Social Studies
Grade Four

Voices of Alberta

Part A
Voices of Alberta

People, Places, and Possibilities
Required Resources

The lesson plans are designed to be used with the following resources Pearson Education:

Voices of Alberta: People, Places, and Possibilities, Student Resource
Voices of Alberta: People, Places, and Possibilities, Teacher’s Resource

Line Masters and rubrics are available in the Teacher’s Resource.
Alberta: The Land, Histories and Stories

4.1 Alberta: A Sense of Land

General Outcome: Students will demonstrate an understanding and appreciation of how elements of physical geography, climate, geology and paleontology are integral to the landscapes and environment of Alberta.

Specific Outcomes

➢ Values and Attitudes

Students will:

4.1.1 value Alberta’s physical geography and natural environment:
• appreciate the diversity of elements pertaining to geography, climate, geology and paleontology in Alberta
• appreciate how Alberta’s fossil heritage contributes to the province’s unique character
• appreciate the variety and abundance of natural resources in Alberta
• appreciate the environmental significance of national and provincial parks and protected areas in Alberta
• appreciate how land sustains communities and quality of life
• demonstrate care and concern for the environment through their choices and actions

➢ Knowledge and Understanding

Students will:

4.1.2 examine, critically, the physical geography of Alberta by exploring and reflecting upon the following questions and issues:
• Where is Alberta located in relation to the other provinces and territories of Canada?
• What are the major geographical and natural vegetation regions, landforms and bodies of water in Alberta (e.g., prairie region, forests, rivers, hoodoos, Rocky Mountains, oil sands)?
• What are the factors that determine climate in the diverse regions of Alberta (e.g., latitude, mountains)?
• What are the significant natural resources in Alberta, and where are they located (e.g., mineral deposits, coal, natural gas and oil, forests)?
• How are Alberta’s provincial parks and protected areas and the national parks in Alberta important to the sustainability of Alberta’s natural environment?

4.1.3 examine, critically, how geology and paleontology contribute to knowledge of Alberta’s physical geography by exploring and reflecting upon the following questions and issues:
• How did archeologists and paleontologists discover the presence of dinosaurs in Alberta?
• What geological features make Alberta unique (e.g., hoodoos, Rocky Mountains, foothills, oil sands)?
4.1.4 analyze how Albertans interact with their environment by exploring and reflecting upon the following questions and issues:

- In what ways do the physical geography and natural resources of a region determine the establishment of communities?
- How are natural resources used by Albertan (i.e., agriculture, oil and natural gas, forests, coal)?
- How do Albertans deal with competing demands on land use (e.g., conservation, solar and wind power, recreation, agriculture, oil exploration, forestry)?
- In what ways does the Royal Tyrell Museum contribute to scientific knowledge regarding Alberta’s fossil heritage?
- How can ownership of a discovered artifact be determined?
- Whose responsibility should it be to ensure the preservation of national parks, provincial parks and protected areas in Alberta?
Social Studies Grade 4 Outcomes

4.2 The Stories, Histories and Peoples of Alberta

**General Outcome:** Students will demonstrate an understanding and appreciation of the role of stories, histories and culture in strengthening communities and contributing to identity and a sense of belonging.

**Stories:** Stories provide a vital opportunity to bring history to life. Through stories, people share information, values and attitudes about history, culture and heritage. Stories are communicated through legends, myths, creation stories, narratives, oral traditions, songs, music, dance, literature, visual and dramatic arts, traditions, and celebrations. They can include or be supported by biographies, autobiographies, archives, new items, novels or short stories.

In social studies, stories provide students with opportunities to understand the dynamics of peoples, cultures, places, issues and events that are integral to Alberta’s history and to contemporary society.

**Specific Outcomes**

- **Values and Attitudes**

  **Students will:**

  4.2.1 appreciate how an understanding of Alberta’s history, peoples and stories contributes to their own sense of belonging and identity:

  - recognize how stories of people and events provide multiple perspectives on past and present events
  - recognize oral traditions, narratives and stories as valid sources of knowledge about the land, culture and history
  - recognize the presence and influence of diverse Aboriginal peoples as inherent to Alberta’s culture and identity
  - recognize the history of the French language and the vitality of Francophone communities as integral parts of Alberta’s heritage
  - recognize British institutions and peoples as integral parts of Alberta’s heritage
  - recognize how the diversity of immigrants from Europe and other continents has enriched Alberta’s rural and urban communities
  - demonstrate respect for places and objects of historical significance

- **Knowledge and Understanding**

  **Students will:**

  4.2.2 assess, critically, how the cultural and linguistic heritage and diversity of Alberta has evolved over time by exploring and reflecting upon the following questions and issues:

  - Which First Nations originally inhabited the different areas of the province?
  - How is the diversity of Aboriginal peoples reflected in the number of languages spoken?
  - What do the stories of Aboriginal peoples tell us about their beliefs regarding the relationship between people and the land?
  - What movements or migration within Canada contributed to the populating of Alberta?
• In what ways did Francophones establish their roots in urban and rural Alberta (i.e., voyageurs, missionary work, founding institutions, media, politics, commerce)?
• How did the Métis Nation and Métis settlements contribute to Alberta’s identity (i.e., languages, accomplishments)?
• How did French and English become the two languages most used in business and politics in Alberta during the 19th and early 20th centuries?
• How did British institutions provide the structure for the settlement of newcomers in Alberta (i.e., North West Mounted Police, schools, lieutenant-governor, Assembly of the Northwest Territories)?
• How did European immigration contribute to the establishment of communities in Alberta in the late 19th century and early 20th century?
• How did the arrival of diverse groups of people determine the establishment and continued growth of rural and urban communities?
• How are agriculture and the establishment of communities interconnected?
4.3 Alberta: Celebrations and Challenges

General Outcome: Students will demonstrate an understanding and appreciation of how Alberta has grown and changed culturally, economically and socially since 1905.

Specific Outcomes

➢ Values and Attitudes

*Students will:*

4.3.1 appreciate the factors contributing to quality of life in Alberta:
- value and respect their own and other cultural identities
- demonstrate respect for the rights, opinions and perspectives of others
- demonstrate respect for the cultural and linguistic diversity in Alberta
- recognize global affiliations within the Alberta Francophonie
- appreciate the influence of the natural environment and resources on the growth and development of Alberta
- value and respect their relationships with the environment

➢ Knowledge and Understanding

*Students will:*

4.3.2 assess, critically, the challenges and opportunities that Alberta has faced in its growth and development by exploring and reflecting upon the following questions and issues:
- What led to Alberta’s joining Confederation?
- What key events have impacted the economy of Alberta (i.e., drought of the 1930s, discovery of oil)?
- In what ways have occupations and commerce been affected by geography, climate and natural resources in Alberta (i.e., forestry, agriculture, aviation, seasonal activities, tourism)?

4.3.3 examine, critically, Alberta’s changing cultural and social dynamics by exploring and reflecting upon the following questions and issues:
- In what ways has Alberta changed demographically since 1905 (i.e., population distribution in rural and urban areas, arrival of diverse ethnic groups, languages spoken)?
- In what ways have Aboriginal peoples and communities changed over time?
- How has multiculturalism in Alberta evolved over time?
- How has the Alberta Francophonie become increasingly multicultural?
- How do buildings, historic sites and institutions reflect the establishment and cultural diversity of communities in Alberta (i.e., Glenbow Museum, Royal Alberta Museum, Head-Smashed-In Buffalo Jump, Writing-on-Stone Provincial Park, Father Lacombe Chapel Provincial Historic Site, Ukrainian Cultural Heritage Village)?
- How do the names of geographic places reflect the origins of the people who inhabited, discovered or developed communities in these places?
- In what ways have music, art, narratives and literature contributed to the vitality of the culture, language and identity of diverse Alberta communities over time?
Social Studies Grade 4 Outcomes

- How does living in a particular community, region or province help shape individual and collective identity?

4.3.4 examine recreation and tourism in Alberta by exploring and reflecting upon the following questions and issues:

- How do recreational sites and activities reflect Alberta’s heritage and strengthen communities (e.g., festivals, fairs, celebrations, rodeos)?
- How do physical geography and climate affect seasonal activities throughout Alberta?
- To what extent do recreation and tourism foster appreciation of Alberta’s natural regions and environment?
- In what ways do interests concerning tourism and the natural environment conflict?
SKILLS AND PROCESSES FOR GRADE 4

➢ DIMENSIONS FOR THINKING

Students will:

4.S.1 develop skills of critical thinking and creative thinking:
- evaluate significant local and current affairs, distinguishing between fact and opinion
- evaluate, critically, ideas, information and positions from multiple perspectives
- re-evaluate opinions to broaden understanding to a topic or an issue
- generate original ideas and strategies in individual and group activities

4.S.2 develop skills of historical thinking:
- use photographs and interviews to make meaning of historical information
- use historical and community resources to understand and organize the sequence of local historical events
- explain the historical context of key events of a given time period

4.S.3 develop skills of geographic thinking:
- use the scale on maps of Alberta to determine the distance between places
- construct graphs, tables, charts and maps to interpret information
- use historical maps to make meaning of historical events and issues
- use cardinal and intermediate directions to locate places on maps and globes
- identify the location of sources of non-renewable resources (e.g., fossil fuels, minerals)

4.S.4 demonstrate skills of decision making and problem solving:
- contribute and apply new ideas and strategies, supported with facts and reasons, to decision making and problem solving
- identify situations where a decision needs to be made and a problem requires attention

➢ SOCIAL PARTICIPATION AS A DEMOCRATIC PRACTICE

Students will:

4.S.5 demonstrate skills of cooperation, conflict resolution and consensus building:
- demonstrate an awareness of the skills required for compromise and consensus building
- demonstrate the ability to deal constructively with diversity and disagreement
- consider the needs and points of view of others
- work collaboratively with others to complete a group task

4.S.6 develop age-appropriate behaviour for social involvement as responsible citizen contributing to their community:
- initiate projects that meet the particular needs or expectations of their school or community
➢ RESEARCH FOR DELIBERATIVE INQUIRY

Students will:

4.S.7 apply the research process
- develop the skills of skimming and scanning to gather relevant information
- organize and synthesize for information gathered from a variety of sources
- use graphic organizers, such as webbing or Venn diagrams, to make meaning of information
- draw and support conclusions, based on information gathered, to answer a research question
- formulate new questions as research progresses
- cite references as part of research

➢ COMMUNICATION

Students will:

4.S.8 demonstrate skills of oral, written and visual literacy:
- organize and present information, taking particular audiences and purposes into consideration
- respond appropriately to comments and questions, using language respectful of human diversity
- listen to others in order to understand their perspectives
- create visual images for particular audiences and purposes
- communicate effectively through appropriate forms, such as speeches and reports

4.S.9 develop media literacy:
- compare information on the same issue or topic from print media and photographs
Glossary of Terms and Concepts – Grade 4

The following terms and concepts are contained within the general and specific outcomes in the grade. The definitions are provided to facilitate a better understanding and more effective application of the social studies concepts presented.

**Aboriginal peoples**  The descendants of the original inhabitants of North America. First Nations, Inuit and Métis peoples have unique heritages, languages, cultural practices and spiritual beliefs.

**agriculture**  The sector of the economy that deals with farming.

**archaeology**  The study of the buildings, containers and other, usually buried, objects that belonged to people who lived in the past.

**cultural heritage**  The beliefs, customs, knowledge, values and historical experiences shared by a given group.

**demographics**  Information pertaining to the study of a population.

**First Nations**  Refers to the various governments of First Nations peoples of Canada. There are over 630 First Nations across Canada, with 46 First Nations in Alberta.

**fossils**  Remnants or traces of organisms (plants or animals) of a past geologic age, such as skeletons embedded and preserved in the Earth’s crust.

**Francophone**  A person for whom French is the first language learned and/or still in use; a person of French language and culture.

**Francophonie**  The entire Francophone community in a given region, province, territory or country, or in the third world. On a global level, La Francophonie is a group of 47 countries (representing approximately 150 million people) on five continents in which French is an official or commonly used language.

**geology**  The study of the origin, history, and structure of the Earth.

**Métis Nation**  A group of individuals who are associated with a recognized Métis family or community and who self-identify as Métis people. The Métis Nation of Alberta Association (MNAA) consists of an elected provincial president and vice-president and an elected zone president and vice-president for each or the six zones across Alberta. There are approximately 65 MNAA locals across Alberta.

**Métis settlements**  Eight distinct geographic areas in northern Alberta, established in the 1930s as corporate entities and similar to municipal corporation, with broad self-governing powers. The settlements are governed locally by elected five-member councils and collectively by the Métis Settlements General Council.
multiculturalism  The policy of recognizing and promoting the cultural diversity of a population sharing a common territory.

natural resources  Elements of the natural environment that are of use to humans. They include non-renewable and renewable resources. Nonrenewable resources, such as oil, natural gas and minerals, are limited in quantity; renewable resources, such as forest, water and fish, can be regenerated and can last indefinitely if used carefully.

palaeontology  The study of the forms of life existing in prehistoric times.

protected areas  Areas identified and legislated by federal, provincial and municipal governments as needing particular care and protection for environmental and/or cultural reasons.

sustainability  The ability of land to maintain life and/or provide necessities or nourishment on a continued and renewed basis for the organisms interacting with it and depending on it.

treaties  Legal documents between government and a First Nation that confer rights and obligations on both parties. To First Nations peoples, the treaties are sacred documents made by the parties and often sealed by a pipe ceremony.
GRADE FOUR
SOCIAL STUDIES

Basic
Map Skills
Optional Area of Study

The content of this section is not specifically part of the Program of Studies for Social Studies Grade Four. Therefore, it should be considered optional.

Content

Lesson One: The continents and oceans
Lesson Two: North America: countries and major bodies of water
Lesson Three: Facts about Canada
Lesson Four: The Provinces and Territories
Lesson Five: Provincial and Territorial Capitals and Postal Abbreviations
Lesson Six: The Provinces and Territories: Population and Area
Lesson Seven: Facts about the Provinces and Territories
Lesson Eight: Using Latitude to Determine Absolute Location
Lesson Nine: Using Longitude to Determine Absolute Location
Lesson Ten: Describing Absolute Locations
Lesson One

Concept: the continents and the oceans

Materials: map of continents and oceans (transparency and student copies)
   Globe
   Atlas
   Worksheet #1a (transparency, optional)
   Worksheet #1b, #1c (student copies)

Introduction: Hold up globe and tell students that it is representation of the Earth. Note how it is tilted on its axis. Show map of world. Ask students to distinguish between a globe and a map.

Procedure:

1. Discuss advantages and disadvantages of globe and maps as representations of the Earth.

2. Introduce the cardinal and intercardinal directions on the map.

3. Note that on both globes and maps bodies of water are always coloured blue. Depending on the type of globe or map, land is many colours. Some have different countries coloured different colours. Some have different elevations coloured different colours etc.

4. Tell students we have specific name for large bodies of land and water. Large bodies of land are called continents. Large bodies of salt water are called oceans. On the map and on the globe go over the names of all the continents and oceans.

5. Tell students that they should pay special attention to the shapes of the continents and oceans and also where they are in relation to each other.

6. Make notes: (can be put on board or use transparency of Worksheet #1a)

Continents

A continent is a large area of land, usually surrounded entirely by water.

There are seven continents:

North America
South America
Europe
Asia
Africa
Australia
Antarctica
An ocean is a large body of salt water.

There are four oceans:

Atlantic Ocean
Pacific Ocean
Arctic Ocean
Indian Ocean

7. Put transparency of continents and oceans on the overhead. With students label the continents and oceans. Then colour the continents, each a different colour.

Assignment:

Copy notes

Label the continents and the oceans.

Colour the continents.
The Continents and the Oceans

Continents

A continent is a large area of land, usually surrounded by water.

There are seven continents:

North America
South America
Europe
Asia
Africa
Australia
Antarctica
Oceans

An ocean is a large body of salt water.

There are four oceans:

Atlantic Ocean
Pacific Ocean
Arctic Ocean
Indian Ocean
The Continents and the Oceans

Directions: On the map of the world label the continents and the oceans. Then colour the continents as indicated.

NOTE: When colouring the continents, outline each continent pressing quite hard. Then fill in the rest lightly. This way you can still easily read the name of the continent. It is also easier on your fingers.

Continents

North America (pink)
South America (green)
Europe (yellow)
Asia (purple)
Africa (orange)
Australia (brown)
Antarctica (red)

Oceans

Atlantic Ocean
Pacific Ocean (label in two places)
Arctic Ocean
Indian Ocean
Lesson Two

Concept: North America: countries and major bodies of water

Materials: map of North America
          Outline map of North America (transparency and student copies)
          Worksheet #2a (transparency)
          Worksheet #2b (student copies)

Introduction: Review the continents and the oceans and the directions on a map. Tell students that today we will be studying our continent, North America.

Procedure:

1. On the wall map of North America point out the land that “belongs” to North America. Note that the Panama Canal divides North America from South America.

2. Point out that North America includes three large countries and six smaller countries. The six smaller countries are part of an area called of North America called Central America.

3. Use the wall map to show the countries:

4. Then use the wall map to show the bodies of water.

5. Make notes:

   North America

   North America has three large countries and seven smaller ones.

   Canada             Guatemala
   United States      El Salvador
   Mexico             Honduras
   Nicaragua          Panama
   Costa Rica         Belize
   The major bodies of water of North America are:
   Atlantic Ocean     Pacific Ocean
   Hudson Bay         James Bay
   Gulf of Mexico     Caribbean Sea
   Arctic Ocean       Beaufort Sea
   Gulf of Alaska     Hudson Strait
   Davis Strait       Baffin Bay
   Gulf of St. Lawrence

6. With students label the countries and bodies of water. Then have them colour the countries.

Assignment:
Copy notes
Label and colour map of North America
North America

North America has three large countries and seven smaller ones.

Canada               Guatemala
United States        El Salvador
Mexico               Honduras
Nicaragua            Panama
Costa Rica           Belize

The major bodies of water of North America are:

Atlantic Ocean       Pacific Ocean
Hudson Bay           James Bay
Gulf of Mexico       Caribbean Sea
Arctic Ocean         Beaufort Sea
Gulf of Alaska       Hudson Strait
Davis Strait         Baffin Bay
Gulf of St. Lawrence
The Countries and Major Bodies of Water of North America

Directions: Label the countries and major bodies of water of North America on the map of North America. Be sure that you do not colour any two countries that share a common border the same colour.

North America

North America has three large countries and seven smaller ones.

<table>
<thead>
<tr>
<th>Canada</th>
<th>Guatemala</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>El Salvador</td>
</tr>
<tr>
<td>Mexico</td>
<td>Honduras</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>Panama</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>Belize</td>
</tr>
</tbody>
</table>

The major bodies of water of North America are:

<table>
<thead>
<tr>
<th>Atlantic Ocean</th>
<th>Pacific Ocean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hudson Bay</td>
<td>James Bay</td>
</tr>
<tr>
<td>Gulf of Mexico</td>
<td>Caribbean Sea</td>
</tr>
<tr>
<td>Arctic Ocean</td>
<td>Beaufort Sea</td>
</tr>
<tr>
<td>Gulf of Alaska</td>
<td>Hudson Strait</td>
</tr>
<tr>
<td>Davis Strait</td>
<td>Baffin Bay</td>
</tr>
<tr>
<td>Gulf of St. Lawrence</td>
<td></td>
</tr>
</tbody>
</table>
Lesson Three

Concept: facts about Canada

Materials: Worksheet #3a, #3b, #3c
          Worksheet #3d, #3e, #3f (student copies)

Introduction: Review the continents and oceans of the world and the countries and bodies of water of North America. Tell students that we will now focus on our own country, Canada.

Procedure:

1. To find out some facts about Canada, students will have to “look” around the classroom to find the answers to some questions. Before class tape the fact sheets to the walls (Worksheet #3a, #3b, #3c).
2. Distribute the question sheet (Worksheet #3d) to students. Instruct them to read the questions first. Then go around and try to find the answers to the questions.
3. When everyone is finished, check the answers together.
4. Distribute Worksheets #3e, #3f. Have students complete it independently.

Assignment:

Do Worksheet #3e and #3f.
<table>
<thead>
<tr>
<th><strong>Canada officially became a country on July 1, 1867.</strong></th>
<th><strong>Canada’s population in 2001 was 30 007 094.</strong></th>
<th><strong>Canada has ten provinces.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Canada has three territories.</strong></td>
<td><strong>Canada is bordered by three of the four world oceans.</strong></td>
<td><strong>Canada has two official languages: English and French.</strong></td>
</tr>
<tr>
<td><strong>Canada is the second largest country in the world. The largest country in the world is Russia.</strong></td>
<td><strong>Canada has an area of 9 012 112 square kilometres.</strong></td>
<td><strong>The red maple leaf is one of Canada’s most important symbols.</strong></td>
</tr>
<tr>
<td><strong>Canada’s national anthem is “O Canada”.</strong></td>
<td><strong>The Royal Canadian Mounted Police are Canada’s national police force.</strong></td>
<td><strong>The largest province in Canada in population is Ontario.</strong></td>
</tr>
<tr>
<td>The province with the smallest population is Prince Edward Island.</td>
<td>The largest province in area is Quebec.</td>
<td>The smallest province in area is Prince Edward Island.</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>Canada’s first prime minister was John A. Macdonald.</td>
<td>The national animal of Canada is the beaver.</td>
<td>A Canadian, Alexander Graham Bell, invented the telephone.</td>
</tr>
<tr>
<td>Eighty percent of Canadians live in urban areas (towns and cities with populations greater than 10 000).</td>
<td>Twenty percent of Canadians live in rural areas (towns and cities with populations less than 10 000).</td>
<td>The capital city of Canada is Ottawa.</td>
</tr>
<tr>
<td>Montreal is the second-largest French-speaking city in the world.</td>
<td>The sport of hockey was invented in Canada.</td>
<td>The sport of basketball was invented in Canada by James Naismith.</td>
</tr>
<tr>
<td>The highest mountain in Canada is Mount Logan in the Yukon Territory.</td>
<td>Canada’s Lake Superior is the world’s second largest lake.</td>
<td>The longest river in Canada is the Mackenzie River.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Canada’s largest city is Toronto.</td>
<td>Canada’s closest neighbouring country is the United States.</td>
<td>When Canada first became a nation, it had only four provinces.</td>
</tr>
<tr>
<td>Canada’s system of government is called a democracy.</td>
<td>More than 95% of Canadians can read and write.</td>
<td>The name of Canada’s prime minister is Stephen Harper.</td>
</tr>
<tr>
<td>Alberta became one of Canada’s provinces in the year 1905.</td>
<td>A large furry animal called the bison used to live in the prairies. Today there are very few of these animals alive in the world.</td>
<td>Canada is the largest country in area in North America.</td>
</tr>
</tbody>
</table>
### Facts About Canada

**Directions:** Find the answers to these questions.

<table>
<thead>
<tr>
<th>Question</th>
<th>Question</th>
<th>Question</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the capital city of Canada?</td>
<td>How many oceans border Canada?</td>
<td>What is the name of Canada’s prime minister?</td>
<td>Which Canadian province has the smallest population?</td>
</tr>
<tr>
<td>On what date did Canada officially become a country?</td>
<td>What country is Canada’s closest neighbour?</td>
<td>Which Canadian province is largest in area?</td>
<td>What is Canada’s national anthem?</td>
</tr>
<tr>
<td>What is Canada’s longest river?</td>
<td>Which Canadian province has the smallest area?</td>
<td>How many provinces are there in Canada?</td>
<td>What percent of Canadians know how to read and write.</td>
</tr>
<tr>
<td>What was the name of Canada’s first prime minister?</td>
<td>What is Canada’s area?</td>
<td>What is the name of Canada’s largest city?</td>
<td>What percent of Canadians live in urban areas?</td>
</tr>
<tr>
<td>How many territories are there in Canada?</td>
<td>What is Canada’s system of government called?</td>
<td>Which two sports were invented in Canada?</td>
<td>What was Canada’s population in 2001?</td>
</tr>
<tr>
<td>In what year did Alberta become a province of Canada?</td>
<td>What is the name of the national animal of Canada?</td>
<td>What are Canada’s two official languages?</td>
<td>What is the name of Canada’s highest mountain.</td>
</tr>
<tr>
<td>What is the name of the world’s second-largest French-speaking city?</td>
<td>What is Canada’s most important symbol?</td>
<td>What is the name of the furry animal that once lived all over the prairies?</td>
<td>Which Canadian invented the telephone?</td>
</tr>
<tr>
<td>Who are the Royal Canadian Mounted Police?</td>
<td>What percent of Canadians live in rural areas?</td>
<td>Canada is the second largest country in the world. What is the largest?</td>
<td>How many provinces were there when Canada first became a country?</td>
</tr>
</tbody>
</table>

4AI Worksheet #3d
### Facts About Canada

Directions: Find the answers to these questions.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer 1</th>
<th>Answer 2</th>
<th>Answer 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the capital city of Canada?</td>
<td>Ottawa</td>
<td>three</td>
<td>Stephen Harper</td>
</tr>
<tr>
<td>On what date did Canada officially become a country?</td>
<td>1867</td>
<td>United States</td>
<td>Quebec</td>
</tr>
<tr>
<td>What is Canada's longest river?</td>
<td>Mackenzie River</td>
<td>Quebec</td>
<td>Prince Edward Island</td>
</tr>
<tr>
<td>What was the name of Canada's first prime minister?</td>
<td>John A. Macdonald</td>
<td>9,012,112 km²</td>
<td>Toronto</td>
</tr>
<tr>
<td>How many territories are there in Canada?</td>
<td>three</td>
<td>democracy</td>
<td>basketball hockey</td>
</tr>
<tr>
<td>In what year did Alberta become a province of Canada?</td>
<td>1905</td>
<td>basketball hockey</td>
<td>Mount Logan</td>
</tr>
<tr>
<td>What is the name of the world's second-largest French-speaking city?</td>
<td>Montreal</td>
<td>beaver</td>
<td>Alexander Graham Bell</td>
</tr>
<tr>
<td>Who are the Royal Canadian Mounted Police?</td>
<td>Canada's national police force</td>
<td>red maple leaf</td>
<td>four</td>
</tr>
<tr>
<td>Which Canadian province has the smallest population?</td>
<td>Prince Edward Island</td>
<td>How many provinces are there in Canada?</td>
<td>ten</td>
</tr>
<tr>
<td>Which Canadian province is largest in area?</td>
<td>Quebec</td>
<td>What is the name of Canada's largest city?</td>
<td>Toronto</td>
</tr>
<tr>
<td>What is Canada's area?</td>
<td>9,012,112 km²</td>
<td>Which two sports were invented in Canada?</td>
<td>basketball hockey</td>
</tr>
<tr>
<td>What is the name of the national animal of Canada?</td>
<td>beaver</td>
<td>French, English</td>
<td>Mount Logan</td>
</tr>
<tr>
<td>What is Canada's most important symbol?</td>
<td>red maple leaf</td>
<td>What is the name of the furry animal that once lived all over the prairies?</td>
<td>20%</td>
</tr>
<tr>
<td>Which Canadian invented the telephone?</td>
<td>Alexander Graham Bell</td>
<td>Russia</td>
<td></td>
</tr>
</tbody>
</table>
Facts About Canada

Directions: Fill in the blanks with the correct words.

1. Canada has ________________ provinces.

2. Alberta became a province in the year ________________.

3. Alexander Graham Bell was a Canadian who invented the ________________.

4. Canada officially became a country on ________________.

5. More than ________________ percent of Canadians know how to read and write.

6. ________________ is the world’s second-largest French-speaking country.

7. Canada’s population in 2001 was ________________.

8. The name of Canada’s prime minister is ________________.

9. The name of Canada’s capital city is ________________.

10. The name of Canada’s most important symbol is ________________.

11. The name of Canada’s largest city is ________________.

12. ________________ percent of Canadians live in rural areas.

13. Canada has ________________ territories.

14. The longest river in Canada is the ________________.

15. The province with the smallest population is ________________.

16. The province with the smallest area is ________________.

17. Canada is bordered by ________________ of the world’s four oceans.

18. The highest mountain in Canada is ________________.

19. The national animal of Canada is the ________________.

20. The two official languages of Canada are ________________ and ________________.

21. When Canada first became a country, it has ________________ provinces.

22. Canada’s first prime minister was ________________.
23. The province with the largest population in Canada is ____________________.

24. Canada’s national anthem is ____________________________.

25. Canada’s closest neighbouring country is ____________________________.

26. The largest province in area in Canada is ____________________________.

27. The area of Canada is ____________________________ square kilometres.

28. The ______________________ is a big furry animal that once lived on the prairies in great numbers.

29. The sport of ______________________ was invented by James Naismith.

30. Canada is the second largest country in area in the world. ______________________ is the largest.

31. The sport of ______________________, played on ice, was invented in Canada.

32. The ____________________________ is Canada’s national police force.
Facts About Canada

Directions: Fill in the blanks with the correct words.

1. Canada has ten provinces.

2. Alberta became a province in the year 1905.

3. Alexander Graham Bell was a Canadian who invented the telephone.

4. Canada officially became a country on July 1, 1867.

5. More than 95% percent of Canadians know how to read and write.

6. Montreal is the world's second-largest French-speaking city.

7. Canada's population in 2001 was 30,007,094.

8. The name of Canada's prime minister is Stephen Harper.

9. The name of Canada's capital city is Ottawa.

10. The name of Canada's most important symbol is the red maple leaf.

11. The name of Canada's largest city is Toronto.

12. Twenty percent of Canadians live in rural areas.

13. Canada has three territories.

14. The longest river in Canada is the Mackenzie River.

15. The province with the smallest population is Prince Edward Island.

16. The province with the smallest area is Prince Edward Island.

17. Canada is bordered by three of the world's four oceans.

18. The highest mountain in Canada is Mount Logan.

19. The national animal of Canada is the beaver.

20. The two official languages of Canada are English and French.

21. When Canada first became a country, it had four provinces.

22. Canada's first prime minister was John A. Macdonald.
23. The province with the largest population in Canada is **Ontario**.

24. Canada’s national anthem is **O Canada**.

25. Canada’s closest neighbouring country is **United States**.

26. The largest province in area in Canada is **Quebec**.

27. The area of Canada is **9,017,112** square kilometres.

28. The **beaver** is a big furry animal that once lived on the prairies in great numbers.

29. The sport of **basketball** was invented by James Naismith.

30. Canada is the second largest country in area in the world. **Russia** is the largest.

31. The sport of **hockey**, played on ice, was invented in Canada.

32. The **Royal Canadian Mounted Police** is Canada’s national police force.
Lesson Four

Concept: the provinces and territories

Materials: wall map of Canada
atlas
outline map of Canada’s provinces and territories.
Worksheet #4 (transparency – optional)

Introduction: Have students tell you as many facts about Canada as they can remember. Tell them that we will not examine the ten provinces and three territories in detail.

Procedure:

1. Use the wall map to point out all ten provinces and three territories. Then go over them again, this time with students pointing them out in their atlases.

2. Make notes for students to copy (may use Worksheet #4, if desired):

   Canada’s Provinces and Territories

   1. Provinces

   British Columbia
   Alberta
   Saskatchewan
   Manitoba
   Ontario
   Quebec
   New Brunswick
   Nova Scotia
   Prince Edward Island
   Newfoundland and Labrador

   2. Territories

   Yukon Territory
   Northwest Territories
   Nunavut

3. Distribute the outline maps of Canada’s provinces and territories. Have students label and colour the map.

Assignment: Label and colour the provinces and territories
Canada’s Provinces and Territories

1. Provinces

British Columbia
Alberta
Saskatchewan
Manitoba
Ontario
Quebec
New Brunswick
Nova Scotia
Prince Edward Island
Newfoundland and Labrador

2. Territories

Yukon Territory
Northwest Territories
Nunavut
Lesson Five

Concept: provincial and territorial capitals and postal abbreviations

Materials: wall map of Canada’s provinces and territories
         Atlases
         Worksheet #5 (transparency and student copies)
         Outline map of Canada – capital cities. (student copies)

Introduction: Use the wall map to review the names and locations of the provinces and territories. Review also that the capital city of Canada is Ottawa. The capital city is where the representatives of all parts of the country get together to make the laws of the country. Just a country has a capital city, so do each of the provinces and territories. We will discuss this today.

Procedure:

1. Tell students that we often use abbreviations instead of writing out the complete names of the provinces and territories. In some cases there are a few different ways to abbreviate the names. The important thing is that an abbreviation must be short, but also it cannot be confused with the abbreviation of another place.

2. Use the wall map to point out the capitals of all the provinces and territories.

3. Distribute the atlases. Review the capitals again, this time having students locate them on a map of Canada.

4. Distribute Worksheet #6. With students fill out the capitals and the postal codes.

5. Distribute the outline maps of Canada. Tell students to label the provinces, territories, and their capitals.

Assignment:

Label the provinces, territories, and their capitals on an outline map of Canada
## Canada’s Provinces and Territories

### Capital Cities and Postal Abbreviations

<table>
<thead>
<tr>
<th>Province/Territory</th>
<th>Capital City</th>
<th>Postal Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>British Columbia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manitoba</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Brunswick</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nova Scotia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northwest Territories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nunavut</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ontario</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quebec</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saskatchewan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yukon Territory</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4AI Worksheet #6
# Canada’s Provinces and Territories

## Capital Cities and Postal Abbreviations

<table>
<thead>
<tr>
<th>Province/Territory</th>
<th>Capital City</th>
<th>Postal Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta</td>
<td>Edmonton</td>
<td>AB</td>
</tr>
<tr>
<td>British Columbia</td>
<td>Victoria</td>
<td>BC</td>
</tr>
<tr>
<td>Manitoba</td>
<td>Winnipeg</td>
<td>MB</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>Fredericton</td>
<td>NB</td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td>St. John’s</td>
<td>NF</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>Halifax</td>
<td>NS</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>Yellowknife</td>
<td>NT</td>
</tr>
<tr>
<td>Nunavut</td>
<td>Iqaluit</td>
<td>NU</td>
</tr>
<tr>
<td>Ontario</td>
<td>Toronto</td>
<td>ON</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>Charlottetown</td>
<td>PE</td>
</tr>
<tr>
<td>Quebec</td>
<td>Quebec</td>
<td>QC or PQ</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>Regina</td>
<td>SK</td>
</tr>
<tr>
<td>Yukon Territory</td>
<td>Whitehorse</td>
<td>YT</td>
</tr>
</tbody>
</table>
Lesson Six

Concept: the provinces and territories: population and area

Materials: wall map of Canada
           Worksheets #7a, #7c (transparencies and student copies)
           Worksheets #7b, #7d (student copies)

Introduction: Review the meanings of the words population and area. Tell students that today they will do some work involving population and area.

Procedure:

1. Show students the wall map of Canada. Ask them if they can tell which province is the largest, smallest, etc. Do the same with the territories. Conclude that you can determine roughly the relative sizes of provinces and territories using a map.

2. Using the wall map have students tell you the province with the third largest population. Conclude that most maps will not be able to give you this information. For this you must rely on tables, charts, and graphs.

3. Put up Worksheet #7a. After showing students how it is laid out, have them answer question orally about the information.

4. Tell students that when you want to compare things, often a graph is better. Put up Worksheet #7c. Show them how the bar graph works. Point out that when you are dealing with such large numbers, a bar graph cannot specifically tell, for example, the population of a Alberta.

5. Point out also that the y-axis shows only some of the numbers. When a bar’s length is between two numbered lines, students must interpolate.

6. Next point out the pie chart (or circle graph). Note that it does not tell the number of people living in each province or territory, but the percent of the people. The total population would be 100%. Practice reading the pie chart. Note that percents can be added. Also note that one-half is 50%, one-quarter is 25% and three-quarters is 75%.

7. Distribute Worksheet #7b and #7d.

Assignment:

Do Worksheets #7b and #7d.
## Canada’s Provinces and Territories

### Population and Area

<table>
<thead>
<tr>
<th>Province/Territory</th>
<th>Population</th>
<th>Area</th>
<th>Population Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta</td>
<td>2,974,807</td>
<td>639,987</td>
<td>4.6</td>
</tr>
<tr>
<td>British Columbia</td>
<td>3,907,738</td>
<td>926,492</td>
<td>4.2</td>
</tr>
<tr>
<td>Manitoba</td>
<td>1,119,583</td>
<td>551,938</td>
<td>2.0</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>729,498</td>
<td>71,356</td>
<td>10.2</td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td>512,930</td>
<td>370,501</td>
<td>1.4</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>908,007</td>
<td>52,917</td>
<td>17.2</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>37,360</td>
<td>1,141,108</td>
<td>0.0</td>
</tr>
<tr>
<td>Nunavut</td>
<td>26,745</td>
<td>1,925,460</td>
<td>0.0</td>
</tr>
<tr>
<td>Ontario</td>
<td>11,410,046</td>
<td>907,656</td>
<td>12.6</td>
</tr>
<tr>
<td>Quebec</td>
<td>7,237,479</td>
<td>1,357,743</td>
<td>5.3</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>135,294</td>
<td>5,684</td>
<td>23.6</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>978,933</td>
<td>586,561</td>
<td>1.7</td>
</tr>
<tr>
<td>Yukon Territory</td>
<td>28,674</td>
<td>474,707</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>CANADA</strong></td>
<td><strong>30,007,094</strong></td>
<td><strong>9,012,112</strong></td>
<td><strong>3.3</strong></td>
</tr>
</tbody>
</table>
Canada’s Population and Area

Directions: Use the table to answer the questions.

1. What is the population of Canada? ________________________________

2. Which province has the largest area? ______________________________

3. Which province has the second largest area? ________________________

4. Which province has the smallest population? ________________________

5. Which territory is the largest in area?

6. Write the names of the provinces in order of their population starting with the smallest.
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________

7. Write the names of the territories in order of their population starting with the smallest.
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________

8. Write the names of the provinces in order of their area starting with the largest.
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________

9. Write the names of the territories in order of their area starting with the largest.
   ________________________________________________________________
   ________________________________________________________________
Canada’s Population and Area

Directions: Use the table to answer the questions.

