notes or graphic organizers), students must ensure that there is a logical progression of ideas and a clear presentation of information as evidence to support their position.

Finally, it is important that students be afforded the opportunity to consider issues that have local as well as national significance. Time should also be allotted to revisit past issues as a means to inform students’ understanding of the present.

Enduring Understanding

Examining and resolving issues enables a society to achieve the goals it values.

Integrated Concepts and Processes

Suggestions for Teaching and Assessment

Note: The following are provided as examples of sample tasks that embody the ideas related to the inquiry process. These types of tasks are found throughout this section of the curriculum guide.

Activate (from SCO 2.1. page 50)
For students ...

- In which ecozone do you live? What are the benefits and challenges of living in this ecozone? Explore these questions with a partner as using a think-pair-share strategy.

Connect (from SCO 1.3 page 46)
For students ...

- The discipline of geography considers two questions: (i) where are things located? and (ii) why are they located there? Identify examples of where some human activities are located, such as farming. What accounts for this? How does that influence other human systems (such as transportation)? How does this activity influence the natural environment (e.g., soil)? Present your ideas in the form of a flow chart, idea web or other graphic organizer.

Consolidate (from SCO 6.1 page 88)
For students ...

- Conduct research (e.g., oral history interviews, internet) on how energy resource usage has changed over the past 100 years. Summarize what has changed / remained constant. What accounts for these trends? What are the consequences of these changes?

Notes

Suggested Time: integrated throughout course

Appendix C

Powerful Questions

- ✓ focus inquiry
- ✓ generate curiosity
- ✓ lead to more questions
- ✓ provide a lot of information
- ✓ stimulate conversation

Engaging Students

Student inquiry may be further developed using tools such as a question matrix. This strategy can help students create their own inquiries and encourage deep thinking. *See Appendix E: Questions I can ask ... .*

What does it mean to "think deeply"?

Deep thinking moves beyond preconceptions and allows for the examination of a subject from many different perspectives. It requires and promotes a comprehensive understanding of a subject. Deep thinking involves both creative and evaluative engagement. It is an effective way of identifying / developing new connections, ideas, and solutions.

Integrated Concepts and Processes

Curriculum Outcome

icp.0 – Students are expected to demonstrate proficiency in utilizing concepts and processes from the social sciences.

icp.1 use an inquiry model to create, explore and resolve significant questions

▶ ***icp.2 analyze events, ideas, issues, patterns and trends***

icp.3 make judgments based on appropriate criteria

Focus for Learning

Throughout the K-12 social studies curriculum it is expected that students will be able to use the following concepts:

- use information (abbreviated UI)
- make comparisons (abbreviated MC)
- identify cause and consequence (abbreviated CC)
- consider perspective (abbreviated CP)
- determine significance (abbreviated DS)
- make value judgments (abbreviated VJ)

Appendix C provides a detailed explanation of each concept.

These concepts are interrelated. For example, establishing the significance of an event is frequently a matter of perspective. In this regard, teachers should encourage *habits of mind* that support effective inquiry, such as:

- *open-mindedness* - being receptive to new ideas, arguments, etc.; unprejudiced
- *fair-mindedness* - just and impartial; not biased
- *a tolerance for ambiguity* - acknowledging that data may be interpreted to support more than conclusion
- *suspension of judgment* - involves waiting for all the facts before making a decision; the cornerstone of good research
- *the application of past knowledge to new situations* - this involves (i) looking beyond differences among concepts, events and ideas and noting how they may be connect, and (ii) learning from past experience and using that understating to make better decisions and / or think deeply about the matter at hand

Finally, it will be important for teachers to pose inquiries that challenge students to integrate the themes of multiple SCOs, thus enabling students to see the "big picture"of systems and interactions in Canadian geography. In this way, students' learning should emerge into an integrated whole, as opposed to disconnected pieces of information. In the context of Canadian Geography 1202, sample questions may include:

- Which natural / humans systems are most important in your life? Why?
- What are the most significant human–environmental interactions that influence Canada today?

Enduring Understanding

When examining significant questions, the application of analysis and habits of mind improve the quality of possible responses.

Integrated Concepts and Processes

Suggestions for Teaching and Assessment

Note: The following are provided as examples of sample tasks that embody the ideas related to inquiry and analysis. These concepts are found throughout columns two and three of the curriculum guide.

Activate (from SCO 2.1 page 50)
For teachers ...

- Examine satellite images of Canada. Identify differences in the landscape. Discuss how these differences may serve to help identify various physical regions. (UI, MC)

Connect (from SCO 3.2 pages 62)
For students ...

- Using the internet, or other source, conduct preliminary research to identify some of the reasons which motivated people to migrate to what has become Canada. (CC)

Reasons for Migration to Canada		
Period	**Group**	**Reason(s)**
pre-history to 1500		
1500 to 1900		
1900 to present		

Consolidate (from SCO 7.1 page 96)
For Students ...

- In small groups debate the following proposition: *Life in Canada is better because of globalization*. *(See Appendix D – Debate Organizer)* (UI, VJ)

For Teachers ...

- Ask students to create a chart outlining the effects of globalization. Then, ask them to identify which effect has had the most significant impact on Canada and explain why. This could be conducted using a gallery walk or as a carousal. (UI, DS)

Notes

Suggested Time: integrated throughout course

Appendix C

Reference the following site for more on ICPs:

- ✓ www.k12pl.nl.ca/social-studies.html

Literature Links

- ✓ Tools For Learning: Skills, Models and Methods

What are habits of mind?

Research suggests that efficient and effective thinkers use these strategies when confronted with problems where solutions are not immediately obvious.

As students encounter increasingly complex issues, it is important to help them apply these strategies as appropriate.

For example, “suspension of judgment“ is a habit of mind frequently used by archaeologists and historians when investigating question about the past where there is insufficient information to reach a conclusion.

Integrated Concepts and Processes

Curriculum Outcome

icp.0 – Students are expected to demonstrate proficiency in utilizing concepts and processes from the social sciences.

icp.1 use an inquiry model to create, explore and resolve significant questions

icp.2 analyze events, ideas, issues, patterns and trends

▶ ***icp.3 make judgments based on appropriate criteria***

Focus for Learning

Students are frequently confronted with situations where they are asked to make a decision about what to believe or do. When students purposefully reflect on what is reasonable to believe, or what to do, they are thinking critically.

> *"… the goal is to help students approach any task, problem or issue in an open-minded manner, to look carefully at the various options and to reach reasonable conclusions based on careful assessment of relevant factors."*
>
> (Embedding Critical Thinking Into Teaching and Learning, Alberta Education, 2008)

To think critically is essentially to engage in deliberations with the intention of *making a judgment* based on appropriate *criteria*.

By framing content in the context of problematic situations that invite students to think critically, student engagement can be increased. (Note: If a situation has only one plausible option, or a correct answer is obvious, then it does not meet the criteria for critical thinking).

As students progress through the K-12 social studies program it is expected that they will improve their ability to think critically.

In the area of social studies, here are some applications of this concept:

- What makes a good argumentative essay?
- What makes a sound solution to an economic problem?
- What makes a powerful question?
- What are the qualities of a reliable primary source?

See *Appendix C - Critical Thinking* (p. 122) for more information on developing tasks for students that involve critical thinking.

Enduring Understanding

The ability to think critically is an essential intellectual ability that students need in order to analyse information, integrate diverse sources of data and solve problems in an increasingly complex and interdependent world.

Integrated Concepts and Processes

Suggestions for Teaching and Assessment

Note: The following are examples of tasks that require critical thinking. These tasks are found throughout columns two and three of this curriculum guide.

Activate (from SCO 2.2 and 2.3 page 52)
For teachers ...

- Bring clippings of news stories or advertisements that highlight human-environmental interactions. Ask students to work cooperatively to analyze these clippings, considering why these interactions are occurring and their effects. Students may then collaborate to represent their findings in a visual display, such as a bulletin board display or multimedia presentation. *(See Appendix D - Analyzing Examples of Human-Environmental Interaction Organizer)* (UI, CC)

Summary	Analysis	Inference(s)
Example #1	*Strengths*	
	Limitations	
Example #2	*Strengths*	
	Limitations	

Connect (from SCO 4.2 page 72)
For Teachers ...

- Review with students an issues analysis model. Students are to assume the role of urban planner and address an issue associated with increased urban size. Students are to suggest ways of responding to the issue that they have chosen, highlighting the rationale for their suggestions, as well as its strengths and limitations. Be sure that students also consider how the proposed response may influence other issues, thus continuing to apply a systems thinking approach. (See *Appendix D – Understanding Issues*, *Issues and Their Consequences, Exploring Issues,* and *Issues Analysis*) (CC, DS, VJ)

Consolidate (from SCO 7.2 page 98)
For Students ...

- Respond to the statement: *"Developed countries, such as Canada, have an obligation to assist developing countries."* (UI, MC, VJ)

Notes

Suggested Time: integrated throughout course

Appendix C

Unit One – Natural and Human Systems
What happens when systems interact?

Specific Curriculum Outcomes

SCO 1.0 Students are expected to explain how natural systems and human systems interact.

SCO 2.0 Students are expected to determine the significance of interactions between natural systems and human systems.

Overview

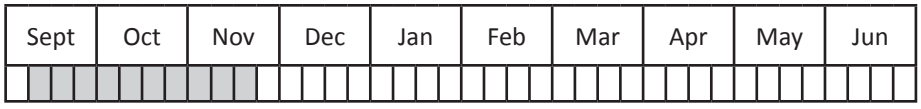
This unit enables students to understand the world in which they live as a series of interconnected systems. Students are challenged to reflect on the interdependence among natural systems and human systems. This approach – systems thinking – is critical in facilitating a more balanced and sustainable approach to living.

Students become familiar with the various natural and human systems that influence their lives. As well, students will consider issues that influence systems and consider how these issues might be resolved. Students will apply these ideas to the exploration of selected ecozones in Canada.

The understandings and process skills that students develop during this unit are fundamental to inquiry in the social sciences and have great utility in daily living.

Instructional Time

It is recommended that 30 hours, approximately 10 weeks, of instructional time be used to work with students to achieve SCO 1.0 and SCO 2.0. The range of dates highlighted below are offered as a suggestion.



The GCO shaded below is the primary area of focus for this unit.

Citizenship, Power, and Governance Students will be expected to demonstrate an understanding of the rights and responsibilities of citizenship, and the origins, functions, and sources of power, authority, and governance.	**Culture and Diversity** Students will be expected to demonstrate an understanding of culture, diversity, and world view, while recognizing the similarities and differences reflected in various personal, cultural, racial, and ethnic perspectives.	**Individuals, Societies, and Economic Decisions** Students will be expected to demonstrate the ability to make responsible economic decisions as individuals and as members of society.
Interdependence Students will be expected to demonstrate an understanding of the interdependent relationships among individuals, societies, and the environment—locally, nationally, and globally—and the implications for a sustainable future.	**People, Place,and Environment** Students will be expected to demonstrate an understanding of the interactions among people, places, and the environment.	**Time, Continuity, and Change** Students will be expected to demonstrate an understanding of the past and how it affects the present and the future.

Examples illustrating how the processes and skills of social studies may be used in this unit.

Communication *Examples of communication in this unit include* • organize data • interpret visuals	**Inquiry** *Examples of inquiry in this unit include* • form specific questions regarding a general area of inquiry • make predictions	**Participation** *Examples of participation in this unit include* • work collaboratively to answer an inquiry • relate to others in peaceful, respectful, and non-discriminatory ways

Unit One – Natural and Human Systems

What happens when systems interact?

Curriculum Outcome

1.0 – Students are expected to explain how natural systems and human systems interact.

- ***1.1 identify and describe natural systems***
- 1.2 identify and describe human systems
- 1.3 explain how systems thinking may be used to understand interactions between natural systems and human systems

Focus for Learning

In this delineation students should understand that Earths' natural features may be grouped into four spheres: atmosphere, lithosphere, hydrosphere and biosphere. Students should be introduced to the main features of each sphere, and the cause and effect relationships both within and between them. Students should use diagrams and other visuals to help explain these concepts, but are not required memorize them.

Students should examine (i) examples of natural systems, (ii) how natural systems help sustain life on Earth, and (iii) the characteristics that are common among natural systems. *(Note: economic systems need only be introduced here; they are discussed in depth in Unit 4.)*

Finally, it will be important for students to consider how natural systems are influenced by change, and how natural systems are interdependent.

Inquiry and analysis used in this section will include:

- *Use Information* — Create a sketch to illustrate an example of an interaction between natural systems.
- *Make Comparisons* — How are natural systems similar? How are they different?
- *Identify Cause and Consequence* — In what way(s) can a change in one natural system influence that system? Influence another natural system?
- *Consider Perspective* — In what way(s) do organisms depend on different natural systems?
- *Determine Significance* — Why is *name of system* important?
- *Make Value Judgments* — Is one natural system more important than another? Why?

Enduring Understanding

By the completion of this section students should understand that natural systems interact with one another and are interdependent.

(continued on page 40)

Unit One – Natural and Human Systems

What happens when systems interact?

Suggestions for Teaching and Assessment

Activate

For Students ...

- We live in a wold that is interconnected. All living and non-living things interact with each other. Create a web diagram that illustrates the connection between elements within a natural system. Select one of the following words to begin your concept web: air, sun, water, or soil. *(Note: Teachers may choose to provide an example for students. Students may complete this activity cooperatively (e.g., think-pair-share). This concept web may be revised in the consolidation section below to allow students opportunity to reflect on their learning. Although the focus is on natural systems, some students may include elements of human systems which can serve as a useful transition to delineation 1.2.)* (CC)

For Teachers ...

- To introduce students to the concept of natural systems, provide them with examples found in each sphere (biosphere, hydrosphere, lithosphere). Ask students to classify these examples into one of three groups. This may be completed using a cooperative strategy. For example, students may use a think-pair-share, and then as a class, create a chart. Teachers may then introduce the names of the three systems. Suggested examples: biosphere – bear, fish, moose, tree; hydrosphere – lake, ocean, pond, river; lithosphere – lava, mountain, rocks, soil. This activity can be tiered to be made more complex by adding the category atmosphere (cloud, aurora borealis, airplane with vapor trail, smog around a cityscape or exhaust from a smoke stack). Similarly, the activity be made less complex by using only two categories. *(Note: this activity can also be simplified by using only two or three examples within each category.) (See Appendix E - Classifying Elements According to Natural System)* (MC)

Connect

For Students ...

- Over the next 24 hours record examples of each natural system that you interact with. Present your data in a format of your choice, such as a chart, photo essay or song. (UI)

(continued on page 41)

Notes

Suggested Time: 4 hours

Authorized Resource(s)

Encounter Canada

- pp. 46 - 57

Unit One – Natural and Human Systems

What happens when systems interact?

Curriculum Outcome

1.0 – Students are expected to explain how natural systems and human systems interact.

- ***1.1 identify and describe natural systems***
- 1.2 identify and describe human systems
- 1.3 explain how systems thinking may be used to understand interactions between natural systems and human systems

Focus for Learning

(continued from page 38)

Sample Performance Indicator(s)

- Using a specific example, explain how natural systems interact with one another. Present your response in the form of a concept web.
- Given a natural event (hurricane, volcanic eruption, drought, flood, etc.) explain immediate and long-term consequences for two natural systems. *(See Appendix D - Natural Events and Natural Systems)*

Unit One – Natural and Human Systems

What happens when systems interact?

Suggestions for Teaching and Assessment

(continued from page 39)

For Teachers ...

- Take students outside to begin their investigation of natural systems. Provide students with a graphic organizer (e.g., four-tab foldable, chart) and ask them to identify and classify examples (i.e., objects, organisms) according to each natural system. *(Note: this activity may be continued in delineations 1.2 and 1.3.)* (UI, MC)

Consolidate

For Students ...

- Create an illustration or diorama that demonstrates examples of interactions between natural systems. (CC)
- Create a new concept web that demonstrates the interconnections of elements within the natural systems (air, sun, water, soil). *(Note: this activity may be an extension of Activate, bullet one, page 39.)* (MC, DS)

For Teachers ...

- As a class identify a list of examples of natural systems. This could conducted using a graffiti wall activity. Then ask groups to engage in a discuss / debate to identify the three most important natural systems. Alternatively, rank the examples from most to least significant. (*Note: It will be important to establish criteria for judgment.*) (DS)

Notes

Unit One – Natural and Human Systems

What happens when systems interact?

Curriculum Outcome

1.0 – Students are expected to explain how natural systems and human systems interact.

1.1 identify and describe natural systems

▶ ***1.2 identify and describe human systems***

1.3 explain how systems thinking may be used to understand interactions between natural systems and human systems

Focus for Learning

Human systems are developed as a means to fulfill peoples' individual and collective needs and wants. Students should investigate human systems separate from natural systems in this section. Interactions between the two systems will be discussed in delineation 1.3.

In this delineation, students should examine the following human systems: communication, economic, energy, infrastructure and transportation. Students should be introduced to the purposes and elements of these systems, and the interactions between them. Students should use diagrams and other visuals to help explain these concepts, but are not required to memorize them.

It will be important for students to examine the characteristics that are common among natural systems, and to consider how human systems are often interdependent and change over time.

Inquiry and analysis used in this section will include:

- *Use Information* — Create a sketch to illustrate an example of an interaction between human systems.
- *Make Comparisons* — How are human systems similar? How are they different?
- *Identify Cause and Consequence* — In what way(s) can one human system influence another?
- *Consider Perspective* — In what way(s) can our needs and wants depend on each human system? Does location influence the relative importance of human systems? For example, a community on an island in Baffin Bay versus a city such as Vancouver?
- *Determine Significance* — Why is (*name of system*) important?
- *Make Value Judgments* — Is one human system more important than another? Why?

Enduring Understanding

By the completion of this section students should understand that humans have developed systems to meet our needs and wants.

(continued on page 44)

Unit One – Natural and Human Systems

What happens when systems interact?

Suggestions for Teaching and Assessment

Activate

For Students ...

- Create a list of personal needs and wants. Explain how you meet those needs and wants. Classify your needs and wants into the appropriate human system. *(Note: this may be conducted individually and then merged into a class chart. Students may then work as groups to classify needs and wants according to human system. See Appendix E – Needs, Wants, and Human Systems)* (CC)

For Teachers ...

- To introduce students to the concept of human systems, provide them with examples within in each system (communication, energy, economic, infrastructure, transportation). Ask students to classify these examples into one of five groups. This may be completed using a cooperative strategy. For example, students may use a think-pair-share, and then as a class, create a chart. Teachers may then introduce the names of the five systems. Suggested examples: communication – cell phones, email, radio, television; energy – hydro-electricity, gasoline, propane, wind; economic - banks, money, shopping, trade; infrastructure – bridges, buildings, roads, water & sewer systems; transportation – airplanes, motorcycles, trains, ships. *(See Appendix E – Classifying Elements According to Human System)* (MC)

Connect

For Students ...

- Take some time to walk through your school. Identify and classify examples of human systems. In groups of three, combine your lists and make connections to the human systems within your community. Then identify the examples that are most important to the functioning of your school. *(See Appendix E – Linking Human Systems)* (MC, DS)

Teachers can ...

- Return to the same location visited in 1.1, and focus on the human elements. Invite students to identify and categorize what

(continued on page 45)

Notes

Suggested Time: 4 hours

Authorized Resource(s)

Encounter Canada

- pp. 58 - 63
- pp. 370 - 381

Unit One – Natural and Human Systems

What happens when systems interact?

Curriculum Outcome

1.0 – Students are expected to explain how natural systems and human systems interact.

1.1 identify and describe natural systems

▶ ***1.2 identify and describe human systems***

1.3 explain how systems thinking may be used to understand interactions between natural systems and human systems

Focus for Learning

(continued from page 42)

Sample Performance Indicator(s)

- Imagine you and your classmates have been stranded on a deserted island. What would be the three most important human systems you would need to establish in order to survive? Why? Once completed, rank the human system in order of importance and justify your reasoning.
- In this section we have discussed five human systems. Which of these could you live without? Why?
- What would be the consequences if one of our human systems was significantly reduced? How would this impact our society? Use an example to help support your answer.
- Which human system is the most significant in your life? Explain why.

Unit One – Natural and Human Systems

What happens when systems interact?

Suggestions for Teaching and Assessment

(continued from page 43)

they see according to the human system to which it belongs. Ask students to identify which examples are most significant in their lives and explain why. (UI, CC, DS)

- Show students photographs of various locations and have them identify examples of human systems. This activity may be completed using an interactive whiteboard, allowing viewers to "zoom in" on specific examples of interactions. (UI)
- Explain how a specific human system functions by using a flow chart or other visual. (UI, CC)

Consolidate

For Students ...

- Create a visual to demonstrate your knowledge of the purpose of human systems and how they interact (i.e., poster, powerpoint, video, collage, diorama, etc.). Be sure to highlight any interactions between these systems. (CC)
- Create a concept web to illustrate how human systems impact your life. (CC)

For Teachers ...

- Discuss with students some of the issues related to human systems that are affecting your community / region. As a class write an editorial, create a poster or make a multimedia presentation to suggest ways to improve the human systems in your community. *(Note: Be sure to ask students to consider the target audience as they plan and create their work.)* (DS)

Notes

Unit One – Natural and Human Systems

What happens when systems interact?

Curriculum Outcome

1.0 – Students are expected to explain how natural systems and human systems interact.

1.1 identify and describe natural systems

1.2 identify and describe human systems

▶ ***1.3 explain how systems thinking may be used to understand interactions between natural systems and human systems***

Focus for Learning

Systems thinking forms the foundation for inquiry that is used throughout this program. It is based on the belief that the various parts that make up a system can best be understood by looking at them in relation to each other and to other systems, rather than in isolation. This approach is useful as it helps us not only appreciate the significance of individual elements within a system, but also to better understand how problems might be solved, and the potential consequences of individual actions on systems as a whole.

Because humans depend on natural systems to fulfill our needs it is essential that students develop the ability to recognize how human activity influences natural systems. In these discussions students should focus on how humans can continue to meet their needs in sustainable ways with minimal effect on natural systems.

Students should investigate a range of interactions between Natural and Human systems, making use of fieldwork. When examining human–natural interaction in general terms, students will need to:

1. *identify and describe interactions* - when presented with a particular scenario (e.g., photograph) identify examples of interactions between Natural and Human systems. For example, when presented with photographs of a highway in the Rocky Mountains students should be able to identify the interactions that resulted from the construction of the transportation system. (e.g., upgrading of the Sea-to-Sky Highway, BC)

2. *analyze interactions* - when examining an interaction between natural and human systems, students should be able to identify the causes and consequences of the interaction. For example, why was the highway built through the Rocky Mountains? What influence would this have on natural systems (e.g., local animal populations and habitats; natural drainage systems; animal migration patterns)? What influence would this have on human systems (e.g., reduced travel time, improved safety, increased trade)? What moral and / or ethical issues does this raise? What can be learned from this interaction? What values should be used to guide decision making in this area?

When examining interactions between systems it will be useful to provide students with a generic graphic organizer to use help them with their analysis. See *Appendix D – Analysing Interactions Between Systems*.

(continued on page 48)

Unit One – Natural and Human Systems

What happens when systems interact?

Suggestions for Teaching and Assessment

Activate

For Students ...

- Interactions between natural and human systems occur all around us. Identify examples of interactions between natural and human systems. With a partner create a web diagram or collage that illustrates (a) how each of these systems influences your life, and (b) how you influence each system. (CC, DS)
- Why do humans sometimes make decisions that cause significant environmental degradation? (CC)

For Teachers ...

- Examine photographs and / or videos that depict examples of interactions between natural features and humans. Invite students to identify human-environmental interactions and to describe the influences on humans and the environment. (UI, CC)
- Return to the same location visited in 1.1 and 1.2. Ask students to identify examples interactions between natural and human systems. For each example identified, explain why the interaction occurred and the consequences / effects on each system. *(This activity can be continued under "Connect" by having students evaluate the influence of human activity on the natural system. Discuss possible alternatives that might have minimized human impacts.) (See Appendix D - Analysing Interactions Between Systems.)* (UI, CC)

Connect

For Students ...

- Humans are influenced by their interaction with climate, vegetation, water, and soil. Which natural system(s) seem to have the most influence on human activity? Why? (UI, DS)
- With a partner, brainstorm examples that illustrate how human activity has influenced the following natural systems: climate, vegetation, water, and soil. Organize your interactions on a continuum from least significant to most significant. Justify your reasoning. *(See Appendix D - Determining Significance; note that this reproducible contains room to analyze two events, therefore in order for students to analyze four natural systems, each student will need two copies of this reproducible.)* (CC, VJ)
- The discipline of geography considers two questions: (i) where are things located? and (ii) why are they located there? Identify examples of where some human activities are located, such as

(continued on page 49)

Notes

Suggested Time: 12 hours

Authorized Resource(s)
Encounter Canada
- pp. 64 – 75
- pp. 76 – 99

Fieldwork – inquiry and research that requires "first hand" observation, documentation and analysis of experiences in a particular setting.

Unit One – Natural and Human Systems

What happens when systems interact?

Curriculum Outcome

1.0 – Students are expected to explain how natural systems and human systems interact.

1.1 identify and describe natural systems

1.2 identify and describe human systems

▶ ***1.3 explain how systems thinking may be used to understand interactions between natural systems and human systems***

Focus for Learning

(continued from page 46)

As part of this discussion, students should examine the following four natural systems: **climate**, **vegetation**, **water** and **soil**. Specifically, students should consider (i) how these features interact, (ii) how they influence human activity, and (iii) how human activity influences these features. Students should be introduced to the concept of *ecological footprint* as a means to quantify the environmental cost of human activity. It may be beneficial to use entrance cards with students as a pre-assessment technique.