1. What is the population of Canada? 9,012,112

2. Which province has the largest area? Quebec

3. Which province has the second largest area? British Columbia

4. Which province has the smallest population? Prince Edward Island

5. Which territory is the largest in area? Nunavut

6. Write the names of the provinces in order of their population starting with the smallest.
   Prince Edward Island, Newfoundland and Labrador, New Brunswick, Nova Scotia, Saskatchewan, Manitoba, Alberta, British Columbia, Quebec, Ontario

7. Write the names of the territories in order of their population starting with the smallest.
   Nunavut, Yukon Territory, Northwest Territories

8. Write the names of the provinces in order of their area starting with the largest.
   Quebec, British Columbia, Ontario, Alberta, Saskatchewan, Manitoba, Newfoundland and Labrador, New Brunswick, Nova Scotia, Prince Edward Island.

9. Write the names of the territories in order of their area starting with the largest.
   Nunavut, Northwest Territories, Yukon Territory
Canada's Population

Examine these graphs showing the population of the provinces.
Canada’s Population

Directions: Use the graphs on the populations of the provinces and territories to answer these questions.

1. What is the province with the second largest population? ________________________________

2. Which province is home to about 4,000,000 people? ________________________________

3. Which province has a population of about 3,000,000? ________________________________

4. Which province has a population of about 7,000,000? ________________________________

5. Look at the bar graph. Why do you think no bar is actually showing for the populations of the Northwest Territories, Nunavut, and the Yukon Territory?
   _____________________________________________
   _____________________________________________

6. What percent of the people in Canada live in Saskatchewan? __________________________

7. What percent of the people in Canada live in Alberta? ________________________________

Answer true or false.

8. About one-quarter of the people live in Quebec and Prince Edward Island. _________

9. About one-quarter of the people live in Saskatchewan, Alberta, and British Columbia. _________

10. The Atlantic Provinces – Newfoundland and Labrador, New Brunswick, Nova Scotia, and Prince Edward Island – make up more than ten percent of Canada’s population. _________

11. The Prairie Provinces – Alberta, Saskatchewan, and Manitoba – together make up what percent of the total population of Canada? _________

12. The provinces of Ontario and Quebec are known as Central Canada. Together what percent of the population of Canada do they make? _________
Canada’s Population

Directions: Use the graphs on the populations of the provinces and territories to answer these questions.

1. What is the province with the second largest population? Quebec

2. Which province is home to about 4 000 000 people? British Columbia

3. Which province has a population of about 3 000 000? Alberta

4. Which province has a population of about 7 000 000? Quebec

5. Look at the bar graph. Why do you think no bar is actually showing for the populations of the Northwest Territories, Nunavut, and the Yukon Territory?
   - populations are so small

6. What percent of the people in Canada live in Saskatchewan? 3% 

7. What percent of the people in Canada live in Alberta? 10% 

Answer true or false.

8. About one-quarter of the people live in Quebec and Prince Edward Island. true

9. About one-quarter of the people live in Saskatchewan, Alberta, and British Columbia. true

10. The Atlantic Provinces – Newfoundland and Labrador, New Brunswick, Nova Scotia, and Prince Edward Island – make up more that ten percent of Canada’s population. false

11. The Prairie Provinces – Alberta, Saskatchewan, and Manitoba – together make up what percent of the total population of Canada?
   17%

12. The provinces of Ontario and Quebec are known as Central Canada. Together what percent of the population of Canada do they make?
   63%
Lesson Seven

Concept: Research on the provinces and territories.

Materials: summary of facts about each province and territory
          Provincial and territorial crests or flags
          Provincial and territorial flowers
          Worksheet #8a - #8g (already made into booklets)
          Pictures and encyclopedia articles showing colours of crest and flowers
          Flags of the provinces and territories.

Introduction: Review with students some of the many facts they have learned about the provinces and territories. Tell them they will be making a booklet that contains information about provinces and territories.

Procedure:

1. Distribute the facts sheets about the provinces and territories. Show them which facts are current and which facts they will have to get from their notes.

2. Show students how to complete each page.

Assignment:

Make booklet on the provinces and territories.
<table>
<thead>
<tr>
<th>Province/Region</th>
<th>Population</th>
<th>Area</th>
<th>Capital</th>
<th>Flower</th>
<th>Major Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Columbia</td>
<td>3,907,738</td>
<td>926 sq. km</td>
<td>Victoria</td>
<td>Pacific Dogwood</td>
<td>Manufacturing, Mining, Forestry, Fishing, Tourism</td>
</tr>
<tr>
<td>Alberta</td>
<td>2,974,807</td>
<td>639 sq. km</td>
<td>Edmonton</td>
<td>Wild Rose</td>
<td>Mining, Agriculture, Manufacturing, Oil and Gas, Tourism</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>978,933</td>
<td>586 sq. km</td>
<td>Regina</td>
<td>Western Red Lily</td>
<td>Mining, Agriculture, Manufacturing, Oil, Tourism</td>
</tr>
<tr>
<td>Manitoba</td>
<td>1,119,583</td>
<td>551 sq. km</td>
<td>Winnipeg</td>
<td>Prairie Crocus</td>
<td>Mining, Agriculture, Manufacturing, Tourism</td>
</tr>
<tr>
<td>Ontario</td>
<td>11,410,046</td>
<td>907 sq. km</td>
<td>Toronto</td>
<td>White Trillium</td>
<td>Mining, Manufacturing, Agriculture, Commerce, Tourism</td>
</tr>
<tr>
<td>Quebec</td>
<td>7,237,479</td>
<td>1,357 sq. km</td>
<td>Quebec</td>
<td>Fleur-de-lis</td>
<td>Mining, Manufacturing, Agriculture, Forestry, Tourism</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>729,498</td>
<td>71 sq. km</td>
<td>Fredericton</td>
<td>Purple Violet</td>
<td>Mining, Agriculture, Manufacturing, Forestry, Tourism</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>908,007</td>
<td>52 sq. km</td>
<td>Halifax</td>
<td>Mayflower</td>
<td>Fishing, Manufacturing, Agriculture, Tourism</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>135,294</td>
<td>5 sq. km</td>
<td>Charlottetown</td>
<td>Lady's Slipper</td>
<td>Fishing, Agriculture, Manufacturing, Tourism</td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td>512,930</td>
<td>37 sq. km</td>
<td>St. John's</td>
<td>Pitcher Plant</td>
<td>Fishing, Mining, Manufacturing, Tourism</td>
</tr>
<tr>
<td>Yukon Territory</td>
<td>28,674</td>
<td>477 sq. km</td>
<td>Whitehorse</td>
<td>Fireweed</td>
<td>Mining, Transportation, Tourism</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>37,360</td>
<td>1,141 sq. km</td>
<td>Yellowknife</td>
<td>Mountain Avens</td>
<td>Mining, Agriculture, Hunting and Trapping, Oil and Gas</td>
</tr>
<tr>
<td>Nunavut</td>
<td>26,745</td>
<td>1,925 sq. km</td>
<td>Iqaluit</td>
<td></td>
<td>Hunting and Trapping, Oil and Gas, Tourism, Arts and Crafts</td>
</tr>
<tr>
<td>Canada</td>
<td>30,007,094</td>
<td>9,012 sq. km</td>
<td>Ottawa</td>
<td>Maple Leaf</td>
<td>Mining, Agriculture, Manufacturing, Tourism</td>
</tr>
</tbody>
</table>
CANADA
Provinces and Territories

British Columbia

Capital City

Population

Area

Provincial Flower

Major Industries
Alberta

Capital City ________________

Population ________________

Area ________________

Provincial Flower ________________

Major Industries ____________________________________________

Saskatchewan

Capital City ________________

Population ________________

Area ________________

Provincial Flower ________________

Major Industries ____________________________________________
Quebec

Capital City ____________________________
Population ____________________________
Area _________________________________
Provincial Flower ________________________

Major Industries ________________________


New Brunswick

Capital City ____________________________
Population ____________________________
Area _________________________________
Provincial Flower ________________________

Major Industries ________________________


Newfoundland and Labrador

Capital City ____________
Population ____________
Area ________________
Provincial Flower __________

Major Industries ______________________
____________________________________
____________________________________

Yukon Territory

Capital City _______________
Population ______________
Area _________________
Provincial Flower __________

Major Industries ______________________
____________________________________
____________________________________
Northwest Territories

Capital City
Population
Area
Provincial Flower

Major Industries

Nunavut

Capital City
Population
Area
Provincial Flower

Major Industries
Lesson Eight

Concept: Using latitude to determine absolute location

Materials: globe
Wall map of world
Worksheet: Using Latitude to Find Position
Worksheets #9a and #9b

Introduction: Ask students to describe where a particular person or object is in the classroom. They will most likely say he/she is beside or behind some other person or object. This is called relative location; that is, the direction and distance one place is in relation to another.

Sometimes we need a more exact description. For example, how do airline pilots and sailors know where they are at any particular time and how do they know the exact locations of their destinations? For that we use absolute location.

Procedure:

1. Using the wall map and the globe, show students how the earth is divided into two hemispheres: the northern hemisphere and the southern hemisphere. There is an imaginary line called the equator that we use as the dividing line.

2. Using the wall map and the globe, point out that the earth can be divided into two hemispheres another way. (Point out the Prime Meridian and the International Dateline.) These are called the Western Hemisphere and the Eastern Hemisphere.

3. Absolute location describes where a place is in terms of how far a place is north or south of the equator and east or west of the prime meridian.

4. The unit of measure used to determine location is the degree (not to be confused with the degrees used to measure temperature).

5. Latitude is the “distance north or south of the equator” The lines of latitude run east and west. (point out on globe and wall map)

6. Lines of latitude are also called “parallels”. Discuss why.

7. Distribute copies of the worksheet “Using Latitude to Find Position”. Point out the Equator and note that it is numbered 0.

8. Do the worksheet “Using Latitude to Find Position” with the students.

Assignment: Worksheets #9a and #9b
Using Latitude to Find Position

Latitude lines, or parallels of latitude, are imaginary lines running east-west around the earth. They are like parallel circles drawn around the globe and are measured in degrees **north** or **south** of the equator. The equator is 0 degrees.

If a globe is unrolled into a map, the lines of latitude might look like the lines on this map. Notice that the distances at the North and South Poles seem to be as wide as the equator. On this kind of map, only the north-south distances are correct.

1. These eight cities are at different latitudes. Put the name of each city in its correct place on the map.
   Cairo, Egypt – 30° North
   Leningrad, U.S.S.R. – 60° N
   Miami, U.S.A. – 25° N
   Ottawa, Canada – 45° N
   Peking, China – 40° N
   Quito, Ecuador – 0°
   Santiago, Chile – 35° S
   Sydney, Australia – 34° S

2. The city nearest the equator is ____________________.

3. The city farthest north is ____________________.

4. The city closest to the South Pole is ____________________.

5. The two cities that are at almost the same latitude are ____________________ and ____________________. 
Using Latitude to Find Position

Latitude lines, or parallels of latitude, are imaginary lines running east-west around the earth. They are like parallel circles drawn around the globe and are measured in degrees north or south of the equator. The equator is 0 degrees.

If a globe is unrolled into a map, the lines of latitude might look like the lines on this map. Notice that the distances at the North and South Poles seem to be as wide as the equator. On this kind of map, only the north-south distances are correct.

1. These eight cities are at different latitudes. Put the name of each city in its correct place on the map.
   Cairo, Egypt – 30° North
   Leningrad, U.S.S.R. – 60° N
   Miami, U.S.A. – 25° N
   Ottawa, Canada – 45° N
   Peking, China – 40° N
   Quito, Ecuador – 0°
   Santiago, Chile – 35° S
   Sydney, Australia – 34° S

2. The city nearest the equator is ____________.
3. The city farthest north is ____________.
4. The city closest to the South Pole is ____________.
5. The two cities that are at almost the same latitude are ____________ and ____________.
Finding Latitude

**Directions:** Use the map of Horizonland to do the following exercises.

Which cities would you find at these latitudes?

40°N __________________ and ____________________

70°N __________________

30°N __________________, ____________________, ___________________

10°N __________________ and ____________________

65°N __________________

25°N __________________

32°N __________________

Find the latitudes of these cities.

Midland Point ________________ River Road ________________

Fairlane ________________ Cameronville ________________

Port Lomond ________________

Lake Enchant is between 53°N and ________________

The Bluegrass River starts just south of Pyne Hills at ________________
Finding Latitude

Directions: Use the map of Horizonland to do the following exercises.

Which cities would you find at these latitudes?

40°N  Port Armada and Delco Heights
70°N  Kingsland
30°N  Evergreen Point, Prairie Home, Ryne Hills
10°N  Miltowburg and Oaklane Bay
65°N  Sunnysite
25°N  Hillridge
32°N  Elmspring City

Find the latitudes of these cities.

Midland Point  50° N  River Road  50° N
Fairlane  75° N  Cameronville  15° N
Port Lomond  55° N
Lake Enchant is between 53° N and 65° N

The Bluegrass River starts just south of Pyne Hills at 28° N
Lesson Nine

Concept: Using longitude to determine absolute location

Materials: globe
          Wall map of world
          Worksheets: Recognizing Longitude Lines
                      Using Longitude to Find Position
                      Worksheets #10a and #10b

Introduction: Review the terms relative location, absolute location, and latitude. (Also review the locations of the equator, prime meridian, and international date line.)

Tell students that in order for us to be exact about location, we must not only know latitude (how far north or south from the equator), but we must also know how far east or west from the Prime Meridian.

Procedure:

1. Tell students that the longitude is the distance east or west of the prime meridian. The lines of longitude run north and south from the North Pole to the South Pole. Unlike most measurements a degree of longitude varies in length depending on how far north or south you are from the equator (the farther away from the equator, the smaller a degree of longitude).

2. On the globe and on the wall map point out the Prime Meridian, the International Dateline, and the lines of longitude. Note how the lines of longitude get closer together as they get farther from the equator.

3. Tell students that lines of longitude are also referred to as meridians.

4. With students go through the worksheets “Recognizing Longitude Lines” and “Using Longitude to Find Position”.

Assignment: Worksheets #10a and #10b
Recognizing Longitude Lines

The equator divides the globe into two halves—northern and southern hemispheres. Another line also divides the globe into two equal parts or hemispheres—eastern and western. This line of longitude is called the Prime Meridian. Prime means first or beginning.

All other lines of longitude are measured in degrees east or west of the Prime Meridian. Lines of longitude are like half-circles drawn around the globe that come together at the North and South Poles.

1. Which globe shows this, A or B?
2. Which globe shows the position of the Prime Meridian? __________
3. Lines of longitude are also called __________

The Origin of the Prime Meridian

As new lands and oceans were discovered, it became more important for explorers to know their exact position. Navigators had found ways to determine their position north or south of the equator. However, they had difficulty establishing lines from which to measure east-west distances. They needed these lines to give them a cross-reference for charting their position and course more accurately. Different countries established longitude lines to measure east-west distance, but could not agree on a common point to begin their measurement.

Finally, in 1759, an English inventor named John Harrison developed the marine chronometer. This instrument gave ship's navigators the exact time from which to calculate their position east or west of a certain point. Because his laboratory was in Greenwich, at that time a suburb of London, a base line was drawn to pass through Greenwich, England. The exact spot marking of this Prime Meridian was a brass strip set in paving and was marked zero degrees longitude.

Since 1884, most countries have agreed to measure time from this line of longitude. To-day, the world's time zones are based on Greenwich Mean (or Standard) Time. The time is kept accurate by six atomic clocks that lose no more than one second each 4000 years! From its radio signals, ships and other moving objects around the world can check their exact east-west position.
Recognizing Longitude Lines

The equator divides the globe into two halves—northern and southern hemispheres. Another line also divides the globe into two equal parts or hemispheres—eastern and western. This line of longitude is called the Prime Meridian. Prime means first or beginning.

All other lines of longitude are measured in degrees east or west of the Prime Meridian. Lines of longitude are like half-circles drawn around the globe that come together at the North and South Poles.

1. Which globe shows this, A or B?
2. Which globe shows the position of the Prime Meridian? B
3. Lines of longitude are also called

The Origin of the Prime Meridian

As new lands and oceans were discovered, it became more important for explorers to know their exact position. Navigators had found ways to determine their position north or south of the equator. However, they had difficulty establishing lines from which to measure east-west distances. They needed these lines to give them a cross-reference for charting their position and course more accurately. Different countries established longitude lines to measure east-west distance, but could not agree on a common point to begin their measurement.

Finally, in 1759, an English inventor named John Harrison developed the marine chronometer. This instrument gave ship's navigators the exact time from which to calculate their position east or west of a certain point. Because his laboratory was in Greenwich, at that time a suburb of London, a base line was drawn to pass through Greenwich, England. The exact spot marking of this Prime Meridian was a brass strip set in paving and was marked zero degrees longitude. Since 1884, most countries have agreed to measure time from this line of longitude. Today, the world's time zones are based on Greenwich Mean (or Standard) Time. The time is kept accurate by six atomic clocks that lose no more than one second each 4000 years! From its radio signals, ships and other moving objects around the world can check their exact east-west position.
Using Longitude to Find Position

A globe can be divided into segments or degrees. These segments, or lines of longitude, are used to measure distance east or west of the Prime Meridian. The Prime Meridian is an imaginary line, marked 0 degrees, that passes both geographical poles through Greenwich, England.

1. If a globe is unrolled into a map, the lines of longitude might look like those on this map. In what way are the longitude lines on this map different from those on a globe?

2. Show on the map the position of the Prime Meridian.

3. These eight cities are at various lines of longitude. Put the name of each city in its correct place on the map.

   Adelaide, Australia – 140° East
   London, England – 0°
   Miami, U.S.A. – 80° W
   Madras, India – 80° E
   Ottawa, Canada – 75° W
   Santiago, Chile – 70° W
   Tokyo, Japan – 140° E
   Vancouver, B.C. – 123° W

4. The city located on the Prime Meridian is ____________________.

5. The city farthest west of the Prime Meridian is ____________________.

6. The two cities that are on the same longitude line are ____________________ and ____________________.
Using Longitude to Find Position

A globe can be divided into segments or degrees. These segments, or lines of longitude, are used to measure distance east or west of the Prime Meridian. The Prime Meridian is an imaginary line, marked 0 degrees, that passes both geographical poles through Greenwich, England.

1. If a globe is unrolled into a map, the lines of longitude might look like those on this map. In what way are the longitude lines on this map different from those on a globe?

   on map longitudes lines are parallel to each other.

2. Show on the map the position of the Prime Meridian.

3. These eight cities are at various lines of longitude. Put the name of each city in its correct place on the map.

   Adelaide, Australia – 140° East
   London, England – 0°
   Miami, U.S.A. – 80° W
   Madras, India – 80° E
   Ottawa, Canada – 75° W
   Santiago, Chile – 70° W
   Tokyo, Japan – 140° E
   Vancouver, B.C. – 123° W

4. The city located on the Prime Meridian is London or Greenwich.

5. The city farthest west of the Prime Meridian is Vancouver.

6. The two cities that are on the same longitude line are

   Adelaide and Tokyo.
Finding Longitude

Directions: Use the map of Horizonland to do the following exercises.

Which cities would you find at these longitudes?

130°W __________________________ and __________________________

100°W __________________________ and __________________________

140°W __________________________

95°W __________________________

115°W __________________________

At which longitudes would you find these cities?

Evergreen Point _______________ Fairlane __________________________

Port Lomond _______________ Cameronville __________________________

Elmspring City _______________ Pyne Hills __________________________

Prairie Home _______________ Delco Heights __________________________

River Road __________________

The Bluegrass River drains into Lake Enchant at about _______________.

Lake Enchant is located between 97°W and _______________.
Finding Longitude

**Directions:** Use the map of Horizonland to do the following exercises.

Which cities would you find at these longitudes?

- 130°W **Kingsland** and **Miltowburg**
- 100°W **Sunnysite** and **Hillridge**
- 140°W **Midland Point**
- 95°W **Oaklane Bay**
- 115°W **Port Armada**

At which longitudes would you find these cities?

- Evergreen Point **120°W**
- Fairlane **110°W**
- Port Lomond **136°W**
- Cameronville **118°W**
- Elmspring City **125°W**
- Pyne Hills **92°W**
- Prairie Home **108°W**
- Delco Heights **98°W**
- River Road **92°W**

The Bluegrass River drains into Lake Enchant at about **97°W**.

Lake Enchant is located between **97°W** and **117°W**.
Lesson Ten

Concept: Using latitude and longitude to determine absolute location

Materials: globe
          Wall map of world
          Worksheet: “Using a Map Grid to Determine Position”

Introduction: Review the terms absolute location, latitude, and longitude. (also degree, equator, prime meridian, parallels, meridians)

When a place’s location is described in terms of latitude and longitude, it is called absolute location.

Procedure:

1. On the wall map choose any city. With the students determine its absolute location.
   
   Points to remember:
   - When stating the absolute location of a place, latitude is given first, followed by longitude
   - A description of latitude includes distance from the equator in degrees as well as the direction (north or south)
   - A description of longitude includes distance from the prime meridian in degrees as well as the direction (east or west)

2. Distribute the worksheet “Using a Map Grid to Determine Position”. Discuss that this is a map of Canada. On the world map point out Canada and then emphasize that the map on the worksheet is showing just one part of that shown on the world map.

3. Point out the lines of latitude and longitude on the Canada map. Discuss how the cardinal directions that label the latitude and longitude give clues as to where abouts this land is in the world. That is, the lines of latitude are all labeled “N” and the numbers get larger the farther north you go. This means that the land is north of the equator. Similarly this land must be in the western hemisphere because the lines of longitude are labeled “W” and the numbers get larger as you go west.

Assignment:

Do Worksheet “Using a Map to Determine Position”.
Latitude lines give the position of a place in degrees north or south of the equator. Longitude lines give the position of a place in degrees east or west of the Prime Meridian.

When lines of latitude and lines of longitude are placed together, they form a network of lines or grid. Using such a map grid, it is possible to find the position of any place on the earth's surface. On some map projections, the grid lines are curved like the earth's surface, for greater accuracy.

Use the map grid to complete this chart:

<table>
<thead>
<tr>
<th>Place</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>83° N</td>
<td>63° W</td>
</tr>
<tr>
<td>Halifax</td>
<td></td>
<td>63° W</td>
</tr>
<tr>
<td>Ottawa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prince Rupert</td>
<td>54° N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>48° N</td>
<td>53° W</td>
</tr>
<tr>
<td>Vancouver</td>
<td>62° N</td>
<td>114° W</td>
</tr>
<tr>
<td></td>
<td>61° N</td>
<td>135° W</td>
</tr>
<tr>
<td></td>
<td>42° N</td>
<td>83° W</td>
</tr>
<tr>
<td>Winnipeg</td>
<td></td>
<td>97° W</td>
</tr>
</tbody>
</table>
Latitude lines give the position of a place in degrees north or south of the equator. Longitude lines give the position of a place in degrees east or west of the Prime Meridian.

When lines of latitude and lines of longitude are placed together, they form a network of lines or grid. Using such a map grid, it is possible to find the position of any place on the earth’s surface. On some map projections, the grid lines are curved like the earth’s surface, for greater accuracy.

Use the map grid to complete this chart:

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<thead>
<tr>
<th>Place</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alert</td>
<td>83° N</td>
<td>63° W</td>
</tr>
<tr>
<td>Halifax</td>
<td>44° N</td>
<td>63° W</td>
</tr>
<tr>
<td>Ottawa</td>
<td>45° N</td>
<td>77° W</td>
</tr>
<tr>
<td>Prince Rupert</td>
<td>54° N</td>
<td>130° W</td>
</tr>
<tr>
<td>St. John’s</td>
<td>48° N</td>
<td>53° W</td>
</tr>
<tr>
<td>Vancouver</td>
<td>49° N</td>
<td>123° W</td>
</tr>
<tr>
<td>Yellowknife</td>
<td>62° N</td>
<td>114° W</td>
</tr>
<tr>
<td>Whitehorse</td>
<td>61° N</td>
<td>135° W</td>
</tr>
<tr>
<td>Windsor</td>
<td>42° N</td>
<td>83° W</td>
</tr>
<tr>
<td>Winnipeg</td>
<td>50° N</td>
<td>97° W</td>
</tr>
</tbody>
</table>
1. On the map of the world label:
   - The seven continents
   - The four oceans

2. On the map of North America label:
   - Canada
   - United States
   - Mexico
   - Pacific Ocean
   - Atlantic Ocean
   - Arctic Ocean
   - Hudson Bay
   - James Bay
   - Baffin Bay
   - Hudson Strait
   - Beaufort Sea
   - Gulf of Alaska
   - Gulf of St. Lawrence
   - Gulf of Mexico
   - Caribbean Sea

3. On the map of Canada label:
   - Ottawa
   - The ten provinces and their capital cities
   - The three territories and their capital cities

4. Define these terms:
   a. continent
   b. ocean

5. Name the six countries of Central America.
6. What are Canada’s two official languages? ________________________________

7. About what percent of Canada’s population lives in urban areas? ________________

8. About what percent of Canada’s population lives in rural areas? __________________

9. What is Canada’s most important symbol? ________________________________

10. Fill in the chart below.

<table>
<thead>
<tr>
<th>Province/Territory</th>
<th>Capital City</th>
<th>Postal Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Columbia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alberta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saskatchewan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manitoba</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ontario</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quebec</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Brunswick</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nova Scotia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yukon Territory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northwest Territories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nunavut</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Use the chart below to answer the questions 11 - 25.

<table>
<thead>
<tr>
<th>Province/Territory</th>
<th>Population</th>
<th>Area</th>
<th>Population Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta</td>
<td>2,974,807</td>
<td>639,987</td>
<td>4.6</td>
</tr>
<tr>
<td>British Columbia</td>
<td>3,907,738</td>
<td>926,492</td>
<td>4.2</td>
</tr>
<tr>
<td>Manitoba</td>
<td>1,119,583</td>
<td>551,938</td>
<td>2.0</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>729,498</td>
<td>71,356</td>
<td>10.2</td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td>512,930</td>
<td>370,501</td>
<td>1.4</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>908,007</td>
<td>52,917</td>
<td>17.2</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>37,360</td>
<td>1,141,108</td>
<td>0.0</td>
</tr>
<tr>
<td>Nunavut</td>
<td>26,745</td>
<td>1,925,460</td>
<td>0.0</td>
</tr>
<tr>
<td>Ontario</td>
<td>11,410,046</td>
<td>907,656</td>
<td>12.6</td>
</tr>
<tr>
<td>Quebec</td>
<td>7,237,479</td>
<td>1,357,743</td>
<td>5.3</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>135,294</td>
<td>5,684</td>
<td>23.6</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>978,933</td>
<td>586,561</td>
<td>1.7</td>
</tr>
<tr>
<td>Yukon Territory</td>
<td>28,674</td>
<td>474,707</td>
<td>0.1</td>
</tr>
<tr>
<td>CANADA</td>
<td>30,007,094</td>
<td>9,012,112</td>
<td>3.3</td>
</tr>
</tbody>
</table>

11. Which province has the largest population?

12. Which province has the third largest population?

13. Which province has the smallest population?

14. Which province has about three million people?

15. Of the three territories which has the greatest population?

16. Which province is smallest in area?

17. Which province is second largest in area?

18. Which territory is largest in area?

19. Which province has the greatest population density?

20. Which province has the least population density?

21. Which territory has the greatest population density?
22. You can tell from the chart that

- most people in Canada live in the provinces of Ontario and Quebec.
- most people in Canada live on the prairies.
- most people in Canada live in the Atlantic Provinces.
- most people in Canada live in the three territories.

23. You can tell from the chart that

- no provinces have populations over one million.
- half the provinces have populations over one million.
- only one province has a population over one million.
- all provinces have populations over one million.

24. You can tell from the chart that

- no one likes to live in Nunavut because it is too cold.
- the province with the smallest area has the greatest population density.
- the province with the greatest population has the greatest population density.
- not many people live in Ontario.

25. From the chart you can tell that compared to the other provinces and territories

- the territories have large areas and large populations.
- the territories have large areas and high population densities.
- the territories have small areas and small populations.
- the territories have large areas and small populations.
Examine the graphs below; then answer questions 26 – 30.
26. From the bar graph you can tell that

- only four provinces have populations less than 2,000,000.
- Alberta, British Columbia, Ontario, and Quebec have the nicest climates.
- no one lives in Newfoundland and Labrador.
- only four provinces have populations greater than 2,000,000.

27. According to the bar graph

- British Columbia has nearly 5,000,000 people.
- Alberta has about 3,000,000 people.
- Manitoba has nearly 3,000,000 people.
- Saskatchewan is the province with the coldest winters.

28. According to the pie chart

- about one-quarter of Canada's population lives in Quebec.
- about one-half of Canada's population lives in Ontario.
- Nova Scotia is the province with the friendliest people.
- No one lives in Prince Edward Island.

29. According to the pie chart, together Saskatchewan, Alberta and British Columbia have about what part of Canada's population?

- one-third
- one-half
- one-quarter
- one-fifth

30. From the pie chart you can tell that

- the populations of the three territories has been growing steadily.
- the populations of the three territories is made up mostly of Inuit.
- the populations of the three territories is becoming less and less each year.
- the populations of the three territories is relatively small.

31. What is meant by relative location? ________________________________

32. What is meant by absolute location? ________________________________

33. Define latitude. ________________________________

34. Define longitude. ________________________________
Examine the map below. Then complete the chart.

<table>
<thead>
<tr>
<th>Place</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alert</td>
<td>83°N</td>
<td></td>
</tr>
<tr>
<td>Halifax</td>
<td>50°N</td>
<td>97°W</td>
</tr>
<tr>
<td></td>
<td>48°N</td>
<td>53°W</td>
</tr>
<tr>
<td>Vancouver</td>
<td>123°W</td>
<td></td>
</tr>
<tr>
<td>Ottawa</td>
<td>45°N</td>
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</table>
1. On the map of the world label:
   - The seven continents
   - The four oceans

2. On the map of North America label:
   - Canada
   - United States
   - Mexico
   - Pacific Ocean
   - Atlantic Ocean
   - Arctic Ocean
   - Hudson Bay
   - James Bay
   - Baffin Bay
   - Hudson Strait
   - Beaufort Sea
   - Gulf of Alaska
   - Gulf of St. Lawrence
   - Gulf of Mexico
   - Caribbean Sea

3. On the map of Canada label:
   - Ottawa
   - The ten provinces and their capital cities
   - The three territories and their capital cities

4. Define these terms:
   a. continent - large area of land, usually surrounded by salt water
   b. ocean - large body of salt water

5. Name the six countries of Central America. (any six)
   Nicaragua, Belize, Costa Rica, El Salvador, Honduras, Panama, Guatemala
6. What are Canada’s two official languages? **French, English**

7. About what percent of Canada’s population lives in urban areas? **80%**

8. About what percent of Canada’s population lives in rural areas? **20%**

9. What is Canada’s most important symbol? **Red maple leaf**

10. Fill in the chart below.

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<th>Postal Abbreviation</th>
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</tr>
<tr>
<td>Saskatchewan</td>
<td>Regina</td>
<td>SK</td>
</tr>
<tr>
<td>Manitoba</td>
<td>Winnipeg</td>
<td>MB</td>
</tr>
<tr>
<td>Ontario</td>
<td>Toronto</td>
<td>ON</td>
</tr>
<tr>
<td>Quebec</td>
<td>Quebec</td>
<td>PQ or QC</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>Fredericton</td>
<td>NB</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>Halifax</td>
<td>NS</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>Charlottetown</td>
<td>PE</td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td>St. John’s</td>
<td>NF</td>
</tr>
<tr>
<td>Yukon Territory</td>
<td>Whitehorse</td>
<td>YT</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>Yellowknife</td>
<td>NT</td>
</tr>
<tr>
<td>Nunavut</td>
<td>Iqaluit</td>
<td>NU</td>
</tr>
</tbody>
</table>
Use the chart below to answer the questions 11 – 25.

<table>
<thead>
<tr>
<th>Province/Territory</th>
<th>Population</th>
<th>Area</th>
<th>Population Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta</td>
<td>2,974,807</td>
<td>639,987</td>
<td>4.6</td>
</tr>
<tr>
<td>British Columbia</td>
<td>3,907,738</td>
<td>926,492</td>
<td>4.2</td>
</tr>
<tr>
<td>Manitoba</td>
<td>1,119,583</td>
<td>551,938</td>
<td>2.0</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>729,498</td>
<td>71,356</td>
<td>10.2</td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td>512,930</td>
<td>370,501</td>
<td>1.4</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>908,007</td>
<td>52,917</td>
<td>17.2</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>37,360</td>
<td>1,141,108</td>
<td>0.0</td>
</tr>
<tr>
<td>Nunavut</td>
<td>26,745</td>
<td>1,925,460</td>
<td>0.0</td>
</tr>
<tr>
<td>Ontario</td>
<td>11,410,046</td>
<td>907,656</td>
<td>12.6</td>
</tr>
<tr>
<td>Quebec</td>
<td>7,237,479</td>
<td>1,357,743</td>
<td>5.3</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>135,294</td>
<td>5,684</td>
<td>23.6</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>978,933</td>
<td>586,561</td>
<td>1.7</td>
</tr>
<tr>
<td>Yukon Territory</td>
<td>28,674</td>
<td>474,707</td>
<td>0.1</td>
</tr>
<tr>
<td>CANADA</td>
<td>30,007,094</td>
<td>9,012,112</td>
<td>3.3</td>
</tr>
</tbody>
</table>

11. Which province has the largest population? **Ontario**

12. Which province has the third largest population? **British Columbia**

13. Which province has the smallest population? **Prince Edward Island**

14. Which province has about three million people? **Alberta**

15. Of the three territories which has the greatest population? **Northwest Territories**

16. Which province is smallest in area? **Prince Edward Island**

17. Which province is second largest in area? **British Columbia**

18. Which territory is largest in area? **Nunavut**

19. Which province has the greatest population density? **Prince Edward Island**

20. Which province has the least population density? **Newfoundland and Labrador**

21. Which territory has the greatest population density? **Yukon Territory**
22. You can tell from the chart that
- most people in Canada live in the provinces of Ontario and Quebec.
- most people in Canada live on the prairies.
- most people in Canada live in the Atlantic Provinces.
- most people in Canada live in the three territories.

23. You can tell from the chart that
- no provinces have populations over one million.
- half the provinces have populations over one million.
- only one province has a population over one million.
- all provinces have populations over one million.

24. You can tell from the chart that
- no one likes to live in Nunavut because it is too cold.
- the province with the smallest area has the greatest population density.
- the province with the greatest population has the greatest population density.
- not many people live in Ontario.

25. From the chart you can tell that compared to the other provinces and territories
- the territories have large areas and large populations.
- the territories have large areas and high population densities.
- the territories have small areas and small populations.
- the territories have large areas and small populations.
Examine the graphs below; then answer questions 26 – 30.
26. From the bar graph you can tell that

- only four provinces have populations less than 2,000,000.
- Alberta, British Columbia, Ontario, and Quebec have the nicest climates.
- no one lives in Newfoundland and Labrador.
- only four provinces have populations greater than 2,000,000.

27. According to the bar graph

- British Columbia has nearly 5,000,000 people.
- Alberta has about 3,000,000 people.
- Manitoba has nearly 3,000,000 people.
- Saskatchewan is the province with the coldest winters.

28. According to the pie chart

- about one-quarter of Canada’s population lives in Quebec.
- about one-half of Canada’s population lives in Ontario.
- Nova Scotia is the province with the friendliest people.
- No one lives in Prince Edward Island.

29. According to the pie chart, together Saskatchewan, Alberta and British Columbia have about what part of Canada’s population?

- one-third
- one-half
- **one-quarter**
- one-fifth

30. From the pie chart you can tell that

- the populations of the three territories has been growing steadily.
- the populations of the three territories is made up mostly of Inuit.
- the populations of the three territories is becoming less and less each year.
- the populations of the three territories is relatively small.

31. What is meant by relative location? **where a place is located compared to another place**

32. What is meant by absolute location? **where a place is located in terms of latitude and longitude**

33. Define latitude. **distance north or south from the equator**

34. Define longitude. **distance east or west from the prime meridian**
Examine the map below. Then complete the chart.

(accept with 1° or 2° either way)

<table>
<thead>
<tr>
<th>Place</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alert</td>
<td>83°N</td>
<td>65°W</td>
</tr>
<tr>
<td>Halifax</td>
<td>45°N</td>
<td>63°W</td>
</tr>
<tr>
<td>Winnipeg</td>
<td>50°N</td>
<td>97°W</td>
</tr>
<tr>
<td>St. John’s</td>
<td>48°N</td>
<td>53°W</td>
</tr>
<tr>
<td>Vancouver</td>
<td>50°N</td>
<td>123°W</td>
</tr>
<tr>
<td>Ottawa</td>
<td>45°N</td>
<td>77°W</td>
</tr>
</tbody>
</table>
1. Label the following continents and oceans on the map of the world.
   - North America
   - South America
   - Europe
   - Asia
   - Africa
   - Australia
   - Antarctica
   - Pacific Ocean
   - Atlantic Ocean
   - Arctic Ocean
   - Indian Ocean

2. On the map of North America label the following:
   - Canada
   - United States
   - Mexico
   - Hudson Bay
   - James Bay
   - Gulf of St. Lawrence
   - Gulf of Alaska
   - Beaufort Sea
   - Gulf of Mexico
   - Caribbean Sea

3. On the map of Canada label the following provinces, territories, and capitals:
   - British Columbia
   - Ontario
   - Quebec
   - Saskatchewan
   - Alberta
   - Prince Edward Island
   - Nova Scotia
   - New Brunswick
   - Newfoundland and Labrador
   - Manitoba
   - Nunavut
   - Northwest Territories
   - Yukon Territory
   - Regina
   - Winnipeg
   - Charlottetown
   - Whitehorse
   - Yellowknife
o Edmonton
o Toronto
o Quebec
o Fredericton
o Regina
o St. John’s
o Iqaluit
o Victoria
o Ottawa

4. Define these terms:

continent

ocean

5. Fill in the blanks with the words from the box.

<table>
<thead>
<tr>
<th>Ottawa</th>
<th>ten</th>
<th>eighty</th>
<th>four</th>
<th>Stephen Harper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sir John A. Macdonald</td>
<td>democracy</td>
<td>Mackenzie</td>
<td>red maple leaf</td>
<td></td>
</tr>
<tr>
<td>French province</td>
<td>English</td>
<td>country</td>
<td>basketball</td>
<td></td>
</tr>
</tbody>
</table>

a. About __________ percent of Canadians live in urban areas.
b. The name of our prime minister is ________________________________.
c. When Canada first became a country it had __________ provinces.
d. The name of our first prime minister was __________________________.
e. About __________ percent of Canadians live in rural areas.
f. The most important symbol of Canada is ________________________.
g. Canada’s system of government is called a ________________________.
h. The longest river in Canada is called the __________________________ River.
i. The sport of __________________________ was invented by a Canadian, James Naismith.
j. The name of our province is __________________________.
k. Our two official languages are ______________________ and ______________________.
l. Canada is the name of our __________________________.
m. The capital city of our country is __________________________.
6. After each province or territory write its postal abbreviation.

<table>
<thead>
<tr>
<th>Province/Territory</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Columbia</td>
<td>Nova Scotia</td>
</tr>
<tr>
<td>Alberta</td>
<td>Prince Edward Island</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>Newfoundland and Labrador</td>
</tr>
<tr>
<td>Manitoba</td>
<td>Nunavut</td>
</tr>
<tr>
<td>Ontario</td>
<td>Northwest Territories</td>
</tr>
<tr>
<td>Quebec</td>
<td>Yukon Territory</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>----------------------</td>
</tr>
</tbody>
</table>

Use the table below the answer questions 7 – 13.

**Canada’s Provinces and Territories**

**Population and Area**

<table>
<thead>
<tr>
<th>Province/ Territory</th>
<th>Population</th>
<th>Area</th>
<th>Population Density (per sq. km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta</td>
<td>2,974,807</td>
<td>639,987</td>
<td>4.6</td>
</tr>
<tr>
<td>British Columbia</td>
<td>3,907,738</td>
<td>926,492</td>
<td>4.2</td>
</tr>
<tr>
<td>Manitoba</td>
<td>1,119,583</td>
<td>551,938</td>
<td>2.0</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>729,498</td>
<td>71,356</td>
<td>10.2</td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td>512,930</td>
<td>370,501</td>
<td>1.4</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>908,007</td>
<td>52,917</td>
<td>17.2</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>37,360</td>
<td>1,141,083</td>
<td>0.0</td>
</tr>
<tr>
<td>Nunavut</td>
<td>26,745</td>
<td>1,925,460</td>
<td>0.0</td>
</tr>
<tr>
<td>Ontario</td>
<td>11,410,046</td>
<td>907,656</td>
<td>12.6</td>
</tr>
<tr>
<td>Quebec</td>
<td>7,237,479</td>
<td>1,357,743</td>
<td>5.3</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>135,294</td>
<td>5,684</td>
<td>23.6</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>978,933</td>
<td>586,561</td>
<td>1.7</td>
</tr>
<tr>
<td>Yukon Territory</td>
<td>28,674</td>
<td>474,707</td>
<td>0.1</td>
</tr>
<tr>
<td>CANADA</td>
<td>30,007,094</td>
<td>9,012,112</td>
<td>3.3</td>
</tr>
</tbody>
</table>
7. The two provinces with the **largest** populations are
   - Ontario and British Columbia.
   - Quebec and Northwest Territories.
   - Nunavut and Quebec.
   - Ontario and Quebec.

8. The three provinces with the **smallest** area are
   - Yukon Territory, Prince Edward Island, Nova Scotia.
   - New Brunswick, Nova Scotia, Prince Edward Island.
   - Alberta, Saskatchewan, Manitoba.
   - Prince Edward Island, Saskatchewan, Nova Scotia.

9. According to the table which of the following is true about the three territories?
   - Nunavut has the smallest population, but the largest area.
   - Northwest Territories has the smallest population, the largest area.
   - Yukon has the smallest population, but the largest area.
   - Compared to the provinces, the territories have small areas.

10. The province that has the greatest number of people per square kilometre of land is
    - Nova Scotia.
    - Prince Edward Island.
    - New Brunswick.
    - Ontario

11. From the table you can tell that
    - all of Canada's provinces have over one million people.
    - none of Canada's provinces have over one million people.
    - half of Canada's provinces have over one million people.
    - Most of Canada's provinces have over one million people.

12. From the table you can tell that
    - most people in Canada live in Nunavut and Quebec.
    - most people in Canada live in Ontario and British Columbia.
    - most people in Canada live in Ontario and Quebec.
    - most people in Canada live in urban areas.

13. From the table you can tell that
    - no one wants to live in the three territories because it is too cold.
    - the three territories have large populations compared to the provinces.
    - the province with the smallest population has the highest population density.
    - people like to live in Saskatchewan.
Use the graphs to answer questions 14 – 18.
14. According to the bar graph

- four provinces have populations greater than 2,000,000.
- two provinces have populations greater than 2,000,000.
- five provinces have populations greater than 2,000,000.
- no provinces have populations greater than 2,000,000.

15. You can tell from the bar graph that

- Ontario's citizens enjoy the best lifestyle.
- More people move to Quebec than any other province.
- Alberta and British Columbia are the fastest growing provinces.
- Relatively few people live in the three territories.

16. The province that has a population of about three million is

- British Columbia.
- Saskatchewan.
- Manitoba.
- Alberta.

17. By looking at the pie chart you can tell that about one-quarter of Canada's people live in

- the provinces of Saskatchewan, Alberta, and British Columbia.
- the provinces of Quebec and Ontario.
- the provinces of New Brunswick, Ontario, and Prince Edward Island.
- the provinces of Alberta, Saskatchewan, and Manitoba.

18. The three provinces with the smallest populations are

- Nunavut, Northwest Territories, and Yukon.
- Prince Edward Island, Nova Scotia, and Newfoundland and Labrador.
- Prince Edward Island, Newfoundland and Labrador, and New Brunswick.
- Prince Edward Island, Nunavut, and Northwest Territories.
<table>
<thead>
<tr>
<th>Province</th>
<th>Population</th>
<th>Area</th>
<th>Capital</th>
<th>Flower</th>
<th>Major Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRITISH COLUMBIA</td>
<td>3,907,738</td>
<td>926,492 sq. km</td>
<td>Victoria</td>
<td>Pacific Dogwood</td>
<td>Manufacturing, Mining, Forestry, Fishing, Tourism</td>
</tr>
<tr>
<td>ALBERTA</td>
<td>2,974,807</td>
<td>639,987 sq. km</td>
<td>Edmonton</td>
<td>Wild Rose</td>
<td>Mining, Agriculture, Manufacturing, Oil and Gas, Tourism</td>
</tr>
<tr>
<td>SASKATCHEWAN</td>
<td>978,933</td>
<td>386,561 sq. km</td>
<td>Regina</td>
<td>Western Red Lily</td>
<td>Mining, Agriculture, Manufacturing, Oil, Tourism</td>
</tr>
<tr>
<td>MANITOBA</td>
<td>1,119,583</td>
<td>551,938 sq. km</td>
<td>Winnipeg</td>
<td>Prairie Crocus</td>
<td>Mining, Agriculture, Manufacturing, Tourism</td>
</tr>
<tr>
<td>ONTARIO</td>
<td>11,410,046</td>
<td>907,656 sq. km</td>
<td>Toronto</td>
<td>White Trillium</td>
<td>Mining, Manufacturing, Agriculture, Commerce, Tourism</td>
</tr>
<tr>
<td>QUEBEC</td>
<td>7,237,479</td>
<td>1,357,743 sq. km</td>
<td>Quebec</td>
<td>Fleur-de-lis</td>
<td>Mining, Manufacturing, Agriculture, Forestry, Tourism</td>
</tr>
<tr>
<td>NEW BRUNSWICK</td>
<td>729,498</td>
<td>71,356 sq. km</td>
<td>Fredericton</td>
<td>Purple Violet</td>
<td>Mining, Manufacturing, Forestry, Tourism</td>
</tr>
<tr>
<td>NOVA SCOTIA</td>
<td>908,007</td>
<td>52,917 sq. km</td>
<td>Halifax</td>
<td>Mayflower</td>
<td>Fishing, Agriculture, Manufacturing, Tourism</td>
</tr>
<tr>
<td>PRINCE EDWARD ISL</td>
<td>135,294</td>
<td>5,684 sq. km</td>
<td>Charlottetown</td>
<td>Lady's Slipper</td>
<td>Fishing, Agriculture, Manufacturing, Tourism</td>
</tr>
<tr>
<td>NEWFOUNDLAND &amp; LABRADOR</td>
<td>512,930</td>
<td>370,501 sq. km</td>
<td>St. John's</td>
<td>Pitcher Plant</td>
<td>Fishing, Mining, Manufacturing, Tourism</td>
</tr>
<tr>
<td>YUKON TERRITORY</td>
<td>28,674</td>
<td>474,707 sq. km</td>
<td>Whitehorse</td>
<td>Fireweed</td>
<td>Mining, Transportation, Tourism</td>
</tr>
<tr>
<td>NORTHWEST TERRITORIES</td>
<td>37,360</td>
<td>1,141,108 sq. km</td>
<td>Yellowknife</td>
<td>Mountain Avens</td>
<td>Mining, Agriculture, Hunting and Trapping, Oil and Gas</td>
</tr>
<tr>
<td>NUNAVUT</td>
<td>26,745</td>
<td>1,925,460 sq. km</td>
<td>Iqaluit</td>
<td></td>
<td>Hunting and Trapping, Oil and Gas, Tourism, Arts and Crafts</td>
</tr>
<tr>
<td>CANADA</td>
<td>30,007,094</td>
<td>9,012,112 sq. km</td>
<td>Ottawa</td>
<td>Maple Leaf</td>
<td></td>
</tr>
</tbody>
</table>
19. The mayflower is the provincial flower of

- Saskatchewan.
- Nova Scotia.
- Northwest Territories.
- Alberta.

20. Oil and gas are important industries in

- Alberta, Northwest Territories, and Prince Edward Island.
- Saskatchewan, Alberta, and Nova Scotia.
- Ontario, Alberta, and Quebec.
- Alberta, Northwest Territories, and Nunavut.

21. Agriculture is **not** a major industry in

- British Columbia.
- Prince Edward Island.
- Alberta.
- Ontario.

22. Mining, but **not** manufacturing is a major industry in

- Newfoundland and Labrador.
- Ontario.
- Yukon Territory.
- Alberta.

23. Think about the provinces that border Pacific or Atlantic Oceans. From the chart you can infer that

- everyone in Canada loves to eat seafood.
- ship building is a major industry in provinces that border oceans.
- fishing is a major industry in most provinces.
- fishing is a major industry in most provinces that border oceans.

24. From the information in the chart you can tell that

- tourism is an important industry in most provinces and territories.
- tourism is not an important industry in most provinces and territories.
- tourism gives jobs to more people than any other industry.
- tourism provides twice as many jobs as agriculture.
25. Use the map below to complete the table.

<table>
<thead>
<tr>
<th>City</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winnipeg</td>
<td></td>
<td>97°W</td>
</tr>
<tr>
<td>Whitehorse</td>
<td>62°N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>48°N</td>
<td>53°W</td>
</tr>
<tr>
<td>Vancouver</td>
<td></td>
<td>123°W</td>
</tr>
<tr>
<td>Yellowknife</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Map showing locations of Winnipeg, Whitehorse, Vancouver, and Yellowknife with their respective coordinates.]
1. Label the following continents and oceans on the map of the world:
   - North America
   - South America
   - Europe
   - Asia
   - Africa
   - Australia
   - Antarctica
   - Pacific Ocean
   - Atlantic Ocean
   - Arctic Ocean
   - Indian Ocean

2. On the map of North America label the following:
   - Canada
   - United States
   - Mexico
   - Hudson Bay
   - James Bay
   - Gulf of St. Lawrence
   - Gulf of Alaska
   - Beaufort Sea
   - Gulf of Mexico
   - Caribbean Sea

3. On the map of Canada label the following provinces, territories, and capitals:
   - British Columbia
   - Ontario
   - Quebec
   - Saskatchewan
   - Alberta
   - Prince Edward Island
   - Nova Scotia
   - New Brunswick
   - Newfoundland and Labrador
   - Manitoba
   - Nunavut
   - Northwest Territories
   - Yukon Territory
   - Regina
   - Winnipeg
   - Charlottetown
   - Whitehorse
   - Yellowknife
Edmonton
- Toronto
- Quebec
- Fredericton
- Regina
- St. John's
- Iqaluit
- Victoria
- Ottawa

4. Define these terms:
   continent - large area of land, usually surrounded by salt water
   ocean - large body of salt water

5. Fill in the blanks with the words from the box.

<table>
<thead>
<tr>
<th>Ottawa</th>
<th>ten</th>
<th>eighty</th>
<th>four</th>
<th>Stephen Harper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sir John A. Macdonald</td>
<td>province</td>
<td>democracy</td>
<td>Mackenzie</td>
<td>red maple leaf</td>
</tr>
<tr>
<td>French</td>
<td></td>
<td>English</td>
<td>country</td>
<td>basketball</td>
</tr>
</tbody>
</table>

   a. About _eighty_ percent of Canadians live in urban areas.
   b. The name of our prime minister is _Stephen Harper_.
   c. When Canada first became a country it had _four_ provinces.
   d. The name of our first prime minister was _Sir John A. Macdonald_.
   e. About _twenty_ percent of Canadians live in rural areas.
   f. The most important symbol of Canada is _red maple leaf_.
   g. Canada’s system of government is called a _democracy_.
   h. The longest river in Canada is called the _Mackenzie_ River.
   i. The sport of _basketball_ was invented by a Canadian, James Naismith.
   j. The name of our province is _Alberta_.
   k. Our two official languages are _French_ and _English_.
   l. Canada is the name of our _country_.
   m. The capital city of our country is _Ottawa_.

6. After each province or territory write its postal abbreviation.

<table>
<thead>
<tr>
<th>Province/Territory</th>
<th>Abbreviation</th>
<th>Province/Territory</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Columbia</td>
<td>BC</td>
<td>Nova Scotia</td>
<td>NS</td>
</tr>
<tr>
<td>Alberta</td>
<td>AB</td>
<td>Prince Edward Island</td>
<td>PE</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>SK</td>
<td>Newfoundland and Labrador</td>
<td>NF</td>
</tr>
<tr>
<td>Manitoba</td>
<td>MB</td>
<td>Nunavut</td>
<td>NU</td>
</tr>
<tr>
<td>Ontario</td>
<td>ON</td>
<td>Northwest Territories</td>
<td>NT</td>
</tr>
<tr>
<td>Quebec</td>
<td>PQ or QC</td>
<td>Yukon Territory</td>
<td>YT</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>NB</td>
<td>------------------------</td>
<td>--------------</td>
</tr>
</tbody>
</table>

*Use the table below the answer questions 7 – 13.*

**Canada's Provinces and Territories**  
**Population and Area**

<table>
<thead>
<tr>
<th>Province/ Territory</th>
<th>Population</th>
<th>Area</th>
<th>Population Density (per sq. km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta</td>
<td>2,974,807</td>
<td>639,987</td>
<td>4.6</td>
</tr>
<tr>
<td>British Columbia</td>
<td>3,907,738</td>
<td>926,492</td>
<td>4.2</td>
</tr>
<tr>
<td>Manitoba</td>
<td>1,119,583</td>
<td>551,938</td>
<td>2.0</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>729,498</td>
<td>71,356</td>
<td>10.2</td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td>512,930</td>
<td>370,501</td>
<td>1.4</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>908,007</td>
<td>52,917</td>
<td>17.2</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>37,360</td>
<td>1,141,108</td>
<td>0.0</td>
</tr>
<tr>
<td>Nunavut</td>
<td>26,745</td>
<td>1,925,460</td>
<td>0.0</td>
</tr>
<tr>
<td>Ontario</td>
<td>11,410,046</td>
<td>907,656</td>
<td>12.6</td>
</tr>
<tr>
<td>Quebec</td>
<td>7,237,479</td>
<td>1,357,743</td>
<td>5.3</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>135,294</td>
<td>5,684</td>
<td>23.6</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>978,933</td>
<td>586,561</td>
<td>1.7</td>
</tr>
<tr>
<td>Yukon Territory</td>
<td>28,674</td>
<td>474,707</td>
<td>0.1</td>
</tr>
<tr>
<td>CANADA</td>
<td>30,007,094</td>
<td>9,012,112</td>
<td>3.3</td>
</tr>
</tbody>
</table>
7. The two provinces with the largest populations are
   - Ontario and British Columbia.
   - Quebec and Northwest Territories.
   - Nunavut and Quebec.
   - Ontario and Quebec.

8. The three provinces with the smallest area are
   - Yukon Territory, Prince Edward Island, Nova Scotia.
   - New Brunswick, Nova Scotia, Prince Edward Island.
   - Alberta, Saskatchewan, Manitoba.
   - Prince Edward Island, Saskatchewan, Nova Scotia.

9. According to the table which of the following is true about the three territories?
   - Nunavut has the smallest population, but the largest area.
   - Northwest Territories has the smallest population, the largest area.
   - Yukon has the smallest population, but the largest area.
   - Compared to the provinces, the territories have small areas.

10. The province that has the greatest number of people per square kilometre of land is
    - Nova Scotia.
    - Prince Edward Island.
    - New Brunswick.
    - Ontario.

11. From the table you can tell that
    - all of Canada’s provinces have over one million people.
    - none of Canada’s provinces have over one million people.
    - half of Canada’s provinces have over one million people.
    - Most of Canada’s provinces have over one million people.

12. From the table you can tell that
    - most people in Canada live in Nunavut and Quebec.
    - most people in Canada live in Ontario and British Columbia.
    - people live in urban areas.

13. From the table you can tell that
    - no one wants to live in the three territories because it is too cold.
    - the three territories have large populations compared to the provinces.
    - the province with the smallest population has the highest population density.
    - people like to live in Saskatchewan.
Use the graphs to answer questions 14 – 18.
14. According to the bar graph

- Four provinces have populations greater than 2,000,000.
- Two provinces have populations greater than 2,000,000.
- Five provinces have populations greater than 2,000,000.
- No provinces have populations greater than 2,000,000.

15. You can tell from the bar graph that

- Ontario’s citizens enjoy the best lifestyle.
- More people move to Quebec than any other province.
- Alberta and British Columbia are the fastest growing provinces.
- Relatively few people live in the three territories.

16. The province that has a population of about three million is

- British Columbia.
- Saskatchewan.
- Manitoba.
- Alberta.

17. By looking at the pie chart you can tell that about one-quarter of Canada’s people live in

- the provinces of Saskatchewan, Alberta, and British Columbia.
- the provinces of Quebec and Ontario.
- the provinces of New Brunswick, Ontario, and Prince Edward Island.
- the provinces of Alberta, Saskatchewan, and Manitoba.

18. The three provinces with the smallest populations are

- Nunavut, Northwest Territories, and Yukon.
- Prince Edward Island, Nova Scotia, and Newfoundland and Labrador.
- Prince Edward Island, Newfoundland and Labrador, and New Brunswick.
- Prince Edward Island, Nunavut, and Northwest Territories.
<table>
<thead>
<tr>
<th>Province</th>
<th>Population</th>
<th>Area</th>
<th>Capital</th>
<th>Flower</th>
<th>Major Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Columbia</td>
<td>3,907,738</td>
<td>926,492 sq. km</td>
<td>Victoria</td>
<td>Pacific Dogwood</td>
<td>Manufacturing, Mining, Forestry, Fishing, Tourism</td>
</tr>
<tr>
<td>Alberta</td>
<td>2,974,807</td>
<td>639,877 sq. km</td>
<td>Edmonton</td>
<td>Wild Rose</td>
<td>Mining, Agriculture, Manufacturing, Oil and Gas, Tourism</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>978,933</td>
<td>586,561 sq. km</td>
<td>Regina</td>
<td>Western Red Lily</td>
<td>Mining, Agriculture, Manufacturing, Oil, Tourism</td>
</tr>
<tr>
<td>Manitoba</td>
<td>1,119,583</td>
<td>551,938 sq. km</td>
<td>Winnipeg</td>
<td>Prairie Crocus</td>
<td>Mining, Agriculture, Manufacturing, Forestry, Tourism</td>
</tr>
<tr>
<td>Ontario</td>
<td>11,410,046</td>
<td>907,656 sq. km</td>
<td>Toronto</td>
<td>White Trillium</td>
<td>Mining, Manufacturing, Agriculture, Commerce, Tourism</td>
</tr>
<tr>
<td>Quebec</td>
<td>7,237,479</td>
<td>1,357,743 sq. km</td>
<td>Quebec</td>
<td>Fleur-de-lis</td>
<td>Mining, Manufacturing, Agriculture, Tourism</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>729,498</td>
<td>71,356 sq. km</td>
<td>Fredericton</td>
<td>Purple Violet</td>
<td>Mining, Manufacturing, Agriculture, Forestry, Tourism</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>908,007</td>
<td>52,917 sq. km</td>
<td>Halifax</td>
<td>Mayflower</td>
<td>Fishing, Agriculture, Manufacturing, Tourism</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>135,294</td>
<td>5,684 sq. km</td>
<td>Charlottetown</td>
<td>Lady's Slipper</td>
<td>Fishing, Agriculture, Manufacturing, Tourism</td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td>512,930</td>
<td>370,501 sq. km</td>
<td>St. John's</td>
<td>Pitcher Plant</td>
<td>Fishing, Mining, Manufacturing, Tourism</td>
</tr>
<tr>
<td>Yukon Territory</td>
<td>28,674</td>
<td>474,707 sq. km</td>
<td>Whitehorse</td>
<td>Fireweed</td>
<td>Mining, Transportation, Tourism</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>37,360</td>
<td>1,141,108 sq. km</td>
<td>Yellowknife</td>
<td>Mountain Avens</td>
<td>Mining, Agriculture, Hunting and Trapping, Oil and Gas</td>
</tr>
<tr>
<td>Nunavut</td>
<td>26,745</td>
<td>925,460 sq. km</td>
<td>Iqaluit</td>
<td></td>
<td>Hunting and Trapping, Oil and Gas, Tourism, Arts and Crafts</td>
</tr>
<tr>
<td>Canada</td>
<td>30,007,094</td>
<td>9,012,112 sq. km</td>
<td>Ottawa</td>
<td>Maple Leaf</td>
<td></td>
</tr>
</tbody>
</table>
19. The mayflower is the provincial flower of

- Saskatchewan.
- [X] Nova Scotia
- Northwest Territories.
- Alberta.

20. Oil and gas are important industries in

- Alberta, Northwest Territories, and Prince Edward Island.
- Saskatchewan, Alberta, and Nova Scotia.
- Ontario, Alberta, and Quebec.
- [X] Alberta, Northwest Territories, and Nunavut.

21. Agriculture is **not** a major industry in

- British Columbia.
- Prince Edward Island.
- Alberta.
- Ontario.

22. Mining, but **not** manufacturing is a major industry in

- Newfoundland and Labrador.
- Ontario.
- [X] Yukon Territory.
- Alberta.

23. Think about the provinces that border Pacific or Atlantic Oceans. From the chart you can infer that

- everyone in Canada loves to eat seafood.
- ship building is a major industry in provinces that border oceans.
- **fishing is a major industry in most provinces**
- fishing is a major industry in most provinces that border oceans.

24. From the information in the chart you can tell that

- **tourism is an important industry in most provinces and territories**
- tourism is not an important industry in most provinces and territories.
- tourism gives jobs to more people than any other industry.
- tourism provides twice as many jobs as agriculture.
25. Use the map below to complete the table.

(accept answers with 1° or 2°)

<table>
<thead>
<tr>
<th>City</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winnipeg</td>
<td>50°N</td>
<td>97°W</td>
</tr>
<tr>
<td>Whitehorse</td>
<td>62°N</td>
<td>135°W</td>
</tr>
<tr>
<td>St. John's</td>
<td>48°N</td>
<td>53°W</td>
</tr>
<tr>
<td>Vancouver</td>
<td>49°N</td>
<td>123°W</td>
</tr>
<tr>
<td>Yellowknife</td>
<td>62°N</td>
<td>114°W</td>
</tr>
</tbody>
</table>
Getting Started

Inquiry Focus

- How do the land and its natural resources affect quality of life for people in Alberta?
- How do stories, history, and culture give people in Alberta a sense of identity and belonging?
- How do people and events help to change Alberta over time?
## Social Studies
### Grade Four

## Getting Started

<table>
<thead>
<tr>
<th>Contents</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson One</td>
<td>Introducing the student resource</td>
</tr>
<tr>
<td>Lesson Two</td>
<td>Using the scale on a map</td>
</tr>
<tr>
<td>Lesson Three</td>
<td>Getting to know the text features</td>
</tr>
<tr>
<td>Lesson Four</td>
<td>The Process of Inquiry</td>
</tr>
<tr>
<td>Lesson Five</td>
<td>Directions on a Map</td>
</tr>
<tr>
<td>Lesson Six</td>
<td>Review</td>
</tr>
</tbody>
</table>
Lesson One

Concept: Introducing the student resource

Resources/Materials: Voices of Alberta, pages 1 - 3
Wall Map of Canada
Worksheet #4.GS.1 (student copies)

Introduction: Tell students you have a series of riddles for them. The first letters of the riddle answers will tell them about what they will be studying for the remainder of the school year. Present the following in order (or in random order, if you prefer). As the riddles are solved write the initial letters of the answers on the board in a vertical list.

- It is the name for all the letters in our language. (alphabet)
- It is an antonym for short. (long)
- It is the name of a farm building used to house animals. (barn)
- It is the name of the largest land animal. (elephant)
- It shows a list of ingredients and directions for making food. (recipe)
- It is the name for a three-sided figure. (triangle)
- It is the name of a fruit that is crisp and has seeds inside. (apple)

If you presented the riddles in the above order, have students determine that Alberta will be the subject of discussion in Social Studies. If you presented the riddles in random order, challenge students to unscramble the letters to determine what they will be studying in Social Studies.

On the wall map of Canada, point out Alberta.

Procedure:

1. Distribute the textbooks, giving students a few minutes to look through the book.

2. Direct students to the Contents page on pre-page v. Note that the first page of each chapter is written in blue.

3. Have students find “Getting Started”; then have them find page 1.

4. Guide the reading of pages 1 – 3. Note that the “Inquiring Minds” questions for this section are the general focus questions for the entire year. Students are not expected to be able to answer them at the end of this section.

5. Distribute Worksheet #4.GS.1. Tell students this is crest that is found on Alberta’s flag. A crest is symbol that represents a certain group of people or a place. Have them colour the crest, using crest on the flag on textbook, page 310 as a guide.

6. ALTERNATELY. Have students illustrate the poem “Alberta: Then and Now”, from textbook, page 1.

Assignments:

1. Read Voices of Alberta, page s1 – 3
2. Colour the crest of Worksheet #4.GS.1, using textbook, page 310 as a guide.
3. ALTERNATELY. Illustrate the poem “Alberta” Then and Now” (textbook, page 1)
ALBERTA
Lesson Two

Concept: Using the scale on a map.

Resources/Materials: Voices of Alberta, pages 4 and 5
Wall Map of Canada
Worksheets #4.GS.2a and #4.GS.2b (student copies)
Half sheets of paper for students

Introduction: Ask students to recall that the province we live in is Alberta. Have a volunteer point out Alberta on the wall map of Canada. If you like, note some of Alberta’s neighbouring provinces and territories.

Explain if students are to get the most out of their textbook, they need to know how it is organized.

Procedure:

1. Have students turn to textbook, pages 4 and 5. Explain that people have come from all over the world to live in Alberta. The children whose photographs appear on these pages represent the people of Alberta and will act as their guides as they study Alberta.

2. Guide the reading of textbook, pages 4 and 5. Explain to students how the scale on a map works. The scale allows us to estimate distances in real life from looking at a map.

3. Distribute the half sheets of paper. Direct students to line up the edge of their papers on the scale, making sure that the end of the paper is at the 0. Then have students make tick marks to delineate the 100, 200, and 300 km locations.

4. Guide students on using their paper to determine the approximate distances between cities on the map on textbook, page 4. Show them how to interpolate the distance between cities that say, fall between 200 and 300 km.

5. Finally, on their papers show students how to extend the scales on their papers to estimate the distance between places that are relatively far apart. (Place the 300 km mark on the 0 on the scale and from that determine the 400, 500, and 600 km marks. This can continue for 700, 800, and 900 km, and so on)

6. Distribute Worksheets #4.GS.2a and #4.GS.2b. Go over the directions, if necessary.

Assignments:

1. Read Voices of Alberta, pages 4 and 5.
2. Do Worksheets #4.GS.2a and #4.GS.2b.
The Province of Alberta

Directions: Use the map of The Province of Alberta to help you answer the questions.

Use the scale on the map to estimate the distances between these communities:

1. Lethbridge and Medicine Hat
2. Peace River and Fort McMurray
3. Oyen and Medicine Hat
4. Grande Prairie and Peace River
5. Camrose and Drumheller
6. Brooks and Calgary
7. St. Paul and Edmonton
8. Lethbridge and Calgary
9. Red Deer and Lac La Biche
10. Peace River and Edmonton
11. Fort Chipewyan and Fort McMurray
12. St. Paul and Lethbridge

Use the scale on the map to estimate

the width of Alberta at its widest point

the length of Alberta at its longest point

Worksheet #4.GS.2b
The Province of Alberta

Directions: Use the map of The Province of Alberta to help you answer the questions.

Use the scale on the map to estimate the distances between these communities:

1. Lethbridge and Medicine Hat _______
2. Peace River and Fort McMurray _______
3. Oyen and Medicine Hat _______
4. Grande Prairie and Peace River _______
5. Camrose and Drumheller _______
6. Brooks and Calgary _______
7. St. Paul and Edmonton _______
8. Lethbridge and Calgary _______
9. Red Deer and Lac La Biche _______
10. Peace River and Edmonton _______
11. Fort Chipewyan and Fort McMurray _______
12. St. Paul and Lethbridge _______

Use the scale on the map to estimate

the width of Alberta at its widest point _______

the length of Alberta at its longest point _______
Lesson Three

Concept: Getting to Know the Text Features

Resources/Materials: Voices of Alberta, page 6
Worksheets #4.GS.3a and #4.GS.3b (student copies)

Introduction: Review using scale on a map, perhaps asking students to estimate the distances between various places using the map on textbook, page 4.

Explain that the authors of Voice of Alberta have gone through a great deal of trouble to organize the textbook so that students will be able to understand and find information more easily.

Procedure:

1. Have students note that certain pages are coloured-coded:
   - Atlas pages are solid blue.
   - Glossary and index pages are green.
   - Skill Power pages are purple.
   - Viewpoints pages are blue with light streaks.


3. Distribute Worksheets #4.GS.3a and #4.GS.3b. Do the first two or three questions with the students so they can get the idea. Then tell students to complete the worksheet.
   NOTE: Depending on your particular students, you may want to have students complete these pages in pairs.

Assignments:

2. Do Worksheets #4.GS.3a and #4.GS.3b.
Directions: Use the entire textbook to answer the questions.

1. Look at the photographs of the students on pages 4 and 5. Write the name of each of the students next to his or her photograph.

2. For each text feature, describe what it does and give an example.

<table>
<thead>
<tr>
<th>Text Feature</th>
<th>What It Does</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inquiring Minds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alberta Voices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viewpoints</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Worksheet #4.GS.3a
<table>
<thead>
<tr>
<th>Text Feature</th>
<th>What It Does</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imagine This!</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Words Matter!</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skill Smart</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skill Power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Then and Now</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thinking It Through</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set Your Skills in Motion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alberta Adventure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alberta Treasure Chest</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Worksheet #4.G5.3b
Directions: Use the entire textbook to answer the questions.

1. Look at the photographs of the students on pages 4 and 5. Write the name of each of the students next to his or her photograph.

   - Subira
   - Omar
   - Kevin
   - Justin
   - Lynette
   - Nutasha
   - Marc
   - Giselle
   - Anita
   - Carlos

2. For each text feature, describe what it does and give an example.

<table>
<thead>
<tr>
<th>Text Feature</th>
<th>What It Does</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inquiring Minds</td>
<td>• provide you with a purpose for reading and exploration</td>
<td>p.17 How have the unique land features of Alberta shaped the land over time?</td>
</tr>
<tr>
<td>Alberta Voices</td>
<td>• people tell a personal story</td>
<td>p.25 Pat Schultz tells about the importance of Big Rock</td>
</tr>
<tr>
<td>Viewpoints</td>
<td>• look at different opinions or viewpoints about something important</td>
<td>pp.72,73 Different views on the way oil sands are used and mined.</td>
</tr>
</tbody>
</table>

Answers will vary.
<table>
<thead>
<tr>
<th>Text Feature</th>
<th>What It Does</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imagine This!</td>
<td>· you pretend you are in a different place and time in history</td>
<td>p.135</td>
</tr>
<tr>
<td></td>
<td>· You pretend it is long ago in Alberta, and you see thousands of buffalo</td>
<td></td>
</tr>
<tr>
<td>Words Matter!</td>
<td>· tells you the meanings of important words</td>
<td>p.167</td>
</tr>
<tr>
<td></td>
<td>· tells you that a coupon is a gift that can be exchanged for land or money</td>
<td></td>
</tr>
<tr>
<td>Skill Smart</td>
<td>· gives you practice in using skills you have been taught</td>
<td>p.142</td>
</tr>
<tr>
<td></td>
<td>· Find out more about a community and make a poster of what you found</td>
<td></td>
</tr>
<tr>
<td>Skill Power</td>
<td>· introduces a new skill</td>
<td>p.133</td>
</tr>
<tr>
<td></td>
<td>· shows how to interpret historical maps</td>
<td></td>
</tr>
<tr>
<td>Then and Now</td>
<td>· connects the past with the present</td>
<td>p.27</td>
</tr>
<tr>
<td></td>
<td>· Tell how people got across the North Saskatchewan River in 1904 compared to the present.</td>
<td></td>
</tr>
<tr>
<td>Thinking It Through</td>
<td>· asks questions connected to the information on the page/section</td>
<td>p.86</td>
</tr>
<tr>
<td></td>
<td>· &quot;What can you do to protect the forest?&quot;</td>
<td></td>
</tr>
<tr>
<td>Set Your Skills in Motion</td>
<td>· relates to inquiry questions and skills</td>
<td>p.150</td>
</tr>
<tr>
<td></td>
<td>· Questions having to do with being a responsible citizen and interpreting historical maps</td>
<td></td>
</tr>
<tr>
<td>Alberta Adventure</td>
<td>· Tells about things to do and see around Alberta</td>
<td>p.172</td>
</tr>
<tr>
<td></td>
<td>· Describes a train ride students can take</td>
<td></td>
</tr>
<tr>
<td>Alberta Treasure Chest</td>
<td>· Directs you to choose something to put in the Alberta Treasure Chest (one per chapter)</td>
<td>p.155</td>
</tr>
</tbody>
</table>

Worksheet #4.GS.3b
Lesson Four

NOTE: This lesson requires a lot of teacher guidance – at least 30 minutes. This is a main strategy of the grade four program, so it is important students understand it.

Concept: The Process of Inquiry

Resources/Materials: Voices of Alberta, pages 7 – 11
Worksheets #4.GS.4a, #4.GS.4b, #4.GS.4c, and #4.GS.4d (student copies)
Blank 11” X 17” sheets of paper

Introduction: Ask students what they would do if they wanted to find more information about the giraffe. (Most will say look in the encyclopedia or a reference book.) Tell students when they want to find out more information they are making an inquiry. To inquire is to ask about something.

In social studies, when we inquire, we do research. To be more effective we do things in steps in a certain orders. When this happens, it is called a process. There are certain specific words that go with each step in the inquiry process. We’ll learn about the process and the words today.

Procedure:

1. Have students turn to textbook, page 7.

2. Guide the reading of each section of textbook, pages 7 – 11. Emphasize the cyclical nature of the inquiry process.

3. Distribute Worksheet #4.GS.4a. Go over the directions, if necessary.

4. Distribute Worksheets #4.GS.4b, #4.GS.4c, and #4.GS.4d. Tell students to carefully cut out and assemble the puzzle pieces so they resemble to model of the inquiry process on textbook, pages 9 and 10. Have them paste the assembles pieces onto the 11” X 17” sheets. Then have them copy the information from pages 9 and 10 in the correct places. (Instead of copying the information, you can have students illustrate each section.)

Assignments:

1. Read Voices of Alberta, pages 7 – 11.
2. Do Worksheet #4.GS.4a.
3. Cut out the puzzle pieces from Worksheets #4.GS.4b, #4.GS.4c, and #4.GS.4d assemble, and paste onto 11” X 17” papers. Label appropriately OR illustrate each section.
The Inquiry Process

Directions: Use Voices of Alberta, pages 7 – 11 to answer the questions.

1. When doing an inquiry, there are many places to look for information. Tell where you could look in your school or on your colony for information.