Inquiry and analysis used in this section will include:

- *Make Comparisons* — What differences are there in terms of how humans use natural resources to meet their needs / wants?
- *Identify Cause and Consequence* — For a given natural feature, how does it influence human activity? How does human activity influence the natural feature?
- *Consider Perspective* — Do humans all value natural systems in the same way? Why?.
- *Determine Significance* — Are some natural features more important than others? Explain
- *Make Value Judgments* — Is it acceptable to knowingly cause degradation to a natural system in order to meet a human need or want? Why?

Enduring Understanding

By the completion of this section students should understand that systems thinking helps us understand how Natural and Human systems interrelate and influence each another.

Sample Performance Indicator(s)

- The following quote is attributed to Chief Seattle (c. 1850):
  This we know: the earth does not belong to us, we belong to the earth. All things are connected like the blood which unites one family. Whatever befalls the earth befalls the sons and daughters of the earth.
  Explain how this quote reflects systems thinking. Use an idea web to illustrate and support your answer.
- Debate the following statement: *"You can have economic growth without environmental degradation." (See Appendix D - Debate Organizer)*
- What are the implications of a growing human population that does not work to minimize its ecological footprint?

Unit One – Natural and Human Systems

What happens when systems interact?

Suggestions for Teaching and Assessment

(continued from page 47)

farming. What accounts for this? How does that influence other human systems (such as transportation)? How does this activity influence the natural environment (e.g., soil)? Present your ideas in the form of a flow chart, idea web or other graphic organizer. (UI, CC)

- Compare two ecological footprints – either different locations at the same time or the same location at different times. How do these ecological footprints differ? What accounts for this? (MC, CC)

Teachers can ...

- Organize students in groups of two or three. Provide them with geographic data about a particular place. Ask them to plan for the construction of, for example, a subdivision or city. Assess students plans based on the criteria of minimizing degradation to natural systems. If all groups have been assigned the same scenario it may be useful to facilitate a class discussion that examines the various issues / possibilities that each group raised. (CC, VJ)
- Provide students with data (map, aerial photos, Google Earth/ Maps) of a particular community. Ask them to (i) identify human-environmental interactions, (ii) describe the effects of these human-environmental interactions and (ii) suggest ways in which the community might reduce the negative effects of human activities on natural systems. (CC, VJ)

Consolidate

For Students ...

- Identify ways in which you (or your community) can reduce your ecological footprint. Why might this be important? (UI, CC, DS)
- Working in a small group, design an advertisement that (i) draws attention to an issue related to climate, vegetation, soil or water and (ii) calls viewers to action to help improve the issue. Advertisements may be designed for include television / web, radio, print (e.g., poster, newspaper). (UI, CC, CP, DS, VJ)

For Teachers ...

- Set up a classroom blog or wiki. Organize students to create content that relates to issues raised in this outcome (e.g., current issue – local, provincial or national; reflective question – "Earth is fragile ..."; innovations – that reduce human influences on the environment). Teachers may wish to use this format throughout the remainder of the course as an electronic portfolio, where students make inquiries and reflect on interactions between natural and human systems. (UI, CC, CP, DS)

Notes

Six Thinking Hats

When asking students to analyze interactions – for example, how features influence human activity – students should consider the benefits and challenges.

It may be useful to introduce students to the idea of Edward deBono's "Six Thinking Hats." In particular, the *yellow hat* is used to explore positives and benefits, while the *black hat* considers why something may not work.

These hats may be used throughout this program and provide students with a useful tool to aid with analysis in a variety of contexts.

Unit One – Natural and Human Systems

What happens when systems interact?

Curriculum Outcome

2.0 – Students are expected to explain human-environmental interactions within ecozones.

- ***2.1 explain the concept of ecozones***
- 2.2 identify and describe human-environmental interactions in selected ecozones
- 2.3 respond to issues influencing human-environmental interactions in a selected ecozone

Focus for Learning

In this outcome students are asked to apply systems thinking (see SCO 1.0) to understand the interdependence among systems in a given ecozone. The study of individual ecozones will enable students to better understand the complexity of human-environmental interactions.

Students examined the six physical regions of Canada in grade nine social studies. Students deepen their understanding of the concept of regions as they develop an understanding of ecozones, noting that:

- ecozones are multi-factor regions and can be described in terms of natural features (e.g., land forms, water forms, climate, soil, vegetation, wildlife) and sometimes include human features (e.g., infrastructure);
- ecozones are a function of varied interactions among factors such as climate, soil, vegetation and water;
- ecozones vary in terms of biodiversity; contain a variety of ecosystems and have boundaries and transitional areas; and
- Canada contains 20 ecozones (15 terrestrial; 5 marine).

Students should examine six ecozones, five terrestrial (Montane Cordillera, Prairie, Boreal Shield, Mixedwood Plains, Southern Arctic) and one marine (Atlantic). Students should describe these regions through engagement with a range of geographic sources (e.g., maps, photographs, statistical data, etc.). Students should use this data to help them create a *sense of place* in relation to each ecozone. To enable students to better develop a sense of place it will be useful for them to compare ecozones, noting similarities and differences.

Inquiry and analysis used in this section will include:

- *Use Information* — What are the main features of _ecozone_?
- *Make Comparisons* — How is _ecozone_ similar to and different from _ecozone_?
- *Determine Significance* — Why might all ecozones be equally important?

Enduring Understanding

By the completion of this section students should understand that Canada contains many diverse ecozones.

Sample Performance Indicator(s)

- Imagine you have been invited to explain the idea of ecozones to a group of fifth grade students. Create an outline and set of jot-notes for your presentation. Be sure to apply the idea of systems thinking to your presentation.

Unit One – Natural and Human Systems

What happens when systems interact?

Suggestions for Teaching and Assessment

Activate

For students ...

- In which ecozone do you live? What are the benefits and challenges of living in this ecozone? Explore these questions with a partner as using a think-pair-share strategy. (UI, MC, CC)

For teachers ...

- Introduce key vocabulary using a work wall. (UI)
- Examine satellite images of Canada. Identify differences in the landscape. Discuss how these differences may serve to help identify various physical regions. The use of an interactive whiteboard is idea for this activity. (UI, MC)

Connect

For students ...

- If you were to visit another ecozone in Canada, which would it be? Why? What would you find in that ecozone? How is this similar and different from the ecozone you which you live? Use the RAFT strategy to help you create your response. (MC)

For teachers ...

- Arrange for student to work in pairs of small groups to create a poster or diorama for one of the ecozones identified below. Ask students to identify at least two ways in which each of the following systems interact with the ecozone. The poster / dioramas may then be displayed in the classroom. (UI, CC)

Ecozones	Natural Systems
Montane Cordillera	Climate
Prairie	Water
Boreal Shield	Vegetation
Mixedwood Plains	Soil
Southern Arctic	

Consolidate

For students ...

- Examine the population distribution of Canada in relation to ecozones. Which ecozones are the most densely populated? Which are the least populated? What reasons might account for this? (DS)

For teachers ...

- Organize a debate in which students present arguments for and against the following proposition: “Some ecozones are more important than others.” *(See Appendix D - Debate Organizer)* (CC. CP, DS, VJ)

Notes

Suggested Time: 4 hours

Authorized Resource(s)

Encounter Canada

- pp. 100 - 109

Unit One – Natural and Human Systems

What happens when systems interact?

Curriculum Outcome

2.0 – Students are expected to explain human-environmental interactions within ecozones.

2.1 explain the concept of ecozones

▶ ***2.2 identify and describe human-environmental interactions in selected ecozones***

▶ ***2.3 respond to issues influencing human-environmental interactions in a selected ecozone***

Focus for Learning

In delineation 2.2 students should consider how humans use resources to meet their needs and wants. As students explore examples of these interactions, they should consider (i) how ecozones influence human activity and (ii) how human activity affects ecozones. This examination should include, but not be, limited to:

- resource use,
- settlement,
- communication,
- transportation, and
- recreation.

In delineation 2.3 students will explore issues affecting human-environmental interactions. These issues may present as opportunities, challenges or threats. Each student is expected to identify an issue in a given ecozone, describe the perspectives of stakeholders, identify possible responses, and advocate a preferred response based on a defined value. The student should also articulate how the response will affect the ecozone - including natural and human systems - as well as comment on the limitation(s) or other possible problems created by the response. (See the issues analysis model outlined on p. 66)

Issues may include, but are not limited to:

- change in human population,
- change in the ecosystem,
- change in climate,
- environmental degradation, &
- exploitation of natural resources.

Students may present their response to the issue in a variety of ways, such as: debate, posters, graphic organizers, multi-media presentation, music, or role-play.

Case studies should be used throughout this section. Students should identify both the causes and consequences of human-environmental interactions and should, as appropriate, make value judgments on the ethical and / or moral implications of human actions.

Inquiry should be limited to examples relevant to the following ecozones: Montane Cordillera, Prairie, Boreal Shield, Mixedwood Plains, Southern Arctic and Atlantic or Northwest Atlantic. Students may examine one ecozone in-depth or several. There is no expectation that students address all five ecozones.

While many case studies will highlight significant negative environmental impacts, students should also examine case studies that illustrate how human-environmental interactions can have

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Unit One – Natural and Human Systems

What happens when systems interact?

Suggestions for Teaching and Assessment

Activate

For students ...

- Create a photo essay that illustrates human-environmental interactions in a given ecozone. Include a caption with each photograph that summarizes why the interactions is occurring and its consequences, both positive and negative. (CC)

For teachers ...

- Bring clippings of news stories or advertisements that highlight human-environmental interactions. Ask students to work cooperatively to analyze these clippings, considering why these interactions are occurring and their effects. Students may then collaborate to represent their findings in a visual display, such as a bulletin board display or multimedia presentation. *(See Appendix D - Analyzing Examples of Human-Environmental Interaction Organizer)* (UI, CC)

Summary	Analysis	Inference(s)
Example #1	*Strengths*	
	Limitations	
Example #2	*Strengths*	
	Limitations	
Example #3	*Strengths*	
	Limitations	

Connect

For students ...

- Identify an example of an interaction in a particular ecozone involving a natural system and a human system that is considered a serious environmental issue. Analyze the issue, identify a preferred response and suggest possible consequences if the issue is left unresolved. Summarize your finding as a large format poster. *(See Appendix D - Understanding)* (DS, VJ)

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Notes

Suggested Time: 6 hours

Authorized Resource(s)

Encounter Canada

- pp. 110 - 153

Unit One – Natural and Human Systems

What happens when systems interact?

Curriculum Outcome

2.0 – Students are expected to explain human-environmental interactions within ecozones.

2.1 explain the concept of ecozones

▶ ***2.2 identify and describe human-environmental interactions in selected ecozones***

▶ ***2.3 respond to issues influencing human-environmental interactions in a selected ecozone***

Focus for Learning

(continued from page 52)

minimal negative human effect on the environment. For example, students may compare sites that are more or less sustainable.

Inquiry and analysis used in this section will include:

- *Use Information* — How do we know the influence that human activity has on an ecozone?
- *Make Comparisons* — Are there examples of better ways for humans to continue to meet their needs and wants while having a smaller ecological footprint? Explain.
- *Consider Perspective* — Why do some individuals make more environmentally conscientious decisions than others?
- *Determine Significance* — What policies should governments enact to help create a more sustainable future?
- *Make Value Judgments* — Should individuals be held accountable for making choices that have highly negative environmental consequences? Explain.

Enduring Understanding

By the completion of this section students should understand that negative consequences sometimes result from human-environmental interaction. Therefore, individuals must assume responsibility and work to minimize adverse effects on the environment.

Sample Performance Indicator(s)

- Which human activity(ies) tend to most negatively influence ecozones? What are possible long term consequences if this is left unchecked? How might this be resolved?

The following task may be used as a performance indicator for the entire unit, as it addresses the ideas found in SCO 1.0 and SCO 2.0.

✓ *In the western world individual freedom is highly valued. Should laws be enacted that limit the freedom of individuals to act in ways that cause harm to the environment? What are the arguments and evidence in favor of each side of this debate?*

Unit One – Natural and Human Systems

What happens when systems interact?

Suggestions for Teaching and Assessment

(continued from page 53)

For teachers ...

- Discuss with students examples of issues affecting natural systems, including climate, vegetation, water and soil. Ask students to consider possible responses and then identify a preferred response. This could be conducted using a gallery walk. (CC, DS, VJ)

Consolidate

For students ...

- Identify an ecozone Canada that you consider important. Briefly explain why you value this location and discuss possible emerging issues related to the interaction of natural systems and human systems. Finally, identify what decisions might be made today to mitigate the issues you identified. This may be completed individually, or in small groups. (UI, CC)

For teachers ...

- As a class, undertake an act of active citizenship and respond to an issue that is influencing a specific ecozone. (CC, DS, VJ)
- Create a political cartoon or "question of the day" and invite students to respond either on-line of as part of a small group or class discussion. (UI, DS, VJ)

Notes

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Specific Curriculum Outcomes

SCO 3.0 Students are expected to explain demographic patterns and trends in Canada.

SCO 4.0 Students are expected to analyze issues relating to population distribution in Canada.

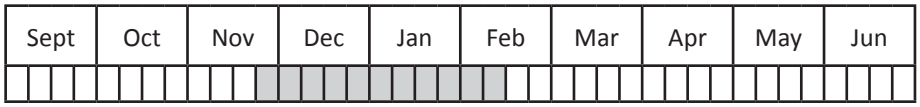
Overview

In this unit students will examine the concept of demography and develop an appreciation that Canada has a very diverse population with increasing concerns.

Canada has always been an attractive destination for immigrants largely because of the quality of life and opportunities we have to offer as a nation. Within our own borders we have experienced much change in population dynamics. In particular, the trend towards increased urbanization poses issues for both urban and rural areas.

Instructional Time

It is recommended that 33 hours, approximately 11 weeks, of instructional time be used to work with students to achieve SCO 3.0 and SCO 4.0. The range of dates highlighted below are offered as a suggestion.



The GCO shaded below is the primary area of focus for this unit.

Citizenship, Power, and Governance Students will be expected to demonstrate an understanding of the rights and responsibilities of citizenship, and the origins, functions, and sources of power, authority, and governance.	**Culture and Diversity** Students will be expected to demonstrate an understanding of culture, diversity, and world view, while recognizing the similarities and differences reflected in various personal, cultural, racial, and ethnic perspectives.	**Individuals, Societies, and Economic Decisions** Students will be expected to demonstrate the ability to make responsible economic decisions as individuals and as members of society.
Interdependence Students will be expected to demonstrate an understanding of the interdependent relationships among individuals, societies, and the environment—locally, nationally, and globally—and the implications for a sustainable future.	**People, Place,and Environment** Students will be expected to demonstrate an understanding of the interactions among people, places, and the environment.	**Time, Continuity, and Change** Students will be expected to demonstrate an understanding of the past and how it affects the present and the future.

Examples illustrating how the processes and skills of social studies may be used in this unit.

Communication *Examples of communication in this unit include* • restate major ideas on a complex topic in concise form • use a range of media and styles to present information, arguments, and conclusions	**Inquiry** *Examples of inquiry in this unit include* • analyze and evaluate information for logic and bias • draw conclusions that are supported by evidence	**Participation** *Examples of participation in this unit include* • debate differing points of view regarding an issue • clarify preferred futures as a guide to present actions

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Curriculum Outcome

3.0 – Students are expected to explain demographic patterns and trends in Canada.

▶ ***3.1 explain the concept of demography***

3.2 identify, describe and analyze the causes and consequences of changes in Canada's population over time

3.3 respond to issues influencing to Canada's population in the future

Focus for Learning

This delineation introduces students to demography – the numerical study of the characteristics, trends, and issues of population. Students should examine the following topics:

- population change, including natural and actual change
- population dynamics, including profiling populations using population pyramids; migration; density and distribution (this will be discussed in depth in SCO 4.0)
- population trends, including the ability to look at population data and identify potential / emerging issues; although introduced in this section, population trends will be examined in depth in delineation 3.3.

Students should examine several different population profiles and identify possible issues related to each (i.e., contracting, expanding, stable populations).

It may be useful to use a work wall or foldable to help introduce new vocabulary to students.

Inquiry and analysis used in this section will include:

- *Use Information* — Using the data given, construct a line graph (*or other graph*) to show how population has changed. Who would be interested in demographic information? Why?
- *Make Comparisons* — Examine population profiles. What is similar? What is different?
- *Identify Cause and Consequence* — What might account for the similarities / differences in the population profiles between these two regions? (*e.g., two provinces, rural / urban*) What might account for the trends in the population data? Given the trend in the data, what issues might this create in the future?
- *Consider Perspective* — If a population is changing (e.g., decreasing, increasing) how might this affect the region's perception of itself / identity? How might perception of place influence a person's decision to migrate?
- *Determine Significance* — Why is it important to study demographics? Does population affect a location's geographic significance?
- *Make Value Judgments* — Are some places / locations more important than others in terms of population? (e.g., Central Canada vs. Northern Canada)

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Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Suggestions for Teaching and Assessment

Activate

For Students ...

- Create a web diagram to identify what you know about the study of human populations (demography). *(Note, it may be useful to use the RAN strategy. See Appendix D – RAN Chart #1 or #2)* (UI)
- In a small group brainstorm concerns that you have about changes in population, locally, nationally and/or globally. (CC, VJ)

For Teachers ...

- Ask students to identify ways (factors) in which a population can increase and decrease. Use this as a transition to introduce key terms. (UI, CC)
- Present a slide show which depicts some of the trends and issues related to demography. Introduce key terms / concepts as appropriate. (UI, CC, DS)
- Provide students with sample data and invite them to construct a population profile. Next, ask them to explain the profile to the class. (UI)
- It may be beneficial to use exit cards to determine if it is necessary to reteach any concepts. (UI)

Connect

For Students ...

- Use the data provided to create a graph that illustrates the characteristics of a population. Use the graphic to identify trends in the data. What are the potential issues associated with these trends. Of the issues identified, which are most significant? Why? *(Note: a range of data sets may be used here, such as natural increase, migration, and population pyramids.)* (UI, MC, CC)

For Teachers ...

- Illustrate changes in population using a variety of graphs. Discuss with students potential issues associated with each identified trend. This is a good opportunity to reinforce the idea of (i) cause and consequences, and (ii) perspective, and (iii) significance. It may be useful to create a classroom timeline to help illustrate these changes. (CC, CP, DS)

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Notes

Suggested Time: 7 hours

Authorized Resource(s)

Encounter Canada

- pp. 156 - 161
- pp. 168 - 181

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Curriculum Outcome

3.0 – Students are expected to explain demographic patterns and trends in Canada.

- ▶ ***3.1 explain the concept of demography***
- 3.2 identify, describe and analyze the causes and consequences of changes in Canada's population over time
- 3.3 respond to issues influencing to Canada's population in the future

Focus for Learning

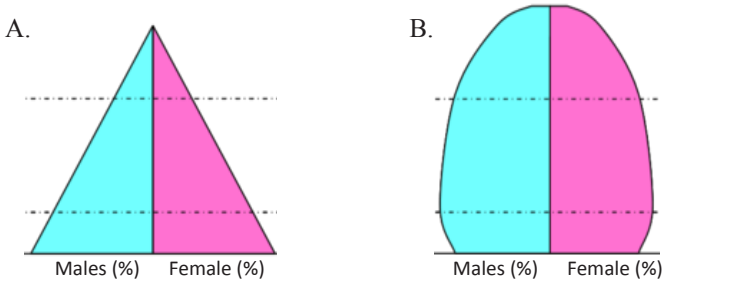
(continued from page 58)

Enduring Understanding

Students should understand that demographic information is important because it is used to identify trends and issues that will affect Canadians. This understanding allows communities to be proactive in working to achieve positive responses.

Sample Performance Indicator(s)

- How can demographic data help satisfy the needs of a region. Create an example to help illustrate your response.
- Examine the population profile below. (i) Describe the population and (ii) identify challenges that this region may face.



- How can the study of demographic data influence your life? Explain.

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Suggestions for Teaching and Assessment

Notes

(continued from page 59)

Consolidate

For Students ...

- Think about the region in which you live. What changes are taking place in the population? What issues might this create? (UI, CC)

For Teachers ...

- Engage students in a discussion about the relationship between population change and its effect on Natural and Human systems. Look at a particular scenario that depicts either a population decrease / increase. Encourage students to identify ways in which various systems might be affected, such as economic, infrastructure, transportation, biosphere, hydrosphere, and lithosphere. Possible examples: population boom in an urban area, closure of a major industry in a region. *(Appendix E - "Sample Population Profiles" is provided as a sample date. Note that although the data proved in this appendix represents the demographic transition model students are only asked to analyze each data set. Students are not expected to make connections or examine relationships between data sets, i.e., they should not study the "model" in this program.)* (CC)

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Curriculum Outcome

3.0 – Students are expected to explain demographic patterns and trends in Canada.

3.1 explain the concept of demography

▶ ***3.2 identify, describe and analyze the causes and consequences of changes in Canada's population over time***

3.3 respond to issues influencing to Canada's population in the future

Focus for Learning

Humans have lived in Canada for many thousands of years. The purpose of this delineation is to help students develop a general working knowledge of how Canada was first populated and how that has changed over time.

Students should examine the population demographic of Canada, starting with the earliest known inhabitants, and progress to its current cultural mosaic. As students examine the peopling of our country, they should examine tipping / turning points in this process, noting in particular what occurred and why it occurred. In brief, this could be organized chronologically as: indigenous peoples, trans-Atlantic migration (1500-1900), and immigration since 1900. It is not necessary to examine the experience of each individual group in depth, but rater to consider overall patterns and trends.

This discussion should briefly highlight who came, why they came and where they settled.

Based on this exploration, students should be able to describe Canada's population at various times, including related trends and issues. For example, when considering the settlement of Europeans (trans-Atlantic migration) from 1500 to 1900, students should consider interactions with Natural and Human systems, such as:

- infrastructure needs,
- economic needs,
- interactions with other groups,
- settlement patterns, and
- effects on natural systems.

Inquiry and analysis used in this section will include:

- *Use Information* — Who lived in Canada at various points in its history? What are some of the push-pull factors related to the peopling of Canada?
- *Make Comparisons* — What were some of the common characteristics of each major settlement pattern? Is there a trend? What conclusion(s) / inference(s) can be made?
- *Identify Cause and Consequence* — What has been the effect of each successive wave of migration to Canada? How has settlement impacted Natural and Human systems at various times?

(continued on page 64)

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Suggestions for Teaching and Assessment

Activate

For Students ...

- Why do people migrate? Create a list of the various factors which might cause a person to want / need to move. Combine your list with a partner. Then, organize your reasons on a continuum from most compelling to least compelling. (UI, VJ)
- At times in human history there have been both Natural and Human events which have displaced large numbers of people, such as wars or extreme drought. Imagine such an event has occurred, and the Canadian government has agreed to accept 100 000 immigrants to help address this crisis. In a small group, discuss the ways in which this large migration would impact Natural and Human systems in Canada. *(See Appendix D – Possible Consequences of Immigration)* (MC, CC)

For Teachers ...

- Organize students to complete a carousel activity where they work in groups to identify the effect of migration / population change on Natural and Human systems. Each station should contain a scenario which provides sufficient data for students to anticipate the effects on a particular system. Each scenario should focus on push-pull factors. Students should then speculate on its potential impact on the system. For example, given scenario "A" how might this impact name of natural system. (CP, CC)

Connect

For Students ...

- Using the internet, or other source, conduct preliminary research to identify some of the reasons which motivated people to migrate to what has become Canada. (CC)

Reasons for Migration to Canada		
Period	**Group**	**Reason(s)**
pre-history to 1500		
1500 to 1900		
1900 to present		

(continued on page 65)

Notes

Suggested Time: 6 hours

Authorized Resource(s)

Encounter Canada

- pp.162 - 167
- pp.182 - 195

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Curriculum Outcome

3.0 – Students are expected to explain demographic patterns and trends in Canada.

3.1 explain the concept of demography

▶ ***3.2 identify, describe and analyze the causes and consequences of changes in Canada's population over time***

3.3 respond to issues influencing to Canada's population in the future

Focus for Learning

(continued from page 62)

- *Consider Perspective* — What might have been the experience of each immigrant group as they arrived in Canada?
- *Determine Significance* — Which period of settlement has had the most influence on your community / region?

Enduring Understanding

Students should understand that Canada's population has increased and has become more diverse over time. This has had consequences for both natural and human systems.

Sample Performance Indicator(s)

- Imagine that you are among a group of newcomers to Canada. How might your migration impact Natural and Human systems in area where you settle? Use the RAFT strategy to help you create your response. *(See Appendix D – Possible Consequences of Immigration)*
- Summarize the migrations to Canada that occurred from pre-history to present. What were two significant consequences of each period of migration? Use examples to support your claim.

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Suggestions for Teaching and Assessment

(continued from page 63)

For Teachers ...

- Organize students to complete a jigsaw activity. In groups of three have students examine the push-pull factors that influenced migration to Canada for the periods identified in this delineation. After students return to their home groups and share their learning, ask then to compare the (i) the motives for migration, and (ii) the impact that each period of migration had on Natural and Human systems. Ask students to see if there is a trend in this data and what inference(s) can be made. *(See Appendix D – Possible Consequences of Immigration)* (MC, CC)

Consolidate

For Students ...