2. Match the words in the steps of the inquiry process with their meanings.

<table>
<thead>
<tr>
<th>planning</th>
<th>retrieving</th>
<th>processing</th>
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</thead>
<tbody>
<tr>
<td>creating</td>
<td>sharing</td>
<td>evaluating</td>
</tr>
</tbody>
</table>

- ___________ telling others
- ___________ writing, checking and wondering
- ___________ putting it together
- ___________ asking a question
- ___________ thinking about your inquiry
- ___________ searching for information
The Inquiry Process

Directions: Carefully cut out each of the puzzle pieces. Assemble them to make a diagram like the one on pages 8 and 9 of *Voices of Alberta*. The write in the information in the appropriate section.
The Inquiry Process

Directions: Use Voices of Alberta, pages 7 – 11 to answer the questions.

1. When doing an inquiry, there are many places to look for information. Tell where you could look in your school or on your colony for information. Answer will vary
   - books
   - magazines
   - photos
   - maps
   - people who know

2. Match the words in the steps of the inquiry process with their meanings.

<table>
<thead>
<tr>
<th>planning creating</th>
<th>retrieving sharing</th>
<th>processing evaluating</th>
</tr>
</thead>
<tbody>
<tr>
<td>sharing</td>
<td>processing</td>
<td>creating</td>
</tr>
<tr>
<td>telling others</td>
<td>writing, checking and wondering</td>
<td>putting it together</td>
</tr>
</tbody>
</table>
Lesson Five

Concept: Directions on a Map

                   Wall Map of Canada
                   Worksheets #4.GS.5a and #4GS.5b (student copies)

Introduction: Ask students how to get to a nearby town, city, or colony. Guide students into making
              their directions as specific as possible, including citing directions.

Explain that today’s lesson is about how to describe a geographic location (sometimes referred to as
relative location).

Procedure:

1. Explain that a map is a drawing that represents a part of, or all of the world.

2. Display the wall map of Canada. Explain that we often want to communicate the location of a
   place to other people. Mapmakers (or cartographers) have all decided that the top of a map is
   north, the bottom is south, to the right is east and to the left is west. It does not matter which way
   the actual map is sitting, the directions do not change.

3. Draw a simple compass rose on the board, labelling the cardinal directions: north, east, south,
   west. Explain the terms compass rose and cardinal directions.

4. Then on the compass rose, draw in the intermediate directions (also called intercardinal
   directions). Explain the term intermediate directions.


6. Distribute Worksheets #4.GS.5a and #4.GS.5b. Go over the directions, if necessary.

Assignments:

1. Read Voices of Alberta, pages 12 and 13.
2. Do Worksheets #4.GS.5a and #4.GS.5b.
Finding the Geographic Location

Directions: Use the map of The Province of Alberta to answer these questions.

1. Label the compass rose with the cardinal directions and the intermediate directions.

2. Fill each space with a cardinal direction.
   a. The __Northwest Territories__ is to the north of Alberta.
   b. The province to the west of Alberta is __British Columbia__.
   c. The province to the east of Alberta is __Saskatchewan__.
   d. What country is to the south of Alberta? __The United States of America__

3. Fill each space with a cardinal direction.
   a. Lethbridge is __south__ of Edmonton.
   b. Fort Chipewyan is __north__ of Fort McMurray.
   c. Smith is __east__ of Grande Prairie.
   d. Cardston is __west__ of Milk River

4. Fill each space with a cardinal or an intermediate direction.
   a. Drumheller is __southeast__ of Red Deer.
   b. Calgary is __northwest__ of Medicine Hat.
   c. Athabasca is __north__ of Edmonton.
   d. Bonnyville is __northeast__ of Calgary.
   e. Claresholm is __west__ of Brooks.
   f. Peace River is __northeast__ of Grande Prairie.
   g. Stettler is __northwest__ of Coronation.
   h. Whitecourt is __northwest__ of Milk River
   i. Banff is __west / southwest__ of Drumheller.
   j. Smith is __southeast__ of Peace River.
Lesson Six

Concept: Review

Resources/Materials: Voices of Alberta, pages 14 and 15
Worksheet #4.GS.6 (optional, student copies)
Review Sheets (student copies)

Introduction: Tell students they have come to the end of the first section of their textbook. The idea of this section was
- to help students understand how the textbook was set up
- give them an idea about how they could go about inquiring to get more information
- how to use the scale on a map
- how to describe geographic location

Explain that it is time to review.

Procedure:

1. Have students turn to textbook, pages 14 and 15. Guide the reading.

2. If you like, have students prepare for the “Alberta Treasure Chest” project. This is a year-long undertaking, but may be interesting to your students. Distribute Worksheet #4.GS.6. Have students colour and cut out the treasure chest picture. Then paste it onto a file folder or folder piece of Bristol board. Staple the sides so the contents do not spill out.

3. Distribute Review Sheets and tell students to complete them.

4. Caution students to save the Review Sheets. They will need them to help prepare for a test at the end of Chapter 1.

Assignments:

1. Read Voices of Alberta, pages 14 and 15.
2. OPTIONAL. Colour, cut out, and paste the treasure chest from Worksheet #4.GS.6 onto a file folder or folded piece of Bristol board.
3. Do Review Sheets.
1. On the map of Canada locate Alberta and colour it green.

2. What is meant by *quality of life*?

3. On the map of Alberta fill in the cardinal and the intermediate directions on the compass rose.

4. Use the scale on the map of Alberta to estimate the distances the following places.
   a. Lethbridge and Calgary  
   b. Fort Vermilion and Fort McMurray  
   c. Drumheller and Brooks  
   d. Edmonton and Stettler  
   e. Milk River and Peace River  
   f. Edmonton and Provost  

5. Use the map of Alberta to help you fill the spaces with a cardinal or intermediate direction.
   a. Provost is _____________ of Red Deer.  
   b. Banff is _____________ of Stettler.  
   c. Smith is _____________ of Athabasca.  
   d. Whitecourt is _____________ of Coronation.  
   e. Drumheller is _____________ of Stettler.  
   f. The Province of Saskatchewan is _____________ of the Province of Alberta.
6. What are five sources you could go to if you wanted to find more information about Alberta?

   a. 

   b. 

   c. 

   d. 

   e. 

7. Match each of the steps in the inquiry process with their meanings. (You Voices of Alberta, pages 8 – 11 to help you.

   a. _______________ asking questions

   b. _______________ thinking about the inquiry

   c. _______________ searching for information

   d. _______________ telling others about what you found

   e. _______________ writing, checking, wondering

   f. _______________ organizing what was found
The Province of Alberta

Map showing various locations and cities within Alberta, such as Fort Vermilion, Edmonton, Calgary, and others.

0 200 kilometres

3 The United States of America
1. On the map of Canada locate Alberta and colour it green.

2. What is meant by quality of life?

   - refers to a person’s or community’s sense of safety, comfort, security, health, and happiness.

3. On the map of Alberta fill in the cardinal and the intermediate directions on the compass rose.

4. Use the scale on the map of Alberta to estimate the distances the following places.

   Allow variance

   a. Lethbridge and Calgary 200 km

   b. Fort Vermilion and Fort McMurray 350 km

   c. Drumheller and Brooks 140 km

   d. Edmonton and Stettler 150 km

   e. Milk River and Peace River 790 km

   f. Edmonton and Provost 275 km

5. Use the map of Alberta to help you fill the spaces with a cardinal or intermediate direction.

   a. Provost is east of Red Deer.

   b. Banff is southwest of Stettler.

   c. Smith is northwest of Athabasca.

   d. Whitecourt is northwest of Coronation.

   e. Drumheller is south of Stettler.

   f. The Province of Saskatchewan is east of the Province of Alberta.
6. What are five sources you could go to if you wanted to find more information about Alberta? *Answers will vary*

a. books  
   maps
b. newspapers  
   diaries/journals
c. magazines  
   paintings
d. photographs

e. people

7. Match each of the steps in the inquiry process with their meanings. *(You *Voices of Alberta*, pages 8 – 11 to help you.)*

a. planning  
   asking questions
b. evaluating  
   thinking about the inquiry
c. retrieving  
   searching for information
d. sharing  
   telling others about what you found
e. processing  
   writing, checking, wondering
f. creating  
   organizing what was found
Chapter One

Explore the Land

Inquiry Questions

• How have the unique land features of Alberta been shaped over time?

• What is it like living in each of the regions of Alberta?
Chapter 1
Explore the Land

Contents
Lesson One Introduction 3
Lesson Two Alberta’s Landscapes 4
Lesson Three How the physical features were formed 5
Lesson Four How glaciers created bodies of water and other landforms 6
Lesson Five Alberta’s Natural Regions, Part I 7
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Lesson One

Concept: Introduction

Resources/Materials: Voices of Alberta, pages 16 and 17
Worksheets #4.1.1a, #4.1.1b, and #4.1.1c (transparencies or enlarged copies)
Worksheets #4.1.1d and #4.1.1e (optional, student copies)

Introduction: Ask students how they would describe where they live to someone who has never been there. Write down their responses on the board as they are given. Try to elicit responses having to do with landforms, bodies of water, natural vegetation, and natural animal life.

Explain that Alberta is a big province with a huge variety in landforms, bodies of water, natural vegetation, and natural animal life. Explain that Alberta can be divided into geographical regions. (Geography is the study of the earth and its life.) Landforms, bodies of water, natural vegetation, animal life, and climate are all part of geography.

Procedure:

1. Have students turn to textbook, pages 16 and 17. Guide the reading of these pages. Be sure that students understand that the “Inquiring Minds” questions provide the focus of the chapter.

2. If you did not do so in the introduction, write the terms landforms, bodies of water, natural vegetation, natural animal life, and climate on the board. Explain their meanings and give a few examples of each.

3. Explain that how people use the land is also part of geography.

4. If you have the time, with students make notes about each for them to copy into their notebooks; otherwise, put up the transparencies or enlargements of Worksheets #4.1.1a, #4.1.1b, and #4.1.1c. Tell students to copy the notes into their notebooks.

5. OPTIONAL. To give students additional practice in understanding the terms related to geography, distribute Worksheets #4.1.1d and #4.1.1e. Go over the directions.

Assignments:

1. Read Voices of Alberta, pages 16 and 17.
2. Copy notes from Worksheets #4.1.1a, #4.1.1b, and #4.1.1c.
3. OPTIONAL. Do Worksheets #4.1.1d and #4.1.1e.
Geography

Geography – the study of the earth and its life

Parts of Geography

Landforms – features of the earth’s surface
Examples: mountains, hills, plains, island, coulees, valleys, plateaus
bodies of water – places where water gathers and usually stays.
Examples: rivers, lakes, oceans, ponds, streams, waterfalls, marshes

Natural Vegetation – natural plant life
Examples: forests, grasses, wildflowers
natural animal life – animal life that exists from nature
Examples: bears, deer, antelope, foxes, gophers

climate – the weather patterns over a long period of time
Examples: average temperature and precipitation
**Parts of Geography**

**Directions:** In each section write an example of the part of geography; then draw a picture to go with it.

**Landforms**

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**Natural Vegetation**

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### Bodies of Water

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### Natural Animal Life

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### Climate

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Lesson Two

Concept: Alberta’s Landscapes

Resources/Materials: Voices of Alberta, pages 18 – 23
Worksheets #4.1.2 (six copies per student)

Introduction: Review the parts of geography from last day and their meanings (landforms, bodies of water, natural vegetation, natural animal life, climate, how people use the land).

Explain that today, students will be able to explore some of the different geographical regions of Alberta. As it turns out, some of the children they were introduced to in the “Getting Started” section live in the different parts of Alberta, and they will be describing where they live.

Procedure:

1. Have students turn to textbook, pages 18 – 22. Allow them to briefly examine the pages.

2. At this point, it is not necessary for students to know the names of the geographic regions that are described, as this is done later on in Chapter 1.

3. Tell students they will be using the photographs and the text to summarize information into a graphic organizer.

4. Distribute a copy of Worksheet #4.1.2. Guide the reading of textbook, page 18. Then with students, fill in the spaces on the chart. The centre box is where students are to make an illustration that represents the region. NOTE: If students do not know how to make point-form notes, you will have to demonstrate this.

5. Tell students to do the same with the other pages. Distribute five more copies to each student of Worksheet #4.1.2.

6. OPTIONAL or ALTERNATELY. Have individuals or groups of students make a wall display with the information they gathered from the text (as per Worksheet #4.1.2). Then have them present their wall displays to the rest of the class.

Assignments:

1. Read Voices of Alberta, pages 18 – 22.
2. Complete Worksheet #4.1.2 for each of the six locations described.
3. AND/OR Make a wall display detailing and illustrating the geographical features of one of the geographic locations described.
Geography

Textbook Student’s Name: ____________________________

Landforms

Bodies of Water

Vegetation

Animal Life

Climate

How People Use the Land

Worksheet #4.1.2
Social Studies Grade 4 Chapter 1 Worksheets

Geography

Textbook Student's Name: Anita

Landforms
- rocky hills

Bodies of Water
- large lakes
- muskeg

Vegetation
- evergreen forests
- grasses

Climate
- in winter everything freezes over

Illustration

Animal Life

How People Use the Land
- use lakes to land aircraft
- cars travel on ice roads
Geography

Textbook Student's Name: Kevin

Landforms
- hills
- coulees
- flat areas

Bodies of Water
- lakes and rivers
- muddy marshes

Vegetation
- thick forests
- tall grasses

Animal Life
- trumpeter swans

Climate
- April rains

How People Use the Land
- farm the land
- bridge across river
Social Studies Grade 4 Chapter 1 Worksheets

**Geography**

Textbook Student's Name: **Lynnette**

- **Landforms**
  - rolling hills

- **Bodies of Water**
  - big rivers

- **Vegetation**
  - forests

- **Climate**
  - warm summers
  - snow in winter

- **How People Use the Land**
  - hike/bike along trails
  - ranching
  - cross-country skiing
  - build highways

**Illustration**
Social Studies Grade 4 Chapter 1 Worksheets

**Geography**

Textbook Student's Name: **Sabina**

- **Landforms**
  - jagged snow-capped mountains

- **Bodies of Water**
  - mountain streams
  - lakes
  - waterfalls

- **Vegetation**
  - pine trees
  - wildflowers

- **Climate**
  - snowy winters
  - warm summers

- **How People Use the Land**
  - hike up mountain paths
  - biking
  - go for drives in mountains

Illustration
Geography

Textbook Student's Name: Natasha

Landforms
- plains

Bodies of Water

Illustration

Vegetation
- timothy grass
- trees

Animal Life
- frogs

Climate
- snowy winters
- warm summers

How People Use the Land
- farm the land
- ride across snowdrifts
- horse grazes

Worksheet #4.1.2
Social Studies Grade 4 Chapter 1 Worksheets

**Geography**

Textbook Student's Name: Justin

- **Landforms**
  - plains
  - coulecs

- **Bodies of Water**
  - streams

- **Vegetation**
  - few trees
  - short grasses

- **Climate**
  - hot summers
  - dry

- **Animal Life**

- **How People Use the Land**
  - lots of farms and ranches
  - irrigate land
  - grow wheat, barley, oats, corn, tomatoes
  - hiking
Lesson Three

Concept: How the physical features were formed

Resources/Materials: Voices of Alberta, pages 24 and 25
Worksheets #4.1.3a and #4.1.3b (student copies)
Plasticine, modelling clay, other materials (optional)

Introduction: Have students look out the classroom window and observe the landforms (and bodies of water, if there are any). Ask them to speculate about how the landforms were actually formed.

Explain that together landforms and bodies of water are referred to as physical features. Scientists have done a great deal of research about the formation of the physical features found in Alberta. Today’s lesson is the first of several that deals with this topic.

Procedure:

1. Have students turn to textbook, pages 24 and 25. Explain that page 24 is about what scientists believe about the formation of physical features. But page 25 is a First Nations story about the formation of a particular physical feature found near Okotoks, just south of Calgary.

2. First, with students go over the “Words Matter!” vocabulary words. Then guide the reading of page 24.

3. Next, explain that Napi is a character from many First Nations legends, and he is known to be a bit mischievous. Guide the reading of textbook, page 25. Discuss how the legend comments on the importance of generosity and honesty.

4. Compare and contrast the scientists’ and First Nations’ views of how Big Rock was formed.

5. Distribute Worksheets #4.1.3a and #4.1.3b. Go over the directions, if possible.

6. OPTIONALLY or ALTERNATELY. Have students write a legend or myth about the formation of a prominent physical feature near their colony. They could even have Napi as the central character.

7. OPTIONAL. Have students make a model representing the physical features near their colony. Use Plasticine, modelling clay, or other handy materials.

Assignments:

1. Read Voices of Alberta, pages 24 and 25.
2. Do Worksheets #4.1.3a and #4.1.3b.
3. OPTIONALLY or ALTERNATELY. Write a legend or myth about the formation of a prominent physical feature.
4. OPTIONAL. Make a model representing the physical features near your colony.
The Story of the Land

Directions: Use Voices of Alberta to answer the questions.

1. Define each of these terms.
   a. geologist
   b. glacier
   c. landscape
   d. landforms

2. Page 24 tells about how scientists believe the landforms in Alberta were created. Number the sentences below in the correct order.

   ____ Huge oceans formed and covered the rock with water.
   ____ The glaciers melted, creating unique landforms.
   ____ The rock pushed upwards and formed the Rocky Mountains.
   ____ Alberta was covered with rock.
   ____ Glaciers covered the land.
   ____ The oceans drained away leaving the mountains to tower above the land.

3. Compare how scientists and the Blackfoot story explain the formation of Big Rock.

<table>
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<tr>
<th>Scientists</th>
<th>Blackfoot Story</th>
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Worksheet #4.1.3a
4. The Blackfoot story about Big Rock had messages about the importance of generosity and honesty. Read the fable below. What are its messages?

**The Tortoise and the Hare**

There once was a speedy hare who bragged about how fast he could run. Tired of hearing him boast, the tortoise challenged him to a race. All the animals in the forest gathered to watch.

Hare ran down the road for a while and then paused to rest. He looked back at the tortoise and cried out, “How do you expect to win this race when you are walking along at your slow, slow pace?”

Hare stretched himself out alongside the road and fell asleep, thinking, “There is plenty of time to relax.”

The tortoise walked and walked. He never, ever stopped until he came to the finish line. The animals who were watching cheered so loudly for the tortoise that they woke up the hare.

The hare stretched and yawned and began to run again, but it was too late. The tortoise was already over the finish line.
The Story of the Land

Directions: Use Voices of Alberta to answer the questions.

1. Define each of these terms.
   a. geologist ______ person who studies the land and rocks and how they are formed
   b. glacier ______ thick sheet of ice and snow that moves slowly across the land
   c. landscape ______ the natural scenery of a very large area
   d. landforms ______ the different features of the land

2. Page 24 tells about how scientists believe the landforms in Alberta were created. Number the sentences below in the correct order.
   
   2. Huge oceans formed and covered the rock with water.
   6. The glaciers melted, creating unique landforms.
   3. The rock pushed upwards and formed the Rocky Mountains.
   1. Alberta was covered with rock.
   5. Glaciers covered the land.
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<table>
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<tr>
<td>huge rocks fell onto a glacier from a mountain near Jasper.</td>
<td>Meadow Larks stopped the rock when it was chasing Napi and broke it into pieces</td>
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<tr>
<td>the glacier carried the rock out of the mountains</td>
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<tr>
<td>when the glacier melted, the rock was left</td>
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</table>

Worksheet #4.1.3a
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The tortoise walked and walked. He never, ever stopped until he came to the finish line. The animals who were watching cheered so loudly for the tortoise that they woke up the hare.

The hare stretched and yawned and began to run again, but it was too late. The tortoise was already over the finish line.

Answers will vary.

* Do not brag; it will come back to haunt you
* Be quietly confident
* Working at a slower steady pace is more productive than working in spurts
Lesson Four

Concept: How glaciers created bodies of water and other landforms

Resources/Materials: Voices of Alberta, pages 26 - 29
                        Worksheet #4.1.4a and #4.1.4b (student copies)

Introduction: Discuss the importance of water to our health and lifestyle. Discuss why most communities are built next to or close to a steady water supply like a lake or river.

Explain that today’s lesson is mainly about how the lakes and rivers in Alberta were formed.

Procedure:

1. Have students turn to textbook, page 26. Guide the reading of pages 26 – 29. Note that most physical features in Alberta are directly or indirectly the result of glacial action. Once the glaciers receded, wind and water became the principal forces behind changes in physical features.

2. Distribute Worksheets #4.1.4a and #4.1.4b. Go over the directions.

   Map Labelling Tips
   • print
   • ensure that labelling is done horizontally with the exception of rivers. The name of a river may printed along the course of the river.
   • Use arrows when there is lack of space.

3. ALTERNATELY. Instead of doing the worksheets, have students make point form notes on textbook, pages 26 – 29. Younger students may need some pointers:
   • Start each section with a heading.
   • Put a dash or a large dot at the beginning of each new idea
   • Start each new idea on a new line
   • Include only the essential words.

Assignments:

2. Do Worksheets #4.1.4a and #4.1.4b.
3. ALTERNATELY. Make point-form notes on textbook, pages 26 – 29.
How Glacier Formed Physical Features

Directions: Use Voices of Alberta, pages 26 – 29 to do the questions.

1. How is it that glaciers provide some of the water for Alberta rivers?

2. What are three ways in which rivers are used.

3. Use the words in boldface type to write explanations of how each of the followed were formed.
   a. glacial lakes (glaciers, melting)
   b. Canadian Shield (glaciers, wind, water)
   c. hoodoos (wind, water)

4. On the map of Alberta, complete the compass rose and label the following:

   **Lakes**
   - Lake Claire
   - Lesser Slave Lake
   - Lake Athabasca
   - Lac La Biche
   - Cold Lake

   **Rivers**
   - Hay River
   - Peace River
   - North Saskatchewan River
   - Red Deer River
   - Oldman River
   - South Saskatchewan River
   - Slave River
   - Athabasca River
   - Bow River
   - Milk River

Worksheet #4.1.4a
Alberta: Bodies of Water

- Peace River
- Athabasca River
- Bow River
- South Saskatchewan River
- Hay River
- Lesser Slave Lake
- Lake Athabasca
- Fort McMurray
- Grande Prairie
- Edmonton
- Red Deer
- Calgary
- Medicine Hat
- Lethbridge
- Milk River

Worksheet #4.1.4b
How Glacier Formed Physical Features

Directions: Use Voices of Alberta, pages 26 – 29 to do the questions.

1. How is it that glaciers provide some of the water for Alberta rivers?
   - Melting glaciers are the source of many rivers

2. What are three ways in which rivers are used.
   - Travel
   - Source of fish
   - Source of water for domestic consumption

3. Use the words in boldface type to write explanations of how each of the followed were formed.
   Answers will vary
   a. Glacial lakes (glaciers, melting) Glacial lakes are fed by melting water from glaciers.
   b. Canadian Shield (glaciers, wind, water) Rocks on the Canadian Shield were ground down by glaciers. Today they are shaped by wind and water.
   c. Hoodoos (wind, water) Hoodoos are shaped by wind and water.

4. On the map of Alberta, complete the compass rose and label the following:

<table>
<thead>
<tr>
<th>Lakes</th>
<th>Rivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Claire</td>
<td>Hay River</td>
</tr>
<tr>
<td>Lesser Slave Lake</td>
<td>Peace River</td>
</tr>
<tr>
<td>Lake Athabasca</td>
<td>North Saskatchewan River</td>
</tr>
<tr>
<td>Lac La Biche</td>
<td>Red Deer River</td>
</tr>
<tr>
<td></td>
<td>Oldman River</td>
</tr>
<tr>
<td></td>
<td>South Saskatchewan River</td>
</tr>
<tr>
<td></td>
<td>Slave River</td>
</tr>
<tr>
<td></td>
<td>Athabasca River</td>
</tr>
</tbody>
</table>

Worksheet #4.1.4a
Lesson Five

Concept: Alberta’s Natural Regions, Part I

Resources/Materials: Voices of Alberta, pages 30 – 33
Worksheets #4.1.5a and #4.1.5b (student copies)

Introduction: Review the concept of geographic regions. Explain that Alberta can be divided into six geographic regions. Experts used landforms, natural vegetation, and climate to decide on these regions. Explain that today’s lesson tells you the name of these regions and more about their characteristics.

Procedure:

1. Have students turn to textbook, page 30. Note that the textbook authors refer to geographic regions as natural regions.

2. First, have the students look at the photos and the names of the regions on textbook, page 31. Guide the reading of textbook, pages 30 – 32. With students decide which natural region they live in. Then guide the reading of textbook, page 33. Note that although nature continually makes changes to the regions, the most noticeable changes are all caused by people.

3. Distribute Worksheets #4.1.5a and #4.1.5b. Explain that on Worksheet #4.1.5a students are to complete the legend by colouring in the squares. Then they are to colour the map accordingly. NOTE: It is often faster if students outline a particular region heavily, then complete the colouring by shading in lightly.

4. INSTEAD OF WORKSHEET #4.1.5b, you could have students make charts in their notebooks and make point-form notes about the landforms and natural vegetation of each region.
   Example:
   Canadian Shield
   
<table>
<thead>
<tr>
<th>Landforms</th>
<th>Natural Vegetation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rocky</td>
<td>Only certain types of plants</td>
</tr>
<tr>
<td>Many lakes and rivers</td>
<td></td>
</tr>
<tr>
<td>Little soil</td>
<td></td>
</tr>
</tbody>
</table>

5. OPTIONAL. Have students write a paragraph to answer either the second or third question of “Thinking It Through”, on textbook, page 33.

Assignments:

1. Read Voices of Alberta, pages 30 – 32.
2. Do Worksheets #4.1.5a and #4.1.5b.
3. Instead of Worksheet #4.1.5b, make charts for each region showing landforms and natural vegetation.
4. OPTIONAL. Write a paragraph to answer either the second or third question of “Thinking It Through” on textbook, page 33.
Map of Alberta Regions

Legend
- Canadian Shield
- Boreal Forest
- Foothills
- Rocky Mountain
- Parkland
- Grassland

Worksheet #4.1.5a
Alberta’s Natural Regions

Directions: Use Voices of Alberta, pages 30 – 33 to answer the questions.

1. In the chart below write the names of Alberta’s natural regions. Then look back at pages 18 – 23. Write the students’ names beside the correct regions.

<table>
<thead>
<tr>
<th>Natural Region</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. In which natural region do you live? Tell how you know.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

3. Which region has the fewest large communities? Why do you think this is so?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
**Social Studies Grade 4 Chapter 1 Worksheets**

**Alberta’s Natural Regions**

**Directions:** Use *Voices of Alberta*, pages 30 – 33 to answer the questions.

1. In the chart below write the names of Alberta’s natural regions. Then look back at pages 18 – 23. Write the students’ names beside the correct regions.

<table>
<thead>
<tr>
<th>Natural Region</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Shield</td>
<td>Anita</td>
</tr>
<tr>
<td>Boreal Forest</td>
<td>Kevin</td>
</tr>
<tr>
<td>Foothills</td>
<td>Lynnette</td>
</tr>
<tr>
<td>Rocky Mountain</td>
<td>Sabira</td>
</tr>
<tr>
<td>Parkland</td>
<td>Natasha</td>
</tr>
<tr>
<td>Grassland</td>
<td>Justin</td>
</tr>
</tbody>
</table>

2. In which natural region do you live? Tell how you know.

   *Answers will vary*

3. Which region has the fewest large communities? Why do you think this is so?

   *Canadian Shield—small area
   - far north, cold for much of year,
   - long distance from other centres
   - poor soil*
Lesson Six

Concept: Alberta’s Natural Regions, Part II

Resources/Materials: Voices of Alberta, pages 30 – 33
Photo Cards of Alberta’s Regions (6)
Line Masters 1.2 and 1.3 (student copies)

Introduction: With students review the names and locations of the Alberta’s natural regions. Explain that students will learn more about each of the regions.

Procedure:

1. Have students turn to textbook, page 30. Review the cardinal and intermediate directions with them. As a class give the relative locations of one or two of the regions.

2. Distribute Line Master 1.2. Go over the directions, if necessary.

3. Display the photo cards, one at a time. Then using the Canadian Shield Region as an example, do the following:
   • Hold up the photo card. Note that the larger photo shows something more from the countryside, whereas the inset shows a town or city.
   • Note the region’s location on the map on textbook, page 30.
   • Read the information about the region on textbook, page 31.
   • Read the information from the reverse of the photo, left side. Discuss
   • Read the questions from the right side. Discuss.

4. Tell students they are to do the same for the rest of the regions. They will have to take turns using the photo cards. (Students can be working on Line Master 1.2 while they are waiting their turn for a particular card.)

5. Distribute Line Master 1.3. Assign each student to write five true/false questions about one of the regions. Once the quizzes are completed, the quiz is to be completed by another student. Once the second student has answered the questions, the quiz is returned to its original owner for marking. Note: You may not want all questions to be about how the land was shaped as indicated on Line Master 1.3.

6. OPTIONAL. Have students do a class project. Assign individuals or groups of students to make a display (could be wall or table) about one of the geographic regions. Encourage students to classify their information: landforms, bodies of water, climate, natural vegetation, animal life, natural resources and industries, First Nations connections, other interesting information. Also encourage illustrations/models to support textual information.

Assignments:

1. Use Voices of Alberta, page 30 to complete Line Master 1.2.
2. Use Voices of Alberta and the photo cards to write a true/false questions quiz on Line Master 1.3. Have another student do the quiz. Mark the completed quiz.
3. OPTIONAL. Do a class project. Make displays on the geographic regions of Alberta.
Location of Regions

Describe the location of each region in relation to other regions (for example, “This region is east of ... region”) or its position in the province (for example, “This region is in the southeast part of the province”).

<table>
<thead>
<tr>
<th>Region</th>
<th>Location in the province</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Shield</td>
<td>· northeastern part of province</td>
</tr>
<tr>
<td></td>
<td>· north and east of Boreal Forest Region</td>
</tr>
<tr>
<td>Boreal Forest</td>
<td>· northern part of province</td>
</tr>
<tr>
<td></td>
<td>· north and east of Foothills Region</td>
</tr>
<tr>
<td></td>
<td>· south and west of Canadian Shield Region</td>
</tr>
<tr>
<td>Foothills</td>
<td>· south and west of Boreal Forest Region</td>
</tr>
<tr>
<td></td>
<td>· northeast of Rocky Mountain Region</td>
</tr>
<tr>
<td>Rocky Mountain</td>
<td>· southwestern part of province</td>
</tr>
<tr>
<td></td>
<td>· west of Foothills, Parkland, and Grassland regions</td>
</tr>
<tr>
<td>Parkland</td>
<td>· south of Boreal Forest Region</td>
</tr>
<tr>
<td></td>
<td>· north of Grassland Region</td>
</tr>
<tr>
<td>Grassland</td>
<td>· southeast part of province</td>
</tr>
<tr>
<td></td>
<td>· south of Parkland Region</td>
</tr>
<tr>
<td></td>
<td>· east of part of Rocky Mountain Region</td>
</tr>
</tbody>
</table>
Lesson Seven

Concept: Viewpoints

Resources/Materials: Voices of Alberta, pages 34 – 36.
Line Master G-2 (optional, student copies)

Introduction: With students have a brief discussion about a question that students would find relevant. Example: Should recesses be longer? (In this case, the “yes” reasons are obvious; the “no” reasons may not be. E.g., If recesses were longer, the school day would have to be extended.)

Explain that an important question to which there is no clear right or wrong answer is called an issue. Today, students will learn more about issues and why they are so difficult to resolve.

Procedure:

1. Have students turn to textbook, pages 34 and 35. First, read the question (issue) at the top of page 34. Then guide pages 34 and 35.

2. Conclude that different people have different viewpoints that are based on their particular circumstances. Note that the information on textbook page 34 is fact, while the viewpoints can sometimes be opinions. Discuss with students which viewpoints on page 35 are fact only, and which have elements of opinion in them.

3. Then have students turn to textbook, page 36. Explain that this is a chart that can be used to summarize any issue.

4. Distribute Line Master G-2. Have students complete the line master summarizing the issue: Should city grasslands be protected? Alternately, have students make and complete a similar chart in their notebooks.

5. OPTIONAL. With the class decide on an issue that is relevant to the students. After a class discussion of the issue, have students complete Line Master G-2 or make and complete a chart similar to the one on textbook, page 36.

Assignments:

1. Read Voices of Alberta, pages 34 – 36.
2. Do Line Master G-2 about the issue “Should city grasslands be protected?” OR have students make and complete a similar chart in their notebooks.
3. OPTIONAL. Discuss an issue relevant to your class. Complete Line Master G-2 or make a similar chart in your notebook, summarizing the issue.
Lesson Eight

Concept: Why does climate vary?

Large sheets of paper (optional)

Introduction: Discuss why people check the weather? Why are they interested? Conclude that weather and climate affect the quality of our lives. The activities we can do depend a lot on what it’s like outside.

Recall with students that a particular climate characterizes each of the regions of Alberta. Stress that the individual regions might share climate characteristics with one or more of the other regions. Nonetheless, activities that are popular in some areas of the province may not be popular in others because of climatic conditions. For example, snow-shoeing is more popular in the northern part of the province than in the southern part.

Procedure:

1. Have students turn to textbook, page 37. Guide the reading of the first paragraph. Explain that the two most important parts of climate are temperature and precipitation. The next three pages give information about why temperature and precipitation vary from one place to another. (latitude, elevation, chinooks, animal behaviour) NOTE: Animal behaviour is used as more of a predictor of weather, not a cause of weather.

2. On the board draw a simple cause/effect chart. Explain that students are to read pages 37 – 39, and as they are reading, think about how they would fill in the chart.

3. If possible, guide the reading of textbook, pages 37 – 39, stopping to talk about cause and effect, as appropriate. If you cannot guide all three pages, guide the page 37 only so you can show students how the chart works.
Example:

<table>
<thead>
<tr>
<th>Cause</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farther north</td>
<td>More snow</td>
</tr>
<tr>
<td>First Nations: bees nest low to group</td>
<td>Mild winter, less snow</td>
</tr>
<tr>
<td>Nest high in trees</td>
<td>Long cold winter, lots of snow</td>
</tr>
</tbody>
</table>

4. Tell students to make point-form notes with information from textbook, page 37 (first half); then make a cause/effect chart summarizing the information from the bottom half of page 37 and all of pages 38 and 39.

5. OPTIONAL or ALTERNATELY. Divide a large sheet of paper in four. Then divide each section in half. In each of the four-halved sections make contrasting illustrations for each factor that influences climate (i.e., elevation, latitude, Chinooks, animal behaviour). (E.g., low elevation/high elevation) Label each illustration.

Assignments:
2. Make notes on pages 37 – 39, including a cause/effect chart.
3. Make illustrations contrasting the effects of each of the four factors that influence climate.
Lesson Nine

Concept: How climate affects us

Resources/Materials: Voices of Alberta, pages 40 – 43.
Worksheets #4.1.9a and #4.1.9b (student copies)

Introduction: Review the two main parts of climate (temperature and precipitation) and the factors that influence climate (latitude, elevation, presence of chinooks). Review also that First Nations people often looked to nature to gain insight into what the weather would be like.

Briefly discuss how climate affects us.

Procedure:

1. Have students turn to textbook, pages 40 and 41. Ask students to read the pages to find out how climate affects us.

2. Discuss further how climate affects how we dress, our homes, what we can grow, our safety, etc.

3. Then have students turn to textbook, pages 42 and 43. Have them read these pages independently.

4. Distribute Worksheets #4.1.9a and #4.1.9b. Go over the directions, if necessary.

Assignments:

1. Read Voices of Alberta, pages 40 – 43.
2. Do Worksheets #4.1.9a and #4.1.9b.
### Social Studies Grade 4 Chapter 1 Worksheets

**How Climate Affects Us**

**Directions:** Use *Voices of Alberta*, pages 40 and 41, and your own knowledge to show how the climate in your area affects your lifestyle.

<table>
<thead>
<tr>
<th>How climate affects...</th>
<th>Answers will vary, depending on where students live</th>
</tr>
</thead>
<tbody>
<tr>
<td>the crops we grow.</td>
<td></td>
</tr>
<tr>
<td>- grow crops requiring only short growing season</td>
<td></td>
</tr>
<tr>
<td>the amount of energy we use (like natural gas, automobile fuels, and so on).</td>
<td></td>
</tr>
<tr>
<td>- use much fuel to heat homes</td>
<td></td>
</tr>
<tr>
<td>- long distances between communities means we burn much fuel in automobile, especially in winter</td>
<td></td>
</tr>
<tr>
<td>the clothes we wear.</td>
<td></td>
</tr>
<tr>
<td>- wear warm clothes in winter; cool clothes in summer</td>
<td></td>
</tr>
<tr>
<td>our transportation.</td>
<td></td>
</tr>
<tr>
<td>- vehicles + heaters and air conditioners</td>
<td></td>
</tr>
<tr>
<td>- some communities accessible only by plane</td>
<td></td>
</tr>
<tr>
<td>- some communities accessible by automobiles in winter on “ice roads”</td>
<td></td>
</tr>
<tr>
<td>our work.</td>
<td></td>
</tr>
<tr>
<td>- crops affected by weather/climate</td>
<td></td>
</tr>
<tr>
<td>- must have heated barns/shops</td>
<td></td>
</tr>
<tr>
<td>our homes.</td>
<td></td>
</tr>
<tr>
<td>- insulated to be warm in winter; cooler in summer</td>
<td></td>
</tr>
<tr>
<td>what we do for fun.</td>
<td></td>
</tr>
<tr>
<td>- change recreational activities, depending on the season</td>
<td></td>
</tr>
<tr>
<td>our safety.</td>
<td></td>
</tr>
<tr>
<td>- winter tires on cars</td>
<td></td>
</tr>
<tr>
<td>- grass fires are often a concern</td>
<td></td>
</tr>
<tr>
<td>- snowstorms can be of concern</td>
<td></td>
</tr>
</tbody>
</table>

Worksheet #4.1.9a
Directions: Use the maps on *Voices of Alberta*, pages 32 and 42 to show the climate in each of Alberta's natural regions.

<table>
<thead>
<tr>
<th>Region</th>
<th>Climate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Shield</td>
<td>cool summers, cold winters, generally dry</td>
</tr>
<tr>
<td>Boreal Forest</td>
<td>cool summers, cold winters, generally dry</td>
</tr>
<tr>
<td>Foothills</td>
<td>warm summers, cold winters, moist all year</td>
</tr>
<tr>
<td>Rocky Mountain</td>
<td>warm summers, cold winters, moist all year</td>
</tr>
<tr>
<td>Parkland</td>
<td>hot summers, cold winters, summer rain</td>
</tr>
<tr>
<td>Grassland</td>
<td>hot summers, cold winters, summer rain</td>
</tr>
</tbody>
</table>

Weather Extremes

Explain how weather extremes can affect the quality of our lives.

- affects our safety
- can destroy crops, homes, places of business
Lesson Ten

Concept: Set Your Skills in Motion

Resources/Materials: Voices of Alberta, page 44
    Worksheet #4.1.10a (optional, student copies)
    Worksheet #4.1.10b (optional, student copies)
    Line Master G-1 (optional, student copies)
    New Articles: “Pine Lake Hit by Deadly Tornado”, “Drought Hits Central Alberta” (copies as needed)

NOTE: The number and particular activities the students do, is up to the teacher.

Introduction: Explain that the chapter is coming to a close and it is time to review some of the skills students learned.

Procedure:

1. Have students turn to textbook, page 44. Go over the page with the students and let them know which activities you would like them to do.

2. Following are some ideas to consider.

   Explore Points of View – Choose the issue suggested in the textbook or one you feel is more relevant to your students. You can use Worksheet #4.1.10, if you like. It is roughly modelled after textbook, pages 34 and 35. In each box give a little information about the speaker, and in each oval give their viewpoint.

   Use a Map Scale – Besides completing the activity as outlined, you could also give each student a sheet of tracing paper. They are to place the tracing paper over the map on textbook, page 27. Then they are to draw a dot to show where they live. Then using the scale, they should determine how far it is to various communities shown on the map. Record what they found in their notebooks.

   Create a News Article – Choose one of the two information articles about severe weather in Alberta. Ask students to read the article and fill in the chart on Worksheet #4.1.10b. (The textbook suggests students write a news article. However, you may want grade four students to only go as far as filling in the chart. Grade five and six students can probably write the news article.)

   Compare Regions – Students can choose any two of Alberta’s natural regions. They show their comparisons using the Venn diagram on Line Master G-1.

Assignments:

1. Read Voices of Alberta, page 44.
2. Do one, two, three, or four of the suggested skills assignments.
Directions: Fill in the spaces, boxes, and ovals about an issue and the viewpoints surrounding that issue.

Issue: _____________________________
**News Articles**

**Directions:** Complete the chart below to summarize the most important parts of your news article.

<table>
<thead>
<tr>
<th>Title:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Who?</strong></td>
<td></td>
</tr>
<tr>
<td><strong>What?</strong></td>
<td></td>
</tr>
<tr>
<td><strong>When?</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Where?</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Why?</strong></td>
<td></td>
</tr>
<tr>
<td><strong>How?</strong></td>
<td></td>
</tr>
</tbody>
</table>
Pine Lake hit by deadly tornado

PINE LAKE, ALBERTA –

On July 14, 2000 at approximately 7:00 PM an F3 category tornado tore through the Green Acres Campground at Pine Lake in Central Alberta, killing 12 people and critically injuring more than 100 others.

Pine Lake is a recreation area approximately 25 kilometres west of Red Deer and 150 km northeast of Calgary. People from many different provinces and countries were staying at the campground when the tornado hit. Most were from Alberta (mostly Calgary). Others were from British Columbia, Saskatchewan, Manitoba and Prince Edward Island. Some were from the United States, Holland, and Switzerland.

The tornado formed out of a severe thunderstorm which formed on the eastern slopes of the Canadian Rockies and moved quickly eastward. It touched down about 5 kilometres west of the campground and was on the ground for approximately 20 kilometres.

Damage occurred in a swath 800 to 1500 metres wide. The heaviest damage occurred in a 500 metre section of this swath. The tornado had winds that reached 300 km/h. In addition to the strong winds, witnesses reported seeing hail the size of baseballs. One camper noted that the tornado tore up trees and buildings and made them into matchsticks.

The tornado destroyed a number of recreational vehicles in the Green Acres Campground on the western shore of Pine Lake. Some were lifted by the tornado and dropped into Pine Lake itself.

An average of 16 tornadoes occur in Alberta every year, and an average of 41 tornadoes occur each year in the Prairie Provinces. Canada ranks second in the world for tornado occurrences after the United States.

Meanwhile, the owners of the destroyed campground say right now their main concern is the well-being of the survivors. “We will be rebuilding the campground,” they promise.
Drought hits central Alberta

EDMONTON July 15, 2003

Abnormally dry weather for the past three years has farmers across Western Canada extremely concerned, as they fear their crops will once again suffer.

One of the hardest hit areas is central Alberta along the Saskatchewan border. Communities such as Wainwright, Provost, Viking, and Killam have been particularly hit hard. Last summer, many counties and municipal districts in the area were declared disaster areas. Little snow fall this past winter and only light spring rains and early summer rains means that many seeded crops did not germinate. And those that did manage to sprout soon withered and died because there was not enough moisture in the ground.

Agriculturalists believe this is the driest this area has been in almost a century.

“There isn’t even enough of a crop for cattle feed,” declared Charles Apson, a third generation farmer. “I don’t know how we’re going to make ends meet. One bad year is hard enough, but three in a row is more that most can withstand.”

Weather experts from Environment Canada say that the drought is caused by the fact that the Pacific Ocean has been steadily warming and continues to become warmer. This has caused a shift in the air currents that normally bring moisture to the area.

The farmers in the area are not giving up. They are looking into farming practices that lessen moisture loss.
**News Articles**

**Directions:** Complete the chart below to summarize the most important parts of your news article.

**Title:** Pine Lake hit by deadly tornado

<table>
<thead>
<tr>
<th>Who?</th>
<th>Campers at Green Acres Campground</th>
</tr>
</thead>
</table>
| What? | · Hit by F3 category tornado  
|       |   · 12 killed; 100+ injured |
| When? | July 14, 2000, 7:00 PM |
| Where? | Pine Lake, Alberta, 25 km east of Red Deer |
| Why? | Tornado formed out of severe thunderstorms on eastern slopes of Rockies; then moved eastward toward area around Pine Lake |
| How? | Tornado touched down, destroyed recreational vehicles, trees, etc, killing or injuring people |
**Directions:** Complete the chart below to summarize the most important parts of your news article.

**Title:** Drought hits central Alberta

<table>
<thead>
<tr>
<th>Who?</th>
<th>farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td>What?</td>
<td>hit by drought conditions, resulting in crop failure</td>
</tr>
<tr>
<td>When?</td>
<td>past three years</td>
</tr>
<tr>
<td>Where?</td>
<td>central Alberta near Saskatchewan border</td>
</tr>
<tr>
<td>Why?</td>
<td>little winter snow; only light spring rains → driest year in a century</td>
</tr>
<tr>
<td>How?</td>
<td>Pacific Ocean is warming, causing shift in air currents that normally bring moisture to the area</td>
</tr>
</tbody>
</table>
Lesson Eleven

Concept: Getting Started and Chapter One Review

Resources/Materials: Voices of Alberta, page 45
Review Sheets

Introduction: Explain that Chapter 1 has now finished and it is time to prepare for a test.

Procedure:

1. Have students turn to textbook, page 45. Guide the reading of the page, discussing as you go along. You can have students do the activities suggested on the page or have them do the Review Sheets.

2. Explain that the test will cover what was covered in the “Getting Started” section as well as Chapter One.

3. If the students have been participating in the Alberta Treasure Chest activity, have them select something to add to their folders.

Assignments:

1. Do the activities suggested on page 45 of Voices of Alberta.
2. ALTERNATELY. Do the Review Sheets.
1. What are five places you can look for information as part of an inquiry?


2. Match the steps in the inquiry process with their meanings.

<table>
<thead>
<tr>
<th>creating processing</th>
<th>evaluating sharing</th>
<th>planning retrieving</th>
</tr>
</thead>
<tbody>
<tr>
<td>asking a question</td>
<td>searching for information</td>
<td></td>
</tr>
<tr>
<td>writing, checking, and wondering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>putting it together</td>
<td></td>
<td></td>
</tr>
<tr>
<td>telling others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>thinking about your inquiry</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. On the map of bodies of water of Alberta, label the following:

Lake Athabasca  
Cold Lake  
Athabasca River  
South Saskatchewan River  
Oldman River  
Lake Claire  
Lac La Biche  
Hay River  
Red Deer River  
Milk River  
Lesser Slave Lake  
Peace River  
North Saskatchewan River  
Bow River  
Cold Lake
4. Use the map of the bodies of water of Alberta to answer these questions.

   a. Complete the compass rose by writing in the cardinal and intermediate directions.

   b. Fill in the spaces below with cardinal and intercardinal directions.

       Edmonton is _________________ of Red Deer.

       High Level is _________________ of Fort Chipewyan.

       Jasper is _________________ of Grande Prairie.

       Fort McMurray is _________________ of Jasper.

       Lethbridge is _________________ of Grande Prairie.

       Medicine Hat is _________________ of Red Deer.

       Peace River is _________________ of Edmonton.

5. Use the scale on the map of the bodies of water of Alberta to answer these questions.

   a. Estimate the distances between the following communities.

       Peace River and Jasper _________________

       Medicine Hat and Red Deer _________________

       Grande Prairie and Fort McMurray _________________

       Lethbridge and Edmonton _________________

   b. Estimate the length of Alberta. _________________

6. On the map of Alberta’s regions, label each of these natural regions:

   Canadian Shield
   Boreal Forest
   Foothills
   Rocky Mountain
   Parkland
   Grassland
7. Fill in the chart about the natural regions of Alberta.

<table>
<thead>
<tr>
<th>NATURAL REGION</th>
<th>Natural Vegetation</th>
<th>Landforms</th>
<th>Climate</th>
<th>Bodies of Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Shield</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boreal Forest</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foothills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rocky Mountain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parkland</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grassland</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. Explain how each of the following was shaped.
   a. mountains _______________________________________________________
   b. glacial lake _______________________________________________________
   c. hoodoos _________________________________________________________
   d. Big Rock _________________________________________________________

9. Think about an issue that was covered in Chapter 1 or one of your own.
   a. Issue: __________________________________________________________
   b. In the table, write examples of two different points of view on the issue.

<table>
<thead>
<tr>
<th>Point of View</th>
<th>Point of View</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Define the following:
    a. weather ________________________________________________________
        ____________________________________________________________
    b. climate ______________________________________________________
11. What are the two main parts of climate?

12. What are three factors that can affect climate?

13. Explain how climate can affect the quality of life with respect to
   a. activities ______________________________________
   ______________________________________
   b. work ______________________________________
   ______________________________________
   c. travel ______________________________________
   ______________________________________
Map of Alberta Regions
1. What are five places you can look for information as part of an inquiry?

   Answers may vary

   books    photos
   magazines maps
   newspapers letters
   people   journals/diaries

2. Match the steps in the inquiry process with their meanings.

<table>
<thead>
<tr>
<th>creating</th>
<th>processing</th>
<th>evaluating</th>
<th>planning</th>
<th>retrieving</th>
</tr>
</thead>
<tbody>
<tr>
<td>planning</td>
<td>processing</td>
<td>evaluating</td>
<td>planning</td>
<td></td>
</tr>
<tr>
<td>retrieving</td>
<td>creating</td>
<td>sharing</td>
<td>retrieving</td>
<td></td>
</tr>
</tbody>
</table>

   planning       asking a question
   retrieving     searching for information
   processing     writing, checking, and wondering
   creating        putting it together
   sharing         telling others
   evaluating      thinking about your inquiry

3. On the map of bodies of water of Alberta, label the following:

   Lake Athabasca    Lake Claire    Lesser Slave Lake
   Cold Lake         Lac La Biche   Peace River
   Athabasca River   Hay River      North Saskatchewan River
   South Saskatchewan River Red Deer River Bow River
   Oldman River      Milk River     Cold Lake
4. Use the map of the bodies of water of Alberta to answer these questions.
   
   a. Complete the compass rose by writing in the cardinal and intermediate directions.
   
   b. Fill in the spaces below with cardinal and intercardinal directions.
      
      Edmonton is \text{north} \underline{\phantom{000}} \underline{\phantom{000}} of Red Deer.
      
      High Level is \text{west} \underline{\phantom{000}} \underline{\phantom{000}} of Fort Chipewyan.
      
      Jasper is \underline{\phantom{000}} \text{south} \underline{\phantom{000}} of Grande Prairie.
      
      Fort McMurray is \underline{\phantom{000}} \text{northeast} \underline{\phantom{000}} of Jasper.
      
      Lethbridge is \underline{\phantom{000}} \text{ southeast} \underline{\phantom{000}} of Grande Prairie.
      
      Medicine Hat is \underline{\phantom{000}} \text{ southeast} \underline{\phantom{000}} of Red Deer.
      
      Peace River is \underline{\phantom{000}} \text{northwest} \underline{\phantom{000}} of Edmonton.
      
5. Use the map of the bodies of water of Alberta to answer these questions.
   
   a. Estimate the distances between the following communities.
      
      Peace River and Jasper \underline{375 \, km} \underline{\phantom{000}}
      
      Medicine Hat and Red Deer \underline{350 \, km} \underline{\phantom{000}}
      
      Grande Prairie and Fort McMurray \underline{510 \, km} \underline{\phantom{000}}
      
      Lethbridge and Edmonton \underline{425 \, km} \underline{\phantom{000}}
      
   b. Estimate the length of Alberta. \underline{1200 \, km} \underline{\phantom{000}}
      
6. On the map of the natural regions of Alberta, label each of these natural regions:
      
      Canadian Shield
      Boreal Forest
      Foothills
      Rocky Mountain
      Parkland
      Grassland
7. Fill in the chart about the natural regions of Alberta.

<table>
<thead>
<tr>
<th>NATURAL REGION</th>
<th>Natural Vegetation</th>
<th>Landforms</th>
<th>Climate</th>
<th>Bodies of Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Shield</td>
<td>only certain types of plants can grow trees</td>
<td>rocky</td>
<td>cool summers, cold winters generally dry</td>
<td>lakes, marshes</td>
</tr>
<tr>
<td>Boreal Forest</td>
<td>trees</td>
<td>rolling hills, plains</td>
<td>cool summers, cold winters generally dry</td>
<td>rivers, wetlands</td>
</tr>
<tr>
<td>Foothills</td>
<td>grasslands, trees</td>
<td>hills</td>
<td>warm summers, cold winters moist all year</td>
<td>rivers</td>
</tr>
<tr>
<td>Rocky Mountain</td>
<td>trees, small plants</td>
<td>deep valleys, rugged peaks</td>
<td>warm summers, cold winters moist all year</td>
<td>glaciers, streams, waterfalls</td>
</tr>
<tr>
<td>Parkland</td>
<td>grass, trees</td>
<td>rolling hills</td>
<td>hot summers, cold winter, summer rain</td>
<td>rivers</td>
</tr>
<tr>
<td>Grassland</td>
<td>grass, few trees</td>
<td>plains, coulee, hoodoo</td>
<td>hot summers, cold winters, summer rain</td>
<td>large rivers</td>
</tr>
</tbody>
</table>
8. Explain how each of the following was shaped.
   a. mountains  rock pushed upward
   b. glacial lake  glacier melted (in alpine area)
   c. hoodoos  wind and soil erosion
   d. Big Rock  rock fell into glacier near Jasper. Glacier carried it to present location near Okotoks. Glacier melted

9. Think about an issue that was covered in Chapter 1 or one of your own.
   a. Issue:
   b. In the table, write examples of two different points of view on the issue.

<table>
<thead>
<tr>
<th>Point of View</th>
<th>Point of View</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Define the following:
   a. weather  conditions of atmosphere on any particular day
   b. climate  weather patterns over long period of time
11. What are the two main parts of climate?

- temperature
- precipitation

12. What are three factors that can affect climate?

- latitude
- amount of sunlight
- elevation
- chinook / Arctic winds

13. Explain how climate can affect the quality of life with respect to:

a. activities
   We change our activities with the seasons

b. work
   Quality of crops depends on climate

c. travel
   Many places inaccessible by motor vehicles in summer
   Snowstorms can cripple travel of all kinds
Lesson Twelve

Concept: Getting Started and Chapter One Test

Resources/Materials: Chapter 1 Test from *Voices of Alberta*, Assessment Masters, pages 452 – 455.
1. Choose ten boxes in the chart below. In each of the ten boxes, write an example of something that makes the region special. Do not write sentences. One box has been completed as an example, so you have to choose ten other boxes.

<table>
<thead>
<tr>
<th>Natural Vegetation</th>
<th>Landforms</th>
<th>Climate</th>
<th>Bodies of Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Shield</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boreal Forest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foothills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rocky Mountains</td>
<td>Tall mountains: many have snow all year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parkland</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grassland</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Choose one example of a landform. Tell what it looks like and how it was formed.

Example: ____________________________________________

What it looks like: ______________________________________

________________________________________________________________________

How it was formed: __________________________________________

________________________________________________________________________

________________________________________________________________________

3. Explain how glaciers create lakes and rivers.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

4. Write the cardinal and intermediate directions on the points of the compass rose below.

[Diagram of a compass rose]
5. Use the map and scale below to estimate these distances:

a. between Medicine Hat and Edmonton

b. between Calgary and Peace River

c. the width of Alberta at its widest point

d. the length of Alberta

6. People sometimes have different viewpoints about using and protecting the land. In the chart, write one example each of what people with different points of view might say about the question in the chart.

<table>
<thead>
<tr>
<th>Should grasslands in Calgary's Nose Hill Park be protected?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One point of view</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
7. What is climate?

8. Explain how the climate where you live affects how you live, work, and play.
   a. live
   b. work
   c. play
1. Choose ten boxes in the chart below.
   In each of the ten boxes, write an example of something that makes the region special.
   Do not write sentences.
   One box has been completed as an example, so you have to choose ten other boxes.

<table>
<thead>
<tr>
<th>Natural Vegetation</th>
<th>Landforms</th>
<th>Climate</th>
<th>Bodies of Water</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Canadian Shield</strong></td>
<td><em>trees</em></td>
<td><em>rocky</em></td>
<td><em>cool summers</em></td>
</tr>
<tr>
<td></td>
<td><em>only certain plants grow</em></td>
<td></td>
<td><em>cold winters</em></td>
</tr>
<tr>
<td><strong>Boreal Forest</strong></td>
<td><em>trees</em></td>
<td><em>rolling hills</em></td>
<td><em>cool summers</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>plains</em></td>
<td><em>cold winters</em></td>
</tr>
<tr>
<td><strong>Foothills</strong></td>
<td><em>grasslands</em></td>
<td><em>rolling hills</em></td>
<td><em>warm summer</em></td>
</tr>
<tr>
<td></td>
<td><em>trees</em></td>
<td></td>
<td><em>cold winters</em></td>
</tr>
<tr>
<td><strong>Rocky Mountains</strong></td>
<td><em>trees</em></td>
<td><em>fall mountains: some have snow all year</em></td>
<td><em>warm summers</em></td>
</tr>
<tr>
<td></td>
<td><em>small plants</em></td>
<td></td>
<td><em>cold winters</em></td>
</tr>
<tr>
<td><strong>Parkland</strong></td>
<td><em>grass</em></td>
<td><em>rolling hills</em></td>
<td><em>hot summers</em></td>
</tr>
<tr>
<td></td>
<td><em>trees</em></td>
<td></td>
<td><em>cold winters</em></td>
</tr>
<tr>
<td><strong>Grassland</strong></td>
<td><em>grass</em></td>
<td><em>plains</em></td>
<td><em>hot summers</em></td>
</tr>
<tr>
<td></td>
<td><em>a few trees</em></td>
<td><em>coulees</em></td>
<td><em>cold winters</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>hoodoos</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>summer rain</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Choose one example of a landform. Tell what it looks like and how it was formed.

   Example: \underline{Answers will vary.}
   
   What it looks like: 
   
   How it was formed: 
   

3. Explain how glaciers create lakes and rivers.
   \underline{Glaciers melt, forming lakes and rivers}
   

4. Write the cardinal and intermediate directions on the points of the compass rose below.
5. Use the map and scale below to estimate these distances:
   a. between Medicine Hat and Edmonton \(425 \text{ km}\)
   b. between Calgary and Peace River \(580 \text{ km}\)
   c. the width of Alberta at its widest point \(700 \text{ km}\)
   d. the length of Alberta \(1200 \text{ km}\)

6. People sometimes have different viewpoints about using and protecting the land. In the chart, write \text{one} example each of what people with different points of view might say about the question in the chart.

   \begin{table}[h]
   \centering
   \begin{tabular}{ |p{12cm}|p{12cm}| }
   \hline
   \textbf{Should grasslands in Calgary's Nose Hill Park be protected?} & \textbf{Answers will vary} \\
   \hline
   \textbf{One point of view} & \textbf{Another point of view} \\
   \hline
   \textbullet fewer trails protect greater area of the park & \textbullet paved paths better for those in wheelchairs \\
   \textbullet cyclists go too fast if trails are paved & \textbullet trails will allow people to see the teepee rings, without damaging them \\
   \hline
   \end{tabular}
   \end{table}

   do not want paved paths → want to ride mountain bike through natural areas
7. What is climate?

Weather patterns in an area over extended period of time

8. Explain how the climate where you live affects how you live, work, and play. Answers will vary

a. live - houses designed to keep warm in winter

b. work - farmers plant seeds once weather warms

c. play - hockey, sledding in winter; soccer, baseball in summer
Chapter Two

Alberta’s Fossil Heritage

Inquiry Questions

- Why are fossils important to Alberta?
- How are fossils part of Alberta’s identity?
Chapter Four
Alberta’s Fossil Heritage

Contents

Lesson One   Introduction
Lesson Two   What fossils tell about Alberta and why we find them in Alberta
Lesson Three Where fossils are found and How Alberta became known for fossils
Lesson Four  Viewpoints: Should Alberta’s Fossils Be Protected?
Lesson Five  How We Protect Our Fossils
Lesson Six   Fossil Fuels
Lesson Seven Set Your Skills in Motion
Lesson Eight Chapter Two Review
Lesson Nine  Chapter Two Test
Lesson One

Concept: Introduction

Resources/Materials: Voices of Alberta, pages 47 and 48
- Wall Map of Canada OR Student Atlases
- Worksheets #4.2.1a and #4.2.1b (student copies)
- Worksheet #4.2.1c and Manila tag or Bristol board (optional, student copies)
- Fossils – if available

Introduction: Discuss with students the various fuels they use in their daily lives (natural gas, propane, gasoline, diesel fuel, coal, etc.) Explain that these are referred to as fossil fuels. Write fossil fuels on the board. Explain that fossils fuels are those fuels we burn that came from things that lived long ago.

Explain that Alberta is one of the richest places on earth to find fossil fuels and fossils.

If you have any fossils available, you might want to show the students.

Procedure:

1. Have students turn to textbook, page 46. Read the title. Explain that heritage refers to things we have that are from the past.

2. Allow students a few minutes to flip through Chapter 2.

3. Guide the reading of page 46. Point out Milk River on the map or atlas

4. Guide the reading of page 47. Be sure to clarify the meaning of the word fossil and discuss the meaning of the inquiry questions.

5. Distribute Worksheets #4.2.1a and #4.2.1b. Tell students to read the article on Worksheet #4.2.1a, and then determine the 5 Ws and the H, and record their findings on Worksheet #4.2.1b.

6. OPTIONAL. Distribute Worksheet #4.2.1c. This activity involves making a very simple model of a hadrosaurus.

Assignments:

1. Read Voices of Alberta, pages 46 and 47.
2. Read the article, “Discovery at Devil’s Coulee” on Worksheet #4.2.1a, then complete Worksheet #4.2.1b
3. OPTIONAL. Make a simple model of a hadrosaurus from Worksheet #4.2.1c.
Discovery at Devil’s Coulee

Nineteen-year-old Wendy Sloboda became quite famous in 1987. She was wandering around Devil’s Coulee looking for dinosaur fossils when she thought she spotted a single dinosaur egg. This discovery became important news around the world, especially to scientists who spend their lives studying fossils. Soon after, paleontologists from the Royal Tyrell Museum in Drumheller came to visit the site where Wendy had made her discovery.

Wendy knew that fossils could easily be damaged, so she carefully dug around the egg. As she was digging, she was surprised to find, not just a single egg, but nine in all. Since that time, approximately 100 eggs have been discovered in the area over a ten-year period. This proved to be the largest group of dinosaur eggs found in Canada.

The paleontologists determined that the eggs belonged to a duckbilled hadrosaur called a Hypacrosaurus. Some of the eggs contained fossilized baby dinosaurs. There were also many bones of hatchlings nearby, and at least nine dinosaur nests. They also found 20,000 shell fragments.

The eggs were about 20 centimetres in diameter and would have held about four litres. The buried eggs were pinkish-coloured when first uncovered, but eventually turned a blackish colour from exposure to light and air.

Devil’s Coulee is close to Warner, Alberta where Wendy grew up. It is near the Milk River. It is about 65 kilometres southeast of Lethbridge. Wendy and her parents often scouted the area looking for fossils.

Devil’s Coulee has more hadrosaur fossils than any other place in the world. To date, scientists have found at least ten different kinds of dinosaurs in this area. They have also found evidence that birds and theropod dinosaurs also nested here.
**The Five Ws and the H**

**Directions:** Read the article on how Wendy Sloboda discovered dinosaur eggs. Then complete the chart below.

Name of the Article: ____________________________________________________________

<table>
<thead>
<tr>
<th>Who?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>What?</td>
<td></td>
</tr>
<tr>
<td>When?</td>
<td></td>
</tr>
<tr>
<td>Where?</td>
<td></td>
</tr>
<tr>
<td>Why?</td>
<td></td>
</tr>
<tr>
<td>How?</td>
<td></td>
</tr>
<tr>
<td>Other Interesting Information</td>
<td></td>
</tr>
</tbody>
</table>
Making a model of a hadrosaurus:

1. Colour each part a brownish colour.
2. Paste onto heavy paper like Manila tag or Briston board. Place a heavy book on the paper while the paste dries, so that the paper does not curl.
3. Carefully cut the pieces out. Cut the slits and slip the legs into the body.
**Direction:** Read the article on how Wendy Sloboda discovered dinosaur eggs. Then complete the chart below.

**Name of the Article:** _Discovery at Devil's Coulee_

<table>
<thead>
<tr>
<th><strong>Who?</strong></th>
<th>Wendy Sloboda, nineteen years old</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What?</strong></td>
<td>Discovered Hadrosaurus egg fossils</td>
</tr>
<tr>
<td><strong>When?</strong></td>
<td>1987</td>
</tr>
<tr>
<td><strong>Where?</strong></td>
<td>Devil's Coulee, close to Warner, Alberta</td>
</tr>
<tr>
<td><strong>Why?</strong></td>
<td>Wendy was interested in fossils.</td>
</tr>
<tr>
<td><strong>How?</strong></td>
<td>Wendy was at Devil's Coulee looking for fossils. She contacted paleontologists from the Royal Tyrell Museum, who searched the site and found many other fossils</td>
</tr>
<tr>
<td><strong>Other Interesting Information</strong></td>
<td>Example: eggs 20 cm in diameter and would have held 4 litres</td>
</tr>
</tbody>
</table>
Lesson Two

Concept: What fossils tell about Alberta and why we find them in Alberta

Resources/Materials: Voices of Alberta, pages 48 – 51
Worksheets #4.2.2a, #4.2.2b, and #4.2.2c (student copies)

Introduction: Review that Wendy Sloboda made an important discovery when she uncovered the eggs of the hadrosaurus. Explain that many many other fossil finds have been made in Alberta. Some of these fossils are sea creatures! Discuss how these finds provide clues to Alberta’s past.

Procedure:

1. Have students turn to textbook, page 48. Have students examine the photos – discuss what they are (the fourth is probably related to the shrimp). Conclude that once most of Alberta was covered with water; thus the presence of marine life.

2. Guide the reading of textbook, pages 48 and 49.

3. Then have students turn to textbook, page 50. Guide the reading.

4. Distribute Worksheets #4.2.2a. Go over the directions, if necessary.

5. Finally, have students turn to textbook, page 51. This involves doing research on Alberta’s badlands. Instead of an Internet search, have students read the article provided (Worksheets #4.2.2b and #4.2.2c), and then make point-form notes about the information in the article. Note: Younger students may need some guidance if this is the first time they have made point-form notes. Grade four students can make one or two notes per paragraph, while you might expect more from older students.

6. OPTIONAL. Students might enjoy using modelling clay or Plasticine to make dinosaurs or other ancient animals.

Assignments:

1. Read Voices of Alberta, pages 48 – 51.
2. Do Worksheet #4.2.2a.
3. Make point-form notes on the article on the Badlands (Worksheets #4.2.2b and #4.2.2c).
4. OPTIONAL. Use Plasticine or modelling clay to make models of dinosaurs or other ancient animals.
Alberta’s Fossil Heritage

Directions: Use Voices of Alberta, pages 48 – 51 to help you do these questions.

1. What are fossils?

2. What clues do fossils provide about Alberta’s past?

3. Decide if the following statements are true (T) or false (F).

   ______ A paleontologist is a scientist who studies fossils to learn about life long ago.
   ______ Dinosaurs lived in Alberta about a hundred years ago.
   ______ Fossils actually form quite often.
   ______ Alberta is unique because so many fossils are found here.
   ______ At one time, most of Alberta was part of a giant sea.
   ______ There were earthquakes and volcanoes in some places in Alberta.
   ______ Millions of years ago plants and animals became covered over and preserved.
   ______ Fossils are almost always found on the surface of the earth.
   ______ Soil and wind erosion uncovered many fossils.
   ______ Dr. Phil Curie is a world famous paleontologist from the University of Alberta.
   ______ Digging for fossils is most likely a very easy activity.
   ______ Many fossils have been uncovered in the badlands of Alberta.
The Badlands of Alberta

The badlands are an area in central Alberta that stretch along the Red Deer River valley from the city of Red Deer, through the city of Drumheller, and on to the Saskatchewan border. The most important section, as far as finding fossils is concerned, is the area in and around the small city of Drumheller. This area is called the Drumheller Valley.

The Drumheller Valley is close to flat farmlands, and is well-known for its beautiful landforms which some say look like the surface of the moon. The rugged valley is made up of unusual shapes which have been formed from the actions of wind and water. These include buttes and deep, twisted and winding canyons, coulees, and gullies. The sides of the valley are almost bare and multi-coloured. When you look at the valley sides, you can see layers of sandstone or mudstone, coal, and shale. The steep slopes are also home to roofed pillars and hoodoos. Hoodoos are natural, yet ever changing vertical structures of soft sandstone, differing in height and shape. They are capped with darker and harder sandstone “hats”. Formed by erosion, the hoodoos and pillars slowly appear and disappear in time.

The name badlands was given to the area by French Canadian explorers François and Louis Joseph de la Verendrye because it looked so bare. Early French settlers of the area found the land to be too dry and unsuitable for farming. However, they soon discovered that the area was rich in coal and fossils.

It was, in fact, the First Nations people who first discovered animal fossils in the area. They believed them to be the ancestors of the bison. They also believed these badlands were one giant graveyard for these animals and that the hoodoos were the protectors of the bison’s spirits.

Geologists and paleontologists say that the badlands were formed by the erosion action of the Red Deer River and of the winds that blow through the area. Because much of the rock is soft sandstone, erosion takes places much more quickly when compared to harder rocks.

When the dinosaurs lived in the area, the area was much different than it is today. The dinosaurs inhabited the area 230 million to 65 million years ago. At that time the area was a series of river flood plains and deltas which extended east into a warm, shallow sea.
Gradually layers of different types of soils built up. After millions of years, the layers of soil actually turned into rock of various types. Most dinosaur and other fossils have been uncovered in these rock layers. The fossils were once buried much deeper, but wind and water erosion have worn away the top layers, exposing the fossils.

The first European to make a major fossil discovery was Joseph Burr Tyrell in April 1884. Tyrell was an explorer, cartographer (mapmaker), geologist, and minerologist. He discovered the very large skull of a dinosaur named after the province of Alberta, the Albertosaurus.

Today, the badlands attract tourists from around the world. Paleontologists are still very actively looking for and studying fossils. The badlands of the Drumheller Valley give us many clues about life in Alberta millions of years ago.
Directions: Use *Voices of Alberta*, pages 48 – 51 to help you do these questions.

1. What are fossils? the remains or shapes of ancient plants and animals that have turned to stone

2. What clues do fossils provide about Alberta’s past?
   - types of animal and plant life that once existed
   - how they lived and where

3. Decide if the following statements are true (T) or false (F).
   - T  A paleontologist is a scientist who studies fossils to learn about life long ago.
   - F  Dinosaurs lived in Alberta about a hundred years ago.
   - F  Fossils actually form quite often.
   - T  Alberta is unique because so many fossils are found here.
   - T  At one time, most of Alberta was part of a giant sea.
   - T  There were earthquakes and volcanoes in some places in Alberta.
   - T  Millions of years ago plants and animals became covered over and preserved.
   - F  Fossils are almost always found on the surface of the earth.
   - T  Soil and wind erosion uncovered many fossils.
   - T  Dr. Phil Curie is a world famous paleontologist from the University of Alberta.
   - F  Digging for fossils is most likely a very easy activity.
   - T  Many fossils have been uncovered in the badlands of Alberta.
Lesson Three

Concept: Where fossils are found and How Alberta became known for fossils

Resources/Materials: Voices of Alberta, pages 52 – 55  
Wall Map of Canada  
Line Masters 2-1 (student copies)  
Worksheet #4.2.3 (student copies)  
Line Master 2-2 (optional, student copies)  
Small objects, modelling clay, shallow disposable containers, plaster of Paris, paint (optional)

Introduction: Recall that a great many fossils have been found in the area around Drumheller. Point out Drumheller on the map. Also recall that Wendy Sloboda made her discovery near Warner. (Point out on the map.) Conclude that fossils are found in several areas of the province.

Explain that today’s lesson is about where fossils are found and how Alberta actual became famous for its fossils.

Procedure:

1. Have students turn to textbook, pages 52 and 53. Instruct students to read the pages independently.

2. Distribute Line Master 2-1. Have them label their community on the map, and then complete the exercises.

3. Have students turn to textbook, pages 54 and 55. Guide the reading, if possible.

4. Distribute Worksheet #4.2.3. Go over the directions.

5. OPTIONAL. Have students write type of poem called a quatraine.
   
   Line 1 is a one-word topic  
   Line 2 is two describing words  
   Line 3 is three action words  
   Line 4 is how you feel about it  
   Fossil  
   Ancient, stone  
   buried, hardened, uncovered  
   Please tell your stories

6. OPTIONAL. Students can make their own “fossils” using the directions on Line Master 2-2.

Assignments:

2. Do Line Master 2-1.
3. Do Worksheet #4.2.3.
4. OPTIONAL. Write quatraine about fossils.
5. OPTIONAL. Make fossil (Line Master 2-2).
Directions: Use Voices of Alberta, pages 52 and 53 to answer the question.

Match the numbers on the map with the fossil descriptions and the communities where the fossils were found. Draw lines.

1. small sea creatures Fort McMurray
2. dinosaur tracks Magrath
3. many different types of fossils Grande Cache
4. ammonite Drumheller
5. sea reptile Castle Mountain
6. amber Taber

Directions: Use Voices of Alberta, pages 54 and 55 to fill the spaces with words that make sense.

1. The First Nations of Alberta knew that there were ____________ in the land. They called the fossils ____________, or ___________ ____________.

2. While Joseph Tyrell was looking for coal and mapping the area between the ____________ ____________ and the Red Deer River, he found the bones of a huge, meat-eating ____________ that would later be called Albertosaurus.

3. Barnum Brown came to the Red Deer Valley. He sent thousands of fossils to the ____________ ____________.

4. In 1912 the ____________ ____________ hired its own fossil hunters. These fossils are now displayed a the Canadian Museum of Nature and at the ____________ ____________ ____________ in Toronto.
Where Are Fossils Found in Alberta?

Directions: Use Voices of Alberta, pages 52 and 53 to answer the question.

Match the numbers on the map with the fossil descriptions and the communities where the fossils were found. Draw lines.

1. small sea creatures
2. dinosaur tracks
3. many different types of fossils
4. ammonite
5. sea reptile
6. amber

Fort McMurray
Magrath
Grande Cache
Drumheller
Castle Mountain
Taber

Directions: Use Voices of Alberta, pages 54 and 55 to fill the spaces with words that make sense.

1. The First Nations of Alberta knew that there were fossils _______ in the land. They called the fossils iinisskimm, or buffalo _______ stones _______.

2. While Joseph Tyrell was looking for coal and mapping the area between the Oldman _______ River _______ and the Red Deer River, he found the bones of a huge, meat-eating dinosaur _______ that would later be called Albertosaurus.

3. Barnum Brown came to the Red Deer Valley. He sent thousands of fossils to the United _______ States _______.

4. In 1912 the Canadian _______ government _______ hired its own fossil hunters. These fossils are now displayed a the Canadian Museum of Nature and at the Royal _______ Ontario _______ Museum _______ in Toronto.

Worksheet #4.2.3
Lesson Four

Concept: Viewpoints: Should Alberta’s Fossils Be Protected?

Resources/Materials: Voices of Alberta, pages 56 and 57
Line Master G-2 (student copies)

Introduction: Review the term “issue”. Ask students if they feel there may be issues surrounding fossils that are found in Alberta.

Explain that there are indeed differing opinions about whether or not Alberta’s fossils should be protected.

Procedure:

1. Have students turn to textbook, pages 56 and 57. Guide the reading.

2. Distribute Line Master G-2. Instruct students to complete the worksheet in point-form. Note: Students will not be able to complete the second box in the chart, as there is not enough information.