- Create an illustration or model that depicts the experience of a migrant group from one of the periods studied in this section. Be sure that your work includes the elements of Natural and Human systems that would have been significant for that group. *(Note: it may be beneficial to involve students in the creation of an evaluation rubric at the beginning of this activity.)* (CP, CC, DS)

For Teachers ...

- Ask students to create a web diagram that shows the various ways that each period of migration affected Natural and Human systems. Students should then use colour and / or symbols to highlight the more / most significant interactions. (CC)

Notes

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Curriculum Outcome

3.0 – Students are expected to explain demographic patterns and trends in Canada.

3.1 explain the concept of demography

3.2 identify, describe and analyze the causes and consequences of changes in Canada's population over time

▶ ***3.3 respond to issues influencing to Canada's population in the future***

Focus for Learning

In this delineation students explore issues related to demographics, and focus their inquiry on how issues may be resolved.

In relation to Canada's changing population, students may explore issues associated with the following trends:

- aging population;
- declining birth rate;
- shortages in workers in particular sectors of the economy;
- arrival of refugees; and
- population distribution.

Students should consider the impact that these issues have on the Natural and Human systems of Canada and what this may mean for future generations.

When examining these issues, it is expected that students will use the following issues analysis model:

1. describe the issue, including:
   a. who is affected
   a. how they are affected
2. identify the factors causing the issue
3. identify the consequence(s)
4. propose possible responses
5. established criteria as a basis for assessing possible responses
6. evaluate possible responses in light of criteria established in step five above, identifying:
   a. strengths
   a. limitations
7. identify a preferred response based on criteria

The following graphic organizers in *Appendix D* should be used to help students when analysing issues throughout this program:

- ✓ *Determining Significance* (p. 132)
- *Understanding Issues* (p. 134)
- *Issues and Their Consequences* (p. 135)
- *Exploring Issues* (versions 1 and 2, pp. 136 – 137)
- *Issues Analysis* (p. 138)

Inquiry and analysis used in this section will include:

- *Use Information* — What does it mean to have a "greying" population?

(continued on page 68)

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Suggestions for Teaching and Assessment

Activate

For Students ...

- Brainstorm concerns that may arise from an aging population, arrival of newcomers, and a shortage of skilled workers. (CP, CC)

For Teachers ...

- As a class, create a list of issues related to population that are affecting Canada. Have students identify some of the factors which are contributing to these issues. Briefly propose and discuss some possible responses. (CP, CC)

Connect

For Students ...

- Examine population data provided. What are the trends in the data? What issues might this pose in the future? *(See Appendix E - Newfoundland and Labrador, Population 1951 – 2011)* (UI, CP, CC)

Newfoundland and Labrador		
Year	Population	Ten Year % change
1951	361 416	n/a
1956	415 074	n/a
1961	457 853	26.7
1966	493 396	18.9
1971	522 100	14.0
1976	557 720	13.0
1981	567 681	8.7
1986	568 350	1.9
1991	568 475	0.1
1996	551 790	-2.9
2001	512 930	-9.8
2006	505 469	-8.4
2011	514 536	0.3

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Notes

Suggested Time: 5 hours

Authorized Resource(s)

Encounter Canada

- pp. 174 - 181

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Curriculum Outcome

3.0 – Students are expected to explain demographic patterns and trends in Canada.

3.1 explain the concept of demography

3.2 identify, describe and analyze the causes and consequences of changes in Canada's population over time

▶ ***3.3 respond to issues influencing to Canada's population in the future***

Focus for Learning

(continued from page 66)

- *Make Comparisons* — How do the provinces and territories compare in terms of population structure (are there some provinces that are "older" than others)? How do the provinces and territories compare in terms of migration patterns? What are the implications of these trends / similarities / differences?
- *Identify Cause and Consequence* — What impact does increased migration have on Natural and Human systems?
- *Consider Perspective* — What implications does aging population pose for various groups in Canada? (eg. the elderly, parents with young families, levels of government, community-based organizations (e.g., Lions, local parks and recreation)
- *Determine Significance* — Why is it important to understand trends and patterns in population data when looking towards the future? Which factor will pose the greatest challenge for Canadians in the future – low birth rates or dispersed population distribution?
- *Make Value Judgments* — Who should be responsible to care for the elderly?

Enduring Understanding

Students should understand that Canada has a complex population dynamic that will pose challenges and opportunities in the future.

Sample Performance Indicator(s)

- Write an argumentative essay outlining the best possible response for an emerging issue relating to population.
- You have just been hired as a consultant by the federal government to help address issues related to population. The three most pressing issues are:
  - ✓ increased care needed for a growing elderly population;
  - ✓ shortage of skilled workers in several areas; and
  - ✓ arrival of 10 000 refugees to help avert a humanitarian crisis.

  How will you respond? Explain your decision with reference to Natural and Human systems.

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Suggestions for Teaching and Assessment

(continued from page 67)

- What are some of the issues related to population that are affecting the region in which you live? Select what you believe is a significant issue. What are some of the factors that are contributing to this issue? What may be some of the consequences of this issue? How might the issue be resolved? Present your ideas in a cause-and-consequence diagram.*(Note: As students work through these issues, it may benefit students to use reproducibles, such as "Understanding Issues", and "Issues and Their Consequences", to enable students to think more deeply about the subject of their inquiry.)* (UI, CP, CC, VJ)

For Teachers ...

- Present students with a scenario that illustrates an issue related to population. Lead the students through an examination of the issue. Then, ask students to work with a partner to complete an issues analysis of a similar scenario. The use of graphic organizers, such as those provided in *Appendix D* is recommended. (UI, CP, CC, VJ)

Consolidate

For Students ...

- Write a letter to the editor outlining ways in which the Federal Government can help address the issue of a contracting population. (CP, CC, VJ)
- Create a poster, newspaper, radio or television advertisement that is designed to attract skilled workers to your region. (CP, CC)
- Create an illustration that explains the causes and consequences of regional declining population from an economic perspective. (UI, CC)

For Teachers ...

- Organize a classroom discussion / debate in which students respond to the following proposition: "Raising taxes is the preferred way in which to alleviate the needs associated with an aging population." *(See Appendix D – Debate Organizer)* (UI, CP, CC)
- Organize students into small groups. Ask each group to develop a campaign platform for a political party that states how that party will address issues related to a changing population (e.g., low birth rates). (UI, CP, CC, DS, VJ)

Notes

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Curriculum Outcome

4.0 – Students are expected to analyze issues relating to population distribution in Canada.

- ▶ ***4.1 identify, describe and analyze trends in Canada's population distribution***
- 4.2 respond to issues influencing urban areas
- 4.3 respond to issues influencing rural areas

Focus for Learning

Canadians live in many different communities and regions. Over time, there has emerged a recognizable pattern of settlement. The majority of Canadians have chosen to live in particular regions in Canada due to various factors.

In this delineation students are expected to describe the population distribution of Canada, and analyse this distribution in terms of Natural and Human systems. Specifically, students should distinguish between areas of high, moderate, and low density, and account for factors that influence this distribution.

Inquiry and analysis used in this section will include:

- *Use Information* — What areas of Canada have the highest / lowest populations?
- *Make Comparisons* — Compare the populations of each province and territory of Canada. What patterns do you see?
- *Identify Cause and Consequence* — What factors might account for various distributions in Canada? What impacts are these distributions having on Natural and Human systems
- *Consider Perspective* — What is it like to live in an area with high / low population density?
- *Determine Significance* — What factors are most significant in determining where people decide to live?
- *Make Value Judgments* - Is it better to live in a region with high / low population? Why?

Enduring Understanding

By the completion of this section students should understand that most Canadians live in urban centers located mainly in southern regions. This is largely due to climate, employment, resources and services.

Sample Performance Indicator(s)

- Imagine that you are a newcomer to the country of Canada. How might a knowledge of population distribution influence your choice of destination?
- Of the factors that influence where people live, which is most important? Explain.
- Given a particular region in Canada, identify the factors which were most important in determining its settlement.

Unit Two – Human Population Issues in Canadian Geography

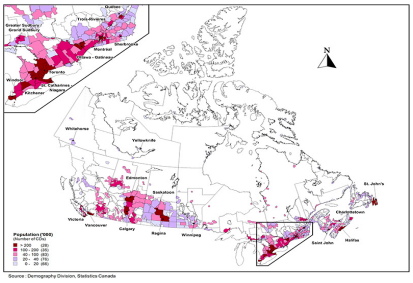
How might trends in Canada's population influence its future?

Suggestions for Teaching and Assessment

Activate

For Students ...

- Examine Canada's population distribution. What patterns do you notice? Why do these patterns exist? *(Note: Students should be introduced to the idea of urban versus rural populations and the terms high, moderate and low density.) (See Appendix E – Canada's Population Distribution, 2011)* (UI, MC, CP)



For Teachers ...

- Provide students with an example of an urban population change and a rural population change and invite them to discuss the factors that contribute to these changes. (CC, CP)

Connect

For Students ...

- Compare changes in the population distribution for a given area. What are the trends and patterns Suggest possible reasons why these trends and pattern exist. *(See Appendix E – "Changing Population Distribution (NL)" as a sample case study)* (UI, MC)

For Teachers ...

- Ask students to create an image, essay or power-point of an urban or rural area that examines how life has changed over time. Ask students to comment on changes related to resources, services, culture and the economy. Encourage students to use oral history research (i.e., interviews) as one possible data source for their presentation (UI, MC)

Consolidate

For Students ...

- Now that you have examined some of the factors that influence population distribution, which factor which is *most* significant in influencing where people live? Why? (DS)

Notes

Suggested Time: 5 hours

Authorized Resource(s)

Encounter Canada

- pp. 196 - 207
- pp. 348 - 369

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Curriculum Outcome

4.0 – Students are expected to analyze issues relating to population distribution in Canada.

4.1 identify, describe and analyze trends in Canada's population distribution

▶ ***4.2 respond to issues influencing urban areas***

4.3 respond to issues influencing rural areas

Focus for Learning

Canada's population is distributed across approximately 10 million km^2. Over time, there has emerged a recognizable pattern of settlement. The majority of Canadians have chosen to live in particular regions in Canada due to various factors, especially urban areas.

Students should understand that urban living affords a variety of opportunities and challenges. Some of the factors that contribute to increased urbanization should be discussed (e.g., economic opportunity). It will be important to connect this experience to trends in Newfoundland and Labrador, and Canada. It will be useful to briefly look at this trend form a global perceptive as well.

Once this context has been established, students should examine some of the issues affecting urban areas:

- service availability (infrastructure, linkages, human resources)
- population concerns (poverty, crowding, employment)
- environmental impact (pollution, loss of arable land)
- quality of life (green spaces, crime, standard of living).

Once an issue has been identified and analyzed, responses to the issue should be explored through the lens of urban planning, i.e., "If you were a city planner, how could this issue be improved?"

Students should consider that some issues are more pressing than others, but each issue has significance in the development of urban centres. Students should understand that many of these issues are complex and interdependent, and apply a systems thinking approach when both analyzing issues and developing potential responses.

Inquiry and analysis used in this section will include:

- *Make Comparisons* — Are some urban areas (i.e., cities) better places to live than others? What might account for this?
- *Identify Cause and Consequence* — What are some of the positive/negative effects of urbanization?
- *Consider Perspective* — How might two different groups who live in the same city have very different experiences / perspectives?
- *Determine Significance* — What are the most significant issues attracting people living in urban areas?
- *Make Value Judgments* - Is it better to live in an urban center or a rural center? Why?

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Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Suggestions for Teaching and Assessment

Activate

For Students ...

- Brainstorm a list of the possible benefits and challenges of living in urban areas. (CC, CP, DS, VJ)
- View a broadcast of a city council meeting. Note the types of issues discussed and the concerns associated with each. What did you find surprising? (UI, CP, DS)

For Teachers ...

- Develop or use a case study to help students gain an understanding of some of the issues surrounding urbanization. (UI, CC, CP, DS, VJ)
- Invite a city planner to talk with students, either in person or via video conference. (UI)

Connect

For Students ...

- Look at local and national newspapers to find articles on various aspects of urban life. Working with a partner, create a visual / multimedia display outlining some of the issues surrounding life in urban centers. Then, write a reflective response journal of the one aspect of urban Canada that you feel is most important. *(See Appendix G – Student Response Journals)* (UI, CC, CP, DS)

For Teachers ...

- Review with students an issues analysis model (see page 66). Students are to assume the role of urban planner and address an issue associated with increased urban size. Students are to suggest ways of responding to the issue that they have chosen, highlighting the rationale for their suggestions, as well as its strengths and limitations. Be sure that students also consider how the proposed response may influence other issues, thus continuing to apply a systems thinking approach. (See Appendix D – *Understanding Issues*, *Issues and Their Consequences, Exploring Issues,* and *Issues Analysis*) (CC, DS, VJ)

(continued on page 75)

Notes

Suggested Time: 5 hours

Authorized Resource(s)

Encounter Canada

- pp. 208 - 235

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Curriculum Outcome

4.0 – Students are expected to analyze issues relating to population distribution in Canada.

4.1 identify, describe and analyze trends in Canada's population distribution

▶ ***4.2 respond to issues influencing urban areas***

4.3 respond to issues influencing rural areas

Focus for Learning

(continued from page 72)

Enduring Understanding

By the completion of this section students should understand that urban life has both challenges and opportunities.

Sample Performance Indicator(s)

- Imagine that you and your family have just moved to a large urban center. What things do you like best about your new home? What things do you dislike?
- Urban areas that experience rapid growth face a variety of issues. Rank the following issues in order of the challenges these may pose for a growing urban centre. Explain your rationale.
  - ✓ need for a "Green Space"
  - ✓ traffic congestion during rush hour
  - ✓ increased crime
  - ✓ garbage disposal

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Suggestions for Teaching and Assessment

Notes

(continued from page 73)

Consolidate

For Students ...

- Create an illustration that explains the consequences of urban growth from an economic perspective. (UI, CC)
- Create a poster to encourage skilled workers to move to an urban area. (CC, CP)
- Write a letter to a local newspaper as a concerned citizen discussing important issues relating to population growth in your (urban) area. (UI, CC, CP)

For Teachers ...

- Organize a debate dealing with which urban issue is the most important facing urbanized areas. *(See Appendix D - Debate Organizer)* (CC, CP)
- Invite students to role play a city council meeting dealing with one of the issues relating to urbanization identified in this section. This could include presentations from various groups like businesses, concerned citizen groups, which may be made by students assuming these varied roles. (CP, DS)

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Curriculum Outcome

4.0 – Students are expected to analyze issues relating to population distribution in Canada.

4.1 identify, describe and analyze trends in Canada's population distribution

4.2 respond to issues influencing urban areas

▶ ***4.3 respond to issues influencing rural areas***

Focus for Learning

The pattern of population distribution of Canadians has changed over time. The trend towards urbanization has had various influences on rural Canada.

In this delineation students are expected to explore the issues relevant to rural areas, such as:

- service availability (e.g., maintaining infrastructure, providing medical services)
- population (e.g., declining tax base)
- employment (e.g., impact of resource activities)
- quality of life (e.g., pace of life)

Students should understand that there are a variety of opportunities and challenges that accompany life in rural areas.

Once an issue has been identified and analyzed, responses to the issue should be explored through the lens of community / regional planning, i.e., "If you were a town planner, how could this issue be improved?"

Students should consider that some issues are more pressing than others, but each issue has significance to rural areas. Students should understand that many of these issues are complex and interdependent, and apply a systems thinking approach when both analyzing issues and developing potential responses.

Inquiry and analysis used in this section will include:

- *Make Comparisons* — What are the advantages / disadvantages to living in a rural area as opposed to an urban area?
- *Identify Cause and Consequence* — What impact might a change in *name variable* have on a rural population?
- *Consider Perspective* — What is it like to live in a rural area?
- *Determine Significance* — What factors are most significant in pushing people out of rural areas? What are the most significant factors pulling people into rural areas? What is the most significant issue facing rural areas today?
- *Make Value Judgments* - Is it better to live in an urban center or a rural center? Why?

(continued on page 78)

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Suggestions for Teaching and Assessment

Activate

For Students ...

- Brainstorm a list of the possible benefits and challenges of living in rural areas. *(Note: this could be organized as a gallery walk.)* (CC, CP, DS, VJ)

For Teachers ...

- Invite students to research the patterns of migration out of rural areas and into urban areas. What trends exist? What factors account for these trends? *(See Appendix E – "Changing Population Distribution (NL)" as a sample case study)* (MC, CC, CP)

Connect

For Students ...

- Look at local and national newspapers to find articles on various aspects of rural life. Working with a partner, create a visual / multimedia display outlining some of the issues surrounding life in rural areas. If possible, conduct an interview with some one who has experience with these issues as an additional source of data. Then, write a reflective response journal of the one aspect of urban Canada that you feel is most important. *(See Appendix G – Student Response Journals)* (UI, CP, DS)

For Teachers ...

- Review with students an issues analysis model (see page 66). Students are to assume the role of urban planner and address an issue associated with rural out-migration. Students are to suggest ways of responding to the issue that they have chosen, highlighting the rationale for their suggestions, as well as its strengths and limitations. Be sure that students also consider how the proposed response may influence other issues, thus continuing to apply a systems thinking approach. *(See Appendix D – Understanding Issues*, *Issues and Their Consequences, Exploring Issues, and Issues Analysis)* (UI, CC, CP)
- Provide students with statistics on changes in rural to urban population percentages since the 19th century. Ask students to consider what may have happened to Canada if the

(continued on page 79)

Notes

Suggested Time: 5 hours

Authorized Resource(s)

Encounter Canada

- pp. 196 - 207

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Curriculum Outcome

4.0 – Students are expected to analyze issues relating to population distribution in Canada.

4.1 identify, describe and analyze trends in Canada's population distribution

4.2 respond to issues influencing urban areas

▶ ***4.3 respond to issues influencing rural areas***

Focus for Learning

(continued from page 76)

Enduring Understanding

By the completion of this section students should understand that life in rural areas has a variety of challenges and opportunities.

Sample Performance Indicator(s)

- Imagine that you and your family have just moved from a large urban center to a rural area. What things do you like best about your new home? What things do you dislike?
- Imagine you have been hired as the new Economic Diversification Officer to address the declining population of your town. Identify issues that have led to this decline and develop responses to help deal with out-migration in your area.
- How have the challenges faced by rural Canadians today changed over the past century? Which challenges have been constant?

The following task may be used as a performance indicator for the entire unit, as it addresses the ideas found in SCO 3.0 and SCO 4.0.

✓ *Describe three significant trends influencing Canada's population today. Then, predict the consequences that each trend might have on Canada's population over the next 20 years. Use a concept web to support your response.*

Unit Two – Human Population Issues in Canadian Geography

How might trends in Canada's population influence its future?

Suggestions for Teaching and Assessment

(continued from page 77)

percentage of people living in rural and urban areas had not changed over time. Suggest ways in which life in Canada would be different today (students may want to consider areas such as technological advances, communications, population issues, infrastructure needs, demands on government, service availability) (MC, CC)

Year	Total Population	% of Total Rural Population
1851	2 436 297	87
1881	4 381 256	75
1911	7 221 662	55
1941	11 506 655	46
1971	21 568 305	24
2001	30 007 094	20
2011	33 476 688	19

Consolidate

For Students ...

- Create an illustration that shows the benefits or challenges of living in a rural area. (CC, CP)
- Look at a community that has lost considerable population to urbanization. Predict the possible changes and consequences if this trend continues for another 10 years. (MC, CC)
- Listen to songs written about life in small towns. What aspects of rural life does the song writer value? Do you agree with what is being conveyed? (e.g., "Small Towns and Big Dreams " by Paul Brandt, "Saltwater Joys" by Wayne Chaulk, "Sonny's Dream" by Ron Hynes, "Small Town" by John (Cougar) Mellencamp) *(See Appendix D - Song Analysis)* (UI, MC, CP)

For Teachers ...

- Have students debate the proposition: "*The quality of life in rural Canada is better than that in urban centers.*" *(See Appendix D - Debate Organizer)* (UI, MC, CC, VJ)

Notes

Unit Three – Economic Issues in Canadian Geography
How does the economy influence life in Canada?

Specific Curriculum Outcomes

SCO 5.0 Students are expected to explain the economic significance of Canada's natural resources (non-energy).

SCO 6.0 Students are expected to analyze issues relating to the economic significance of energy resources in Canada.

Overview

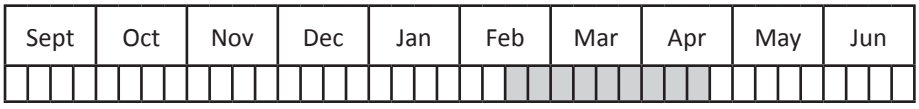
Economics is the study of how individuals and societies use their limited resources to meet their unlimited needs and wants. This unit invites students to explore some of Canada's resources, to assess their economic significance, and to consider and respond to issues related to how we use these resources.

In particular, the second half of this unit focuses on the use of energy resources. Students investigate why there is a pattern of increasing demand for these resources and the issues this creates.

This unit continues to deepen students' understanding of how systems thinking can be used to understand and improve our way of living on planet Earth.

Instructional Time

It is recommended that 29 hours, approximately 9 weeks, of instructional time be used to work with students to achieve SCO 5.0 and SCO 6.0. The range of dates highlighted below are offered as a suggestion.



The GCO shaded below is the primary area of focus for this unit.

Citizenship, Power, and Governance Students will be expected to demonstrate an understanding of the rights and responsibilities of citizenship, and the origins, functions, and sources of power, authority, and governance.	**Culture and Diversity** Students will be expected to demonstrate an understanding of culture, diversity, and world view, while recognizing the similarities and differences reflected in various personal, cultural, racial, and ethnic perspectives.	**Individuals, Societies, and Economic Decisions** Students will be expected to demonstrate the ability to make responsible economic decisions as individuals and as members of society.
Interdependence Students will be expected to demonstrate an understanding of the interdependent relationships among individuals, societies, and the environment—locally, nationally, and globally—and the implications for a sustainable future.	**People, Place,and Environment** Students will be expected to demonstrate an understanding of the interactions among people, places, and the environment.	**Time, Continuity, and Change** Students will be expected to demonstrate an understanding of the past and how it affects the present and the future.

Examples illustrating how the processes and skills of social studies may be used in this unit.

Communication *Examples of communication in this unit include* • detect cause-and-effect relationships • detect bias in visual material	**Inquiry** *Examples of inquiry in this unit include* • group data in categories according to criteria • restate major ideas concisely	**Participation** *Examples of participation in this unit include* • express personal convictions • contribute to development of a supportive climate in groups

Unit Three – Economic Issues in Canadian Geography

How does the economy influence life in Canada?

Curriculum Outcome

5.0 – Students are expected to explain the economic significance of Canada's natural resources (non-energy).

- ***5.1 explain the concept of economics***
- 5.2 compare the economic value of renewable, non-renewable and flow resources
- 5.3 respond to issues influencing the sustainable use of natural resources

Focus for Learning

This delineation enables students to use basic economic concepts in the context of geography. Specifically, students should understand:

- that economics is the study of how we use our limited resources to meet our relatively unlimited needs and wants;
- the relationship between supply, demand and price;
- that specialization and trade help maximize economic activity, allowing us to meet more of our needs and wants;
- that economic activity can be categorized into one of four areas (primary, secondary, tertiary, quaternary); and
- the significance of economic diversification.

The exploration of these ideas should be brief, and the examples used should be tied directly to the content of this unit. Current examples from the news should be integrated here as well.

A word wall may be a helpful way to introduce and / or review terms and ideas with students

Inquiry and analysis used in this section will include:

- *Use Information* — What are examples of economic activities in your community?
- *Make Comparisons* — Why has demand for some products increased, while demand for others has decreased?
- *Identify Cause and Consequence* — How does increased supply affect price?
- *Consider Perspective* — How does a change in economic activity impact a community?
- *Determine Significance* — Which economic sector is most important for *name location* ?
- *Make Value Judgments* — Should Canada import fewer products and increase local / national production?

Enduring Understanding

By the completion of this section students should understand that economic geography is important because it helps make better decisions around the production, distribution, and consumption of goods and services that fulfill peoples' needs and wants.

(continued on page 84)

Unit Three – Economic Issues in Canadian Geography

How does the economy influence life in Canada?

Suggestions for Teaching and Assessment

Activate

Students may...

- Define economics using only pictures. Include local, provincial and national examples. (UI, MC)
- Create a list of economic activities which exist locally, provincially and nationally. Classify them according to industry. Present your findings using a visual medium of your choice. *(Note: as an alternative that may be more challenging, students can be asked generate a list of economic activities and then sort the activities into classifications that they develop. This can then be compared to established categories) (Note: This activity is scaffolded under Consolidate.)* (UI)

For Teachers ....

- Bring recent newspapers and magazines. Ask students to find examples of stories related to economics. Examine the data (e.g., price, trade, economic sector). Identify patterns and trends. (UI, MC)

Connect

For Students ...

- Identify a specific economic trend that is influencing Canadians. Create an idea web that summarizes the causes and consequences of the trend. Sketch a graph that shows how the trend is affecting price / cost of living. For example, consider the price of housing, certain foods, or fuel. (MC, CC)

For Teachers ....

- Discuss with students a specific case study related to changes in demand and its impact on economic activity for a particular region (e.g., pulp and paper, fisheries, mining). *(Note: Once this has been modelled students should be encouraged to complete another analysis independently. See preceding bullet: "For Students ...")* (CC)

(continued on page 85)

Notes

Suggested Time: 5 hours

Authorized Resource(s)

Encounter Canada

- pp. 236 - 249
- pp. 351 - 363

Data Sources

The following sites are useful sources of economic data:

- ✓ *www.ic.gc.ca*
- ✓ www.tradingeconomics.com

Unit Three – Economic Issues in Canadian Geography

How does the economy influence life in Canada?