3. OPTIONAL. Once Line Master G-2 is completed, have students write two- or three-paragraph essay using the information. Following is a suggested structure for grade four students:

   First Paragraph
   • State what the issue is.
   • Write one sentence each about the different viewpoints.

   Second Paragraph
   • Tell which opinions you agree with
   • Tell which opinions you disagree with

   Third Paragraph
   • Give your opinion. Support your answer.

Assignments:

1. Read Voices of Alberta, pages 56 and 57.
2. Do Line Master G-2 (cannot complete the second box)
3. Write essay about the information in the box.
# Exploring Points of View

<table>
<thead>
<tr>
<th>What is the question or issue?</th>
<th>Should Alberta's Fossils Be Protected?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who are the people giving their opinions?</td>
<td></td>
</tr>
<tr>
<td>What are the different opinions?</td>
<td>Palaeontologists cannot collect all the fossils that are exposed, so other collectors should be able to take them. Should be allowed to buy fossils. People who collect fossils in their own do not know if a fossil is known to export or not. Alberta has plenty of fossils, so ordinary people should be able to collect them. Fossils are a valuable resource and should not be taken by people.</td>
</tr>
<tr>
<td>Which opinions do you agree with, and why?</td>
<td></td>
</tr>
<tr>
<td>Which opinions do you disagree with, and why?</td>
<td></td>
</tr>
<tr>
<td>What is your opinion? Why?</td>
<td></td>
</tr>
</tbody>
</table>

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*Generic Line Master G-2*

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Lesson Five

Concept: How we protect our fossils

Resources/Materials: Voices of Alberta, pages 58 – 61
Line Master 2-3 (student copies)
Worksheet #4.2.5 (student copies)

Introduction: Recall with students that people had differing viewpoints about the issue of protecting Alberta’s fossils. Explain that in 1978 the Alberta government decided that it needs to pass a law to protect fossils.

Procedure:

1. On the board write the following:

   1884  1914  1955  1979  1985

2. Ask students if they recall why “1884” is important. (Joseph Tyrell discovered Albertosaurus.)

3. Tell students that today they will read to find out some of the important events that have occurred in Alberta with respect to protecting fossils. The dates on the board tell when these events occurred.

4. Have students turn to textbook, page 58. Guide the reading, if possible.

5. Distribute Line Master 2-3. On the horizontal line, students are to write the years from the board. In the boxes they are to briefly tell the significance of each year.

6. Distribute Worksheet #4.2.5. Go over the directions, if possible.

7. OPTIONAL. Have students prepare and present a short speech to explain why Dinosaur Provincial Park is important. (Most speeches will probably only be a minute or two in length, although students will feel they lasted much longer.) Suggest the following steps.

   a. introduce the topic
   b. give your opinion
   c. support your viewpoint
   d. state implications for the future

Assignments:

3. Do Worksheet #4.2.5.
4. OPTIONAL. Prepare and present a speech to explain why you think Dinosaur Provincial Park is important.
Protecting Alberta's Fossils

Directions: Use Voices of Alberta, pages 58 – 61 to answer the questions.

Unscramble the words to make sentences about protecting Alberta's fossils.

1. Until 1978 could collect fossils in anyone Alberta.

2. in Alberta now owns all fossils that are found The province.

3. Only paleontologists to dig for fossils in some areas are allowed.

4. In 1914 George Anderson a campaign to protect started the fossils.

5. are places that are important World Heritage Sites to the whole world.

6. The Royal Tyrell Museum Joseph Tyrell was named after.
Timeline

- Joseph Tyrell discovered Albertosaurus while looking for coal and mapping area between Oldman River and Red Deer River
- Dinosaur Provincial Park was created
- The Royal Tyrell Museum opened in Drumheller
- George Anderson started a campaign to protect fossils
- Dinosaur Provincial Park became a World Heritage Site
Directions: Use Voices of Alberta, pages 58 – 61 to answer the questions.

Unscramble the words to make sentences about protecting Alberta’s fossils.

1. Until 1978 could collect fossils in anyone Alberta.
   *Until 1978 anyone could collect fossils in Alberta.*

2. in Alberta now owns all fossils that are found The province.
   *The province now owns all fossils that are found in Alberta*

3. Only paleontologists to dig for fossils in some areas are allowed.
   *Only paleontologists are allowed to dig for fossils in some areas.*

4. In 1914 George Anderson a campaign to protect started the fossils.
   *In 1914 George Anderson started a campaign to protect the fossils.*

5. are places that are important World Heritage Sites to the whole world.
   *World Heritage Sites are places that are important to the whole world.*

6. The Royal Tyrell Museum Joseph Tyrell was named after.
   *The Royal Tyrell Museum was named after Joseph Tyrell.*
Lesson Six

Concept: Fossil Fuels

Resources/Materials: Voices of Alberta, pages 62 and 63
Worksheets #4.2.6a and #4.2.6b (student copies)

Introduction: Write the words fuel and fossils on the board. Ask students to speculate about the connection between the two words.

If necessary, explain that fuels are substances that burn to create heat and light energy.

Explain that like fossils, fossil fuels were created from living things (organisms) that lived millions of years ago.

Procedure:

1. Explain that Alberta is not only rich in fossils; it is rich in fossil fuels.

2. Explain that much of what we consider to be fact, we really have concluded by making inferences. Distinguish between an observation and an inference. An observation is information we gain from using our senses. (e.g., Brianna Hunt found a rock that resembled an animal with many legs.) An inference is a conclusion or good guess made on the basis of an observation. (e.g., The scientists inferred that the rock that Briana found was the fossil of a squid.)

If necessary give students practice distinguishing observation and inference. (e.g., Brenda has a warm coat and boots on. – observation. It must be cold outside. – inference)

3. Explain that because paleontologists were not around millions of years ago, the knowledge we have of fossils and fossil fuels is really based on inferences.

4. Have students turn to textbook, pages 62 and 63. Guide the reading, if possible.

5. Distribute Worksheets #4.2.6a and #4.2.6b. Go over the directions, if necessary.

Assignments:

1. Read Voices of Alberta, pages 62 and 63.
2. Do Worksheets #4.2.6a and #4.2.6b.
Directions: Use Voices of Alberta, pages 62 and 63 to answer the questions.

1. Read the following statements. Tell whether each is an observation or an inference.
   a. ___________________________ We burn gasoline and diesel fuel in trucks and tractors.
   b. ___________________________ Fossils have been discovered in all parts of Alberta.
   c. ___________________________ Coal was formed from giant ferns that lived millions of years ago.
   d. ___________________________ Coal can be found in layers underneath different types of rock.
   e. ___________________________ Parts of Alberta were once covered by a large inland sea.
   f. ___________________________ Fossils that look like leaves have been found in Alberta.
   g. ___________________________ Some plants and animals that lived long ago were buried and turned into fossil fuels.
   h. ___________________________ Alberta’s oil sands were formed from animals that lived long ago.
   i. ___________________________ The Royal Tyrell Museum is located in Drumheller, Alberta.
   j. ___________________________ Paleontologists from all over the world come to study the fossils at The Royal Tyrell Museum.
   k. ___________________________ There are hoodoos along the shores of the Red Deer River.
   l. ___________________________ 100 million years ago the oceans began to disappear.
   m. ___________________________ Oil, gas, and coal deposits are found in Alberta today.
Directions: Use *Voices of Alberta*, page 63 to illustrate and explain how fossil fuels form. Draw and colour an illustration in each top box. Explain each illustration in the bottom box. Be sure to label your illustrations.
What Are Fossil Fuels?

Directions: Use Voices of Alberta, pages 62 and 63 to answer the questions.

1. Read the following statements. Tell whether each is an observation or an inference.
   a. observation We burn gasoline and diesel fuel in trucks and tractors.
   b. observation Fossils have been discovered in all parts of Alberta.
   c. inference Coal was formed from giant ferns that lived millions of years ago.
   d. observation Coal can be found in layers underneath different types of rock.
   e. inference Parts of Alberta were once covered by a large inland sea.
   f. observation Fossils that look like leaves have been found in Alberta.
   g. inference Some plants and animals that lived long ago were buried and turned into fossil fuels.
   h. inference Alberta’s oil sands were formed from animals that lived long ago.
   i. observation The Royal Tyrell Museum is located in Drumheller, Alberta.
   j. observation Paleontologists from all over the world come to study the fossils at The Royal Tyrell Museum.
   k. observation There are hoodoos along the shores of the Red Deer River.
   l. inference 100 million years ago the oceans began to disappear.
   m. observation Oil, gas, and coal deposits are found in Alberta today.
How Fossil Fuels Form

**Directions:** Use *Voices of Alberta*, page 63 to illustrate and explain how fossil fuels form. Draw and colour an illustration in each top box. Explain each illustration in the bottom box. Be sure to label your illustrations.

300 - 400 million years ago
- much of Alberta covered by ocean
- millions of tiny plants/animals that lived in ocean died
- Dead plants/animals covered by silt and sand

50 - 100 million years ago
- oceans began to disappear
- dead plants/animals buried deeper
- heat/pressure of the silt and sand turned them into oil, gas, coal

Today
- we remove oil, gas and coal from the ground.

Worksheet #4.2.6b
Lesson Seven

Concept: Set Your Skills in Motion

Resources/Materials: Voices of Alberta, page 64

Introduction: Explain that the end of Chapter 2 is near and it is time to practise some of the skills learned in the chapter.

Procedure:

1. Have students turn to textbook, page 64. With students, go over the various activities. You may want to assign activities or allow students to choose their own. Because there are many that suggest Internet research, you will have to alter the assignments. Following are some suggestions.

   Ask Your Own Questions
   Have each student make up a list of twenty questions about Alberta’s fossil heritage. The answers must be found somewhere in Chapter 2. Each student then gives his/her list of questions for another student to complete. The author of the questions then marks the answers.

   Create a Web
   Can be done at written

   Make a Chart
   Instead have students make an illustration. Remind students that much of the information they need will be in the running text and not just illustrations found in the textbook.

   Plan a Tour
   This can be done as outlined.

   Give Your Opinion
   This can be done as outlined.

Assignments:

1. Read Voices of Alberta, page 64.
2. Do one or more of the suggested activities.
Lesson Eight

Concept: Chapter Two Review

Resources/Materials: Voices of Alberta, page 65
Worksheets #4.2.8a and #4.2.8b (optional, teacher copy, cut into strips and folded)
Worksheets #4.2.8c, #4.2.d, and #4.2.8e (optional, teacher copy)
Review Sheets (optional, student copies)

Introduction: Explain to students that the end of Chapter 2 has come and it is time to prepare for the Chapter 2 test.

Procedure:


2. Put the folded strips from Worksheets #4.2.8a and #4.2.8b into a container. Have students take turn picking out a strip. The student tries to answer the question. If he/she is unable, anyone in the class can answer. You can choose to put incorrectly answered question strips back into the container. (Worksheets #4.2.8c,#4.2.8d, and #4.2.8e are answer keys, provided for teacher convenience.)

3. ALTERNATELY or ADDITIONALLY. Distribute the Review Sheets and tell students to complete them.

4. If your students have been doing the Alberta Treasure Chest activity, have them choose something to put into their folders.

Assignments:

1. Read Voices of Alberta, page 65.
2. Cut into strips and fold questions from Worksheets #4.2.8a and #4.2.8b and place in a container. Have students draw a question from the container. The class tries to answer.
3. ALTERNATELY or ADDITIONALLY. Have students do the Review Sheets.
4. Add to the Alberta Treasure Chest, if you are doing that activity.
Chapter One Review Questions

Teacher Directions: Cut the questions below into strips. Fold each strip. Place in a container. Have individual students draw out a question and try to answer it. If he/she cannot, open the question to the class.

1. What are fossils?

2. What was the name of the place where Wendy Sloboda found fossilized dinosaur eggs?

3. Where fossils are concerned, what makes Alberta unique?

4. Who is Dr. Phil Currie?

5. Describe the steps that tell how plants and animals become fossils.

6. How has Nature uncovered many fossils that were once buried in soil and rock?

7. Where in Alberta can fossils be found?

8. Why did the First Nations of Alberta call fossils “buffalo stones”?

9. Who was Joseph Tyrell and why is he important to Alberta’s fossil heritage?

10. Why are the badlands important to Alberta’s fossil heritage?

11. What does the presence of fossil have to do with our identity as Albertans?
12. How does Alberta protect its fossils?

13. Why was Dinosaur Provincial Park created?

14. What is the importance of Dinosaur Provincial Park being named a World Heritage Site?

15. What is the connection between paleontologists and The Royal Tyrell Museum?

16. What are fossil fuels?

17. Describe how fossil fuels were formed.

18. What are three different viewpoints on the issue “Should Alberta’s Fossils Be Protected”?

19. How do fossils tell about Alberta’s past?
Chapter One Review Questions

ANSWERS

1. What are fossils?
   - the remains or shapes of ancient plants and animals that have turned to stone

2. What was the name of the place where Wendy Sloboda found fossilized dinosaur eggs?
   - Devil’s Coulee, near Warner

3. Where fossils are concerned, what makes Alberta unique?
   - so many fossils are found in Alberta

4. Who is Dr. Phil Currie?
   - Paleontologist with The Royal Tyrell Museum and The University of Alberta who has done extensive research on fossils

5. Describe the steps that tell how plants and animals become fossils.
   - Earthquakes and volcanoes occurred.
   - Plant and animals were covered over by rock and soil caused by these sudden natural occurrences.
   - Over the years more layers of soil and rock covered the plants and animals.
   - The plants and animals became fossilized with weight of the soil and rock.

6. How has Nature uncovered many fossils that were once buried in soil and rock?
   - Wind and water erosion.

7. Where in Alberta can fossils be found?
   - All over the province, but many are concentrated in the Red Deer River valley around Drumheller

8. Why did the First Nations of Alberta call fossils “buffalo stones”?
   - Knew that fossils came from animals of the past. Called them “grandfather of the buffalo”
9. Who was Joseph Tyrell and why is he important to Alberta’s fossil heritage?
   - Miner and mapmaker who discovered Albertosaurus near Drumheller

10. Why are the badlands important to Alberta’s fossil heritage?
    - A great many fossils are found in the badlands. Wind and water have more easily eroded the sandstone found in the area, uncovering many fossils

11. What does the presence of fossil have to do with our identity as Albertans?
    - We think of ourselves as citizens of a province of many fossils. We consider fossils to be important.

12. How does Alberta protect its fossils?
    - Province owns all fossils found in Alberta.
    - People allowed to collect fossils found lying on the ground.
    - In some areas, no one can pick up fossils. Paleontologists are allow to dig for fossils, with special permission in some areas

13. Why was Dinosaur Provincial Park created?
    - No one is allowed to collect or dig for fossils in the park, so it was a way to prevent people from taking fossils away

14. What is the importance of Dinosaur Provincial Park being named a World Heritage Site?
    - It showed that the fossils found in the area are important to the whole world.

15. What is the connection between paleontologists and The Royal Tyrell Museum?
    - Paleontologists in Alberta study their finds at the museum.

16. What are fossil fuels?
    - Fuels that come from the remains of ancient plants and animals
17. Describe how fossil fuels were formed.

- Alberta once covered by ocean where millions of tiny plants and animals lived.
- Over time the plants and animals died and were gradually covered by layers of silt and sand.
- The ocean began to disappear and the remains of the plants and animals were buried deeper and deeper.
- The heat and pressure of the layers of soil and sand caused them to turn to oil, gas, and coal.

18. What are three different viewpoints on the issue “Should Alberta’s Fossils Be Protected”?

- Thousands of fossils simply get washed away. Paleontologists cannot possibly use them all, so people should be able to collect them.
- When individuals are able to collect or buy fossils, it helps bring the past alive.
- People should not be allowed to collect fossils on their own because only paleontologists know the significance of them.
- Alberta is rich in fossils. What difference will it make if people collect some of them?
- Fossils are a valuable resource and should be protected just as we protect wildflowers and trees in parks.

19. How do fossils tell about Alberta’s past?

- Tell what plants and animals lived long ago.
- Can help determine what the earth’s surface was like.
- Can help determine natural events that occurred in the past.
1. Define the following terms.
   a. fossil
   b. paleontologist
   c. fossil fuel

2. What do fossils tell about Alberta’s past?

3. Match each of the people below with their descriptions.

<table>
<thead>
<tr>
<th>Dr. Phil Currie</th>
<th>Joseph Tyrell</th>
<th>Barnum Brown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wendy Sloboda</td>
<td>Briana Hunt</td>
<td>George Anderson</td>
</tr>
</tbody>
</table>

               In 1914, he started a campaign to protect Alberta’s fossils.

               He is one of the most famous paleontologists in the world. He is a professor at The University of Alberta and does of his work at the Royal Tyrell Museum.

               A scientist at the Royal Tyrell Museum told her that the fossil she found was that of a squid.

               He was a cartographer and miner who was one of the first non-First Nations people to discover the fossil of a giant dinosaur called *Albertosaurus*. 
She was only nineteen when she discovered fossilized dinosaur eggs at Devil’s Coulee.

He was an American fossil collector who came to the Red Deer Valley. He sent thousands of fossils back to the United States.

4. Name the place where each of these fossils was found. (Use Voices of Alberta, pages 52 and 53.

amber
dinosaur tracks
sea reptile
ammonite
small sea creatures
many different types of fossils

5. Following are sentences that describe how an ancient plant or animal might become a fossil. Number them in the correct order.

Alberta was once the home of many ancient plants and animals.
The buried plants and animals were covered over with several more layers of dirt and rock.
With time the deeply buried plants and animals became preserved and turned into fossils.
Over millions of years, wind and water erosion uncovered some of the fossils.
Sudden natural occurrences like volcanoes and earthquakes buried the plants and animals.
6. It took many years for Alberta to take steps to protect its fossils. Write the years that each of these events took place.

_____ Joseph Tyrell found the bones of a huge, meat-eating dinosaur that would later be called *Albertosaurus*.

_____ Barnum Brown, who worked for an American museum, had thousands of fossils sent to the United States from the Red Deer River Valley.

_____ The Canadian government hired fossil hunters who sent the fossils they found to be displayed at the Canadian Museum of Nature in Ottawa and at the Royal Ontario Museum in Toronto.

_____ George Anderson started a campaign to protect fossils.

_____ Dinosaur Provincial Park was created.

_____ Alberta passed a law to protect its fossil heritage.

_____ Dinosaur Provincial Park became a World Heritage Site.

_____ The Royal Tyrell Museum was opened.

7. What are four reasons why the Royal Tyrell Museum is important to Alberta’s fossil heritage.

   a. ____________________________

   b. ____________________________

   c. ____________________________

   d. ____________________________

8. How do fossil fuels form? Number these sentences in order.

_____ Alberta was once covered by ocean in which millions of tiny plants and animals lived. These plants and animals died and were covered with layers of silt and sand.

_____ The oceans began to disappear. The dead plants and animals were covered with more and more layers of sand and silt. The heat and pressure of all the silt and sand turned them into oil, natural gas, and coal.

_____ We remove the oil, gas, and cola from the ground and use them to heat our homes, cook our meals, run cars, trucks, tractors, and airplanes, and generate electricity.
9. Think about the issue “Should Albert’s fossils be protected”. In the chart below, tell about two different viewpoints on the issue. Then give two reasons that support each viewpoint.

<table>
<thead>
<tr>
<th>Viewpoint:</th>
<th>Viewpoint:</th>
</tr>
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<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Tell whether each of the following is an observation or an inference.

- Wendy Sloboda discovered a fossil at Devil’s Coulee.
- Alberta was once covered by an inland sea.
- The earth was much warmer when dinosaurs lived.
- Magrath is one of the few places in the world where ammonite has been found.
- More ancient plants and animals lived in Alberta than other places.
1. Define the following terms.
   a. fossil **remain or shape** of ancient plants and animals **that have turned to stone**
   b. paleontologist **scientist** who studies **fossils** to learn about **very old forms of life**
   c. fossil fuel **fuel formed from the remains of ancient plants and animals**

2. What do fossils tell about Alberta’s past?
   - types of plants and animals that once lived in Alberta
   - gives ideas what life was like long ago
   - gives clues about natural events that occurred between then and now

3. Match each of the people below with their descriptions.

<table>
<thead>
<tr>
<th>Dr. Phil Currie</th>
<th>Joseph Tyrell</th>
<th>Barnum Brown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wendy Sloboda</td>
<td>Briana Hunt</td>
<td>George Anderson</td>
</tr>
</tbody>
</table>

- **George Anderson** — In 1914, he started a campaign to protect Alberta’s fossils.
- **Dr. Phil Currie** — He is one of the most famous paleontologists in the world. He is a professor at The University of Alberta and does of his work at the Royal Tyrell Museum.
- **Briana Hunt** — A scientist at the Royal Tyrell Museum told her that the fossil she found was that of a squid.
- **Joseph Tyrell** — He was a cartographer and miner who was one of the first non-First Nations people to discover the fossil of a giant dinosaur called *Albertosaurus*. 
Wendy Stobola
She was only nineteen when she discovered fossilized
dinosaur eggs at Devil’s Coulee.

Barnum Brown
He was an American fossil collector who came to the Red
Deer Valley. He sent thousands of fossils back to the
United States.

4. Name the place where each of these fossils was found. (Use Voices of Alberta, pages
52 and 53.

Taber
amber

Grande Cache
dinosaur tracks

Fort McMurray
sea reptile

Magrath
ammonite

Castle Mountain
small sea creatures

Drumheller
many different types of fossils

5. Following are sentences that describe how an ancient plant or animal might become a
fossil. Number them in the correct order.

1. Alberta was once the home of many ancient plants and animals.

3. The buried plants and animals were covered over with several more layers of dirt
   and rock.

4. With time the deeply buried plants and animals became preserved and turned
   into fossils.

5. Over millions of years, wind and water erosion uncovered some of the fossils.

2. Sudden natural occurrences like volcanoes and earthquakes buried the plants
   and animals.
6. It took many years for Alberta to take steps to protect its fossils. Write the years that each of these events took place.

1884 Joseph Tyrell found the bones of a huge, meat-eating dinosaur that would later be called Albertosaurus.

1904 Barnum Brown, who worked for an American museum, had thousands of fossils sent to the United States from the Red Deer River Valley.

1912 The Canadian government hired fossil hunters who sent the fossils they found to be displayed at the Canadian Museum of Nature in Ottawa and at the Royal Ontario Museum in Toronto.

1914 George Anderson started a campaign to protect fossils.

1955 Dinosaur Provincial Park was created.

1973 Alberta passed a law to protect its fossil heritage.

1979 Dinosaur Provincial Park became a World Heritage Site.

1985 The Royal Tyrell Museum was opened.

7. What are four reasons why the Royal Tyrell Museum is important to Alberta's fossil heritage.

a. **Alberta fossils can remain in the province**

b. **Paleontologists in Alberta have place to study their finds.**

c. **People have place to view fossils.**

d. **People can learn about life in Alberta long ago.**

8. How do fossil fuels form? Number these sentences in order.

1. Alberta was once covered by ocean in which millions of tiny plants and animals lived. These plants and animals died and were covered with layers of silt and sand.

2. The oceans began to disappear. The dead plants and animals were covered with more and more layers of sand and silt. The heat and pressure of all the silt and sand turned them into oil, natural gas, and coal.

3. We remove the oil, gas, and cola from the ground and use them to heat our homes, cook our meals, run cars, trucks, tractors, and airplanes, and generate electricity.
9. Think about the issue “Should Albert’s fossils be protected”. In the chart below, tell about two different viewpoints on the issue. Then give two reasons that support each viewpoint.

<table>
<thead>
<tr>
<th>Viewpoint: People should be able to collect fossils</th>
<th>Viewpoint: Fossils should be protected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Many fossils simply wash away and paleontologists cannot collect them all. People should be allowed to collect them. Fossils can bring the past alive for the average person.</td>
<td>Collectors don’t know the importance of fossils they find. Only experts do</td>
</tr>
<tr>
<td>Alberta has so many fossils!</td>
<td>Fossils are a valuable resource and so should be protected</td>
</tr>
</tbody>
</table>

10. Tell whether each of the following is an observation or an inference.

observation
Wendy Sloboda discovered a fossil at Devil’s Coulee.

inference
Alberta was once covered by an inland sea.

inference
The earth was much warmer when dinosaurs lived.

observation
Magrath is one of the few places in the world where ammonite has been found.

inference
More ancient plants and animals lived in Alberta than other places.
Lesson Nine

Concept: Chapter Two Test

Resources/Materials: Chapter Two Test (student copies)
1. Define these terms.
   a. fossil ________________________________

   ________________________________

   b. paleontologist ________________________________

   ________________________________

   c. fossil fuel ________________________________

   ________________________________

2. What are two things fossils tell about Alberta’s past?

   ________________________________

   ________________________________

   ________________________________

3. Describe in three or more steps how plants or animals become a fossils.

   ________________________________

   ________________________________

   ________________________________

   ________________________________

   ________________________________

   ________________________________
4. Match these people with their descriptions.

<table>
<thead>
<tr>
<th>Wendy Sloboda</th>
<th>Dr. Phil Currie</th>
<th>Barnum Brown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph Tyrell</td>
<td>George Anderson</td>
<td></td>
</tr>
</tbody>
</table>

- a world famous paleontologist from the University of Alberta who does much of his work in the Drumheller Valley and the Royal Tyrell Museum.
- a cartographer and miner who discovered a large meat-eating dinosaur near Drumheller.
- discovered fossilized dinosaur eggs at Devil's Coulee which is near Warner
- campaigned to have Alberta's fossils protected
- an American who had thousands of Alberta's fossils shipped to a museum in the United States

5. Why is the Royal Tyrell Museum an important place in Alberta? Use the graphic organizer to show your answer. You can add more bubbles if you need to.
6. Tell about the important work paleontologists do.

7. Illustrate and tell about how fossil fuels are formed.

<table>
<thead>
<tr>
<th>Illustration</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. **Issue**: Should Alberta’s fossils be protected?

For the issue above, write at least two reasons that support each viewpoint.

<table>
<thead>
<tr>
<th>Viewpoint 1</th>
<th>Viewpoint 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>People should be allowed to keep the fossils they find.</td>
<td>Alberta’s fossil should be protected.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Tell whether each of the following is an observation or an inference.

- Most fossils were formed by animals being covered after earthquakes.
- Fossil fuels were formed when buried plants and animals were placed under the pressure of many layers of soil and rock.
- Many fossils have been found lying on the surface of the earth.
- Fossils that look like sea creatures have been discovered in Alberta.
- The earth was warmer millions of years ago.
1. Define these terms.
   a. fossil  the remains or shapes of ancient plants and animals that have turned to stone
   b. paleontologist  a scientist who studies fossils to learn about very old forms of life
   c. fossil fuel  fuel that comes from the remains of ancient plants and animals

2. What are two things fossils tell about Alberta’s past? Answers may vary
   what types of plants and animals lived
   what the climate was like
   important events that happened over time

3. Describe in three or more steps how plants or animals become a fossils.
   earthquakes and volcanoes occurred
   these sudden events covered plants and animals with dirt and rock
   over the years more layers of dirt and rock covered the buried plants and animals
   the buried plants and animals gradually fossilized
4. Match these people with their descriptions.

<table>
<thead>
<tr>
<th>Wendy Sloboda</th>
<th>Dr. Phil Currie</th>
<th>Barnum Brown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph Tyrell</td>
<td>a world famous paleontologist from the University of Alberta who does much of his work in the Drumheller Valley and the Royal Tyrell Museum.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Joseph Tyrell</td>
<td>a cartographer and miner who discovered a large meat-eating dinosaur near Drumheller.</td>
</tr>
<tr>
<td>Wendy Sloboda</td>
<td>discovered fossilized dinosaur eggs at Devil's Coulee which is near Warner</td>
<td></td>
</tr>
<tr>
<td>George Anderson</td>
<td>campaigned to have Alberta's fossils protected</td>
<td></td>
</tr>
<tr>
<td>Barnum Brown</td>
<td>an American who had thousands of Alberta’s fossils shipped to a museum in the United States</td>
<td></td>
</tr>
</tbody>
</table>

5. Why is the Royal Tyrell Museum an important place in Alberta? Use the graphic organizer to show your answer. You can add more bubbles if you need to.

- Alberta’s fossils can remain in the province
- Paleontologists in Alberta have a place to study fossils
- Visitors/scientists from Canada and all over the world can learn more about life in Alberta long ago.
- Albertans can see fossils on display
6. Tell about the important work paleontologists do. **Answers will vary**

- dig for fossils
- figure out what kind of plant/animals lived long ago
- determine how plants/animals of long ago adapted to their environment
- determine how ancient plant/animals lived

7. Illustrate and tell about how fossil fuels are formed.

<table>
<thead>
<tr>
<th>Illustration</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>300-400 million years ago</td>
<td>Alberta covered by ocean. Tiny plants/animals that lived in the ocean died and became buried under layers of silt and sand.</td>
</tr>
<tr>
<td>50-100 million years ago</td>
<td>Oceans began to disappear. Remains of dead plants/animals buried deeper. Heat and pressure turned them into oil, natural gas, coal.</td>
</tr>
<tr>
<td>Today</td>
<td>We remove the oil, gas, and coal from the ground.</td>
</tr>
</tbody>
</table>
8. Issue: **Should Alberta’s fossils be protected?**

   For the issue above, write at least two reasons that support each viewpoint.

<table>
<thead>
<tr>
<th>Viewpoint 1</th>
<th>Viewpoint 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>People should be allowed to keep the fossils they find.</td>
<td>Alberta’s fossil should be protected.</td>
</tr>
<tr>
<td>So many fossils just get washed away. There are more fossils than paleontologists could ever get to.</td>
<td>People who collect fossils could be taking the remains of an plant/animal they know nothing about. An expert has to examine it.</td>
</tr>
<tr>
<td>Owning a fossil can bring the past alive for an ordinary citizen.</td>
<td>Fossils are a valuable resource and should be treated as such.</td>
</tr>
<tr>
<td>Alberta has so many fossils. Why can’t ordinary people collect them?</td>
<td></td>
</tr>
</tbody>
</table>

9. Tell whether each of the following is an observation or an inference.

   **Inference**
   Most fossils were formed by animals being covered after earthquakes.

   **Inference**
   Fossil fuels were formed when buried plants and animals were placed under the pressure of many layers of soil and rock.

   **Observation**
   Many fossils have been found lying on the surface of the earth.

   **Observation**
   Fossils that look like sea creatures have been discovered in Alberta.

   **Inference**
   The earth was warmer millions of years ago.
Chapter Three

Natural Resources in Your Life

Inquiry Questions

- How do we use natural resources?
- How have natural resources helped communities in Alberta grow?
Chapter Three
Natural Resources in Your Life

Contents
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Lesson Three  Oil: Then and Now    5
Lesson Four   Viewpoints: What Are Some Oil Sands Challenges?    6
Lesson Five   Coal    7
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Lesson One

Concept: Introduction

Resources/Materials: Voices of Alberta, pages 66 and 67
Worksheet #4.3.1a (student copies)
Worksheet #4.3.1b (optional, student copies)

Introduction: Write these words on the board:

soil   forests   gold   sun   water

Ask students what they have in common. Lead the discussion to the conclusion that they are all things from nature that people use. They are referred to as natural resources.

Procedure:

1. Explain that Alberta is a province that has many natural resources, and that all Albertans benefit from these natural resources.

2. Call out the names of some resources and have students decide whether or not they are natural resources. (The idea is to distinguish between natural resources and man-made resources. So trees and wind are natural resources. A pencil and a truck are not because people have made the resource. Most man-made resources are made from natural resources.)

3. Discuss the natural resources used by the colony.

4. Have students turn to textbook, pages 66 and 67. Give students a chance to flip through Chapter 3.

5. Guide the reading of pages 66 and 67, making sure that students understand the inquiry questions.

6. If you have the time, make a K-W-L chart on chart paper or distribute Worksheet #4.3.1b. With students fill in the first two columns.

7. Distribute Worksheet #4.3.1a. Go over the directions.

8. ALTERNATELY. Have students come up with a list of as many natural resources as possible. Then on individual sheets of paper have students make illustrations for each natural resource with the name of the natural resource printed at the bottom. Make into a “Natural Resources” booklet or bulletin board display.

Assignments:

1. Read Voices of Alberta, pages 66 and 67.
2. Do Worksheet #4.3.1a.
3. Brainstorm natural resources and make illustrations of the natural resources to make into a booklet or a bulletin board display.
Directions: Use *Voices of Alberta*, pages 66 and 67 to help you with these questions.

1. Classify the resources in the box by writing their names in the correct column of the chart.

<table>
<thead>
<tr>
<th>Natural Resources</th>
<th>Man-made Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>book</td>
<td>desk</td>
</tr>
<tr>
<td>seal</td>
<td>iron ore</td>
</tr>
<tr>
<td>natural gas</td>
<td>telephone</td>
</tr>
<tr>
<td>river</td>
<td>sun</td>
</tr>
<tr>
<td>rain</td>
<td>oven</td>
</tr>
<tr>
<td>trees</td>
<td>fish</td>
</tr>
<tr>
<td>paper</td>
<td>gold</td>
</tr>
<tr>
<td>fish</td>
<td>eraser</td>
</tr>
<tr>
<td>wind</td>
<td>tractor</td>
</tr>
<tr>
<td>snow</td>
<td>textbook</td>
</tr>
<tr>
<td>water</td>
<td>coal</td>
</tr>
<tr>
<td>soil</td>
<td>grass</td>
</tr>
<tr>
<td>gold</td>
<td>petroleum</td>
</tr>
</tbody>
</table>

2. What are four natural resources used on your colony? Tell how each is used.
### Social Studies Grade 4 Chapter 3 Worksheets

<table>
<thead>
<tr>
<th>What I Know</th>
<th>What I Want to Know</th>
<th>What I Learned</th>
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</thead>
<tbody>
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</table>

Worksheet #4.3.1b
Natural Resources

Directions: Use *Voices of Alberta*, pages 66 and 67 to help you with these questions.

1. Classify the resources in the box by writing their names in the correct column of the chart.

<table>
<thead>
<tr>
<th>Natural Resources</th>
<th>Man-made Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>trees</td>
<td>book</td>
</tr>
<tr>
<td>water</td>
<td>desk</td>
</tr>
<tr>
<td>seal</td>
<td>sun</td>
</tr>
<tr>
<td>natural gas</td>
<td>iron ore</td>
</tr>
<tr>
<td>river</td>
<td>calculator</td>
</tr>
<tr>
<td>rain</td>
<td>coal</td>
</tr>
<tr>
<td>trees</td>
<td>grass</td>
</tr>
<tr>
<td>water</td>
<td>rain</td>
</tr>
<tr>
<td>seal</td>
<td>snow</td>
</tr>
<tr>
<td>soil</td>
<td>tractor</td>
</tr>
<tr>
<td>iron ore</td>
<td>textbook</td>
</tr>
<tr>
<td>sun</td>
<td>telephone</td>
</tr>
<tr>
<td>natural gas</td>
<td>paper</td>
</tr>
<tr>
<td>fish</td>
<td>calculator</td>
</tr>
<tr>
<td>gold</td>
<td>oven</td>
</tr>
<tr>
<td>snow</td>
<td>eraser</td>
</tr>
<tr>
<td>petroleum</td>
<td>tractor</td>
</tr>
</tbody>
</table>

2. What are four natural resources used on your colony? Tell how each is used.

Examples: soil → used to grow crops

wind → used to dry clothes hanging on clothes line

rain → used to help crops grow

sun → used to help crops grow; keep us warm

Worksheet #4.3.1a
Lesson Two

Concept: Energy Resources: Using Fossil Fuels

Resources/Materials: Voices of Alberta, page 68 and 69
Worksheet #4.3.2a (student copies)
Worksheet #4.3.2b (optional, three copies per student)

Introduction: Review that fossil fuels are fuels that were formed from ancient plants and animals. Explain that for the most part, fossil fuels like coal and natural gas can be used more or less as they are found in nature. However, oil (often referred to as crude oil or petroleum) must be refined or changed before it can be used. Gasoline, diesel fuel, and jet fuel are fuels made from oil. Vaseline and plastics are products made from oil.

Procedure:

1. Explain that Leduc is a large community just south of Edmonton. Leduc is very important to Albertans.

2. Have students turn to textbook, pages 68 and 69. Guide the reading. Explain that the Leduc discovery led to major exploration for oil and natural gas in Alberta. Much of the money that the Province of Alberta makes is from the sale of oil and gas to companies all over the world.

3. With students brainstorm the many uses of oil, coal, and natural gas. Try to expand on, and if possible, be more specific than what is on the chart on textbook, page 69. (Note that some colonies generate their own electricity by burning coal.)

4. Distribute Worksheet #4.3.2a and three copies of #4.3.2b. Students are to use the information from the article on Worksheet #4.3.2a to make concept maps (webs) on Worksheet #4.3.2b on the uses of each the fossil fuels. (They are to write the name of the fossil fuel in the centre oval.) Depending on your students, have them make their concepts maps as simple or complex as you wish. Note: If you wish, the concept maps may be make in students’ notebooks, instead of on Worksheet #4.3.2b.

5. ALTERNATELY. You could have students do further research using reference books and encyclopedias on one of the fossil fuels. You could have them stick to uses of the fossil fuel or expand the topic to include where it is found, how it is taken from the ground, uses, and issues surrounding it.

Assignments:

1. Read Voices of Alberta, pages 68 and 69.
2. Use the information from Worksheet #4.3.2a to make concept maps of the uses of oil, natural gas, and coal on copies of Worksheet #4.3.2b.
3. ALTERNATELY. Have students research and make a report on one of the fossil fuels. If you like expand the topic beyond uses of fossil fuels.
How We Use Fossil Fuels

People all over the world use fossil fuels everyday. The burning of fossil fuels helps to make our homes more comfortable. Fossil fuels are used to make many different types of products. Without them, the ways we get from one place to another would not be the same.