Curriculum Outcome

5.0 – Students are expected to explain the economic significance of Canada's natural resources (non-energy).

- ***5.1 explain the concept of economics***
- 5.2 compare the economic value of renewable, non-renewable and flow resources
- 5.3 respond to issues influencing the sustainable use of natural resources

Focus for Learning

(continued from page 82)

Sample Performance Indicator(s)

- How does economic activity impact your life? Explain using three examples.

Unit Three – Economic Issues in Canadian Geography

How does the economy influence life in Canada?

Suggestions for Teaching and Assessment

(continued from page 83)

- Invite students to identity 20 objects that they use daily / weekly. List the objects in a chart, identify where it is produced, why it may have been produced in that location, and the implications for Canada's economy. It may be helpful to prompt students by identifying various categories related to household activities, such as clothing, food, household goods, etc. *(See Appendix E – Product Analysis)* (UI, MC, CC)

Consolidate

For Students ...

- Return to the list of economic activities which you created. Plot the locations of these activities on an outline map of Canada. Are there any patterns in the data? What might account for this? (UI, MC)
- Create a visual that identifies a specific economic change and its effect on a sole industry community and a community with a diversified economy. (CC)

Notes

Unit Three – Economic Issues in Canadian Geography

How does the economy influence life in Canada?

Curriculum Outcome

5.0 – Students are expected to explain the economic significance of Canada's natural resources (non-energy).

5.1 explain the concept of economics

▶ ***5.2 compare the economic value of renewable, non-renewable and flow resources***

▶ ***5.3 respond to issues influencing the sustainable use of natural resources***

Focus for Learning

At a conceptual level, resources can be classified as renewable, non-renewable and flow. Students should classify examples of resources based on these categories, and consider the relative benefits and limitations of each.

Students should examine the following resource areas: agriculture, fishery, forestry, mining, water. Students should compare the economic value of each resource on a provincial / territorial basis. Students should be able to determine economic significance. Comparison data should include (i) GDP and (ii) employment.

As students examine each resource area, they should consider how each resource can be used in a sustainable manner. Students should engage with one issue related to the sustainable use of each resource, e.g., clear-cutting versus selective cutting.

Throughout this discussion, students should build on their prior learning related to a growing population and the demands that it places on Earth's resources. Students should continue to consider how Natural and Human systems are interconnected.

Inquiry and analysis used in this section will include:

- *Make Comparisons* — Which resources are most important for each territory and province? Why?
- *Consider Perspective* — How would Canadian society be different if we no longer had _resource_?
- *Determine Significance* — What impact would the loss of _resource_ have on the economy of _region_?
- *Make Value Judgments* — Should the wealth generated by a resource in one region be shared with other regions? What values should be used to guide the development / use of resources?

Enduring Understanding

By the completion of this section students should understand that because of our dependence on natural resources it is important that we use these resources in a way that meets our current needs without jeopardizing the future.

Sample Performance Indicator(s)

- You are the federal Minister of Natural Resources and the Environment. What principles would your department use to ensure the sustainable development of renewable, non-renewable and flow resources.

Unit Three – Economic Issues in Canadian Geography

How does the economy influence life in Canada?

Suggestions for Teaching and Assessment

Activate

For Students ...

- Brainstorm examples of renewable, non-renewable and flow resources. Identify three products that can be made from each resource. Which products have the highest economic value? Why? *(Note: It may be useful to use the RAN strategy. See Appendix D – RAN Chart #1 or #2)* (MC)

For Teachers ....

- Organize students in groups. Provide images of resources. Ask students to categorize the resources into three groups. Discuss with students the categories they created. *(See Appendix E - Classifying Resources)* (MC)

Connect

For Students ...

- With a partner, identify three resources that are important for Newfoundland and Labrador. Consider GDP, revenue for the provincial government and number of people employed in the industry. *(See www.stats.gov.nl.ca)* (MC, DCS)

For Teachers ....

- Review with students an issues analysis model (see page 66). With students, research articles about the exploitation of a natural resource. Debate issues related to the exploitation of the resource. *(See Appendix D - Debate Organizer)* (UI, CP, DS)

Consolidate

For Students ...

- Imagine that a resource has become depleted or has collapsed. Create a cause-and-consequence diagram to illustrate the possible short-term and long-term consequences. What unanticipated consequences that might occur? What benefits and challenges might this create? Explain. *(See Appendix D – Issues and Their Consequences)* (CC)

For Teachers ....

- Provide students with a case study dealing with resource depletion. Discuss the actions taken by stakeholders with respect to resource sustainability. (CP, CC)

Notes

Suggested Time: 10 hours

Authorized Resource(s)

Encounter Canada

- pp. 250 - 311

Appendix D

- ✓ *Understanding Issues*
- ✓ *Issues and Their Consequences*
- ✓ *Exploring Issues*
- ✓ *Issues Analysis*

Unit Three – Economic Issues in Canadian Geography

How does the economy influence life in Canada?

Curriculum Outcome

6.0 – Students are expected to explain the economic significance of Canada's energy resources.

- ▶ ***6.1 explain the concept of energy resources***
- 6.2 compare the economic value of energy resources
- 6.3 respond to issues influencing the use of energy resources

Focus for Learning

Human systems tend to demand massive amounts of energy. To support these systems, humans are in need of energy.

Energy resources can be defined as a power source that people can use to do work in order to meet their needs and wants. Energy resources fall into two main categories: (i) renewable (e.g., wave), and (ii) non-renewable (e.g., nuclear).

Students should discuss:
- the types of energy resources and their use;
- each type of energy resources has strengths and limitations;
- energy resources are not evenly distributed, thus creating regional disparities within Canada;
- the demand for energy has increased dramatically over time, due to factors such as climate, population dynamics, and the emergence of new technologies.

Inquiry and analysis used in this section will include:
- *Make Comparisons* — What are the strengths and limitations of *name energy resource*? How do the provinces and territories of Canada compare in terms of availability of energy resources?
- *Identify Cause and Consequence* — What impact does *name energy resource* have on natural systems? Human systems?
- *Determine Significance* — Why is it important to invest in the development of renewable energy resources?
- *Make Value Judgments* — Should humans use energy resource that degrade natural systems?

Enduring Understanding

By the completion of this section students should understand human systems depend on the exploitation of energy resources.

Sample Performance Indicator(s)

- Based on personal experience, list five examples of how students use energy resources each day. Then, rank these uses in term of importance. State the criteria used for your ranking.
- If there was a limit imposed on your daily use of energy, how would your lifestyle be influenced? Discuss three strategies could you use to mitigate this effect.
- Create a poster or other visual that illustrates Canadians' dependence on energy resources. Based on the data you present, what potential issues does this dependence raise?

Unit Three – Economic Issues in Canadian Geography

How does the economy influence life in Canada?

Suggestions for Teaching and Assessment

Activate

For Students ...

- Create a visual illustrating the ways you use energy each day. (UI)
- Imagine that you had to reduce your energy consumption by 50%. What would you change? How would this influence your lifestyle? (CC)

For Teachers ....

- Discuss with students how a power outage during the winter affects daily activities. Ask students to organize the consequences along a continuum, from low impact to high impact. (MC, CP, DS)

Connect

For Students ...

- With a partner, brainstorm a list of 20 devices that you use on a daily basis that require energy. Discuss which you could – and could not – live without. (MC, DS)

For Teachers ....

- Organize students into small groups. Ask them to imagine that they are in charge of building a new housing development in your community. Challenge students to develop a list of innovative ways where this new development could make better use of available energy resources. (CP, DS, VJ)

Consolidate

For Students ...

- Conduct research (e.g., oral history interviews, internet) on how energy resource usage has changed over the past 100 years. Summarize what has changed / remained constant. What accounts for these trends? What are the consequences of these changes? (MC, CC, CP)

For Teachers ....

- Ask students to work in small groups to identify possible (i) short term and (ii) long term responses to one of the following scenarios: (CC)
  - ✓ the cost of gasoline increases x 10;
  - ✓ electricity is rationed by 50%.

Notes

Suggested Time: 5 hours

Authorized Resource(s)

Encounter Canada

- pp. 312 - 325

Unit Three – Economic Issues in Canadian Geography

How does the economy influence life in Canada?

Curriculum Outcome

6.0 – Students are expected to explain the economic significance of Canada's energy resources.

6.1 explain the concept of energy resources

▶ ***6.2 compare the economic value of energy resources***

6.3 respond to issues influencing the use of energy resources

Focus for Learning

In Canada, there are diverse energy resources, including renewable and non-renewable. Students should compare the economic wealth that these resources have generated by province and territory within Canada.

Inquiry and analysis used in this section will include:

- *Use Information* — What is the economic value of the different energy resources within Canada?
- *Make Comparisons* — Which province is wealthiest in terms of *name energy resource*?
- *Consider Perspective* — From an economic perspective, which energy resources are most valued in (i) the short term, and (ii) the long term? Why?
- *Determine Significance* — How significant is *name energy resource* to the Canadian / *name province* economy in terms of GDP? Employment? Why?
- *Make Value Judgments* — Does the economic benefits of energy resources outweigh the adverse impacts on natural systems?

Enduring Understanding

By the completion of this section students should understand that energy resources are a significant part of the Canadian economy.

Sample Performance Indicator(s)

- Respond to the following statement: "100% of royalties from non-renewable energy resources should be invested. Governments should only use the interest from the investment." Take a position for or against this proposition, supporting it with evidence.

  (Note: Students should have a solid understanding with the terms "royalty", "investment" and, "interest" before completing this assessment.)

Unit Three – Economic Issues in Canadian Geography

How does the economy influence life in Canada?

Suggestions for Teaching and Assessment

Activate

For Students ...

- From your personal experience give two examples of how your life (or the lives of others living in our province) is impacted by economic activity related to the development of energy resources.(CC, CP)

Connect

For Students ...

- Research and create a list of energy resources found in each province and territory of Canada. Rank these energy resources in order of economic significance (GDP). What are the patterns and / or trends in the data? Based on these trends, predict the economic significance of these same resources for 2050? (MC, DS)

For Teachers ....

- Using a jigsaw strategy, ask students to examine the strengths and limitations of each type of energy resource. Then, in their how groups, invite students to debate which energy source(s) are most sustainable in meeting the needs of Canadians. (MC, CP)
- Discuss with students some of the issues relating to
  - ✓ economic dependence on non-renewable energy resources;
  - ✓ investment in alternative renewable / flow energy sources.

  Ask students to create a foldable summarizing these issues. (DS)

Consolidate

For Students ...

- Consider the following scenario. In the future your province or territory will only have half of the energy resource that it has currently available to it. As part of a small group brainstorm possible responses. Then, create an action plan to help alleviate the economic impact of this declining resource. (DS, VJ)

For Teachers ....

- Organize students to work cooperatively in small groups to research and discuss how Canada's energy resources link its economy to those of other countries. Students may want to use an outline map of the world to make connections between Canada's energy resources and areas of the world where we export these resources. (MC)

Notes

Suggested Time: 4 hours

Authorized Resource(s)

Encounter Canada

- pp. 312 - 327

Data Source

The following site contains useful data related to Canada's energy resources:

- ✓ www.nrcan.gc.ca

Unit Three – Economic Issues in Canadian Geography

How does the economy influence life in Canada?

Curriculum Outcome

6.0 – Students are expected to explain the economic significance of Canada's energy resources.

6.1 explain the concept of energy resources

6.2 compare the economic value of energy resources

▶ ***6.3 respond to issues influencing the use of energy resources***

Focus for Learning

The use and development of energy resources has had a direct impact on Natural and Human systems. In this section students will explore some of the benefits and challenges related to this activity.

Students should examine the increased need for energy over time and relate this to an exploration of the following issues:

- global warming,
- pollution (ocean, air, river),
- energy waste and conservation,
- loss of habitat, and
- resource exhaustion.

Students should consider both present and future implications of these issues for Canadians.

Inquiry and analysis used in this section will include:

- *Use Information* — How might the development of *name energy resource* influence *name province*?
- *Identify Cause and Consequence* — How has the use of non-renewable energy resources impacted Natural and Human systems?
- *Determine Significance* — What environmental concerns are most important with energy resource use?
- *Make Value Judgments* — Is it better to develop renewable energy resources as opposed to continued use of conventional non-renewable energy resources? Why?

Enduring Understanding

By the completion of this section students should understand demands for energy resources affect Natural and Human systems.

Sample Performance Indicator(s)

- "We can create a more sustainable, cleaner, and safer world by making wiser energy choices." Discuss.
- How can the use of energy resources both positively and negatively influence your life?
- What are three significant issues facing Canadian governments with respect to energy resource development and usage? Explain.

The following task may be used as a performance indicator for the entire unit, as it addresses the ideas found in SCO 5.0 and SCO 6.0.

✓ *Will Canada's role as an energy producer increase or decrease over the coming decades? Why? How will this influence the lives of Canadians?*

Unit Three – Economic Issues in Canadian Geography

How does the economy influence life in Canada?

Suggestions for Teaching and Assessment

Activate

For Students ...

- Working with a partner, respond to the following inquiry: *What similarities / differences exist between present energy demands and energy demands of the past?* Organize your response as a chart or web diagram. What are the most notable similarities / differences? What was the most significant issue in the past? What is the most significant issue today? (UI, CP, DS)

For Teachers ....

- Invite students to work in small groups and respond to the following challenge: *Create a visual illustrating how energy resources impact on Natural and Human systems.* (CC, CP, DS, VJ)

Connect

For Students ...

- Explore why different regions of Canada require different amounts of energy. (MC, CP)
- How does each province meet its energy needs? Evaluate these approaches in terms of adverse environmental effects. What can be learned from this analysis? (MC)

For Teachers ....

- Invite students to debate the following proposition: *Nuclear energy is the most environmental friendly way to meet our growing demand for energy. (See Appendix D - Debate Organizer)* (MC, CC, CP, VJ)
- Have students create a comic strip / cartoon / poster that encourages citizens to use energy resources in a more environmentally / sustainable manner. (CC, CP)

Consolidate

For Students ...

- Calculate your ecological footprint. What changes can you make in your lifestyle to reduce the size of your footprint? Why is this important? (UI, CC)

For Teachers ....

- Create a web-site, blog, wiki, etc. in which students identify and respond to issues related to energy resources. Remind students to use an issues analysis model (see page 66). (UI)

Notes

Suggested Time: 5 hours

Authorized Resource(s)

Encounter Canada

- pp. 328 - 347

Appendix D

- ✓ *Understanding Issues*
- ✓ *Issues and Their Consequences*
- ✓ *Exploring Issues*
- ✓ *Issues Analysis*

Unit Four – Global Issues in Canadian Geography
How is globalization changing Canada?

Specific Curriculum Outcome

SCO 7.0 Students are expected to identify how globalization affects Canada.

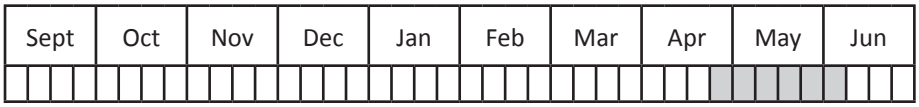
Overview

Globalization is the increasing integration of economies, trade, financial services and cultures from around the world. Canada is a part of the global community. We are connected to the world around us in may ways, such as through tourism, trade, sports, communication systems and technology. The connections Canada has developed with the rest of the world continues to grow and will connect people into what is often referred to as the "Global Village".

In this unit students explore the implications that globalization poses for Canada's future. Students should consider that being a part of a global village brings forth both opportunities and challenges.

Instructional Time

It is recommended that 18 hours, approximately 6 weeks, of instructional time be used to work with students to achieve SCO 7.0. The range of dates highlighted below are offered as a suggestion.



The GCO shaded below is the primary area of focus for this unit.

Citizenship, Power, and Governance Students will be expected to demonstrate an understanding of the rights and responsibilities of citizenship, and the origins, functions, and sources of power, authority, and governance.	**Culture and Diversity** Students will be expected to demonstrate an understanding of culture, diversity, and world view, while recognizing the similarities and differences reflected in various personal, cultural, racial, and ethnic perspectives.	**Individuals, Societies, and Economic Decisions** Students will be expected to demonstrate the ability to make responsible economic decisions as individuals and as members of society.
Interdependence Students will be expected to demonstrate an understanding of the interdependent relationships among individuals, societies, and the environment—locally, nationally, and globally—and the implications for a sustainable future.	**People, Place,and Environment** Students will be expected to demonstrate an understanding of the interactions among people, places, and the environment.	**Time, Continuity, and Change** Students will be expected to demonstrate an understanding of the past and how it affects the present and the future.

Examples illustrating how the processes and skills of social studies may be used in this unit.

Communication *Examples of communication in this unit include* • create an outline of a topic • differentiate main and subordinate ideas • respond critically to texts	**Inquiry** *Examples of inquiry in this unit include* • combine critical concepts into statement of conclusions based on information • recognize values implicit in the situation and issues that flow from them • identify what is gained and what is given up when economic choices are made	**Participation** *Examples of participation in this unit include* • recognize human beings' mutual relationship in satisfying one another's needs • identify situations in which social action is required • develop personal commitment necessary for responsible community involvement

Unit Four – Global Issues in Canadian Geography

How is globalization changing Canada?

Curriculum Outcome

7.0 – Students are expected to identify how globalization affects Canada.

- ***7.1 explain the concept of globalization***
- 7.2 compare Canada's position to other countries in the global village
- 7.3 respond to global issues influencing Canada

Focus for Learning

Globalization is often driven by economic factors such as lowering the cost of production or the availability of raw materials. One of the benefits associated with globalization is that Canadian consumers enjoy lower priced goods and Canadian businesses are able to increase profits.

However, globalization has transformed economic activities in some regions of Canada, where, for example, jobs have been lost as manufacturers have moved operations to centres with lower labour costs.

Students should examine (i) the causes of globalization, (ii) examples of the benefits and challenges created by globalization, and (iii) consider how this influences Canada. A case study approach may be useful as a means to examine small scale examples of globalization, while broader data sets may be used to examine impacts on the country as a whole.

Inquiry and analysis used in this section will include:

- *Use Information* — Where are your everyday items made? Is there a pattern or trend in the data? What does this tell you?
- *Make Comparisons* — Is the world more interdependent today than in the past? Explain.
- *Identify Cause and Consequence* — Why is the world becoming more interdependent? What are the consequence of this trend?
- *Consider Perspective* — Who might like the idea of "the Global Village"? Who might not? What accounts for these differences?
- *Determine Significance* — In what significant ways is globalization affecting Canadian culture?
- *Make Value Judgments* — Do the benefits of globalization outweigh the negative consequences? Why?

Enduring Understanding

By the completion of this section students should understand that there are both positive and negative consequences to globalization.

Sample Performance Indicator(s)

- Give two examples from your personal experience of how your community is influenced by globalization.
- Globalization has transformed the way people live on earth. What are the most significant benefits and challenges of globalization?

Unit Four – Global Issues in Canadian Geography

How is globalization changing Canada?

Suggestions for Teaching and Assessment

Activate

For Students ...

- Create a list of personal belongings. Where is each item made? With a partner, combine your lists and plot the data on a world map. Are there any patterns or trends? Why might account for these? (MC)

For Teachers ...

- Organize students to using the think-pair-share strategy to discuss where the products that we purchase come from. Consider how this pattern of activity affects human systems. Invite students to represent their ideas in a web diagram. (CC)

Connect

For Students ...

- Brainstorm in small groups 10 examples of how the world connects to Canada and 10 examples of how Canada connects to the world. For each listed have them write down one way this affects them personally. (CC)
- Conduct research on how a transportation and / or communication system has changed over the past 200 years. How has this contributed to globalization? What have been some of the more significant consequences of these changes? (DS)

For Teachers ...

- Begin a class discussion on how Canada would be affected if cut off its relationships with other countries. What might be the short-term, long-term consequences, and unanticipated consequences? Students can then be invited to write a personal narrative on how this would impact their daily lives. (CC, DS)

Consolidate

For Students ...

- In small groups debate the following proposition: *Life in Canada is better because of globalization*. *(See Appendix D – Debate Organizer)* (UI, VJ)
- Create a visual that illustrates the concept of globalization. (UI)

For Teachers ...

- Ask students to create a chart outlining the effects of globalization. Then, ask them to identify which effect has had the most significant impact on Canada and explain why. This could be conducted using a gallery walk or as a carousal. (UI, DS)

Notes

Suggested Time: 6 hours

Authorized Resource(s)

Encounter Canada

- pp. 382 - 392

Unit Four – Global Issues in Canadian Geography

How is globalization changing Canada?

Curriculum Outcome

7.0 – Students are expected to identify how globalization affects Canada.

7.1 explain the concept of globalization

▶ ***7.2 compare Canada's position to other countries in the global village***

7.3 respond to global issues influencing Canada

Focus for Learning

In this delineation students investigate Canada's place in the global village. To help students explore this idea they should focus on Canada's current situation in relation to the following areas:

- economics (e.g., trading partners, imports and exports)
- politics (e.g., peace keeping, humanitarian relief)
- quality of life (e.g., life expectancy, literacy rates)

Inquiry and analysis used in this section will include:

- *Use Information* — Where do our imports come from and where do our exports go? Why has tourism become such an important aspect the Canadian economy?
- *Make Comparisons* — How does quality of life in Canada compare to other countries? How do labour costs differ globally?
- *Consider Perspective* — How is globalization affected people living in developing / developed countries?
- *Determine Significance* — How significant is Canada's contribution to the global village?
- *Make Value Judgments* — Is globalization exploiting less developed countries? Is Canada making a meaningful contribution to the global village? How?

Enduring Understanding

By the completion of this section students should understand that Canada makes significant contributions to the global village.

Sample Performance Indicator(s)

- Using a web diagram, explain how Canada contributes to the globalization.

Unit Four – Global Issues in Canadian Geography

How is globalization changing Canada?

Suggestions for Teaching and Assessment

Activate

For Students ...

- Read a newspaper article, view a video or documentary on Canada's involvement in an international issue. Identify the consequences of Canada's involvement in the issue. *(Note: It may be helpful to provide students with an interactive bookmark to help with organization and comprehension.)* (UI, CC)

For Teachers ...

- Provide students with information related to quality of life indicators (e.g., HDI, GDP). What patters or trends does the data contain? What inferences can be made? What questions does it raise? *(Current HDI data is available from the UN in map form at hdr.undp.org/en/data/map/. See Appdendix E - Global Data Sets)* (MC, DS)

Connect

For Students ...

- Debate Canada's role as a peace-keeper in the UN. Is this is a valuable contribution to the global village? Why? *(Note: It may be beneficial to use entrance cards with students as a pre-assessment technique.)* (DS)

For Teachers ...

- Ask students to create a scrap book showing Canada's place in the global village. (UI)

Consolidate

For Students ...

- Respond to the statement: *"Developed countries, such as Canada, have an obligation to assist developing countries."* (VJ)
- As Canada's representative at the United Nations you are asked to give a presentation that highlights Canada's role in the global village. Prepare your speech and an accompanying powerpoint presentation that makes effective use of text and images to support your claims. As an alternative, create your presentation as a mini-documentary. (UI)

Notes

Suggested Time: 4 hours

Authorized Resource(s)

Encounter Canada

- pp. 392 - 395
- pp. 412 - 417

Interactive Bookmark

This note-taking tool helps students as they read independently. Students stop and process at what they read at different points. Follow the link below for more information and sample bookmarks.

✓ teacher.scholastic.com

Unit Four – Global Issues in Canadian Geography

How is globalization changing Canada?

Curriculum Outcome

7.0 – Students are expected to identify how globalization affects Canada.

7.1 explain the concept of globalization

7.2 compare Canada's position to other countries in the global village

▶ ***7.3 respond to global issues influencing Canada***

Focus for Learning

This program concludes by inviting students to consider Canada's future in the global village. In this regard, students should consider two questions:

1. Given its current dependence on primary resource development, global interdependence and the rapid pace of change, what does Canada need to do today in order to ensure it has a sustainable future – economically, environmentally, and socially.
2. Given that Canada is a privileged and affluent society in which to live, what responsibilities does it have to help improve the experience of others who are less fortunate?

Students should be invited to identify and respond to an issue related to one of these inquiries.

Inquiry and analysis used in this section will include:

- *Make Comparisons* — Compare Canada with other countries in foreign aid support or peace keeping efforts. Based on this analysis, is Canada is a leader in these efforts?
- *Identify Cause and Consequence* — How does Canada's involvement in global affairs influence world issues?
- *Consider Perspective* — How might the recipients of foreign aid from Canada view this contribution?
- *Determine Significance* — In which areas is Canada making its greatest contribution? Where does it need to improve its efforts?
- *Make Value Judgments* — Should Canada focus its efforts more on meeting needs related to short-term crisis or in creating sustainable solutions to complex issues? Why?

Enduring Understanding

By the completion of this section students should understand that Canada has a vested interest in shaping a better tomorrow.

Sample Performance Indicator(s)

- As a minister in Canada's federal government you need to rebut an allegation that Canada's efforts in response to global issues are not sufficient. Prepare a speech refuting this allegation.

The following task may be used as a performance indicator for the entire unit, as it addresses the ideas found in delineations 7.1, 7.2 and 7.3.

✓ *Significant numbers of people suffer and die from malnutrition and lack of medial aid. Some might argue that this unacceptable. What role should Canada play in responding to this issue? Why?*

Unit Four – Global Issues in Canadian Geography

How is globalization changing Canada?

Suggestions for Teaching and Assessment

Activate

For Teachers ...

- Organize students into small groups to investigate Canada's current level of commitment to selected world issues (e.g., spending on peace keeping, climate control, humanitarian aid). How significant is this contribution on a global scale? Are there innovations that might increase the effectiveness of this response? (UI, MC)

Connect

For Students ...

- Create a story book aimed at readers in elementary that explains the present and future implications of Canada's relationships with other countries. Topics could include but are not limited to: peacekeeping, global warming, disease control, poverty, resource depletion or humanitarian support in developing countries. (UI, DS)

For Teachers ...

- Provide students with videos / newspaper clippings / documentaries that deal with current global issues and have them respond in a journal, narrative, song or video on how this issue may be dealt with for future generations. Remind students to use an issues analysis model (see page 66). (UI, DS)

Consolidate

For Students ...

- Identify and summarize an issue that is of global significance. Create a cause-and-consequence diagram to clarify the causes that contribute to the issue and illustrate the possible short-term and long-term consequences arising from this issue. What possible responses might help to alleviate this issue? Which is a preferred response? Why? *(See Appendix D - Exploring Issues)* (CC)

Notes

Suggested Time: 8 hours

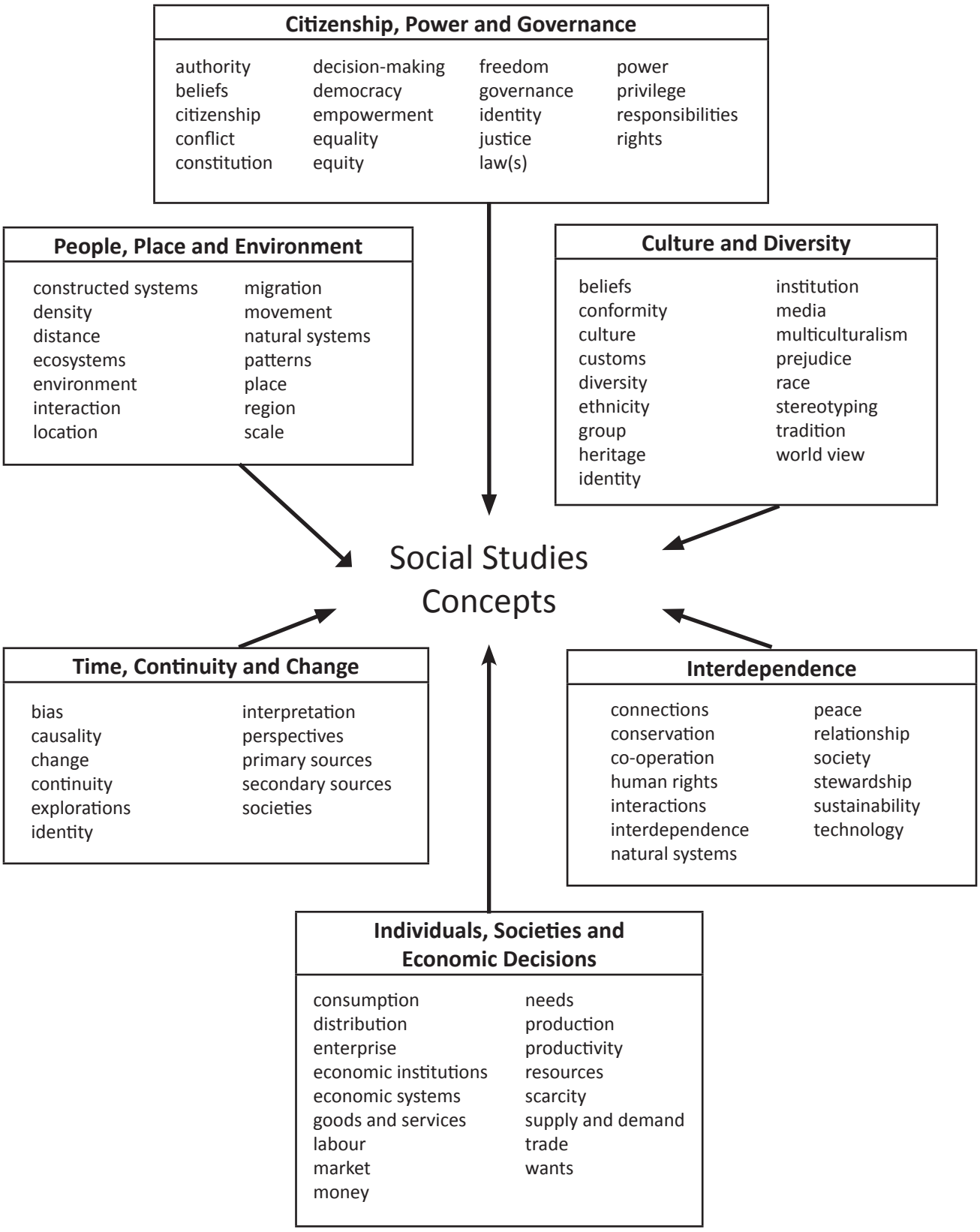
Authorized Resource(s)

Encounter Canada

- pp. 409 - 417

Appendices

Appendix A: Social Studies Concepts



Appendix B: Process-Skills Matrix

Social studies curricula consists of three main process areas: communication, inquiry, and participation. Communication requires that students listen to, read, interpret, translate, and express ideas and information. Inquiry requires that students formulate and clarify questions, investigate problems, analyze relevant information, and develop rational conclusions supported by evidence. Participation requires that students act both independently and collaboratively in order to solve problems, make decisions, and negotiate and enact plans for action in ways that respect and value the customs, beliefs, and practices of others.

These processes are reflected in the “Sample Learning and Assessment Strategies” that are elaborated in the curriculum guide. These processes constitute a number of skills; some that are shared responsibilities across curriculum areas, and some that are critical to social studies.

Process: Communication

Skill	Critical Responsibilities for Social Studies	Shared Responsibilities
Read critically	• detect bias in historical accounts • distinguish fact from fiction • detect cause-and-effect relationships • detect bias in visual material	• use picture clues and picture captions to aid comprehension • differentiate main and subordinate ideas • use literature to enrich meaning
Communicate ideas and information to a specific audience	• argue a case clearly, logically, and convincingly	• write reports and research papers
Employ active listening techniques	(see shared responsibilities)	• listen critically to others' ideas or opinions and points of view • participate in conversation and in small group and whole group discussion
Develop mapping skills	• use a variety of maps for a variety of purposes • use cardinal and intermediate directions to locate and describe places on maps and globes • construct and interpret maps that include a title, legend, compass rose, and scale • express relative and absolute location • use a variety of information sources and technologies • express orientation by observing the landscape, by using traditional knowledge, or by using a compass or other technology	

Process: Communication (continued)

Skill	Critical Responsibilities for Social Studies	Shared Responsibilities
Express and support a point of view	• form opinions based on critical examination of relevant material • restate major ideas on a complex topic in concise form	• differentiate main and subordinate ideas • respond critically to texts
Select media and styles appropriate to a purpose	(see shared responsibilities)	• demonstrate an awareness of purpose and audience
Use a range of media and styles to present information, arguments, and conclusions	• use maps, globes, and geotechnologies • produce and display models, murals, collages, dioramas, artwork, cartoons, and multimedia • interpret and use graphs and other visuals	• present information and ideas using oral and/or visual materials, print, or electronic media
Present a summary report or argument	• use appropriate maps, globes, and graphics	• create an outline of a topic • prepare summaries • take notes • prepare a bibliography
Use various forms of group and inter-personal communications, such as debating, negotiating, establishing a consensus, clarifying, and mediating conflict	• participate in persuading, compromising, debating, and negotiating to resolve conflicts and differences	• participate in delegating duties, organizing, planning, and taking action in group settings • contribute to developing a supportive climate in groups

Process: Inquiry

Skill	Critical Responsibilities for Social Studies	Shared Responsibilities
Frame questions or hypothesis that give clear focus to an inquiry	• identify relevant primary and secondary sources • identify relationships among items of historical, geographic, and economic information • combine critical social studies concepts into statement of conclusions based on information	• identify relevant factual material • identify relationships between items of factual information • group data in categories according to criteria • combine critical concepts into statement of conclusions based on information • restate major ideas concisely • form opinion based on critical examination of relevant information • state hypotheses for further study
Solve problems creatively and critically	(see shared responsibilities)	• identify a situation in which a decision is required • secure factual information needed to make the decision • recognize values implicit in the situation and issues that flow from them • identify alternative courses of action and predict likely consequences of each • make decision based on data obtained • select an appropriate strategy to solve a problem • self-monitor decision-making process
Apply a variety of thinking skills and strategies	• determine accuracy and reliability of primary and secondary sources and geographic data • make inferences from primary and secondary materials • arrange related events and ideas in chronological order	• determine accuracy and reliability of data • make inferences from factual material • recognize inconsistencies in a line of argument • determine whether or not information is pertinent to subject
Recognize significant issues and perspectives in an area of inquiry	• research to determine multiple perspectives on an issue	• review an interpretation from various perspectives • examine critically relationships among elements of an issue/topic • examine and assess a variety of viewpoints on issues before forming an opinion
Identify sources of information relevant to the inquiry	• identify an inclusive range of sources	• identify and evaluate sources of print • use library catalogue to locate sources • use Internet search engine • use periodical index

Process: Inquiry (continued)

Skill	Critical Responsibilities for Social Studies	Shared Responsibilities
Gather, record, evaluate, and synthesize information	• interpret history through artefacts • use sources of information in the community • access oral history, including interviews • use map- and globe-reading skills • interpret pictures, charts, tables, and other visuals • organize and record information using timelines • distinguish between primary and secondary sources • identify limitations of primary and secondary sources • detect bias in primary and secondary sources	• use a variety of information sources • conduct interviews • analyze evidence by selecting, comparing, and categorizing, information
Interpret meaning and significance of information and arguments	• interpret socioeconomic and political messages of cartoons and other visuals • interpret socioeconomic and political messages of artistic expressions (e.g., poetry, literature, folk songs, plays)	• identify ambiguities and inconsistencies in an argument • identify stated and unstated assumptions
Analyze and evaluate information for logic and bias	• distinguish among hypotheses, evidence, and generalizations • distinguish between fact and fiction and between fact and opinion	• estimate adequacy of the information • distinguish between relevant and irrelevant information
Test data, interpretations, conclusions, and arguments for accuracy and validity	• compare and contrast credibility of differing accounts of same event • recognize value and dimension of interpreting factual material • recognize the effect of changing societal values on interpretation of historical events	• test validity of information using such criteria as source, objectivity, technical correctness, currency • apply appropriate models, such as diagramming, webbing, concept maps, and flow charts to analyze data • state relationships between categories of information
Draw conclusions that are supported by evidence	(See shared responsibilities)	• recognize tentative nature of conclusions • recognize that values may influence their conclusions/interpretations
Make effective decisions as consumers, producers, savers, investors, and citizens	• access, gather, synthesize, and provide relevant information and ideas about economic issues • generate new ideas, approaches, and possibilities in making economic decisions • identify what is gained and what is given up when economic choices are made • use economic data to make predictions about the future	

Process: Participation

Skill	Critical Responsibilities for Social Studies	Shared Responsibilities
Engage in a variety of learning experiences that include both independent study and collaboration	(see shared responsibilities)	• express personal convictions • communicate own beliefs, feelings, and convictions • adjust own behaviour to fit dynamics of various groups and situations • recognize human beings' mutual relationship in satisfying one another's needs • reflect upon, assess, and enrich their learning process
Function in a variety of groupings, using collaborative and cooperative skills and strategies	(see shared responsibilities)	• contribute to development of a supportive climate in groups • serve as leader or follower • assist in setting goals for group • participate in making rules and guidelines for group life • participate in delegating duties, organizing, planning, and taking actions in group settings • participate in persuading, compromising, and negotiating to resolve conflicts/differences • use appropriate conflict-resolution and mediation skills • relate to others in peaceful, respectful, and non-discriminatory ways

Process: Participation (continued)

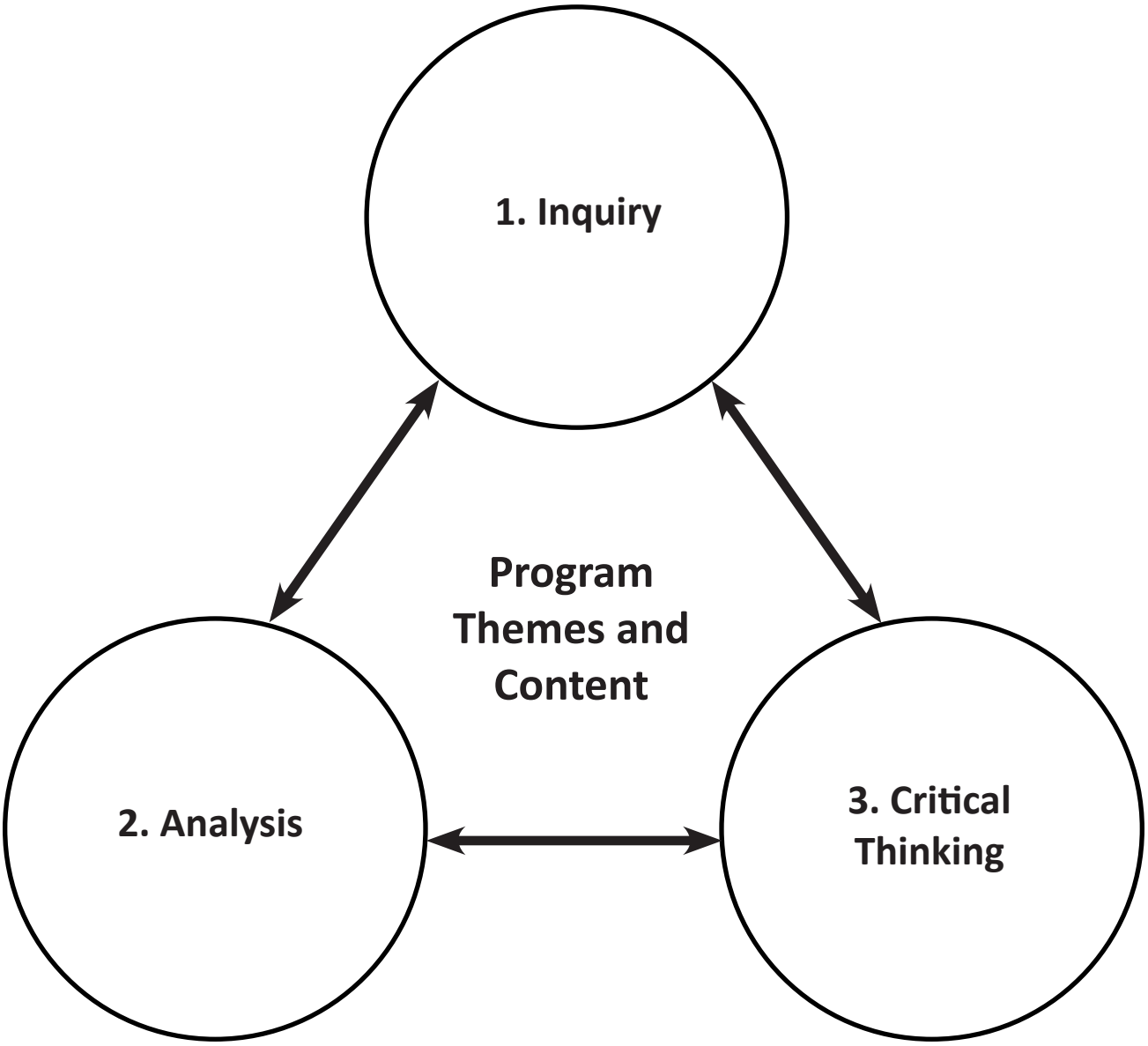
Skill	Critical Responsibilities for Social Studies	Shared Responsibilities
Respond to class, school, community, or national public issues	• keep informed on issues that affect society • identify situations in which social action is required • work individually or with others to decide on an appropriate course of action • accept and fulfill responsibilities associated with citizenship • articulate personal beliefs, values, and world views with respect to given issues • debate differing points of view regarding an issue • clarify preferred futures as a guide to present actions	
Relate to the environment in sustainable ways and promote sustainable practices on a local, regional, national, and global level	• recognize economic factors associated with sustainability (see shared responsibilities) • identify ways in which governments can affect sustainability practices	• develop personal commitment necessary for responsible community involvement • employ decision-making skills • contribute to community service or environmental projects in schools and communities or both • promote sustainable practice in families, schools, and communities • monitor personal contributions

Appendix C: Integrated Concepts and Processes

Introduction

Students' depth of learning is enhanced when they think critically. Through the use of inquiry and analysis, students are explicitly taught, then expected to, make plausible inferences, develop interpretations, and make reasoned decisions based on evidence.

The diagram presented below is intended to illustrate the application of inquiry and analysis to content - tasks that foster critical thinking.



1. Inquiry

Step 1: Ask questions for various purposes

Inquiry begins with meaningful questions that connect to the world around us. Powerful* questions framed by teachers in earlier grades, then modelled by students as they become critical thinkers, lead to an inquiry-based classroom.

Ask questions for various purposes	
3	Generate and ask more complex versions of 5W questions to gain information, verify understanding and explore alternatives from community, and school sources.
6	Formulate and revise questions to gather various kinds of information and respectfully challenge ideas, including development of main questions and a few sub-questions to guide basic primary and secondary research.
9	Formulate effective questions to gather needed information and respectfully challenge ideas, including development and reformulation of questions and sub-questions to guide various stages of any formal research and as follow-up questions in oral debate and discussion.
12	Formulate empathic, insightful, and effective questions offered from different perspectives (e.g., various individuals, groups or points of view) to gather information, challenge ideas and probe underlying assumptions and beliefs, including development and reformulation of questions and sub-questions to guide various stages of any formal research and as follow-up questions in oral debate and discussion.

*Criteria for powerful questions

- give you lots of information
- are specific to the person or situation
- are open-ended—can't be answered by yes or no
- may be unexpected
- are usually not easy to answer

This list of criteria was generated by a multi-aged class of K-3 students at Charles Dickens Annex in Vancouver, British Columbia. (From Critical Challenges for Primary Students. The Critical Thinking Consortium, 1999.)

Step 2: Locate and select appropriate sources

In a classroom where critical inquiry is important, students will use specific criteria to judge and select valuable and appropriate sources of information to use in their research tasks.

Locate and select appropriate sources	
3	Choose from simple sets of relevant options the most useful visual, textual or human source of information to answer various questions (e.g., depending on the question, particular sources may be more relevant than others).
6	Use very simple onsite and online search strategies on easily accessible topics to locate and reference using a simple citation several sources of information; and choose the more relevant, helpful and dependable sources.
9	Use various textual and reference aids, including appropriate digital technologies, to efficiently locate and properly reference a variety of primary and secondary sources; and assess their strengths and weaknesses in light of relevance, utility, reliability and credibility.
12	Use sophisticated, discipline-specific textual and reference aids, including appropriate digital technologies, communication tools and networks to efficiently locate, screen and properly reference a variety of non-conventional/ non-obvious primary and secondary sources; and assess their strengths and weaknesses in light of relevance.

Step 3: Access ideas from oral, written, visual and statistical sources

Once students have located appropriate sources, they must learn to extract relevant information from the source. At the primary level, students will identify obvious details, then at later grades move on to determining main ideas and drawing inferences, using their understanding of language and text forms to draw out and construct meaning.

Access ideas from oral, written, visual, and statistical sources	
3	Use very simple visual and print reading strategies and an understanding of very simple text features to identify a number of obvious and less obvious details in simple visual, oral and written sources.
6	Use simple visual and print reading strategies and simple textual aids to locate main ideas and various supporting details, and identify obvious conclusions in a range of basic sources, including graphic representations, digital and print reference texts and oral reports.
9	Apply a comprehensive range of visual and print reading strategies and understanding of various text structures to locate main ideas and appropriate supporting details and identify less obvious conclusions in a wide range of oral, written, visual and statistical sources.
12	Working with challenging discipline-specific sources, apply a comprehensive range of strategies and understanding of diverse text and digital structures to locate main and subsidiary ideas and appropriate supporting details, identify supporting and contradictory arguments and evidence, and recognize subtle conclusions.

Step 4: Uncover and interpret the ideas of others

Students are now ready to do the work of the social scientist rather than learn about events or places. This entails examining evidence, determining its significance and implications, and then offering plausible interpretations of the evidence.

Uncover and interpret the ideas of others	
3	Restate a few pieces of information or offer one or more simple interpretations based on direct clues gathered from a range of familiar print, visual and oral sources.
6	Concisely paraphrase a body of information, offer interpretations, and identify simple comparative, causal and chronological relationships from material found in basic oral, print and visual sources.
9	Concisely and effectively paraphrase a body of information, judge the significance or important of various details or events decipher basic communicative techniques used in various genre to construct thoughtful and detailed interpretations of the message, perspective and bias represented in the material, and explain in detail comparative, causal (both interactive and associative) and chronological relationships.
12	Use varied interpretative tools to work with advanced discipline-specific primary and secondary materials to construct probing, detailed, and well-supported interpretations and explanations that go beyond the obvious conclusions, are corroborated with evidence within and beyond the materials, and are sensitive to the historical, political and geographical contexts and to the influence of the medium on the message.

Step 5: Assess options and formulate reasoned opinions

Tasks that encourage students to explore and assess various options and then reach their own conclusions or develop their own informed opinions are more likely to deepen understanding and increase student engagement. Students create new knowledge by combining prior knowledge with current learning.

Assess options and formulate reasoned opinions	
3	Identify two or more possible options when presented with a basic issue or decision opportunity, identify the merits of each option in light of provided criteria and choose a best option, offering plausible reasons for the choice.
6	When considering an issue or decision opportunity with multiple feasible options, explore in an open-minded way possible options and supporting reasons, rate the main options in light of agreed upon criteria and choose a best option, supported with several plausible reasons.
9	When considering a controversial issue with conflicting options, identify and explore possible options from various group's perspectives, assess the accuracy of evidence supporting various reasons, and reach a fair-minded conclusion, supported with several evidence-based arguments and counter arguments.
.12	When considering a controversial issue with conflicting options, identify and explore possible options from various group and/or disciplinary perspectives, assess the relevance, importance and adequacy of support for each argument, and reach a fair-minded, carefully-argued conclusion, supported with multiple evidence-based arguments and counter- arguments, while acknowledging any weaknesses in the position.

Step 6: Present ideas to others

Students must learn to think carefully and critically about how they share their views and beliefs with others. The tasks may be limited in scope and short in duration or may have a much broader purpose and audience. This audience may be a familiar one or may extend to the broader community.

Present ideas to others	
3	Use simple preparation and presentation strategies to plan and produce a simple oral, written or graphic presentation on important, interesting or relevant ideas.
6	Use a range of preparation strategies and presentation strategies to plan and produce a clear, focused and engaging visual, oral or written presentation.
9	Recognize the different conventions and purposes that characterize common communications forms, use a range of preparation strategies and presentations strategies to select and produce a clear, focused and engaging oral, visual or written presentation that meets the intended purpose and is appropriate for the intended audience.
12	Consider purpose and audience in choosing the most appropriate communication form and style, competently apply relevant conventions and techniques, use an array of advanced preparation and presentation strategies to select and produce powerfully sustained oral, visual or written presentations that are clear, focused, engaging the intended message and is appropriate and effective for the intended audience.

Step 7 (ongoing): Act cooperatively with others to promote mutual interests

At the heart of social studies education is the expectation that students' understanding of the world will translate into positive and constructive action. To achieve this end, students must be taught how to engage in positive collective action.

Act cooperatively with others to promote mutual interests	
3	Cooperate in small group settings by adopting simple group and personal management strategies
6	Collaborate in group and team settings by making self-regulated use of a range of group and personal management strategies and basic interactive strategies, and jointly develop simple plans to carrying out assigned tasks.
9	Collaborate in group and team settings by making self-regulated use of a wide range of collaborative strategies; and assume shared group leadership for multifaceted projects within the school community.
12	Collaborate in group and team settings within and outside the school community by making self -regulated use of a wide range of collaborative and negotiating strategies; and undertake detailed planning, delegation, implementation and assessment of multifaceted projects.

2. Analysis

Form*: Use Information (UI)*

In social studies, inquiry is based on working with data. Students need to be able to both extract obvious information and to make inferences, when working with a variety of sources. At the elementary level students begin to use single and multiple pieces of data not only to answer questions, but also to construct explanations and make reasoned judgments. Students should also learn to assess the quality of data, and to recognize the limits of various sources in answer questions or constructing arguments.

Sources of data may include: informational text, maps, numeric data (charts and graphs), photographs, oral interviews, etc..

Sample Questions:
- *Does the information relate to the question I'm trying to answer?*
- *Which of the books is most useful in answering each of the questions?*
- *Is the source reliable?*
- *What was the author's purpose when creating this image?*
- *What does the source not address?*
- *Is there enough relevant information to draw a conclusion?*

Form*: Make Comparisons (MC)*

Investigation within social studies frequently involves make comparisons – enabling the observer to note similarities and differences. Comparisons can be made between different times, different peoples, different places or even different decisions.

Comparisons raise important questions, such as "Why did this happen?" or "Why didn't x-y-z happen?" In some cases comparisons help observers identify possible patterns or trends, which are essential understanding in making inferences and accurate predictions or generating possible solutions.