Coal

Coal is used for many different purposes. One of the more common uses of coal is to generate electricity. The coal is burned to heat water. The steam from the heated water turns the blades of the electricity generator. Most of the electricity in Alberta is generated using coal.

Coal is also used to make many different products. This includes the making of paper, dyes, insecticides, fertilizers, medicines, and fingernail polish.

On the most important uses of coal is the making of steel. Coal is used to make a substance called coke. Coke is used to turn iron ore into steel. Steel is used to make all sorts of things: machines, automobiles, tractors, kitchen appliances, and many other products.

Petroleum (Oil)

Here are some of the ways petroleum is used in our everyday lives. All plastics are made from petroleum and plastic is used almost everywhere, in our cars, houses, toys, computers, and clothing.

Asphalt used in road construction is a petroleum product as is the synthetic rubber in tires. Paraffin wax comes from petroleum, as do fertilizers, pesticides. Detergents, camera film, packaging materials, cloth, furniture, and carpets. This list goes on and on.

Perhaps one of the more common uses of petroleum products is in the transportation industry. Almost all motor vehicles use petroleum products such as gasoline, diesel fuel, and jet fuel to power their engines. In addition the grease and oil used in their engines and other parts are petroleum products.

A petroleum product called heating oil is used to heat homes and businesses in many areas of the country.

Petroleum products are also used to generate electricity. The oil burned in order to heat water. The resulting steam turns the electricity generators.

Natural Gas

Like the other fossil fuels natural gas has uses in the homes and industries. In homes, natural gas is used in cooking, to heat and cool homes, and to heat water for doing dishes, showering and bathing.

Some cars burn natural gas instead of gasoline or diesel fuel.

Natural gas is used to make many different products. Some of these products include plastics, fertilizer, antifreeze, and fabrics.
Uses of Fossil Fuels

Directions: Use the information from the article “Uses of Fossil Fuels” to make a concept map for each of these: petroleum, coal, and natural gas.
Tree Planter Job Advertisement

Answers will vary

Wanted: Tree Planter

Company: __________________________

Location: __________________________

Hours of Work: 12-14 hours/day, June - September or October

Pay and Benefits: __________________________

Job Description:
- must be able to work long hours in rough terrain
- must be physically fit
- must be willing to work in a variety of weather conditions
- possibility of wild animals in the area

Draw your company logo in the oval

Line Master 3-2

Tree Planter Job Advertisement (to accompany Alberta's Forests)
Directions: Use the information from the article “Uses of Fossil Fuels” to make a concept map for each of these: petroleum, coal, and natural gas.

Answers will vary
Directions: Use the information from the article “Uses of Fossil Fuels” to make a concept map for each of these: petroleum, coal, and natural gas.

Answers will vary
Uses of Fossil Fuels

Directions: Use the information from the article “Uses of Fossil Fuels” to make a concept map for each of these: petroleum, coal, and natural gas.

Answers will vary

Uses of Natural Gas

- Cooking
- Heat homes and businesses
- Heat water
- Fuel for vehicles
- Make products
  - Plastics
  - Fertilizer
  - Antifreeze
- Fabrics

Worksheet #4 3.2b
Lesson Three

Concept: Oil: Then and Now

Resources/Materials: Voices of Alberta, pages 70 and 71
    Photo Card, Oil and Gas: Then and Now
    Photo Card, Oil and Gas: Then and Now (optional, copies of the reverse side)
    Worksheet #4.3.3a (student copies)
    Worksheet $4.3.3b$ (optional, student copies)

Introduction: Recall that the discovery of oil at Leduc was considered to be a major event in Alberta’s history because it led to the extensive search for oil and gas in the province.

The oil found at Leduc is referred to as conventional oil. It is found in underground pools and pumped to the surface and taken to refineries by trucks or pipelines. Today there is another source of petroleum. They are the oil sands. The petroleum is mixed with sand. To make the oil useful, it must first be separated from the sand.

Procedure:

1. Hold the photo card, Oil and Gas: Then and Now. Discuss the two photos and read the information on the reverse of the card.

2. Have students turn to textbook, pages 70 and 71. Guide the reading.

3. Distribute Worksheet #4.3.3a. Explain that this worksheet explains the process for removing conventional oil from the ground. Tell students they are to read the article and the complete the chart on Worksheet #4.3.3b. Note: instead of giving students Worksheet #4.3.3b, they could make a similar chart in their notebooks.

4. OPTIONAL. Have students do the “Inquiring Minds” questions AND/OR the “Be a Reporter” exercise on the reverse of the photo card.

Assignments:

1. Read Voices of Alberta, pages 70 and 71.
2. Read the article on Worksheet #4.3.3a. Have students complete the chart on Worksheet #4.3.3b or make a similar chart in their notebooks.
3. OPTIONAL. Do the “Inquiring Minds” questions AND/OR the “Be a Reporter” exercise on the reverse of the photo card.
Drilling for Oil

Much of the world’s petroleum and gas are found trapped in between folded layers of rock.

Oil reservoir rocks (red) and natural gas (blue) can be trapped by folding (left), faulting (middle) or pinching out (right).

1. The land is first cleared and levelled and an access road is built.

2. Crews put up a structure called a derrick. They use the derrick to drill a large deep hole through the layers of soil and rock. As they drill, they add sections of pipe. They do keep drilling until they reach the oil.

3. Once the pocket of oil is reached, they take down the derrick. They use a device called a pump jack to pump the oil to the surface.

4. Once the pump jack is in place, the land is restored to its natural state as much as possible. The access road is kept so that people can come to make sure the pump jack is working properly.

5. The oil is taken to a big plant called a refinery. At the refinery, the petroleum is made into different products like gasoline, motor oil, kerosene, jet fuel, and diesel fuel.
Taking Oil from Ground

Directions: Complete the chart to show the similarities between drilling for conventional oil and taking oil from oil sands.

<table>
<thead>
<tr>
<th>STEPS</th>
<th>CONVENTIONAL OIL</th>
<th>OIL FROM OIL SANDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparing the Land</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Getting to the Oil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Getting the Oil out of the Earth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making Products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restoring the Land</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Worksheet #4.3.3b
## Social Studies Grade 4 Chapter 3 Worksheets

### Taking Oil from Ground

**Directions:** Complete the chart to show the similarities between drilling for conventional oil and taking oil from oil sands.

<table>
<thead>
<tr>
<th>STEPS</th>
<th>CONVENTIONAL OIL</th>
<th>OIL FROM OIL SANDS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>· land cleared, leveled</td>
<td>· trees removed</td>
</tr>
<tr>
<td></td>
<td>· access road built</td>
<td>· topsoil, sand, clay and gravel removed</td>
</tr>
<tr>
<td>Preparing the Land</td>
<td>· put up a derrick and drill long deep hole</td>
<td>· oil sand dug up by vehicles with large shovels</td>
</tr>
<tr>
<td>Getting to the Oil</td>
<td>· pump jacks pump oil to the Earth’s surface</td>
<td>· oil sand mixed with hot water</td>
</tr>
<tr>
<td>Getting the Oil out of the Earth</td>
<td>· done at a refinery</td>
<td>· done at a refinery</td>
</tr>
<tr>
<td>Making Products</td>
<td>· land restored to what it was, except access road is kept.</td>
<td>· clean sand replaces oil sand</td>
</tr>
<tr>
<td>Restoring the Land</td>
<td>· topsoil added</td>
<td>· shrubs/trees planted</td>
</tr>
</tbody>
</table>

Worksheet #4.3.3b
Lesson Four

Concept: Viewpoints: What Are Some Oil Sands Challenges?

Resources/Materials: Voices of Alberta, pages 72 and 73
Line Master G-2 (student copies)

Introduction: Review how oil is separated from the earth in both oil drilling and oil sands operations. Explain that once the pump jack is in place there is little activity around the drilling site. With oil sands operations, there is continual activity because machines must constantly disturb the environment to dig up and remove the oil sands. Using the oil sands means that oil companies dig a big hole spreads of hundreds of hectares.

Procedure:

1. Discuss that environmentalists are concerned because they believe oil sands activity is very harmful to the environment. First Nations people are concerned as well.

2. Have students turn to textbook, pages 72 and 73. Guide the reading. Conclude that some people believe oil sands activity should be stopped or slowed while others believe that with proper management it should continue.

3. Distribute Line Master G-2. Go over the directions, if necessary.

4. OPTIONAL. If you like, once Line Master G-2 is completed, have students write a few paragraphs about their feeling regarding oil sands activity. OR Have them write a report on the challenges surrounding oil sands activity.

Assignments:

1. Read Voices of Alberta, pages 72 and 73.
3. OPTIONAL. Write an essay about your feeling regarding oil sands activity. OR Write a report about the challenges of oil sands activity.
Lesson Five

Concept: Coal

Resources/Materials: Voices of Alberta, page 74
Photo Card, Coal: Then and Now
Photo Card, Coal: Then and Now (optional, copies of the reverse side)
Encyclopedias and other reference materials

Introduction: With students recall that coal is one of Alberta’s most important natural resources and that it is used to make a variety of things, including electricity.

Explain that coal is usually found in layers or seams. Some coal seams are far underground while others are close to the surface.

Procedure:

1. Explain that a coal mined from seams far underground can be dangerous because of cave-ins, floods, and gas poisoning. In Alberta, there has been a dramatic decrease in underground coal mining.

2. Mining coal from the seams close to the earth’s surface is much more common now. It has some of the same challenges involved as oil sands activity.

3. Have students turn to textbook, page 74. Guide the reading.

4. The hold up the photo card. Read the text on the back of the card.

5. Have the students do some or all of the “Inquiring Minds” and “Reclamation: Restoring the Land” activities.

6. ALTERNATELY. Have students research and write a report on coal mining, using encyclopedias and other reference material.
Lesson Six

Concept: Meeting Energy Challenges

Resources/Materials: Voices of Alberta, pages 75 – 77
Worksheet #4.3.6 (student copies)
Line Master 3-1 (optional, student copies)

Introduction: Review with students the environmental concerns that have to do with the oil and gas industries. Also, remind students that when fossil fuels are burned, they cause the air to be less pure. This can cause health problems and even changes to the climate.

In addition, discuss how there is only so much fossil fuel on the earth. Once that runs out, we have no more. People are looking for products that can do the same things as products made from fossil fuels, but that are more environmentally friendly and that won’t run out.

Procedure:

1. Have students turn to textbook, pages 75 – 77. Guide the reading. Be sure students understand the difference between a renewable and a non-renewable resource.

2. Ask students if they know if alternate sources of energy used by colonies. (Example: Many newly built colonies use geothermal technology to heat and cool their homes and outbuildings.

3. Distribute Worksheet #4.3.6. Go over the directions.

4. Distribute Line Master 3-1 OR students can do the work in their notebooks.

   Directions: Work with a partner or two.

   Think of some challenges that might occur when people use fossil fuels for energy. (e.g., changes in the look of the land, causes pollution, might run out)
   The think of some possible solutions (e.g., reclaim the land, use other sources of renewable energy, conserve)

Assignments:

1. Read Voices of Alberta, pages 75 – 77.
2. Do Worksheet #4.3.6.
3. Do Line Master 3-1 (or do in notebook).
Renewable and Non-renewable Resources

Directions: Use Voices of Alberta, pages 75 – 77 to answer the questions.

1. Define renewable resource.

____________________________________________________________________________________

____________________________________________________________________________________

2. Define non-renewable resource.

____________________________________________________________________________________

____________________________________________________________________________________

3. What does it mean to conserve?

____________________________________________________________________________________

____________________________________________________________________________________

4. Classify the resources below as renewable or non-renewable.

<table>
<thead>
<tr>
<th>coal</th>
<th>soil</th>
<th>fossils</th>
<th>trees</th>
<th>sun</th>
<th>water</th>
<th>wind</th>
<th>deer</th>
<th>petroleum</th>
<th>iron ore</th>
<th>natural gas</th>
<th>gold</th>
<th>rivers</th>
<th>hot springs</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Renewable Resources</th>
<th>Non-renewable Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Worksheet #4.3.6
Social Studies Grade 4 Chapter 3 Worksheets

**Renewable and Non-renewable Resources**

**Directions:** Use *Voices of Alberta*, pages 75 – 77 to answer the questions.

1. Define *renewable resource*.
   
   *resource that can be replaced if used carefully*

2. Define *non-renewable resource*.
   
   *resource that cannot be replaced or renewed*

3. What does it mean to conserve?
   
   *use a resource carefully so it will last longer*

4. Classify the resources below as renewable or non-renewable.

<table>
<thead>
<tr>
<th>coal</th>
<th>trees</th>
<th>water</th>
<th>petroleum</th>
<th>gold</th>
</tr>
</thead>
<tbody>
<tr>
<td>soil</td>
<td>sun</td>
<td>wind</td>
<td>iron ore</td>
<td>rivers</td>
</tr>
<tr>
<td>fossils</td>
<td>fish</td>
<td>deer</td>
<td>natural gas</td>
<td>hotsprings</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Renewable Resources</th>
<th>Non-renewable Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>trees</td>
<td>coal</td>
</tr>
<tr>
<td>water</td>
<td>petroleum</td>
</tr>
<tr>
<td>gold</td>
<td>iron ore</td>
</tr>
<tr>
<td>soil</td>
<td>fossils</td>
</tr>
<tr>
<td>sun</td>
<td>natural gas</td>
</tr>
<tr>
<td>wind</td>
<td>hotsprings</td>
</tr>
</tbody>
</table>
# Fossil Fuels

**Answers will vary**

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>cause pollution</td>
<td>make sure factories/cars have devices to minimize pollution emission</td>
</tr>
<tr>
<td></td>
<td>use alternate forms of energy</td>
</tr>
<tr>
<td></td>
<td>encourage use of public transportation</td>
</tr>
<tr>
<td>changes the look of the land</td>
<td>ensure the land is restored once oil activity is finished</td>
</tr>
<tr>
<td>might run out</td>
<td>encourage conservation</td>
</tr>
<tr>
<td></td>
<td>use alternate forms of energy</td>
</tr>
</tbody>
</table>

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*Line Master 3-1*  
*Fossil Fuels (to accompany How Do You Use Energy Resources?)*
Lesson Seven

Concept: Agriculture

Resources/Materials: Voices of Alberta, pages 78 – 82
              Photo Card, Agriculture: Then and Now
              Worksheet #4.3.7 (student copies)

Introduction: Discuss with students all the products they grow or raise on their colony. Discuss with students that all colonies are engaged in agriculture. Challenge students to come up with a definition of agriculture (any activity that involves growing crops or raising animals).

Challenge students to determine the natural resources that are common to all agriculture. Soil, sunlight, and water are directly or indirectly involved in all agricultural activities.

All agricultural activities are involved in growing or raising products to make food.

Procedure:

1. Have students turn to textbook, page 78. Guide the reading of the page.

2. Tell students to read independently, textbook, pages 79 – 82.

3. Distribute Worksheet #4.3.7. Go over the directions, if necessary.

4. ALTERNATELY OR ADDITIONALLY. Have students make a pictorial concept map for each of the products that are produced on their colony. Instead of words, have the students make pictures.

Example: If the colony produces wheat. Have them draw, colour, and cut out large stalks or kernels of wheat. Have them draw, colour, and cut out pictures of products made from wheat. In the centre of an unlined sheet of paper have them paste the picture of the wheat. Then radiating from the wheat picture, have them paste pictures of the wheat products.

Depending on how much time you want to spend on the activity, you can have each student make pictorial concept maps for all the products grown on the colony or assign each individual student to make a concept map of one of the things grown on the colony.

Assignments:

1. Read Voices of Alberta, pages 78 – 82.
2. Do Worksheet #4.3.7.
3. AND OR have individuals or the class make pictorial concept maps for the products grown or raised on the colony.
Agriculture on the Colony

**Directions:** Use *Voices of Alberta*, page 78 – 82 to help you to complete the chart about the products grown or raised on your colony. (You may not need all the spaces. Add more spaces if you need to.)

<table>
<thead>
<tr>
<th>Product Raised or Grown on the Colony</th>
<th>Natural Resources Used</th>
<th>Foods Made from the Product</th>
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</thead>
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</tbody>
</table>
Lesson Eight

Concept: Agriculture Then and Now

Resources/Materials: Voices of Alberta, pages 78 – 82
Photo Card, Agriculture: Then and Now
Photo Card, Agriculture: Then and Now (optional, student copies of the reverse)
Line Master G-1 (optional, student copies)

Introduction: Hold up the photo card. Discuss that both photos are of harvest time. Have students tell the similarities and differences they see.

Procedure:

1. Discuss the role of technology in how agricultural practices have changed since long ago.

2. Discuss the amount of non-renewable resources that are used in agriculture today compared with long ago.

3. Read the information on the back of the photo card.

4. Have students do some or all of the “Inquiring Minds” and “Create a Want Ad” activities.

5. ALTERNATELY. Distribute Line Master G-1. Students are to use the Venn diagram to compare agriculture today with long ago.

Assignments:

1. Reread Voices of Alberta, pages 78 – 82.
2. Read the information on the reverse of the photo card.
3. Do some or all of the “Inquiring Minds” and “Create a Want Ad” activities.
4. ALTERNATELY. Compare agriculture long ago with agriculture now, using the Venn diagram on Line Master G-1.
Lesson Nine

Concept:  Skill Power: Using a Concept Map to Organize Information


Introduction: Briefly, review what students have learned so far about agriculture today.

Procedure:

1. Have students turn to textbook, page 83. Guide the reading.

2. Assign students to make a concept map in their notebooks. (Note that the sample in the textbook, only shows two points under each heading, but there may be many more.)

3. The activity at the bottom of textbook, page 83 directs students to write an essay. Following are some suggestions.

   - Decide on the order you want to put the information.
   - Make sure similar ideas are placed together in paragraphs.
   - Structure:
     - Introduction – tell what the essay is about and why the topic is important
     - Body – several paragraphs in length. Write one paragraph about each of land, ranching, farming, and irrigation.
     - Conclusion – wrap up the essay by telling why agriculture is important today and its importance in the future.

Assignments:

1. Read Voices of Alberta, page 83.
2. Make concept map in notebook.
3. Write essay, about agriculture.
Lesson Ten

Concept: Forests

Resources/Materials: Voices of Alberta, pages 84 and 85
Photo Card, Forestry: Then and Now
Photo Card, Forestry: Then and Now (optional, copies of the reverse side)
Worksheet #4.3.10 (optional, student copies)
Line Master G-7 (optional, student copies)

Introduction: Have students decide if trees are a renewable or a non-renewable natural resource.
(renewable)

Have students turn to textbook, page 30 and observe that the Boreal Forest Region covers roughly half of Alberta. The Boreal Forest Region is the source of most of the trees that are cut down to make lumber.

Procedure:

1. Have students turn to textbook, page 84. Guide the reading.

2. Tell students to read textbook, page 84 independently.

3. Show the photo card, Forestry: Then and Now. Read the text on the reverse of the card.

4. Note that technology has made it easier and faster to cut trees. Discuss the pros and cons of this.

5. Distribute Worksheet #4.3.10. Note the exercises on the sheet can be done in notebooks instead. Go over the directions.

6. Distribute Line Master G-7. This can be done in notebooks instead. Have them write at the top of the sheet the question “Is the greater use of technology in the forestry industry good for Albertans? Then have students begin the filling in the chart using textbook, pages 84 and 85 and the photo card. Explain that they will have the opportunity to add to the chart in the next class.

7. In their notebooks, have students list at least seven uses of forests. Remind them to give their list a heading.

Assignments:

1. Read Voices of Alberta, pages 84 and 85.
2. In notebook, make a list of at least 7 uses of forests. Do not forget to include a heading.
3. Do Worksheet #4.3.10. (can be done in notebooks instead)
4. Write the heading “Is the greater use of technology in the forestry industry good for Albertans? Begin the chart today and add more the next class.
**Forestry: Then and Now**

**Directions:** Use the photo card, Forestry: Then and Now and *Voices of Alberta*, pages 84 and 85 to answer the questions.

1. Complete the chart with point-form notes about forestry.

<table>
<thead>
<tr>
<th>Forestry Then</th>
<th>Forestry Now</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
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</tr>
</tbody>
</table>

2. Try to think of at least twenty products that are made from trees.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
# Pro and Con Chart

Is the greater use of technology in the forestry industry good for Albertans?

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>makes everything more efficient</td>
<td>clear cutting is harmful to the environment</td>
</tr>
<tr>
<td>can harvest trees and make them into lumber more quickly</td>
<td>often animals have lost their natural habitat</td>
</tr>
<tr>
<td>make good use of waste products</td>
<td>tourism suffers when too many areas are harvested</td>
</tr>
<tr>
<td></td>
<td>fewer people are employed</td>
</tr>
</tbody>
</table>

**My opinion:**

---

**Generic Line Master G-7**

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Directions: Use the photo card, Forestry: Then and Now and Voices of Alberta, pages 84 and 85 to answer the questions.

1. Complete the chart with point-form notes about forestry.

<table>
<thead>
<tr>
<th>Forestry Then</th>
<th>Forestry Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>• used horses</td>
<td>• use big machines</td>
</tr>
<tr>
<td>• took many people to do the work</td>
<td>• takes fewer people to do the work</td>
</tr>
<tr>
<td>• trees harvested with axes and saws</td>
<td>• machines cut trees and make them into lumber</td>
</tr>
<tr>
<td>• water and steam-powered sawmills cut trees into lumber</td>
<td>• pulp and paper mills made wood products</td>
</tr>
<tr>
<td>• wood used to heat homes</td>
<td>• companies try to restore land</td>
</tr>
<tr>
<td>• only mature trees were harvested</td>
<td>• clear-cutting usually used</td>
</tr>
</tbody>
</table>

2. Try to think of at least twenty products that are made from trees.

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

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__________________________________________________________________________

__________________________________________________________________________
Lesson Eleven

Concept: How Forests Should be Used

Resources/Materials: Voices of Alberta, pages 86 and 87
Line Master 3-2 (optional, student copies)

Introduction: Remind students of all the different uses of forest products that each of us use. Discuss also that forests are considered to be a renewable resource because we can have a steady supply if we harvest and use the trees responsibly.

Procedure:

1. Have students turn to textbook, page 86. Examine the photo and read the caption. Explain that the method being used is called clear-cutting. Clear-cutting is preferred by forestry companies because it is faster and cheaper for them to get the trees they need. Discuss some obvious disadvantages. (some trees may just go to waste, loss of habitat for birds and animals, water erosion, loss of soil moisture through evaporation.

2. Explain that people have different opinions on how the forests should be used. Guide the reading of pages 86 and 87.

3. Distribute Line Master 3-2. Discuss the qualities necessary to be a good tree planter. (strong, have endurance, able to work in isolated areas, able to work on rough terrain, etc.)

4. Tell students to add to the chart on Line Master G-7 (started last class).

5. OPTIONAL. Have students make a T-chart in their notebooks. On one side write as many forestry challenges as they can think of. On the other side write solutions to these challenges.

Assignments:

1. Read Voices of Alberta, pages 86 and 87.
2. Do Line Master 3-2.
3. Add to the chart on Line Master G-7.
4. OPTIONAL. Make a T-chart. On one side list forestry challenges and on the other solutions.
Lesson Twelve

Concept: How Communities Form

Resources/Materials: Voices of Alberta, pages 88 – 91
Worksheet #4.3.12a, #4.3.12b, and #4.3.12c (student copies)

Introduction: Ask students to tell you about some of the natural resource found in your area.

Explain that communities usually form because of a natural resource. Some communities establish themselves because there are several natural resources in the area.

Procedure:

1. Explain that most communities were established long ago. Some grow larger than others. But why does a community grow?

2. Have students turn to textbook, page 88. Guide the reading.

3. Then have them read textbook, page 89 and examine the map.

4. Finally, tell students to reading textbook, pages 90 and 91 to find information about some of the natural resources and the jobs people do in some communities in Alberta.

5. Distribute Worksheets #4.3.12a, #4.3.12b, and #4.3.12c. Go over the directions, if necessary.

6. OPTIONAL. Have students write a paragraph or two about their community and surrounding area. Be sure to tell about the natural resources present and jobs people do.

Assignments:

2. Do Worksheets #4.3.12a, #4.3.12b, and #4.3.12c.
3. OPTIONAL. Write a paragraph or two about the natural resources and jobs in your community and surrounding area.
Directions: Use the map on page 89 of *Voices of Alberta* to help you with these activities.

1. Complete the legend below by cutting out the symbols and pasting them by the correct words.

2. Use the map in the textbook to draw in the locations of the oil sands. Shade those areas in grey.

3. Colour the squares in the legend to show the natural regions. Cut out the legend and paste it on the map.

4. Lightly shade the natural regions the correct colours.

5. Cut out the symbols of the natural resources. Paste them on the correct areas on the map.

<table>
<thead>
<tr>
<th>Legend</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>![Symbol]</td>
<td>Livestock</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>Crops</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>Coal</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>Forests</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>Oil and Gas</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>Oil Sands</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>Canadian Shield</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>Boreal Forest</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>Foothills</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>Rocky Mountain</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>Parkland</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>Grassland</td>
</tr>
</tbody>
</table>

Worksheet #4.3.12a
How Communities Grow

Directions: Use *Voices of Alberta*, pages 88 – 91 to answer the questions.

1. Number the sentences to tell how communities grow.
   
   _____ People come to the area to find work.
   _____ Houses are built because workers need houses.
   _____ A town starts near a place where there is a natural resource.
   _____ Banks, stores, hospitals, and schools are built because workers need them.
   _____ The workers settle, start families, and need more homes and services.
   _____ Workers come to provide services.
   _____ The town keeps getting larger.

2. Fill in the chart to tell about the communities.

<table>
<thead>
<tr>
<th>Community</th>
<th>Location</th>
<th>Natural Resources</th>
<th>Some of the Jobs People Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine Hat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red Deer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bonnyville</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grande Prairie</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fort McMurray</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Directions: Use Voices of Alberta, pages 88 – 91 to answer the questions.

1. Number the sentences to tell how communities grow.
   2. People come to the area to find work.
   3. Houses are built because workers need houses.
   1. A town starts near a place where there is a natural resource.
   4. Banks, stores, hospitals, and schools are built because workers need them.
   6. The workers settle, start families, and need more homes and services.
   5. Workers come to provide services.
   7. The town keeps getting larger.

2. Fill in the chart to tell about the communities.

<table>
<thead>
<tr>
<th>Community</th>
<th>Location</th>
<th>Natural Resources</th>
<th>Some of the Jobs People Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine Hat</td>
<td>southeastern Alberta on South Saskatchewan River</td>
<td>natural gas, soil, sun</td>
<td>gas pipeline operator, farmer</td>
</tr>
<tr>
<td>Red Deer</td>
<td>central Alberta on Red Deer River</td>
<td>soil, oil, gas</td>
<td>farmers, oil/gas workers</td>
</tr>
<tr>
<td>Bonnyville</td>
<td>northeast Alberta on Athabasca Oil sand, next to Jessie Lake</td>
<td>wetlands, soil, gas, oil sands</td>
<td>farmers, mining jobs, oil/gas workers, farmers</td>
</tr>
<tr>
<td>Grande Prairie</td>
<td>northwest Alberta</td>
<td>trees, soil, oil</td>
<td>forestry workers, farmers, soil workers</td>
</tr>
<tr>
<td>Fort McMurray</td>
<td>northeast Alberta on Athabasca River</td>
<td>oil sands</td>
<td>oil sands workers</td>
</tr>
</tbody>
</table>
Lesson Thirteen

Concept: Set Your Skills in Motion

Resources/Materials: Voices of Alberta, page 92
Line Master 3-3 (optional, student copies)

Introduction: Explain to students that the end of the chapter is near and that it is time to review the skills they have learned.

Procedure:

2. With students decide which of the activities are feasible for them to do. If you choose “Make a Chart”, then use Line Master 3-3
3. Assign at least one and perhaps two activities.

Assignments:

1. Read Voices of Alberta, page 93.
2. Do at least one of the activities. (Line Master 3-3 will can be used if “Make a Chart” is assigned.)
## Community Activities

Answers will vary

<table>
<thead>
<tr>
<th>Community</th>
<th>Seasonal Activities</th>
<th>Tourism</th>
</tr>
</thead>
</table>
| Medicine Hat    | • hot weather and good soil, good for farming in summer                             | • people might come to enjoy the warm weather in summer  
                  | • winter sports different from summer sports                                        | • camping                                    |
| Red Deer        | • farming in summer                                                                  | • camping                                    |
                  | • oil and gas workers work all year                                                  |                                              |
                  | • enjoy parks/trails in summer                                                       |                                              |
                  | • skate on outdoor rinks in winter                                                    |                                              |
| Bonnyville      | • farming in summer                                                                  | • tourist fish, walk along wetlands trails, bird watch  |
| Grande Prairie  | • farming in summer                                                                  | • see pulp mill                              |
                  |                                                                                      | • enjoy forests                             |
| Fort McMurray   | • winter activities different from summer recreation                                | • see oil sand                              |
                  |                                                                                      | • enjoy hot spots                           |
Lesson Fourteen

Concept: Chapter Three Review

Resources/Materials: Voices of Alberta, page 93 and 94
Line Master 3-4 (student copies)
Review Sheets (student copies)

Introduction: Explain that we have come to the end of Chapter 3 and to the end of the first unit of study in grade four.

Procedure:

2. Then have students turn to textbook, page 94. Guide the reading.
3. Distribute Line Master 3-4. Tell students to complete the concept map.
4. Distribute the Review Sheets.
5. If you have been doing the Alberta Treasure Chest activity, have student prepare or select something to put in their folders.

Assignments:

1. Do the Chapter Three Review Sheets.
2. Prepare or select something to put in the Alberta Treasure Chest folder, if you have been doing this activity.
1. Define each of the following terms.
   a. natural resource
      __________________________________________________________
         __________________________________________________________
   b. renewable resource
      __________________________________________________________
         __________________________________________________________
   c. non-renewable resource
      __________________________________________________________
         __________________________________________________________

2. Look at the list of resources below. Circle those that are natural resources.
   
   horse               petroleum               soil
   sun                 bench                  coal
   iron ore            natural gas            sun
   waterfall           combine                tractor
   wind                trees                  fish

3. What are two ways in each of the following categories that the discovery of oil and gas has affected the lives of Albertans?
   
   a. Work
      __________________________________________________________
         __________________________________________________________
   
   b. Transportation
      __________________________________________________________
         __________________________________________________________
c. Environment


d. Houses


e. Products We Use


4. Look at the following issue. Then write two ideas that support each of the viewpoints.

<table>
<thead>
<tr>
<th>Issue: Should Albertans continue to mine and use oil from the oil sands?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, Albertans should continue to mine and use oil from the oil sands.</td>
</tr>
</tbody>
</table>

5. What are two things that can be done to conserve each of the following natural resources?

a. fossil fuels ________________
b. soil

c. forests

6. For each of the following resources write R if it is renewable and N if it is non-renewable.

    _____ natural gas    _____ fish    _____ sun
    _____ water    _____ trees    _____ petroleum
    _____ coal    _____ wind    _____ manure
    _____ iron ore    _____ soil    _____ rain

7. Name a source of energy that does not involve fossil fuels.

   Describe this form of energy and tell about two advantages and two challenges of using it.

   Form of energy ____________________________________________

   Description: ____________________________________________

   ____________________________________________

   Advantages
   • ____________________________________________
   • ____________________________________________

   Disadvantages
   • ____________________________________________
   • ____________________________________________
8. Choose a food that is produced in Alberta.

Use the flow chart below to show how the food starts, how it is made, and how it ends up in your home.

You do not have to use all the boxes.

---

9. In point form, tell how a community starts and how it grows.

__________________________________________________________

__________________________________________________________

__________________________________________________________

__________________________________________________________

__________________________________________________________

__________________________________________________________

__________________________________________________________

__________________________________________________________

__________________________________________________________
10. Write five questions that someone could answer by carefully reading the map and legend below.

Include one question where people gave to use the scale.

Include one question where people gave to use the compass rose.

Write the answer to your five questions.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Concept Map
Answers will vary

Energy resources
- write on both sides of paper
- drive energy efficient vehicles
- walk or cycle
- hang clothes out to dry
- use more renewable energy resources

Agricultural resources
- use natural fertilizers when possible
- use irrigation water wisely
- rotate crops
- do not waste food
- do not over cultivate

Protecting and Conserving Natural Resources
- educate people on importance of forests
- show students how to keep forests healthy
- replant trees
- write on both sides of paper
- recycle wood products

Forest resources
1. Define each of the following terms.

   a. natural resource: ________________

   b. renewable resource: ________________

   c. non-renewable resource: ________________

2. Look at the list of resources below. Circle those that are natural resources.

   - horse
   - sun
   - iron ore
   - waterfall
   - wind
   - petroleum
   - bench
   - natural gas
   - combine
   - trees
   - soil
   - coal
   - sun
   - tractor
   - fish

3. What are two ways in each of the following categories that the discovery of oil and gas has affected the lives of Albertans?

   a. Work

      - more people employed in oil and gas industry
      - more people employed in manufacturing and service industries

   b. Transportation

      - more people could afford to operate cars
      - air pollution caused by motor vehicle exhaust
      - highway system improved and increased
      - more travel by air
c. Environment

- More natural environments destroyed
- Hunting grounds of some First Nations affected
- Air pollution
- Houses
- Central heating with burning of fossil fuels
- Hot water heated by gas or oil
- Cooking done with gas

4. Look at the following issue. Then write two ideas that support each of the viewpoints. 

Answers will vary

<table>
<thead>
<tr>
<th>Issue: Should Albertans continue to mine and use oil from the oil sands?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes, Albertans should continue to mine and use oil from the oil sands.</strong></td>
</tr>
<tr>
<td>Need oil to operate vehicles</td>
</tr>
<tr>
<td>Oil used to make products</td>
</tr>
<tr>
<td>Relied on</td>
</tr>
<tr>
<td>Environments cleared for oil sands mining can be restored</td>
</tr>
</tbody>
</table>

5. What are two things that can be done to conserve each of the following natural resources? 

Answers will vary

- Fossil fuels: Do not waste electricity
- Buy energy efficient vehicles
- Recycle/reuse
b. soil  rotate crops  use natural fertilizers
   do not over cultivate  plough straw back into soil

c. forests  do not waste when using paper products
   recycle/reuse  cut down only what is needed.

6. For each of the following resources write R if it is renewable and N if it is non-renewable.

   N  natural gas  R  fish  R  sun
   R  water  R  trees  N  petroleum
   N  coal  R  wind  R  manure
   N  iron ore  R  soil  R  rain

7. Name a source of energy that does not involve fossil fuels.

   Describe this form of energy and tell about two advantages and two challenges of using it.

   Example

   Form of energy  solar

   Description: Sun's energy is collected in solar panels.

   It can be turned into electricity; also to heat homes and water.

   Advantages
   • renewable source of energy
   • non-polluting

   Disadvantages
   • can be expensive
   • does not work on cloudy days or at night
   • solar panels
   • not really attractive
8. Choose a food that is produced in Alberta.

Use the flow chart below to show how the food starts, how it is made, and how it ends up in your home.

Example

You do not have to use all the boxes.

9. In point form, tell how a community starts and how it grows.

- town starts near a natural resource source
- people come to find work
- houses built for people
- workers need services like hospitals, schools, banks
- workers come to provide services
- more services needed
- town keeps growing
10. Write five questions that someone could answer by carefully reading the map and legend below.

Include one question where people gave to use the scale.

Include one question where people gave to use the compass rose.

Write the answer to your five questions.

Answers will vary.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answers</th>
</tr>
</thead>
</table>
Lesson Fifteen

Concept: Chapter Three Test

Resources/Materials: Chapter Three Test (student copies)
1. Define natural resource.

2. Put a check mark (✓) in front of the natural resources.
   - soil
   - tractor
   - wind
   - natural gas
   - sun
   - fish
   - forests
   - meat slicer
   - petroleum
   - cattle
   - ruler
   - iron ore

3. The discovery of oil at Leduc changed the way Albertans lived in several ways. Complete the concept map. Show one change in each box.

   Work
   Transportation

   How the Discovery of Oil at Leduc Changed the Lives of Albertans

   Environment
   Houses
4. Examine the issue below. Then for each viewpoint, write **two** reasons that support that viewpoint.

<table>
<thead>
<tr>
<th>Issue: Should we change the environment by taking fossil fuels out of the ground and using them?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Viewpoint:</strong> Yes, we should change the environment to take fossils fuels out of the ground and use them.</td>
</tr>
</tbody>
</table>

5. Define *conservation*. 

__________________________________________________________________________

__________________________________________________________________________

6. What is one thing that can be done to conserve each of the following natural resources.

a. petroleum  

__________________________________________________________________________

__________________________________________________________________________

b. soil  

__________________________________________________________________________

__________________________________________________________________________

c. forests  

__________________________________________________________________________
7. Complete the chart.

<table>
<thead>
<tr>
<th></th>
<th>Definition</th>
<th>Examples (two)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Renewable resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>•</td>
<td></td>
</tr>
<tr>
<td></td>
<td>•</td>
<td></td>
</tr>
<tr>
<td><strong>Non-renewable resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>•</td>
<td></td>
</tr>
<tr>
<td></td>
<td>•</td>
<td></td>
</tr>
</tbody>
</table>

8. Name a source of energy that does not involve fossil fuels.

Describe this form of energy and tell about two advantages and two challenges of using it.

Form of energy __________________________________________

Description: ____________________________________________

____________________________________________________________________________________

Advantages

•

•

Disadvantages

•

•
9. Write five questions that someone could answer by carefully reading the map and legend below.

Include one question where people gave to use the scale.

Include one question where people gave to use the compass rose.

Write the answer to your five questions.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Define *natural resource*.  