Sample Questions:
- *In what ways are meals different today than 100 years ago?*
- *How similar are North America and Europe?*
- *How have these cities changed over time? Is there a pattern? What accounts for this?*
- *Why was there little change in X for over 500 years?*

Form*: Identify Cause & Consequence (CC)*

In order to understand an event, idea, issue, place or trend it is necessary to be aware of the forces that contributed to it, as well as its results.

At the elementary level it is sufficient for student to be able to identify obvious causes and consequences. By the intermediate level students should able to distinguish between *immediate causes* and *underlying factors*, as well as *anticipated consequences* and *unanticipated consequences*, and *short-term consequences* and *long-term consequences*.

Sample Questions:
- *What causes lead to this event?*
- *What were the consequences of the decision?*
- *Were there unexpected consequences?*
- *How did people deal with the situation?*

Form*: Consider Perspective (CP)*

In order to think deeply about an event, idea, issue, place or trend it is important to suspend personal interpretations and judgments and authentically consider the matter at hand in terms of other view points.

Typically, this is understood to include consideration of stakeholders who have a vested interest in an issue. However, some analysis will require consideration of spatial and/or temporal perspectives. Students need to reflect on *how* others view an event, idea or place, as well as try to understand *why* the person may view the event, idea or place in that way.

Sample Questions:
- *Who will be affected by this decision? What are their views? Why does each group view the situation that way?*
- *How might a person living in another country view this problem? Why might they see it that way?*
- *Why did people living at the time period feel that this action was appropriate?*

Form*: Determine Significance (DS)*

When we are determining significance we are essentially asking two questions: "Is this important?" and "Why?"

An event, idea, issue, place or trend is said to be important to the degree it influences the lives of people. The deeper the influence, the more important the event. Thus, when we determine importance we are making a judgment that is relative.

In order to make this type of assessment, students must use appropriate criteria: magnitude, scope and duration. At the elementary level appropriate synonyms should be used for these terms. See sample questions for examples.

Sample Questions:
- *Is this important? Why? To whom?*
- *How serious are the influences? (magnitude)*
- *How many people are influenced? (scope)*
- *How lasting are the influences? (duration)*
- *Which resource is most important to the citizens of our province? Explain.*
- *Was the exploration of North America by Europeans significant? Why?*

Form*: Make Value Judgments (VJ)*

Sometimes inquires in social studies raise questions related to ideas of right and wrong or community standards. This requires that students wrestle with the ethical and moral dilemmas associated with a particular events, ideas, issues, or trends.

While not all inquiries involve moral or ethical issues, it is important to raise – where appropriate – questions that ask students to consider what values might or should be considered in relation to the inquiry. It is this type of analysis that reaches to the heart of social studies.

Sample Questions:
- *Is this the right thing to do?*
- *Who should take responsibility for the consequences of the action?*
- *Was this a good law?*
- *Does this make the most effective use of the resource?*
- *Is everyone being treated fairly?*

3. Critical Thinking

To think critically is essentially to engage in deliberations with the intention of making a judgment based on appropriate criteria.

By framing curriculum outcomes and content as problematic situations that invite students to think critically, student engagement can be significantly increased. When designing a task where students are invited to think critically, there are four questions that should be addressed:

1. ***Does the task require a reasoned judgment?*** In order for students to think critically they must make a judgment based on one or more criteria. At the elementary level it is common for the criteria to be embedded within the question. For example, "Which of the solutions would help the greatest number of people?" or "Which of the heroes was the bravest?" In these examples we also note that the situation must be problematic – there cannot be an obvious answer. Rather students must select among plausible alternatives using appropriate criteria.

2. ***Do students have sufficient information?*** In order to make an assessment, students must have enough (and not too much) data to work with. Without enough information to use as evidence, students will likely become frustrated. For example, asking students "Who was the greatest explorer of all time?" is a task that could require the student to read hundreds of pages of information before coming up with an answer. By contrast, asking students "Which of the four explorations studied in this chapter was most significant?" is much more manageable. At the elementary level it is frequently desirable to have students use a single source of supplied information.

3. ***Is the task viewed as meaningful by the student?*** Tasks that invite students to think critically should be engaging. Social studies encourages students to learn through purposeful experiences designed around stimulating ideas, social issues, and themes, and discourages the memorization of disconnected pieces of information. Superficial coverage of topics is replaced by emphasis on the truly significant events, concepts, and principles that students need to know and be able to apply in their lives.

4. ***Is the task related to the course outcomes?*** There are many interesting and "neat" ideas and activities that students might enjoy – and which involve critical thinking – but may not necessarily be related to the course's specific curriculum outcomes. However, with a little imagination and some editing, the task may be tweaked so that it does address the outcome.

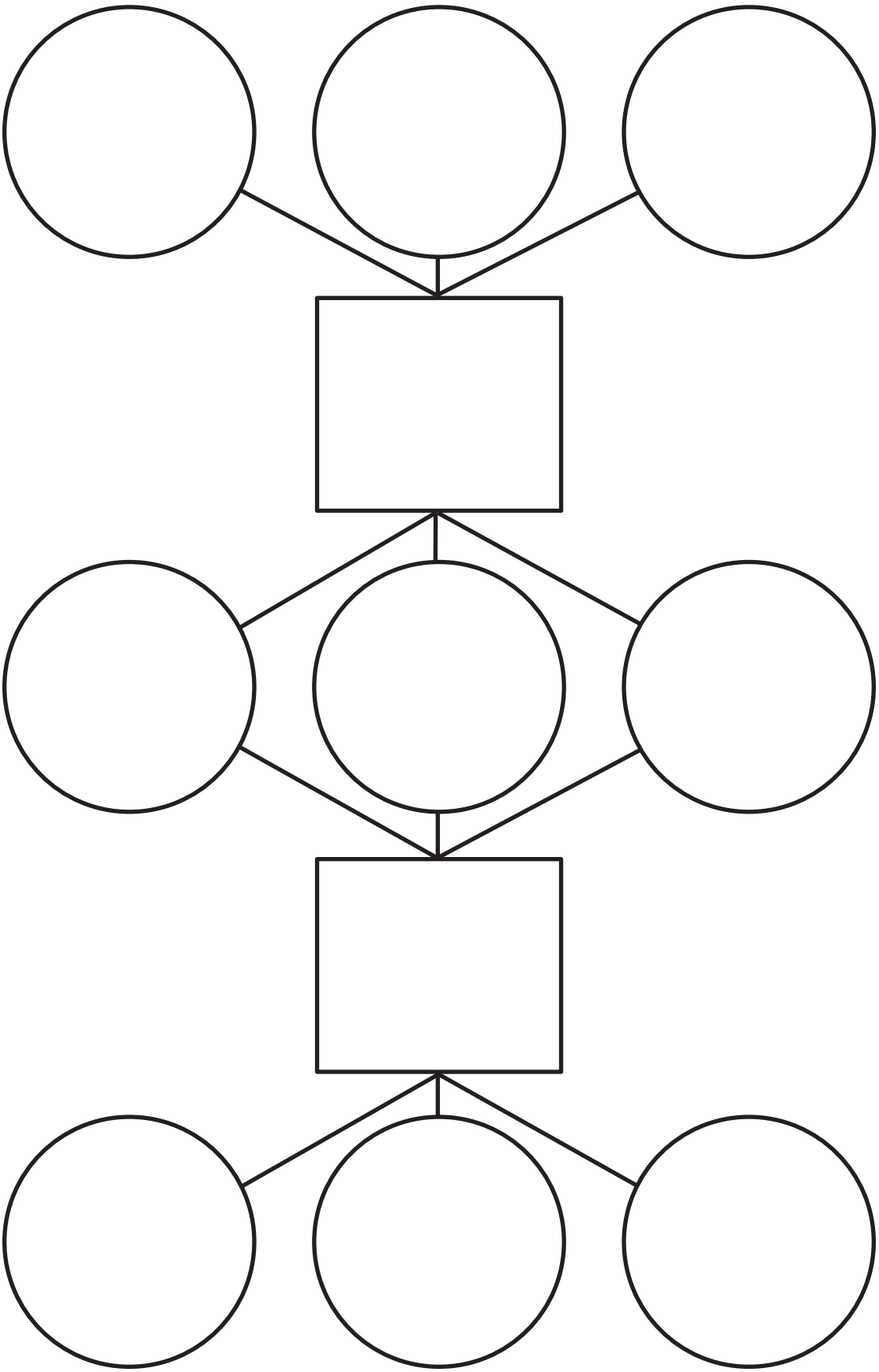
...all our knowledge results from questions,
which is another way of saying that
question-asking is our most important intellectual tool.
(Neil Postman)

Appendix D: Graphic Organizers

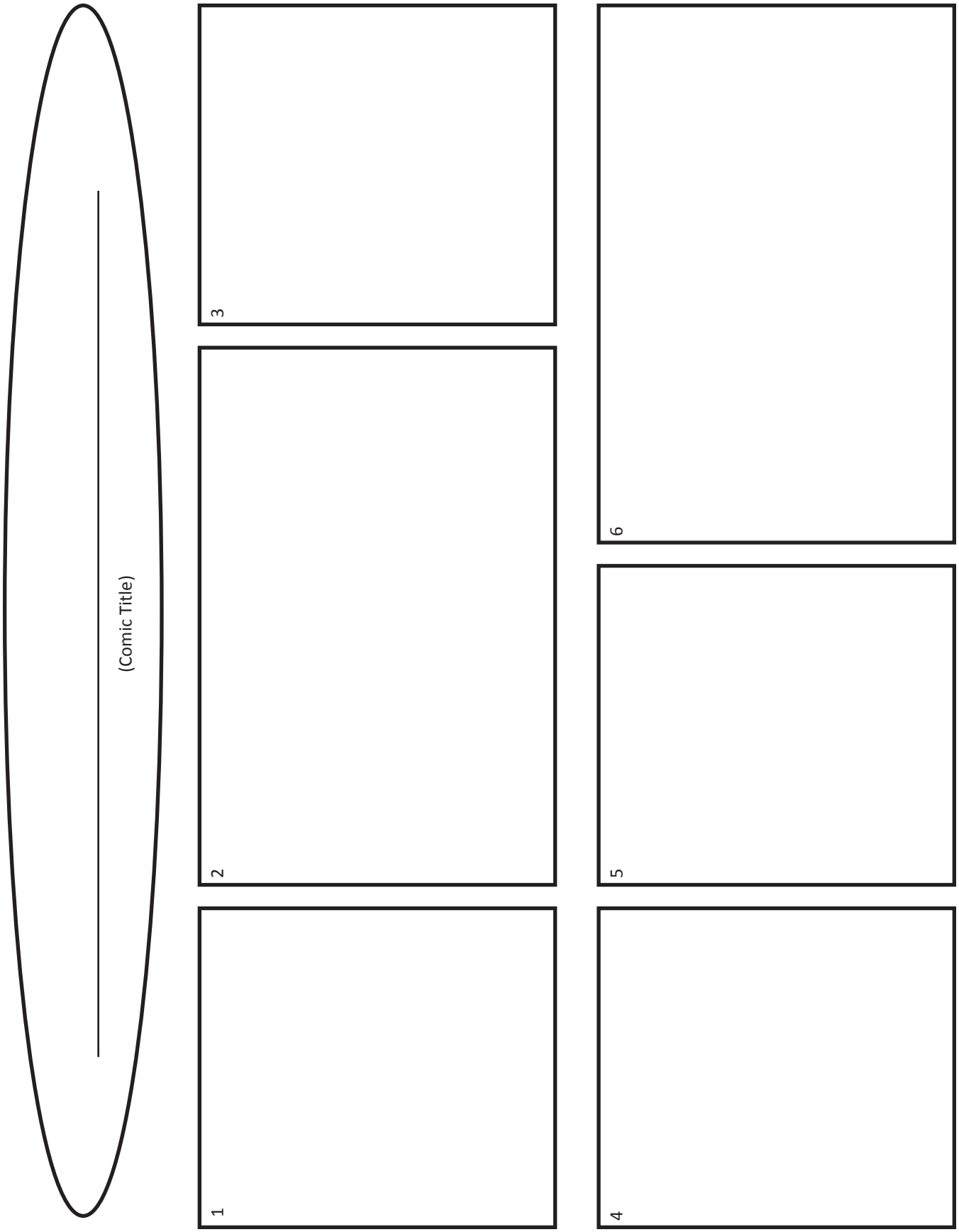
NAME: _____ DATE: _____

Making Comparisons: Double Bubble

Title: _____



NAME: _____ DATE: _____



NAME: _____ DATE: _____

RAN Chart #1

Topic: _____

What I Think I Know	Confirmed	Misconceptions

New Learnings

Wonderings

Adapted from "Reading and Analyzing Nonfiction" (RAN) developed by Tony Stead
See *Reality Checks: Teaching Reading Comprehension with Nonfiction* (2006), pp. 16-18

NAME: _____

DATE: _____

RAN Chart #2

Topic: _____

What I Think I Know	C	M	New Facts I Have Learned	Wonderings

Adapted from "Reading and Analyzing Nonfiction" (RAN) developed by Tony Stead
See *Reality Checks: Teaching Reading Comprehension with Nonfiction* (2006), pp. 16-18

NAME: _____

DATE: _____

Questions I can ask ...

		Event	Situation	Choice	Person	Reason	Means
Know	**Present**	*What is ... ?*	*Where / When is ... ?*	*Which is ... ?*	*Who is ... ?*	*Why is ... ?*	*How is ... ?*
	Past	*What did ... ?*	*Where / When did ... ?*	*Which did ... ?*	*Who did ... ?*	*Why did ... ?*	*How did ... ?*
Analyse	**Possibility**	*What can ... ?*	*Where / When can ... ?*	*Which can ... ?*	*Who can ... ?*	*Why can ... ?*	*How can ... ?*
	Probability	*What would ... ?*	*Where / When would ... ?*	*Which would ... ?*	*Who would ... ?*	*Why would ... ?*	*How would ... ?*
Create	**Prediction**	*What will ... ?*	*Where / When will ... ?*	*Which will ... ?*	*Who will ... ?*	*Why will ... ?*	*How will ... ?*
	Imagination	*What might ... ?*	*Where / When might ... ?*	*Which might ... ?*	*Who might ... ?*	*Why might ... ?*	*How might ... ?*

Adapter from *The Question Matrix* designed by Chuck Weiderhold
See: www.decd.sa.gov.au/assessment/pages/assessmentstrategies/question/

NAME: _____ DATE: _____

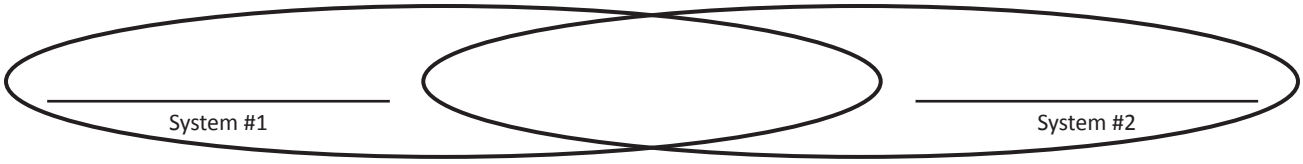
Natural Events and Natural Systems

Natural Event:

System #1	System #1
Immediate Effect(s)	***Immediate Effect(s)***
Long-Term Effect(s)	***Long-Term Effect(s)***

NAME: _____ DATE: _____

Analysing Interactions Between Systems



Description / Summary (causes)

Analysis (consequences)

	Influence(s) on System #1:	Influence(s) on System #1:
Short Term		
Long Term		
Unknown		

Evaluation (consider multiple perspectives)

NAME: _____ DATE: _____

Debate Organizer

Use the space below to create a final outline in preparation for your debate.

Our Team's Position

Argument #1	**Argument #2**	**Argument #3**
Evidence	**Evidence**	**Evidence**

Clincher

NAME: _____ DATE: _____

Determining Significance

CRITERIA	EVENT:	EVENT:
Magnitude *How deep is the influence?*		
Scope *How many are influenced?*		
Duration *How long will the influence last?*		
Rating: 1 - low 5 - medium 10 - high		

Conclusion(s) / Inference(s)

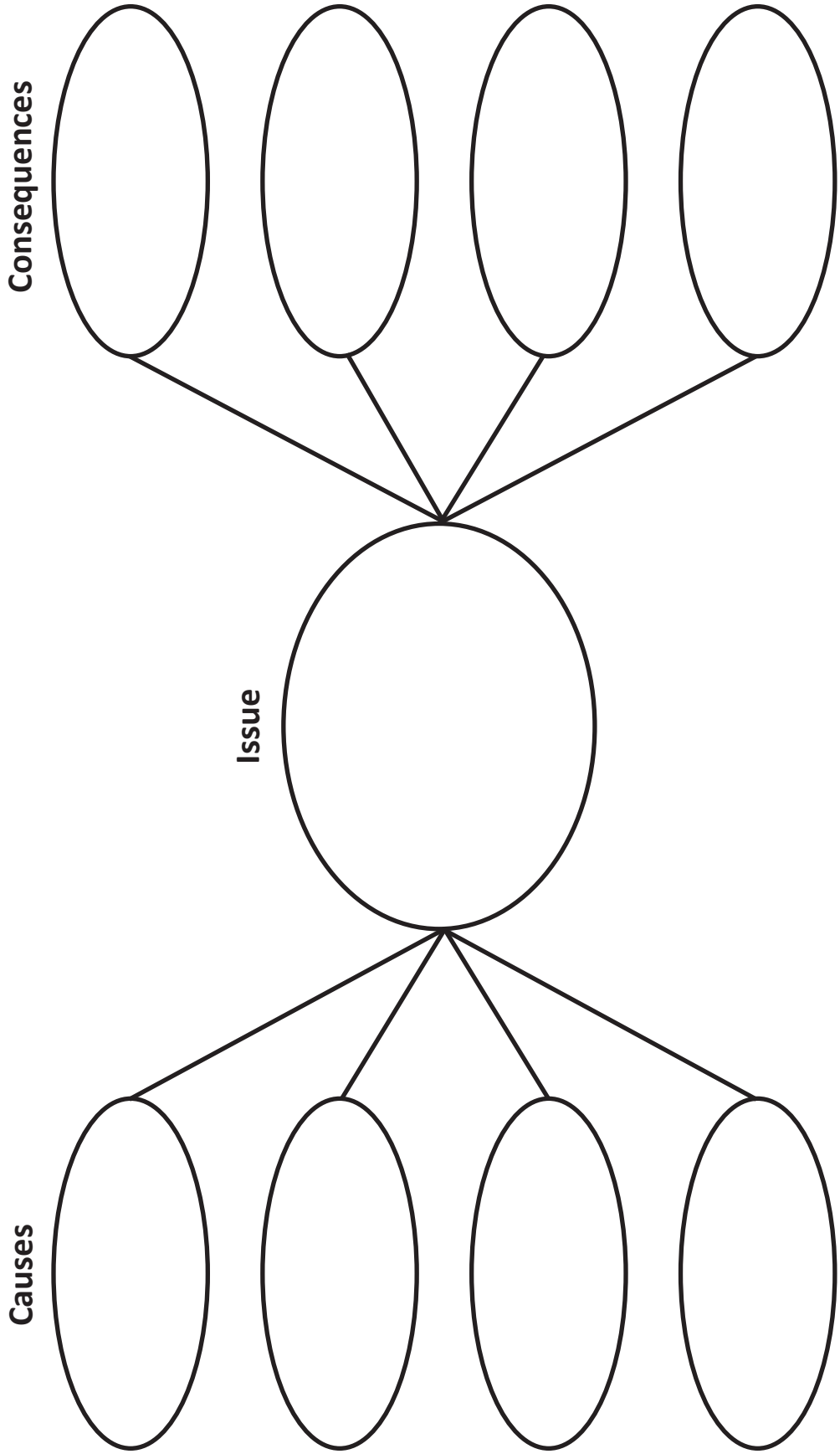
NAME: _____ DATE: _____

Analyzing Examples of Human-Environmental Interaction

Summary	Analysis	Inference(s)
Example #1	*Strengths*	
	Limitations	
Example #2	*Strengths*	
	Limitations	
Example #3	*Strengths*	
	Limitations	

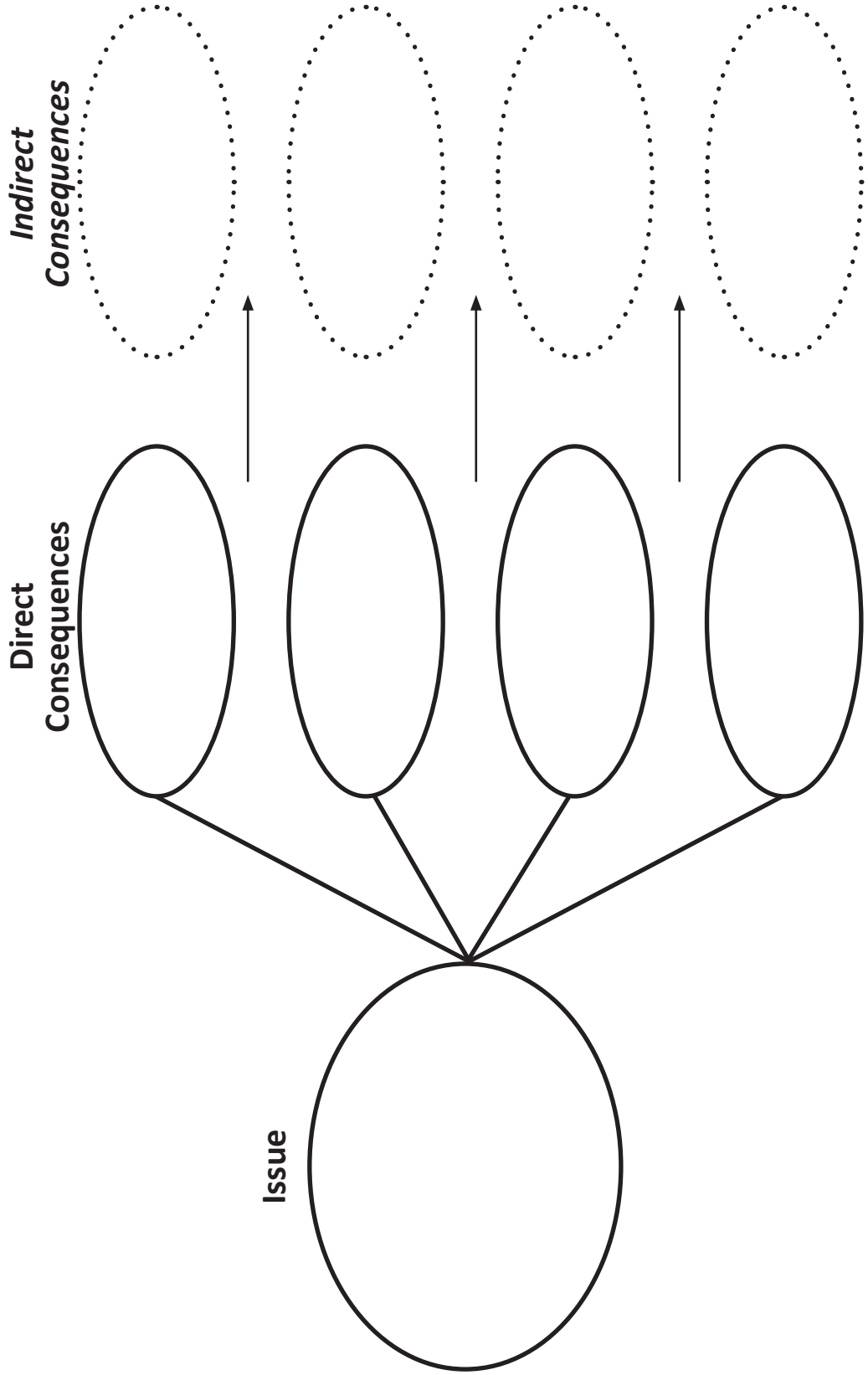
NAME: _____ DATE: _____

Understanding Issues



NAME: _____ DATE: _____

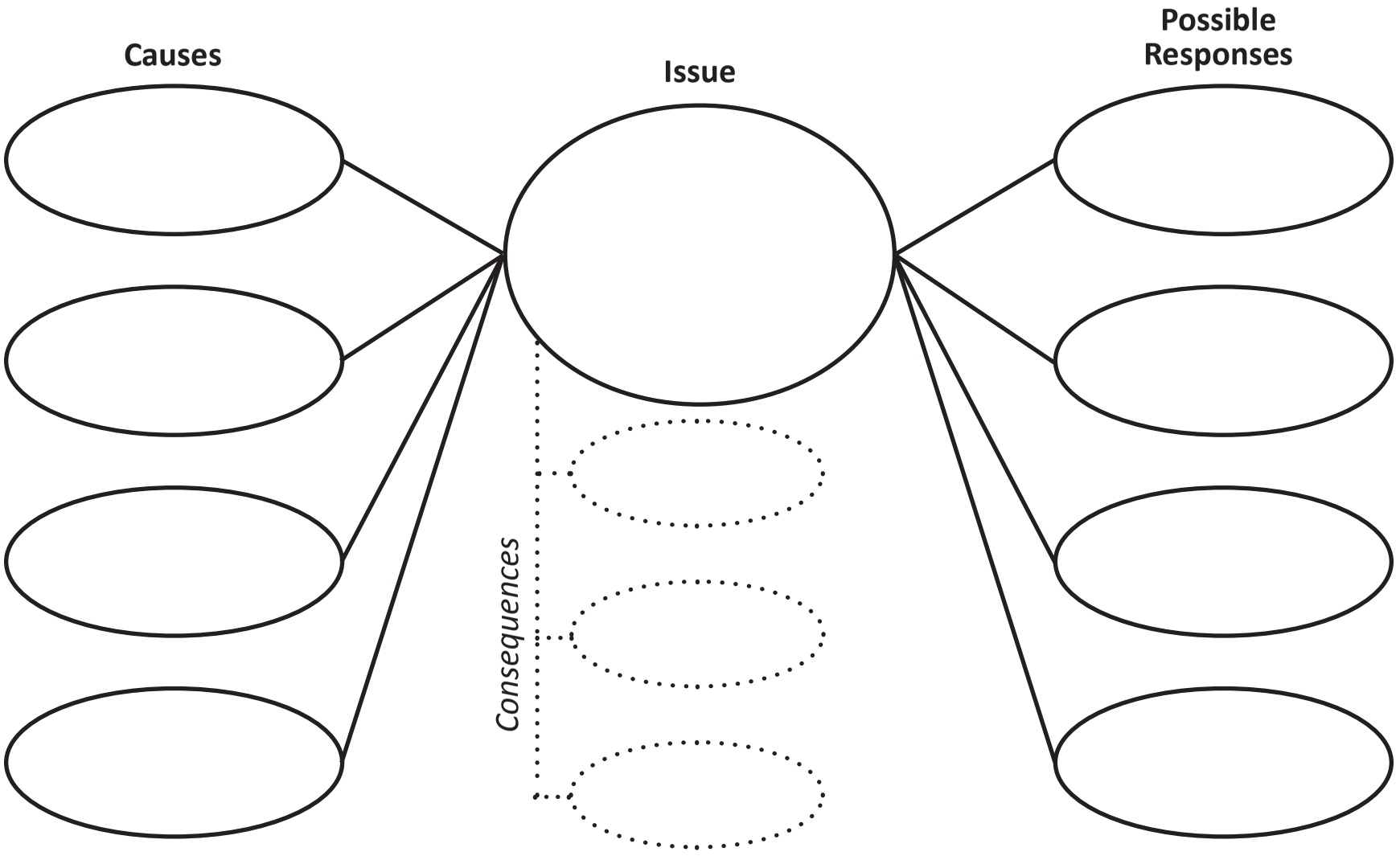
Issues and Their Consequences



NAME: _____

DATE: _____

Exploring Issues (Version #1)



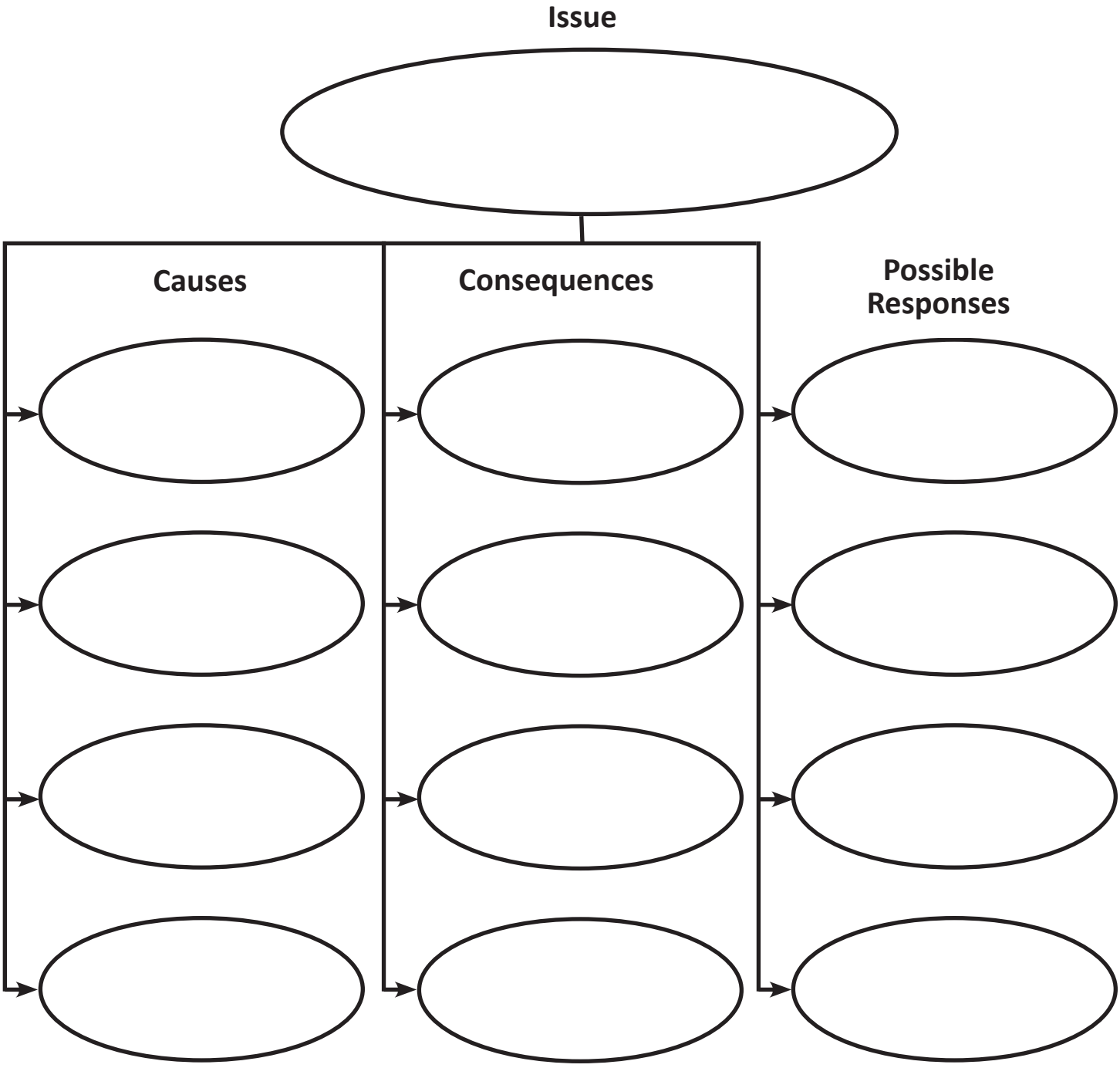
Based on the criteria of ...

a preferred response would be ...

because ...

NAME: _____ DATE: _____

Exploring Issues (Version #2)



Based on the criteria of ...

a preferred response would be ...

because ...

NAME: _____ DATE: _____

Issues Analysis

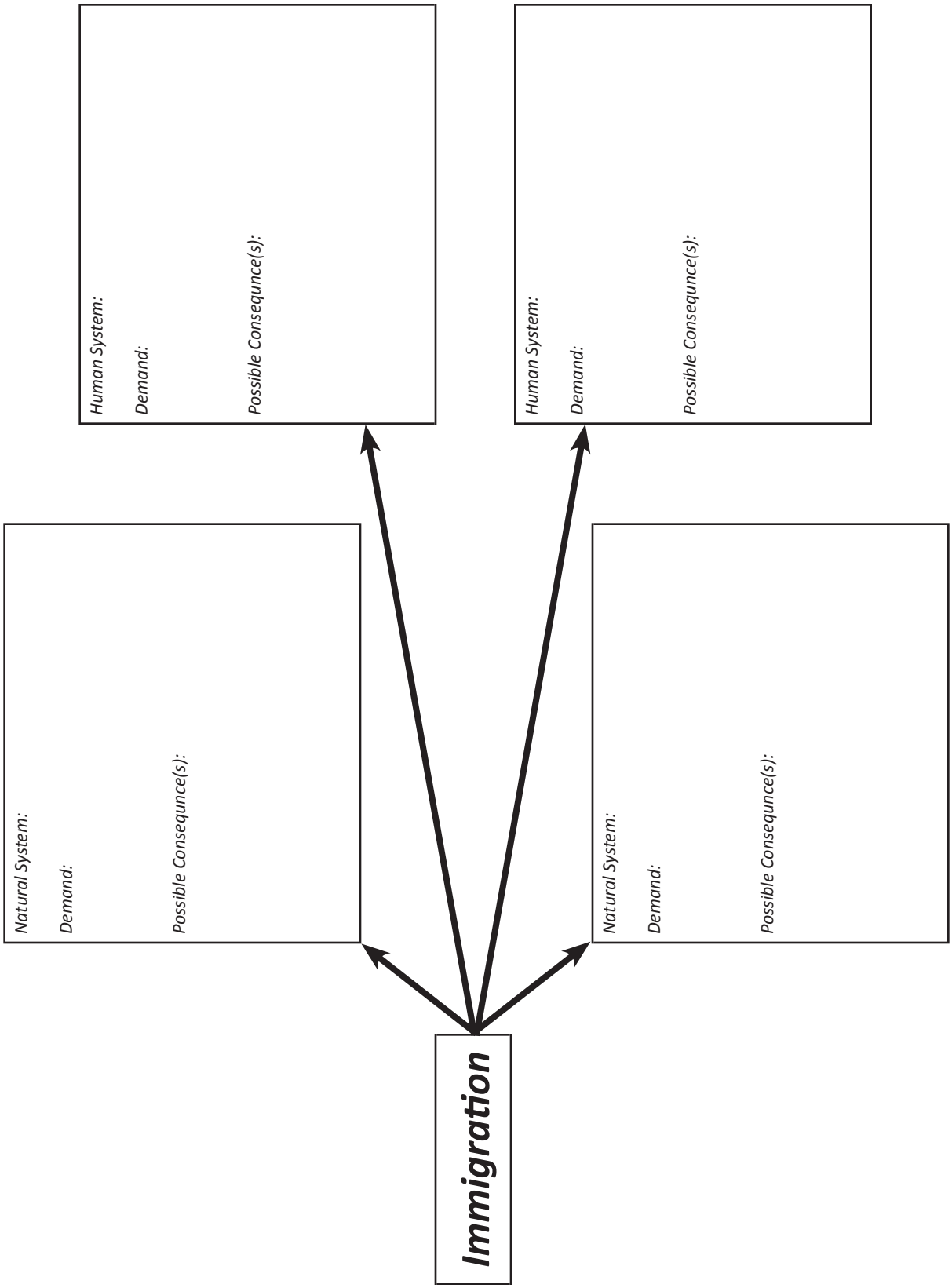
Summary Of The Issue

Options / Perspectives	Analysis	Criteria For Judgment
Example #1	*Strengths*	
	Limitations	
Example #2	*Strengths*	
	Limitations	
Example #3	*Strengths*	**Preferred Response**
	Limitations	

Possible Consequence(s) If Unresolved

NAME: _____ DATE: _____

Possible Consequences of Immigration



NAME: _____ DATE: _____

Song Analysis

Song Title: _____ Artist: _____Year: _____

Before Listening

Based on the song title, and what you know about the artist, what do you predict this song will be about?

_____

_____

While Listening

What emotion(s) do you feel while listening to this song?

_____

_____

After Listening

1. What is the mood of this song?

_____

_____

2. What message is the artist is trying to convey in this song?

_____

_____

3. What lyrics are most effective in communicating the artist's intent?

_____

_____

4. How do the musical elements (e.g., tempo, instruments) contribute to the mood and meaning of this song?

_____

_____

Appendix E: Case Studies

NAME: _____ DATE: _____

Classifying Elements According to Natural System

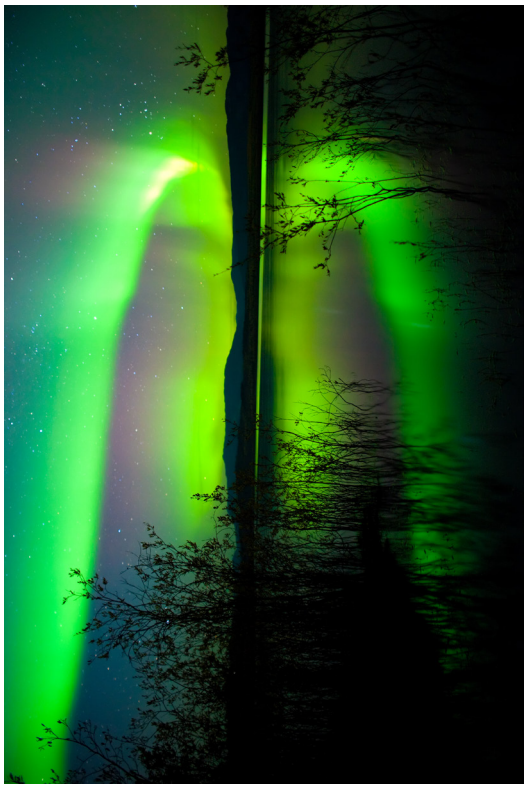
Using the cards provided, sort them into four categories. Each category should contain the same number of examples. One you have completed sorting these cards into categories, what observations / inferences can be made about each category?

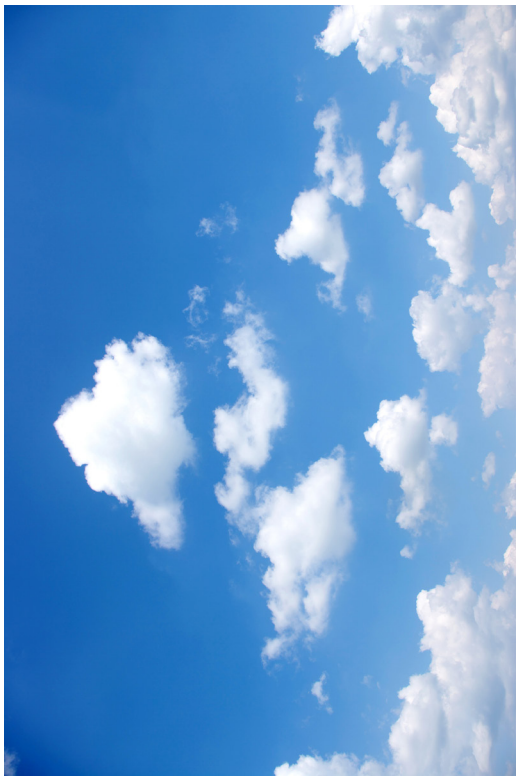
Category #1	
Examples	*Observations / Inferences*
Category #2	
Examples	*Observations / Inferences*
Category #3	
Examples	*Observations / Inferences*
Category #4	
Examples	*Observations / Examples*

NAME: _____ DATE: _____

Classifying Elements According to Natural System

(Samples for Atmosphere)

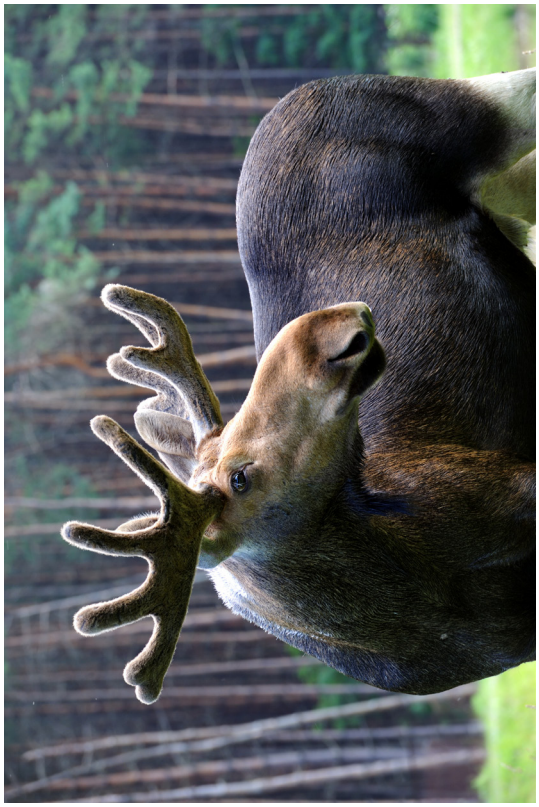


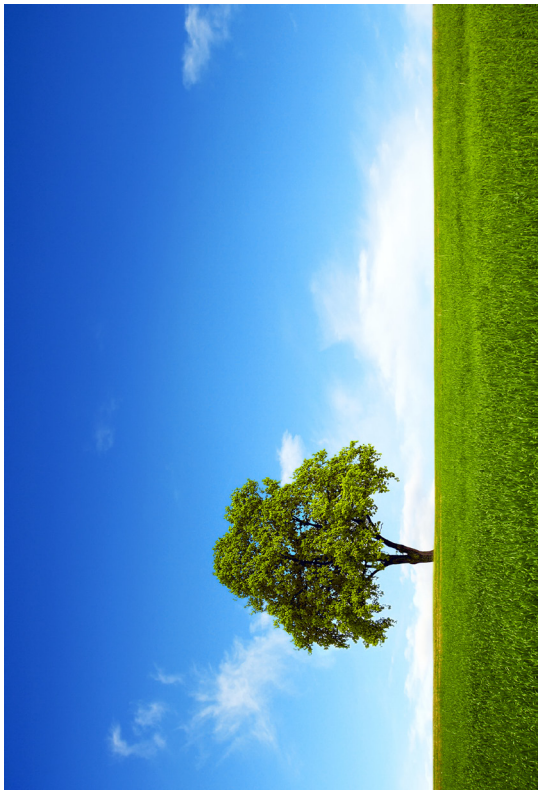


NAME: _____ DATE: _____

Classifying Elements According to Natural System

(Samples for Biosphere)





NAME: _____ DATE: _____

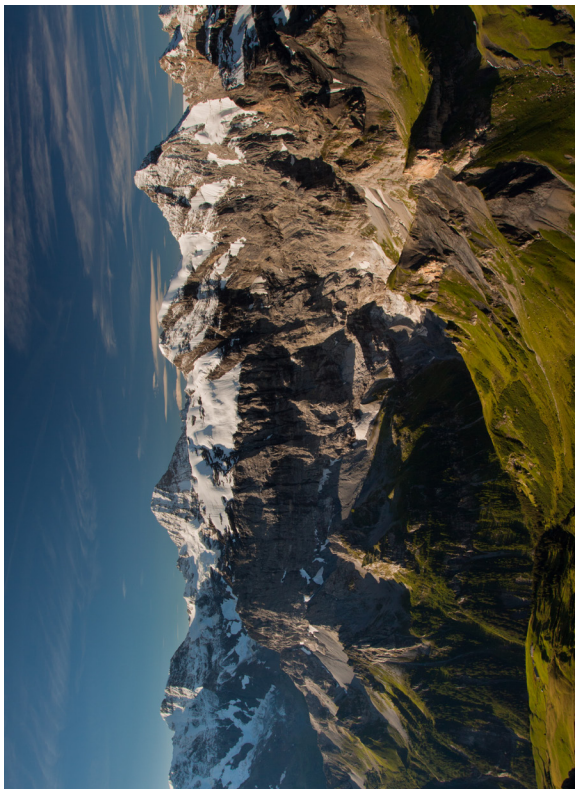
Classifying Elements According to Natural System

(Samples for Hydrosphere)

NAME: _____ DATE: _____

Classifying Elements According to Natural System

(Samples for Lithosphere)



NAME: _____ DATE: _____

Needs, Wants, and Human Systems

Using the organizer below, create a list of five needs and five wants. Indicate how you meet each need and want, and which system(s) is used to satisfy each. Then, rank each list of needs and wants , from least (5) to greatest (1).

Needs	How Met	System(s) Used					Rank
		communication	economic	energy	infrastructure	transportation	
Wants							

What can you infer from this data about human systems.

_____

_____

_____

NAME: _____ DATE: _____

Classifying Elements According to Human System

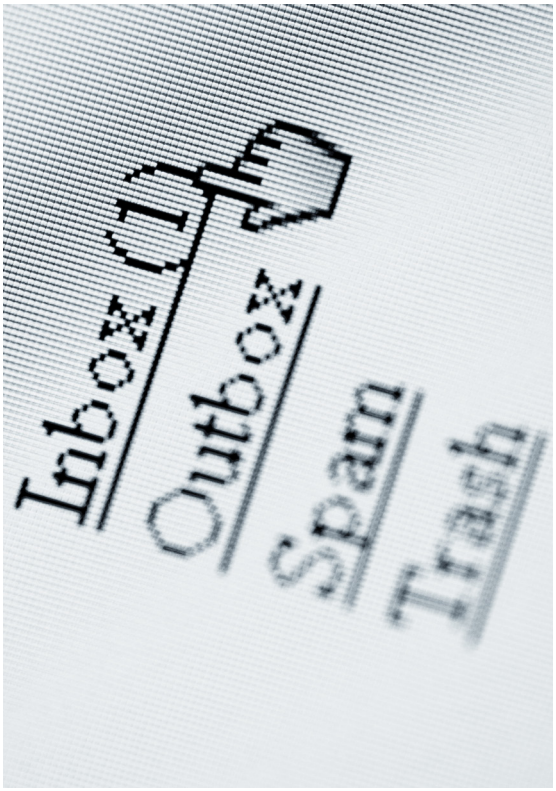
Using the cards provided, sort them into five categories. Each category should contain the same number of examples. One you have completed sorting these cards into categories, what observations / inferences can be made about each category?

Category #1	
Examples	*Observations / Inferences*
Category #2	
Examples	*Observations / Inferences*
Category #3	
Examples	*Observations / Inferences*
Category #4	
Examples	*Observations / Inferences*
Category #5	
Examples	*Observations / Inferences*

NAME: _____ DATE: _____

Classifying Elements According to Human System

(Samples for Communication)



NAME: _____ DATE: _____

Classifying Elements According to Human System

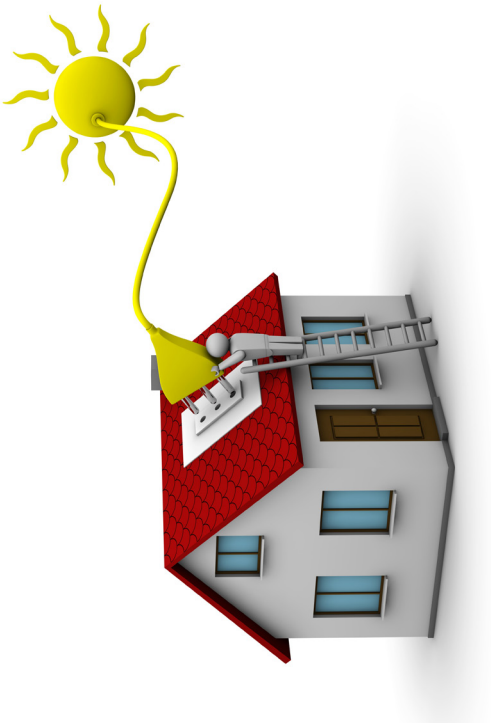
(Samples for Economic)

I. Pilon / Shutterstock.com

NAME: _____ DATE: _____

Classifying Elements According to Human System

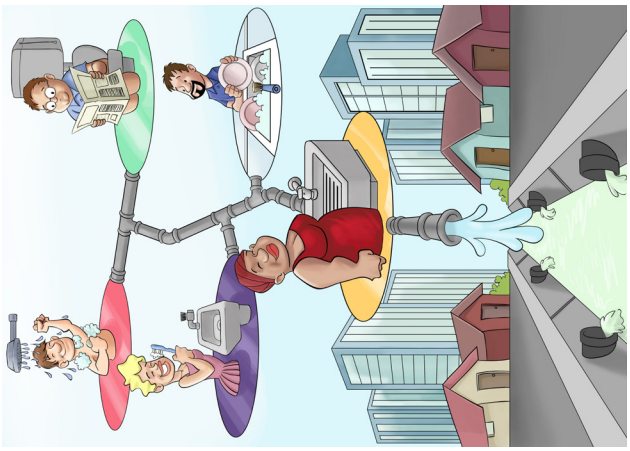
(Samples for Energy)



NAME: _____ DATE: _____

Classifying Elements According to Human System

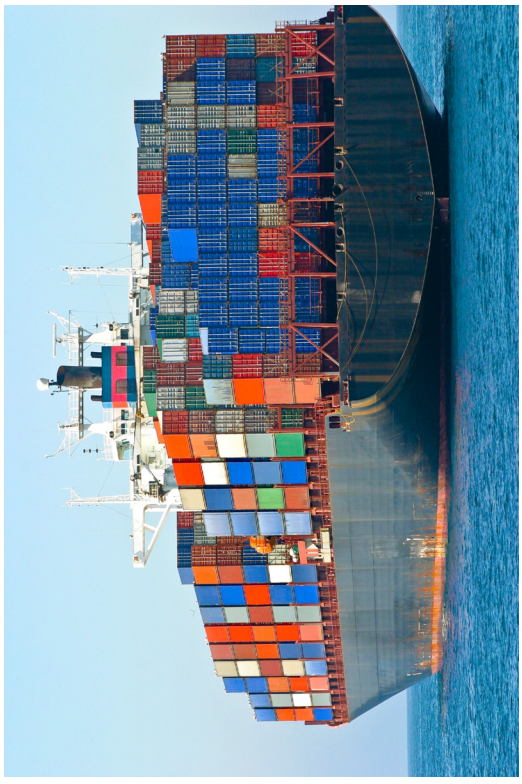
(Samples for Infrastructure)



NAME: _____ DATE: _____

Classifying Elements According to Human System

(Samples for Transportation)



NAME: _____ DATE: _____

Linking Human Systems

Take some time to walk through your school. Identify and classify seven examples of human systems. Make connections between the systems you identified and human systems within your community. Rank order the human systems you identified from least important (7) to most important (1) in terms of their significance for the functioning of your school.

Example Of Systems Found In My School	System(s) Used					How It Connects To My Community	Rank
	communication	economic	energy	infrastructure	transportation		

What can you infer from this data about human systems.

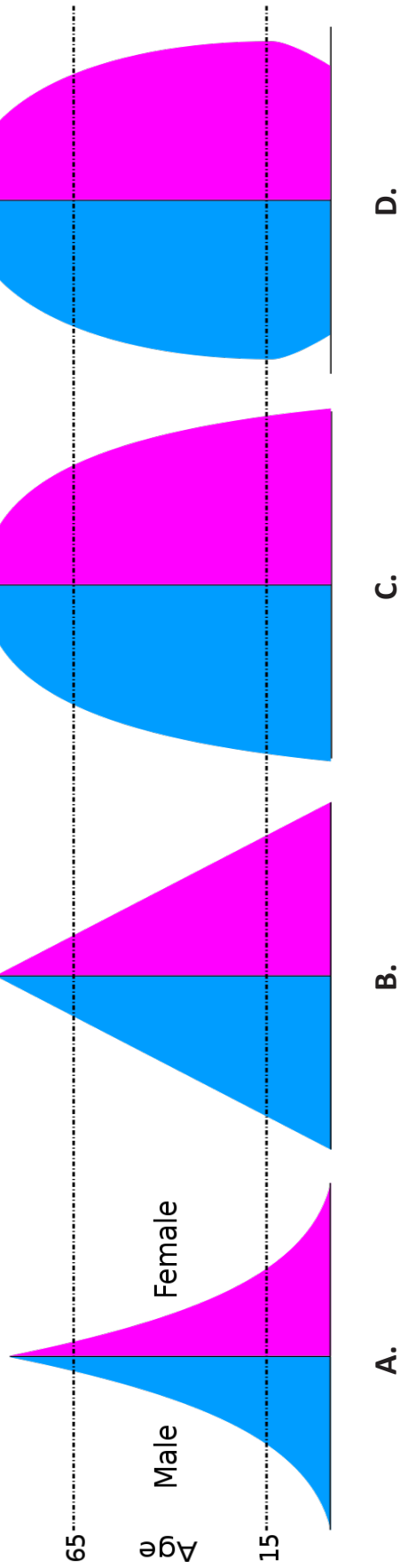
_____

_____

_____

NAME: _____ DATE: _____

Sample Population Profiles



NAME: _____ DATE: _____

Newfoundland and Labrador

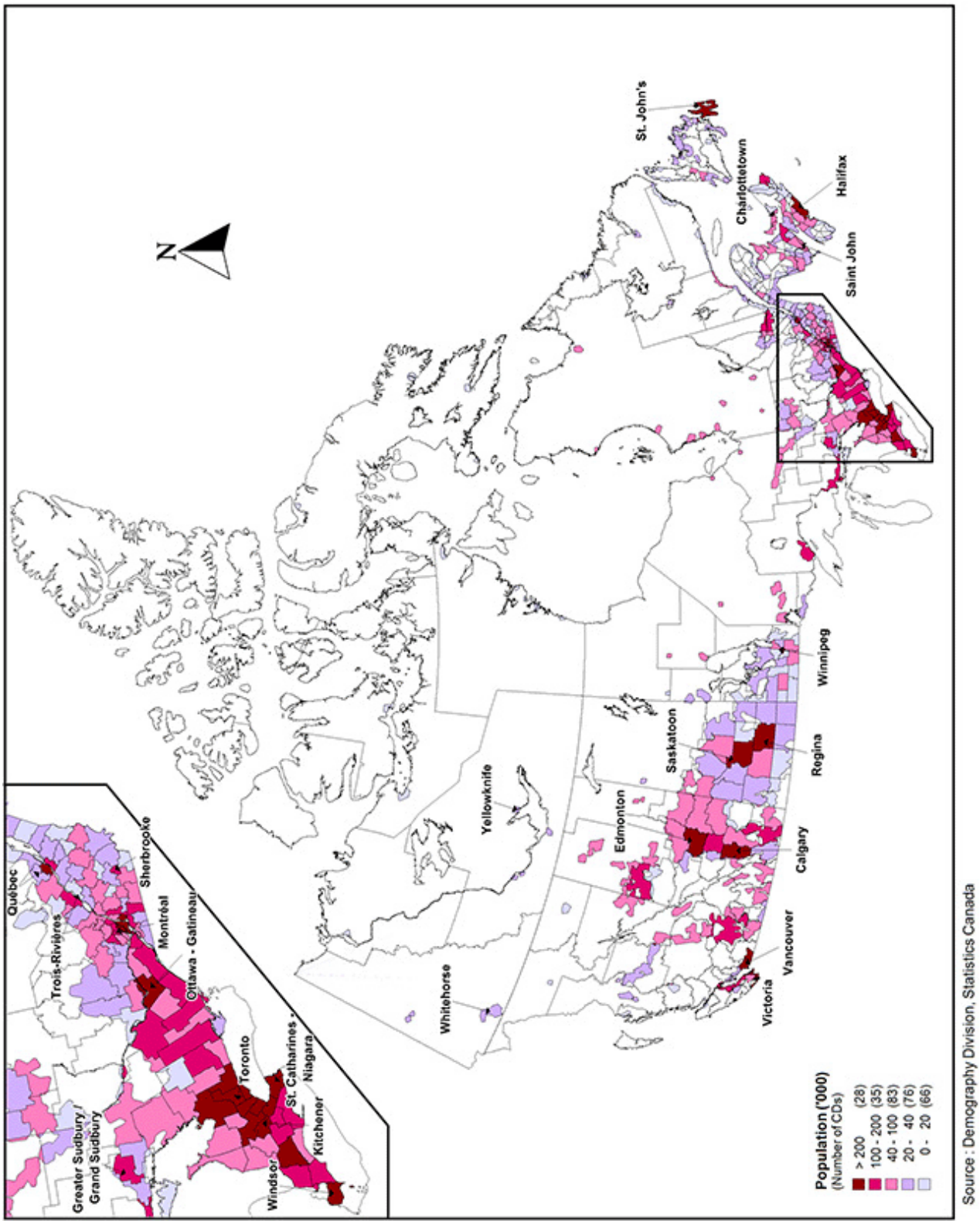
Population 1951 - 2011

Year	Population	Ten Year % change
1951	361,416	n/a
1956	415,074	n/a
1961	457,853	26.7
1966	493,396	18.9
1971	522,100	14.0
1976	557,720	13.0
1981	567,681	8.7
1986	568,350	1.9
1991	568,475	0.1
1996	551,790	-2.9
2001	512,930	-9.8
2006	505,469	-8.4
2011	514,536	0.3

NAME: _____ DATE: _____

Canada's Population Distribution

July 1, 2011 by census division (CD)



NAME: _____ DATE: _____

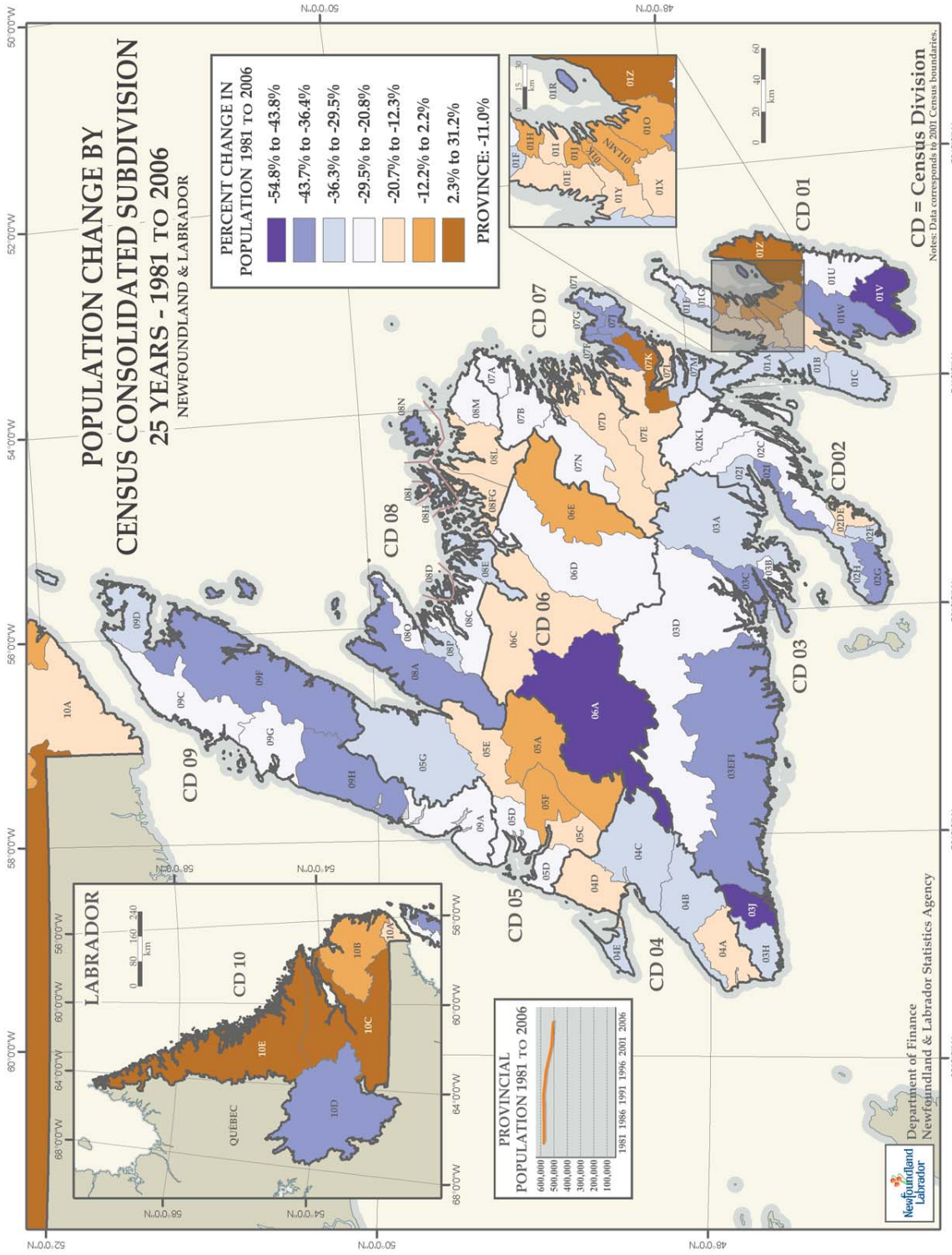
Changing Population Distribution (NL)

Analysis of Changes in the Population Distribution of Newfoundland and Labrador 1981 - 2006		
Region	*What trend exists*	*What factor(s) might account for this trend?*

Inferences and Implications

NAME: _____ DATE: _____

Changing Population Distribution (NL Map)



NAME: _____ DATE: _____

Product Analysis

Product	Where Produced?	Why Produced There?	Implication for Canada's Economy?
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

Inferences and Implications

NAME: _____ DATE: _____

Classifying Resources

Using the cards provided, sort them into three categories. Each category should contain the same number of examples. One you have completed sorting these cards into categories, what inferences can be made about each category?

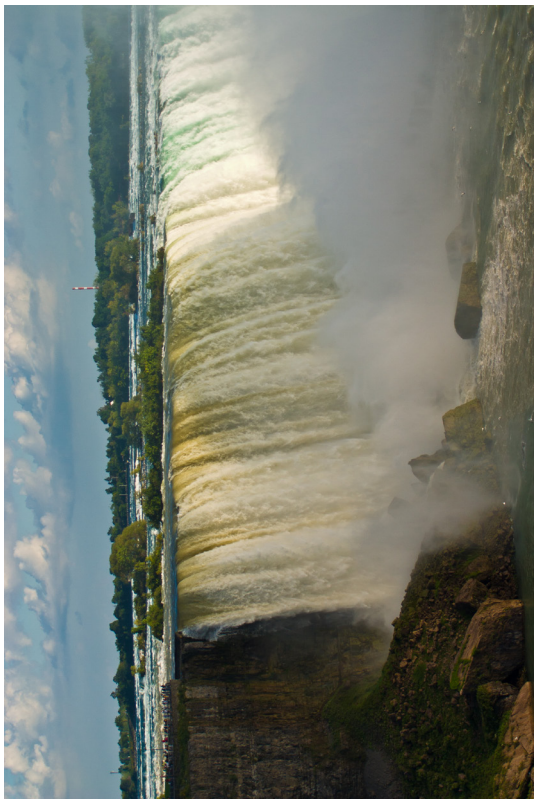
Category #1	
Examples	*Inferences*
Category #2	
Examples	*Inferences*
Category #3	
Examples	*Inferences*

Inferences and Implications

NAME: _____ DATE: _____

Classifying Resources

(Examples of Flow Resources)



No Image Provided

NAME: _____ DATE: _____

Classifying Resources

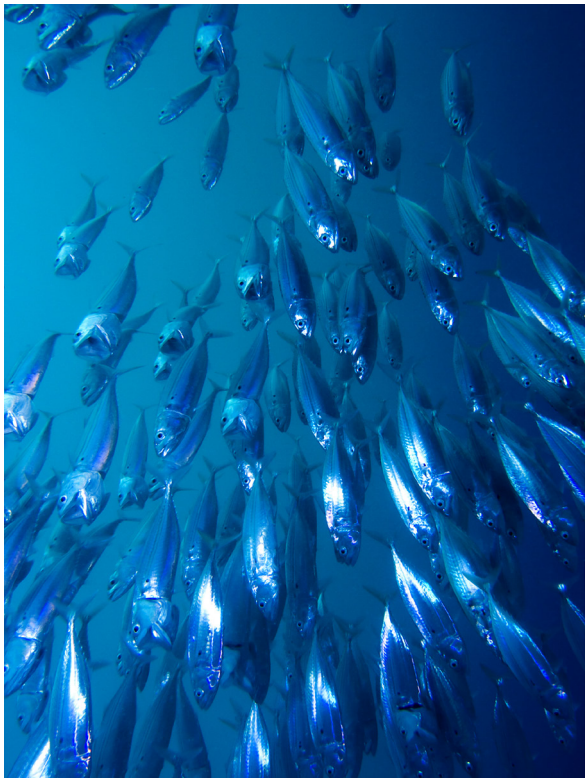
(Examples of Non-Renewable Resources)

No Image Provided

NAME: _____ DATE: _____

Classifying Resources

(Examples of Renewable Resources)

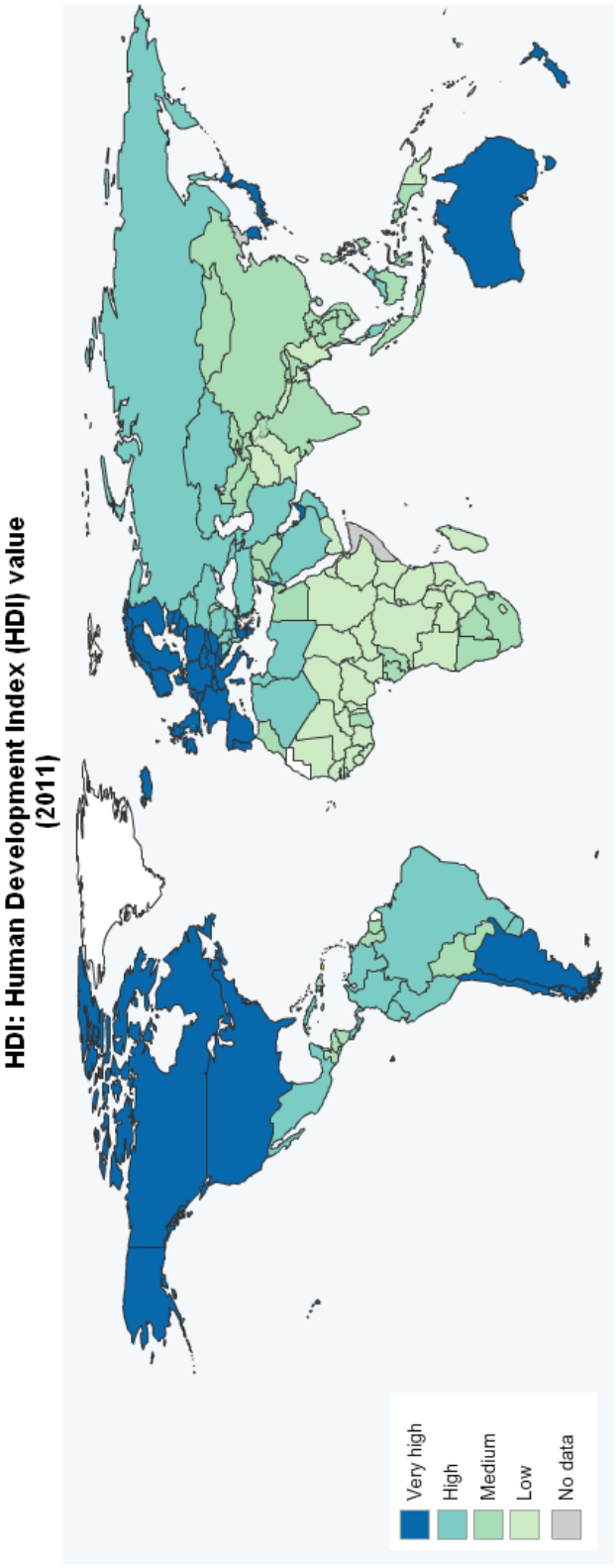


No Image Provided

NAME: _____ DATE: _____

Global Data Set A

Human Development Index (HDI) – 2011

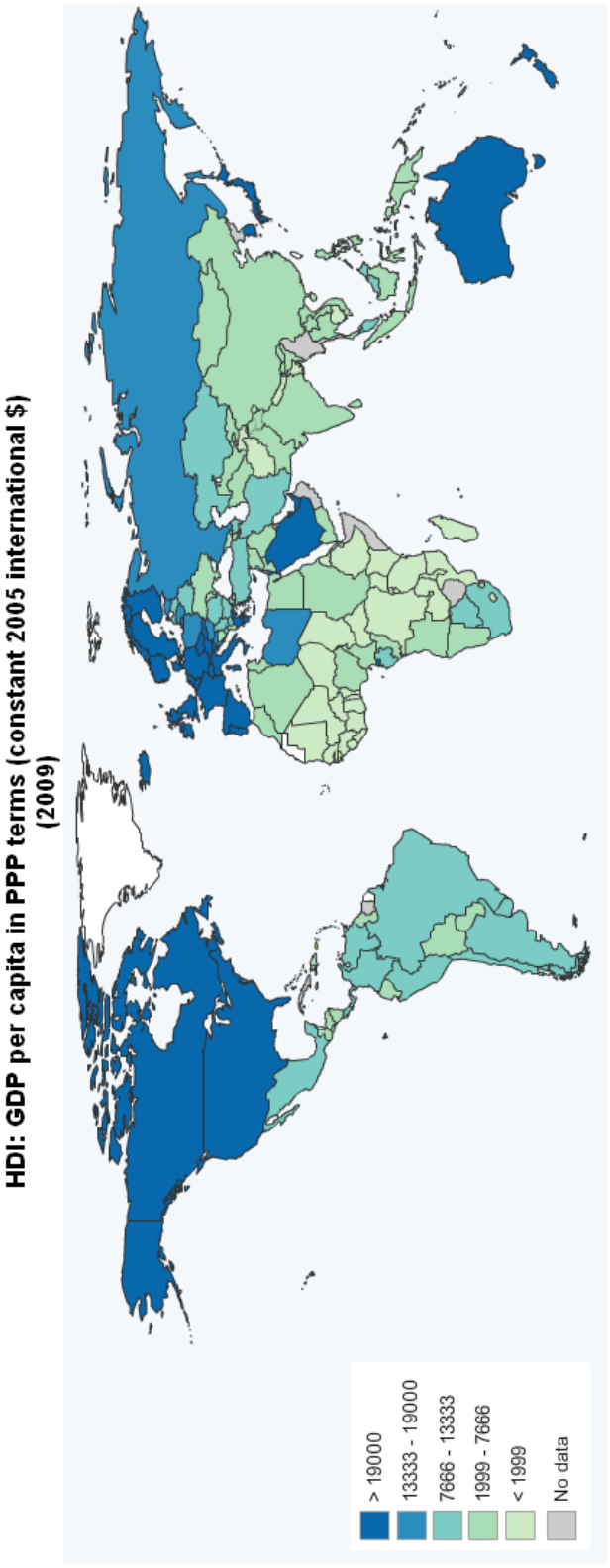


Soure: United Nations accessed July 2011 at http://hdr.undp.org/en/data/map/

NAME: _____ DATE: _____

Global Data Set B

Per Capita Gross Domestic Product (GDP) – 2009

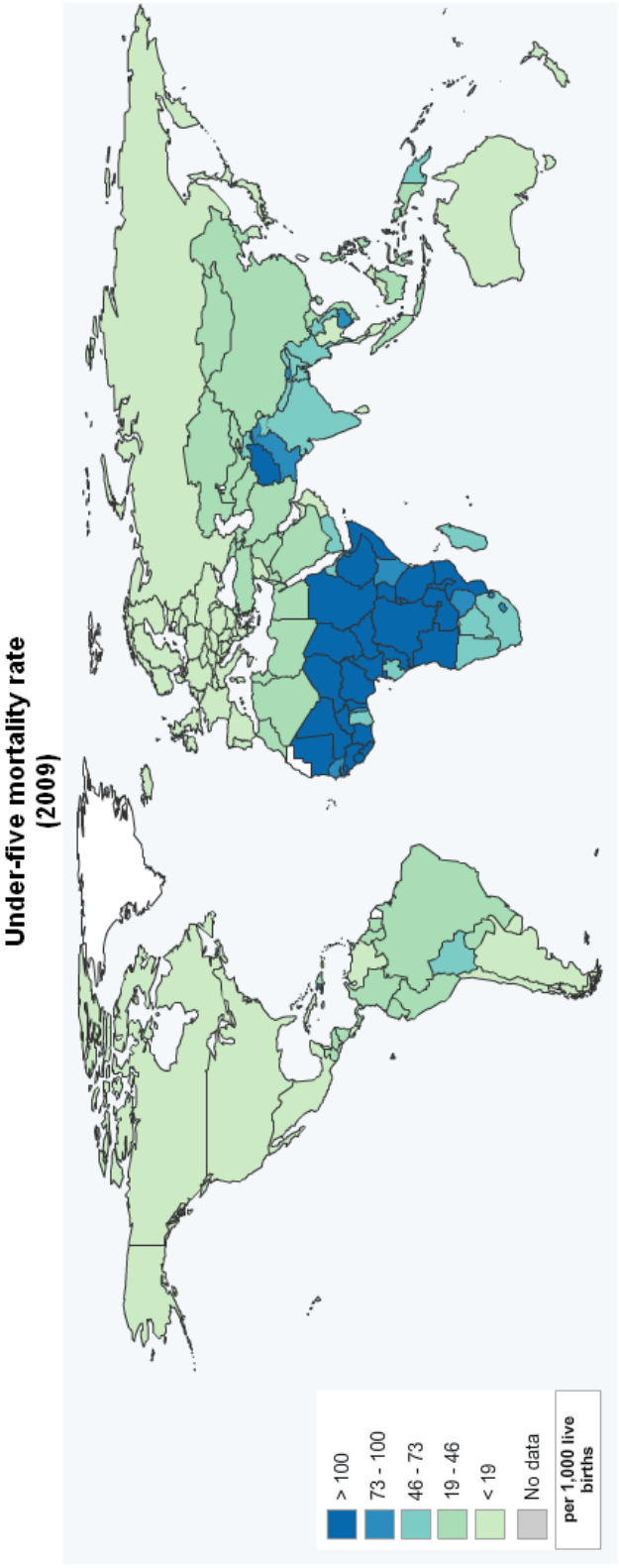


Soure: United Nations accessed July 2011 at http://hdr.undp.org/en/data/map/

NAME: _____ DATE: _____

Global Data Set C

Mortality Rates – 2009 (children < 5 years old)



Soure: United Nations accessed July 2011 at http://hdr.undp.org/en/data/map/

Appendix F: Student Response Journals

A personal response journal requires students to record their feelings, responses, and reactions as they read text, encounter new concepts, and learn. This device encourages students to critically analyze and reflect upon what they are learning and how they are learning it. A journal is evidence of "real life" application as a student forms opinions, makes judgments and personal observations, poses questions, makes speculations, and provides evidence of self-awareness. Accordingly, entries in a response journal are primarily at the application and integration thinking levels; moreover, they provide the teacher with a window into student attitudes, values, and perspectives. Students should be reminded that a response journal is not a catalogue of events.

It is useful for the teacher to give students cues (i.e., lead-ins) when the treatment of text (e.g., the student resource, other print material, visual, song, video, and so on), a discussion item, learning activity, or project provides an opportunity for a journal entry. The following chart illustrates that the cue, or lead-in, will depend upon the kind of entry that the learning context provides. If necessary, students may be given the key words to use to start their entries. The following chart provides samples of possible lead-ins, but the list should be expanded as the teacher works with students.

Student Response Journals		
Possible Type of Entry	**Cue**	**Sample Key Lead-ins**
Speculative	• What might happen because of this?	• I predict that ... • It is likely that ... • As a result, ...
Dialectical	• Why is this quotation (event, action) important or interesting? • What is significant about what happened here?	• This is similar to ... • This event is important because it ... • Without this individual, the ... • This was a turning point because it ... • When I read this (heard this), I was reminded of ... • This helps me to understand why ...
Metacognitive	• How did you learn this? • What did you experience as you were learning this?	• I was surprised ... • I don't understand ... • I wonder why ... • I found it funny that ... • I think I got a handle on this because ... • This helps me to understand why ...
Reflective	• What do you think of this? • What were your feelings when you read (heard, experienced) that ...?	• I find that ... • I think that ... • I like (don't like) ... • The most confusing part is when ... • My favourite part is ... • I would change ... • I agree that ... because ...