   *something found in nature that are useful to us.*

2. Put a check mark (✓) in front of the natural resources.

   ✓ soil  
   ✓ sun  
   ✓ petroleum  
   ✓ tractor  
   ✓ fish  
   ✓ cattle  
   ✓ wind  
   ✓ forests  
   ✓ ruler  
   ✓ natural gas  
   ✓ meat slicer  
   ✓ iron ore

3. The discovery of oil at Leduc changed the way Albertans lived in several ways. Complete the concept map. Show changes in each box.

   ![Concept Map]

   How the Discovery of Oil at Leduc Changed the Lives of Albertans

   **Work**
   - more jobs

   **Transportation**
   - more reliance on motor vehicles
   - cars more affordable to operate

   **Environment**
   - air pollution
   - oil spills
   - global warming

   **Houses**
   - homes heated with oil and natural gas
4. Examine the issue below. Then for each viewpoint, write **two** reasons that support that viewpoint.

**Issue: Should we change the environment by taking fossil fuels out of the ground and using them?**

<table>
<thead>
<tr>
<th>Viewpoint: Yes, we should change the environment to take fossils fuels out of the ground and use them.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• many products we rely on daily are made from fossil fuels (plastics, fertilizer)</td>
</tr>
<tr>
<td>• motor vehicles almost all use fossil fuels</td>
</tr>
<tr>
<td>• used to generate electricity</td>
</tr>
<tr>
<td>• oil and gas companies are required to restore the land</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Viewpoint: No, we should not change the environment to take fossils fuels out of the ground and use them.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• destroys natural habitat of wildlife</td>
</tr>
<tr>
<td>• fossil fuels cause pollution when burned</td>
</tr>
<tr>
<td>• impossible to completely restore an area after oil and gas activity</td>
</tr>
<tr>
<td>• many areas are sacred and important hunting/fishing areas for First Nations</td>
</tr>
</tbody>
</table>

5. Define **conservation**. Using resources carefully to make them last longer.

6. What is one thing that can be done to conserve each of the following natural resources.

   a. petroleum  
      - drive energy efficient vehicles  
      - do not waste hot water  
      - car pool  
      - use public transportation  
      - do not waste electricity

   b. soil  
      - do not overcultivate  
      - rotate crops  
      - use fertilizer wisely

   c. forests  
      - do not waste products made from trees  
      - recycle paper  
      - reuse products when possible
7. Complete the chart.

<table>
<thead>
<tr>
<th>Definition</th>
<th>Examples (two)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Renewable resources</strong></td>
<td>1. resources that can be replaced, if used carefully</td>
</tr>
<tr>
<td>2. trees</td>
<td></td>
</tr>
<tr>
<td>3. fish</td>
<td></td>
</tr>
<tr>
<td>4. water</td>
<td></td>
</tr>
<tr>
<td>5. soil</td>
<td></td>
</tr>
<tr>
<td><strong>Non-renewable resources</strong></td>
<td>1. resources that cannot be replaced or renewed</td>
</tr>
<tr>
<td>2. coal</td>
<td></td>
</tr>
<tr>
<td>3. natural gas</td>
<td></td>
</tr>
<tr>
<td>4. petroleum</td>
<td></td>
</tr>
<tr>
<td>5. iron ore</td>
<td></td>
</tr>
</tbody>
</table>

8. Name a source of energy that does not involve fossil fuels.

Describe this form of energy and tell about two advantages and two challenges of using it.  

**Answers will vary**

Form of energy: **wind**

Description: Wind used to turn windmills that generate electricity

Advantages

- use a renewable resource
- do not cause air pollution

Disadvantages

- unsightly in appearance
- birds get caught in them
- work only when there is wind
- disrupt existing activity (e.g. farming)
9. Write five questions that someone could answer by carefully reading the map and legend below.

Include one question where people gave to use the scale.

Include one question where people gave to use the compass rose.

Write the answer to your five questions.

Answers will vary.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>
Chapter Four

Living with the Land

Inquiry Questions

- What First Nations first lived in different areas of the province?
- How are the First Nations important to Alberta’s identity?
Chapter Four
Living with the Land

Contents

Lesson One      Introduction     3
Lesson Two      Living in the Rocky Mountains and Foothills  4
Lesson Three    Living on the Grasslands      5
Lesson Four     Living on the Parklands       6
Lesson Five     Living in the Boreal Forest    7
Lesson Six      Living in the Canadian Shield  8
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Lesson One

Concept: Introduction

Resources/Materials: Voices of Alberta, pages 96 - 99
Worksheet #4.4.1 (student copies)
Line Master 4-1 (student copies)

Introduction: Discuss briefly how our environment influences our lifestyle, referring students back to Chapter 1, if necessary.

Explain that many different First Nations groups live in Alberta. When we examine their lifestyles, we find that each of their lifestyles was influenced by the natural region in which they lived.

Explain that in Chapter 4 we learn about First Nations traditional lifestyles.

Procedure:

1. Have students turn to textbook, 96. Read the page to students. Then guide the reading of page 97, being sure to clarify the meanings of the inquiry questions.

2. If you can, guide the reading of pages 98 and 99; otherwise, students can read them independently.

3. Distribute Worksheet #4.4.1. Go over the directions, if necessary.

4. Distribute Line Master 4-1. Go over the directions, if necessary.

Assignments:

2. Do Worksheet #4.4.1.
3. Do Line Master 4-1.
Directions: Use the map on page 99 of Voices of Alberta to help you do the questions.

1. Complete the legend and then lightly colour the map.

2. Label the map to show where each of the First Nations groups lived.
Visiting the Neighbours

Using the map, calculate the distance from one First Nations community to another. Use the table to organize your information.

Hint: Remember to use the scale on the map.

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Kilometres</th>
<th>How do you think they travelled to get there?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackfoot</td>
<td>Woodland Cree</td>
<td>900 km</td>
<td></td>
</tr>
<tr>
<td>Nakoda</td>
<td>Dene Tha'</td>
<td>800 km</td>
<td></td>
</tr>
<tr>
<td>Dene Suline</td>
<td>Nakoda</td>
<td>700 km</td>
<td></td>
</tr>
<tr>
<td>Plains Cree</td>
<td>Dunne-Za</td>
<td>700 km</td>
<td></td>
</tr>
<tr>
<td>Nakoda</td>
<td>Blackfoot</td>
<td>500 km</td>
<td></td>
</tr>
</tbody>
</table>
Directions: Use the map on page 99 of *Voices of Alberta* to help you do the questions.

1. Complete the legend and then *lightly colour* the map.

2. Label the map to show where each of the First Nations groups lived.
Lesson Two

Concept: Living in the Rocky Mountains and Foothills

Resources/Materials: Voices of Alberta, page 100 and 101
Worksheet #4.4.2a (student copies)
Worksheet #4.4.2b (optional, student copies, run off on Manila tag)

Introduction: Review the meaning of the term natural resources. Review that natural resources can vary, depending on the natural region in which you live.

Before people from Europe moved to Alberta, each of the First Nations had a distinct culture. Each of their lifestyles depending on the natural resources found in the region in which they lived.

Procedure:

1. Have students turn to textbook, page 100. Guide the reading.

2. Tell students that this section of Chapter 4 examines the lifestyle of each of Alberta’s First Nations.

3. Have students locate the Nakoda and the Dunne-Za on the map on textbook, page 99. Note that they lived in the Foothills and Rocky Mountain regions.

4. Have student speculate about the natural resources the Nakoda might feel useful.


6. Distribute Worksheet #4.4.2a. Go over the directions, if necessary.

7. OPTIONAL. Have students colour and decorate the teepee on Worksheet #4.4.2b. Use the caption for the photo on textbook, page 101 to give you some ideas.

Assignments:

1. Read Voices of Alberta, pages 100 and 101.
2. Do Worksheet #4.4.2a.
3. Decorate, cut out, and make a Nakoda teepee using Worksheet #4.4.2b.
Directions: Use *Voices of Alberta*, pages 100 and 101 to answer the questions.

1. In the centre box, draw and colour a picture showing the land where the Nakoda lived. (The photograph on page 100 of your textbook is typical of Nakoda land.)

2. From what you already know from other chapters in your textbook and from what you read on textbook, page 101 fill in the boxes all the boxes except for “Clothing”.

3. What can you infer about the clothing of the Nakoda? Write your inference in the “Clothing” box.
The Lifestyle of the Nakoda First Nation People

Directions: Use Voices of Alberta, pages 100 and 101 to answer the questions.

1. In the centre box, draw and colour a picture showing the land where the Nakoda lived. (The photograph on page 100 of your textbook is typical of Nakoda land.)

2. From what you already know from other chapters in your textbook and from what you read on textbook, page 101 fill in the boxes all the boxes except for "Clothing".

3. What can you infer about the clothing of the Nakoda? Write your inference in the "Clothing" box. 
   
   **Answers will vary**

<table>
<thead>
<tr>
<th>Name of Natural Region</th>
<th>Natural Resources Used</th>
<th>Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foothills</td>
<td>trees, spruce, bark, buffalo, moose, elk, moss</td>
<td>buffalo, moose, elk, berries</td>
</tr>
<tr>
<td>Rocky Mountain</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transportation</th>
<th>Shelter</th>
<th>Clothing</th>
</tr>
</thead>
<tbody>
<tr>
<td>walking (horse-after 1780)</td>
<td>- teepees covered with spruce bark and hides of buffalo, elk, moose - teepee frames made from spruce poles</td>
<td>- animal skins</td>
</tr>
</tbody>
</table>

Worksheet #4.3.2a
Lesson Three

Concept: Living on the Grasslands

Resources/Materials: Voices of Alberta, pages 102 – 104
Worksheets #4.4.3a (student copies)
Worksheets #4.4.3b and #4.4.3c (optional, student copies)

Introduction: Recall with students that the people of the Nakoda First Nation used the buffalo for shelter, food, and even clothing. Explain that today, students will learn more about the First Nations that lived on the grassland.

Have students turn to the map on textbook, page 99 to determine the four groups that lived on the grassland. Discuss the natural resources found on the grassland.

Procedure:

1. Explain that First Nations used many natural resources, but none was more important than the buffalo.


3. Emphasize the Blackfoot people’s belief in conservation and sharing.

4. Distribute Worksheet #4.4.3a. Go over the directions, if necessary.

5. OPTIONAL. If you would like students to do some research on buffalo hunting methods, distribute Worksheets #4.4.3b and #4.4.3c. Go over the directions, if necessary.

6. OPTIONAL. As a follow-up to learning more about buffalo hunting methods, assign individuals or groups to make a 3-D model of one of the buffalo hunting methods.

Assignments:

1. Read Voices of Alberta, pages 102 – 104.
2. Do Worksheet #4.4.3a.
3. OPTIONAL. Do Worksheets #4.4.3b and #4.4.3c.
4. OPTIONAL. Make a 3-D model of one of the buffalo hunting methods.
### Using the Buffalo

**Directions:** Use the information on pages 102 – 104 of *Voices of Alberta* to complete the chart. You may not be able to fill all the boxes.

<table>
<thead>
<tr>
<th>BASIC NEED</th>
<th>How the Buffalo Provided this Need</th>
<th>How the Land Provided this Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shelter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Worksheet #4.4.3a
The Buffalo Hunt

Thousands of years before guns and horses arrived in North America the Plains First Nations hunted the buffalo on foot. They used spears and later bows and arrows for the hunt. They had several ways to capture the buffalo. The “Buffalo Pound” and “Buffalo Jump” methods were used to kill large numbers of animals.

In the summer several bands would get together to hunt the buffalo. More could be killed this way. The meat was divided according to the needs of each family.

The Buffalo Pound Method

The buffalo were lured into a coulee by a hunter who dressed in buffalo robes. Then the other hunters, who were lined up along the coulee, stampeded the animals into a long corral (closed-in place). They killed the buffalo with spears.

The Buffalo Jump Method

“Chaser” or “runners” would lead the animals towards a cliff where others waited behind rocks and trees. People waved blankets and shouted, forcing the animals over the edge of the cliff. Others waited at the bottom of the cliff to kill the crippled animals.

The Chase Method

This method was sometimes used if the hunters had horses. As hunting party would charge the herd and get as close as they could to a buffalo, then shoot it with a bow and arrow or gun.

Other Methods

- Sometimes men covered in buffalo robes or wolf skins followed the animals, waiting for the best time to kill them.
- Hunting parties would surround a herd and creep up as close as possible. When given a signal, each hunter would aim at a target animal. They had to be quick and accurate before the buffalo stampeded.
- Hunters drove the buffalo into deep snow and then killed them.
- The animals were attacked at water holes where they were unable to get away. Another method of driving herds into streams was by burning grass and forcing the animals to a river.
**Buffalo Hunting Methods**

**Directions:** Use the article “The Buffalo Hunt” to draw diagrams of the three most common methods. In the last box, draw a diagram of one of the other methods. At the top of the box tell what method you are showing.

<table>
<thead>
<tr>
<th>Buffalo Pound</th>
<th>Buffalo Jump</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Chase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
# Using the Buffalo

**Directions:** Use the information on pages 102 – 104 of *Voices of Alberta* to complete the chart. You may not be able to fill all the boxes.

<table>
<thead>
<tr>
<th>BASIC NEED</th>
<th>How the Buffalo Provided this Need</th>
<th>How the Land Provided this Need</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food</strong></td>
<td>meat</td>
<td>berries</td>
</tr>
<tr>
<td></td>
<td>stomach - cooking pots</td>
<td>roots</td>
</tr>
<tr>
<td></td>
<td>bladder - food bags</td>
<td>herbs</td>
</tr>
<tr>
<td><strong>Clothing</strong></td>
<td>skins / hides</td>
<td></td>
</tr>
<tr>
<td><strong>Shelter</strong></td>
<td>skins / hides</td>
<td>spruce poles</td>
</tr>
<tr>
<td><strong>Tools</strong></td>
<td>knife sheaths</td>
<td></td>
</tr>
<tr>
<td></td>
<td>tail - kill flies / mosquitoes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>horns - spoons</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ribs - arrow shafts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>shinbones - knives</td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>travois - skins</td>
<td>travois - tree poles</td>
</tr>
<tr>
<td></td>
<td>teeth - necklaces</td>
<td></td>
</tr>
<tr>
<td></td>
<td>tongue skin - combs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>dung - fuel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>hide from neck - shields</td>
<td></td>
</tr>
</tbody>
</table>
Social Studies Grade 4 Chapter 4 Worksheets

Buffalo Hunting Methods

Directions: Use the article “The Buffalo Hunt” to draw diagrams of the three most common methods. In the last box, draw a diagram of one of the other methods. At the top of the box tell what method you are showing. 

Answers will vary

Buffalo Pound

Buffalo Jump

The Chase
## Connections to the Land

In the left column, write the names of the natural regions of Alberta. In the other columns, write what resources from that region were used in Aboriginal ways of life.

<table>
<thead>
<tr>
<th>Region</th>
<th>Shelter</th>
<th>Clothing</th>
<th>Food</th>
<th>Transport</th>
<th>Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rocky Mountain</td>
<td>spruce poles</td>
<td>buffalo</td>
<td>buffalo berries</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>animal hides</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foothills</td>
<td>spruce bark</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>moose moss</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grasslands</td>
<td>tree poles</td>
<td>animal skins</td>
<td>buffalo rooks HERBS</td>
<td>animal skins poles</td>
<td>buffalo</td>
</tr>
<tr>
<td></td>
<td>buffalo hide</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parkland</td>
<td>buffalo</td>
<td>animal skins</td>
<td>buffalo</td>
<td>snowshoes</td>
<td>tree bull</td>
</tr>
<tr>
<td></td>
<td>tree poles</td>
<td></td>
<td></td>
<td></td>
<td>bull</td>
</tr>
<tr>
<td>Boreal Forest</td>
<td>tree poles</td>
<td>animal skins</td>
<td>fish moose, deer, elk, goose</td>
<td>snowshoes,</td>
<td>nets, weirs</td>
</tr>
<tr>
<td></td>
<td>skins</td>
<td></td>
<td></td>
<td></td>
<td>boggyars</td>
</tr>
<tr>
<td>Canadian Shield</td>
<td></td>
<td>animal skins</td>
<td>fish moose, birds, canoes, wood buffalo</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lesson Four

Concept: Living on the Parklands

Resources/Materials: Voices of Alberta, pages 105 and 106
Line Master 4-3 (optional, student copies)
Worksheet #4.4.4 (student copies)
Line Master 4-2 (student copies)

Introduction: Review that the First Nations peoples who lived in the Foothills/Rocky Mountain and Grassland regions both relied heavily on the buffalo for survival. Review also that both groups understood the importance of conservation and sharing.

Tell students that the people living in the Parkland region also depended on the buffalo.

Procedure:

1. Have students turn to textbook, pages 99. Have them locate the Parkland and from that determine the name of the First Nation that lived in that region (Plains Cree).

2. Have students turn to textbook, page 105. Have them examine the painting on page 105 and then the illustration on page 106. Discuss which natural resources could have been used to hunt the buffalo, construct the teepee, and make the furnishings.

3. OPTIONAL. Distribute Line Master 4-3. Discuss how the illustration shows how both the Cree and the Blackfoot used all parts of the buffalo.

4. Have students read textbook, pages 105 and 106. Guide the reading, if possible; otherwise, have students read the pages independently.

5. Distribute Worksheet #4.4.4. Go over the directions, if necessary.

6. Distribute Line Master 4-2. Have students fill out the chart for the Rocky Mountain/Foothills, Grassland, and Parkland regions.

7. OPTIONAL. Students might enjoy using everyday materials from school and home to make teepee furnishings.

Assignments:

1. Read Voices of Alberta, pages 105 and 106.
2. Do Worksheet #4.4.4.
3. Fill out Line Master 4-2 for the Rocky Mountain/Foothills, Grassland, and Parkland regions.
4. OPTIONAL. Use materials from home and school to make teepee furnishings.
Directions: Use Voices of Alberta, pages 105 and 106 to answer the questions.

1. Read each of the statements. Write true or false.

   __________ The Parkland was the traditional home of the Woodland Cree.
   __________ The buffalo was the only animal used by the First Nations of the area.
   __________ The Plains Cree used bows and arrows to hunt the buffalo.
   __________ They had always used horses and guns to hunt the buffalo.
   __________ The Plains Cree used nature to help them with hunting.
   __________ They followed the buffalo to make sure they had a good food supply.
   __________ The Plains Cree traded with First Nations from other parts of Alberta.

2. From the illustration on page 106, you can either observe or infer that the Plains Cree used natural resources to make their teepees and the furnishings. Complete the chart to show which natural resources were used according to the illustration or which ones you think they might have used.

<table>
<thead>
<tr>
<th>Furnishing</th>
<th>Natural Resource That Was Used or That I Can Infer Was Used</th>
<th>Furnishing</th>
<th>Natural Resource That Was Used or That I Can Infer Was Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teepee pins</td>
<td></td>
<td>Chair backrest</td>
<td></td>
</tr>
<tr>
<td>Teepee poles</td>
<td></td>
<td>Cradleboard</td>
<td></td>
</tr>
<tr>
<td>Teepee lining</td>
<td></td>
<td>Tepee cover</td>
<td></td>
</tr>
<tr>
<td>Cooking pot</td>
<td></td>
<td>Bedding</td>
<td></td>
</tr>
<tr>
<td>Sewing basket</td>
<td></td>
<td>Hot water heating</td>
<td></td>
</tr>
</tbody>
</table>
Directions: Use Voices of Alberta, pages 105 and 106 to answer the questions.

1. Read each of the statements. Write true or false.

   false The Parkland was the traditional home of the Woodland Cree.
   false The buffalo was the only animal used by the First Nations of the area.
   true The Plains Cree used bows and arrows to hunt the buffalo.
   false They had always used horses and guns to hunt the buffalo.
   true The Plains Cree used nature to help them with hunting.
   true They followed the buffalo to make sure they had a good food supply.
   true The Plains Cree traded with First Nations from other parts of Alberta.

2. From the illustration on page 106, you can either observe or infer that the Plains Cree used natural resources to make their teepees and the furnishings. Complete the chart to show which natural resources were used according to the illustration or which ones you think they might have used.

<table>
<thead>
<tr>
<th>Furnishing</th>
<th>Natural Resource That Was Used or That I Can Infer Was Used</th>
<th>Furnishing</th>
<th>Natural Resource That Was Used or That I Can Infer Was Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teepee pins</td>
<td>tree</td>
<td>Chair backrest</td>
<td>buffalo tree</td>
</tr>
<tr>
<td>Teepee poles</td>
<td>true</td>
<td>Cradleboard</td>
<td>animal skills tree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>trees</td>
</tr>
<tr>
<td>Teepee lining</td>
<td>buffalo hide</td>
<td>Tepee cover</td>
<td>buffalo hide</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooking pot</td>
<td>buffalo</td>
<td>Bedding</td>
<td>buffalo skin</td>
</tr>
<tr>
<td>Sewing basket</td>
<td>buffalo, moose, elk</td>
<td>Hot water heating</td>
<td>stones</td>
</tr>
</tbody>
</table>
Lesson Five

Concept: Living in the Boreal Forest

Line Master 4-2 (students have this)
Worksheets #4.4.5a and #4.4.5b (student copies)
Worksheet #4.4.5c (optional, teacher copy)

Introduction: Explain that the three First Nations groups studied so far all relied heavily on the buffalo for their survival. Buffalo lived only where there was natural grass like the Foothills, Grassland, and Parkland.

Explain that today’s lesson involves people from the Boreal Forest. They did not depend on the buffalo.

Procedure:

1. Have students turn to textbook, page 99. Have them locate the Boreal Forest region and then determine that the Woodland Cree and the Dene Tha’ lived in that region.

2. Have students turn to textbook, pages 107 and 108. Have students read the pages to find out what natural resources they used.

3. Have students find and then complete a section of Line Master 4-2 for the Boreal Forest Region.

4. Distribute Worksheets #4.4.5a and #4.4.5b. Have students read the article on the Woodland Cree; then in their notebooks use a graphic organizer (perhaps a concept map) to summarize the article. Grade four students may want to create individual concept maps for each of the subheadings. Older students may be able to summarize the entire article on one large concept map.

5. OPTIONAL. If you like and if you have the facilities, you might want to make a traditional Cree food – bannock. The recipe is on Worksheet #4.4.5c.

Assignments:

1. Read Voices of Alberta, pages 107 and 108.
2. Add a Boreal Forest Region section to Line Master 4-2.
3. Read the article on the Woodland Cree on Worksheets #4.4.5a and #4.4.5b. Summarize the information in your notebook on graphic organizers (like concept maps).
4. OPTIONAL. Make a traditional Cree food – bannock. (recipe is on Worksheet #4.4.5c.)
The Woodland Cree

The Woodland Cree lived in the Boreal Forest Region of Alberta. They are related to the Plains Cree. The Woodland Cree and the Plains Cree share the same language and many parts of their cultures are the same as well. However, because they lived in different natural environments, their lifestyles were different in many ways.

The Boreal Forest where the Woodland Cree lived was heavily forested and had many lakes and rivers. This affected their lifestyle.

Food

The Woodland Cree hunted, fished, or gathered food that was around them. They fished in the lakes and rivers using hooks, weirs, and nets. They used bows and arrows and spears to hunt wild animals. The heads of the arrows and spears were made from stones, antlers, and bone. They used traps to capture black bears and beavers and snares for geese, ducks, and rabbits. The Woodland Cree hunted larger animals like caribou too. They hunted them in large groups, but individuals hunted them as well.

Meat and fish were dried so it would last through the winter. Sometimes dry meat was pounded. Then grease and dried berries were added.

Shelter

The Woodland Cree lived in teepees. They were also called wigwams. While the Plains Cree almost always covered their homes with buffalo skins, the Woodland Cree used a variety of coverings. In the summer they used the bark of birch and spruce trees, brush, and skins. In winter they also added pieces of earth and turf to make their houses warmer. The outside was packed with snow for added warmth.
Clothing
The Woodland Cree used the natural resources found in their environment to make clothing. Men wore a breechcloth and leggings. Depending on the season, they also wore summer coats, moccasins, winter coats, fur robes and mittens and cap.
Women wore a long dress and moccasins. In winter they also added warmer coats, fur robes, and mittens and cap.

Travel and Transportation
The Woodland Cree used both small and large canoes. The canoes were covered in birch or spruce bark. In winter, goods were loaded onto toboggans made of tamarack. Toboggans were pulled by people as their dogs were too small. The Boreal Forest Region is covered by snow for many months of the year. To get around the Woodland Cree often used snowshoes. Some of them were as long as two metres or more!

Games, Musics and Crafts
Games were played by adults and children. They played games like cup and pin, ball-in-the air, and tug-of-war. Children played hide-and-seek, scaled stones, played hunting games like darts, and amused themselves with toy bows, carved wooden dolls, and pea shooters.
In the evenings, people often told stories, sang, and danced.
Birch bark biting was a pass time of women. They would fold and pieces of birch bark and then gently bite the bark to form detailed and precise patterns. They often held contests to see how could make the best designs.
Ingredients

6 cups flour
1 cup lard
3 tablespoons baking powder
1 tablespoon salt
2 cups currants or raisins (or dried Saskatoons)
3 ½ cups water

In a medium-sized bowl, mix the flour and large together by hand. Then add the baking powder, salt and the currants or raisins. Once this is done, add the water and work the ingredients into a dough.

Spread the dough out into a 16” square cake pan. Bake at 425 degrees for about 20 minutes or until golden brown.

DELICIOUS!
Lesson Six

Concept: Living in the Canadian Shield.

Resources/Materials: Voices of Alberta, pages 109 and 110
Line Master 4-2 (students have this)
Worksheet #4.4.6 (student copies)
Photo Card – The Art of Alex Janvier
Line Master G-1 (optional, student copies)

Introduction: Review some of the main themes of the chapter so far:
- First Nations peoples were the first human inhabitants of Alberta.
- The lifestyle of each First Nations group was influenced by the natural environment.
- First Nations people used natural resources to meet their basic needs.
- First Nations people believed in sharing and conserving.
- First Nations people believed they were part of nature and so had a great respect for nature.

Have students use textbook, page 99 to determine the name of the First Nations group that lived in the Canadian Shield region.

Procedure:


2. Have students complete the final section on Line Master 4-2 with information about the Dene Suliné.

3. Display the photo card. Read the information on the reverse. If you like, have students do one or more of the inquiry questions on the reverse of the card.

4. Tell students to make a list of the values and beliefs that all First Nations groups shared. They can do this in their notebooks, using the heading “First Nations Values and Beliefs”.

5. Distribute Worksheet #4.4.6. Students are to create an illustrated Dene Suliné calendar.

6. ALTERNATELY. Have student compare Alberta First Nations with Hutterites. This can be done on Line Master G-1.

Assignments:

1. Read Voices of Alberta, pages 109 and 110.
2. OPTIONAL. Do one or more of the questions on the reverse of the photo card about Alex Janvier.
3. Make a list of the values and beliefs that all First Nations groups shared.
4. Do Worksheet #4.4.6.
5. ALTERNATELY. Compare the First Nations with Hutterites, using Line Master G-1.
The Dene Suliné Calendar

Directions: Use the information from Voices of Alberta, page 110 to create an illustrated Dene Suliné calendar. Label each month using the names that the Dene Suliné would have used. Colour your illustrations.
Hutterites
- mostly farmers
- pass knowledge on using books
- live in permanent, wood-framed dwellings
- use motor vehicles/tractors for transportation

Same
- use natural resources
- share what they have
- try not to waste
- live in smaller communities
- have religion/beliefs
- different groups have different traditions
- rely greatly on learning by doing

First Nations
- satisfied basic needs by hunting and fishing
- pass knowledge on with oral teaching
- live in homes that can be moved
- moved from place to place
- used dogs and later horses for transportation

Answers will vary
Venn Diagram

Answers may vary

Long Ago

- use horses
- farmers had to clear the land first
- small farms
- could not predict weather

Same

- weather can impact if a crop is good or not
- insects can still be a problem
- use the same basic natural resources: soil, sun, rain/snow

Today

- use tractors
- greater use of technology
- weather conditions help farmers decide when to plant and harvest
- irrigation used in some areas
Lesson Seven

Concept: Learning About the Past

Resources/Materials: Voices of Alberta, pages 111 – 116
Worksheet #4.4.7 (optional, student copies)

Introduction: Explain that in the last several classes we have examined the traditional ways of life of several First Nations groups. Today, some parts of the lifestyles of all First Nations groups have changed. But, how do we learn about the past?

Procedure:

1. Explain that we can learn about the First Nations’ past in several ways:
   - Orally – through stories told to young people by Elders.
   - Written – through pictures carved onto stone or on skins
   - Artifacts – people called archeologists uncover objects used in the past and use them to figure out life in the past.

2. Have students turn to textbook, pages 111 – 116. Explain these pages can be divided into four sections.

   Pages 111 and 112 deal with oral teaching
   Page 113 deals with written knowledge
   Page 114 and 115 deal with artifacts.
   Pages 115 deals with an interpretive centre was made using many different sources of information.

3. Tell students to read textbook, pages 111-116 independently

4. Then have them make jot notes (point-form notes) on what they read. If you like, you can give them Worksheet #4.4.7 to give them more of an idea of how to structure their notes. They should make their notes in their notebooks. Note the number of bulleted points on the outline is not an indication of the number of points students should make under each heading.

   It may be helpful if you get them started. Remind students that each point is usually made up of a phrase or even single words. Only the main words need to be included.

Assignments:

2. Make point-form notes on what you read, using the outline suggested on Worksheet #4.4.7 or use your own structure.
Directions: Read *Voices of Alberta*, pages 111 – 116. Then use the following headings to make point-form notes on what you read.

**Learning About the Past**

1. **Oral Teaching**
   - 
   - 
   - 
   - 
   - 

2. **Written Information**
   a. **On Stone**
      - 
      - 
      - 
      - 
   b. **On Skins**
      - 
      - 
      - 
      - 

3. **Artifacts**
   - archeologists – (write a definition)
   - artifacts – (write a definition)
     - 
     - 
     - 

**Head-Smashed-In Buffalo Jump**

- 
- 
- 

Lesson Eight

Concept: Viewpoints: Where Do Cultural Items Belong?

Resources/Materials: Voices of Alberta, pages 118 and 119.
Line Master G-2 (student copies)

Introduction: Review that archeologists are scientists who uncover artifacts and try to learn more about the past from them. There are many questions and viewpoints around the question about to whom do the artifacts belong and where should they be kept.

Procedure:

1. Have students turn to textbook, pages 118 and 119. Guide the reading of the pages. Conclude that some people feel that the artifacts belong only to appropriate First Nations; others believe they belong in museums and belong to all of us. Still others believe that they can belong to whomever wants them.

2. Distribute Line Master G-2. Go over the directions, if necessary.

3. OPTIONAL, but RECOMMENDED. Have students write a personal essay expressing their point of view.

Assignments:

1. Read Voices of Alberta, pages 118 and 119.
3. OPTIONAL, BUT RECOMMENDED. Write an essay expressing your point of view.
# Exploring Points of View

<table>
<thead>
<tr>
<th>What is the question or issue?</th>
<th>Where do cultural items belong?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who are the people giving their opinions?</td>
<td>museum visitor</td>
</tr>
<tr>
<td></td>
<td>museum curator</td>
</tr>
<tr>
<td></td>
<td>First Nations Elder</td>
</tr>
<tr>
<td></td>
<td>antique dealer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What are the different opinions?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• cultural items belong in museums</td>
</tr>
<tr>
<td>• sacred bundles should be returned to the First Nations to help spread knowledge through a community</td>
</tr>
<tr>
<td>• sacred bundles belong with the First Nations. They are part of a way of life.</td>
</tr>
<tr>
<td>• artifacts belong to those who find them</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Which opinions do you agree with, and why?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Which opinions do you disagree with, and why?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>What is your opinion? Why?</th>
</tr>
</thead>
</table>
# Exploring Points of View

<table>
<thead>
<tr>
<th>What is the question or issue?</th>
<th>What are some oil sands challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who are the people giving their opinions?</td>
<td>People of Alberta → environmentalist, trapper, Cree Elder, oil sands worker (trucker), mother</td>
</tr>
<tr>
<td>What are the different opinions?</td>
<td>• Concern about the environmental damage</td>
</tr>
<tr>
<td></td>
<td>• Destroy animals' habitat</td>
</tr>
<tr>
<td></td>
<td>• People have lost respect for Mother Earth</td>
</tr>
<tr>
<td></td>
<td>• Oil sands companies restore the land</td>
</tr>
<tr>
<td></td>
<td>• Must work with First Nations to protect important areas</td>
</tr>
<tr>
<td></td>
<td>• Need the oil from oil sands to operate vehicles</td>
</tr>
<tr>
<td>Which opinions do you agree with, and why?</td>
<td></td>
</tr>
<tr>
<td>Which opinions do you disagree with, and why?</td>
<td></td>
</tr>
<tr>
<td>What is your opinion? Why?</td>
<td></td>
</tr>
</tbody>
</table>

*Generic Line Master G-2*  
*Voices of Alberta, Teacher Resource* The right to reproduce or modify this page is restricted to purchasing schools. This page may have been modified from its original. Copyright © 2006 Pearson Education Canada.
## Exploring Points of View

<table>
<thead>
<tr>
<th>What is the question or issue?</th>
<th>Should city grasslands be protected?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who are the people giving their opinions?</td>
<td>disabled person in wheelchair, middle-aged man, young boy, middle-aged woman, mountain biker</td>
</tr>
<tr>
<td>What are the different opinions?</td>
<td>paved paths better for wheelchairs/strollers, trails cannot be shared by walkers and cyclists, trails will allow people to see teepee rings, power trails will protect a greater area of the park, biker wants to ride through natural areas, not on paved trails</td>
</tr>
</tbody>
</table>

| Which opinions do you agree with, and why? | |
| Which opinions do you disagree with, and why? | |
| What is your opinion? Why? | |
Lesson Nine

Concept: Set Your Skills in Motion

Resources/Materials: Voices of Alberta, page 120

Introduction: Explain that Chapter 4 is quickly coming to an end and that it is time to consider doing a project that relates to what we have studied.

Procedure:

1. Have students turn to textbook, page 120. With students, go over the suggestions that the textbook authors tell about. Decide which are feasible to do, or decide which can be adapted so they can be done.

   In the News
   More advanced students could do this, but the reading level of newspapers and magazine may be too high for grade four students.

   Design a Web Page
   Web page design is probably not appropriate for most colony schools. Perhaps you could turn this into a class project. Instead of creating a web page, you could make a display or a class report with individual students being placed in charge of certain aspect of one of the First Nations.

   Create a Brochure
   Students could create a brochure about Head-Smashed-In Buffalo Jump Interpretive Centre or Writing-on-Stone Provincial Park. Provide students with extra information by giving them copies of the teacher information found on pages 152, 153 and 155 of the teacher resource manual

   Write a Biography
   Teachers would have to provide students with information they need.

2. Assign students to do one of the above.

Assignments:

1. Read Voices of Alberta, page 121.
2. Choose one of the activities from the page to do.
Lesson Ten

Concept: Chapter Four Review

Resources/Materials: Voices of Alberta, page 121
Chapter Four Review Sheets
Worksheets #4.4.10a and #4.4.10b (optional, student copies)

Introduction: Explain that Chapter Four is now finished and it is time to prepare for a chapter test.

Procedure:

1. Have students turn to textbook, page 121. Guide the reading.

2. OPTIONAL. Have students do the JEOPARDY game questions on Worksheets #4.4.10a and #4.4.10b. Students should do the questions independently or in teams. The numbers in the corners of the boxes are the value of the questions.

3. The teacher can then check the questions with the students (preferred) or check them and then hand the papers back. The student or team with the most points wins a little treat. (Or give everyone a treat for trying so hard.)

4. Have students complete the Chapter Four Review Sheets.

5. If students have been doing the Alberta Treasure Chest activity, have them select or prepare something to put in their folders.

Assignments:

1. Read Voices of Alberta, page 121.
2. OPTIONAL. Do Worksheets #4.4.10a and #4.4.10b.
3. Do the Chapter Four Review Sheets.
4. If students have been doing the Alberta Treasure Chest activity, have them select or prepare something to put in their folders.
1. Print the names of the First Nations to show where they lived on the map of the Natural Regions of Alberta.

**Map of Alberta Regions**

| Dene Suliné | Dene Tha' | Dunne-Za | Kainai | Nakoda | Piikani | Plains Cree | Siksika | Tsuu T'ina | Woodland Cree |
1. Print the names of the First Nations to show where they lived on the map of the Natural Regions of Alberta.

Map of Alberta Regions

Dene Suliné
Dene Tha’
Dunne-Za
Kainai
Nakoda
Piikani
Plains Cree
Siksika
Tsuu T’ina
Woodland Cree
2. Tell how each of the following natural resources was used historically, by one or more of Alberta’s First Nations.

<table>
<thead>
<tr>
<th>Natural Resource</th>
<th>How the Natural Resource Was Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffalo</td>
<td></td>
</tr>
<tr>
<td>Trees</td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td></td>
</tr>
<tr>
<td>Moose</td>
<td></td>
</tr>
<tr>
<td>Berries</td>
<td></td>
</tr>
<tr>
<td>Roots</td>
<td></td>
</tr>
<tr>
<td>Cliffs</td>
<td></td>
</tr>
<tr>
<td>Marshes</td>
<td></td>
</tr>
<tr>
<td>Rivers and lakes</td>
<td></td>
</tr>
<tr>
<td>Ducks</td>
<td></td>
</tr>
</tbody>
</table>

3. Tell about four ways that First Nations used to hunt buffalo.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
4. Fill in the chart to show how the buffalo was used by First Nations of the Grasslands, Parkland, and Foothills. **You may not be able to fill all the spaces.**

<table>
<thead>
<tr>
<th>Part of Buffalo</th>
<th>Food</th>
<th>Clothing</th>
<th>Shelter</th>
<th>Home Furnishings</th>
<th>Tools/Hunting</th>
<th>Recreation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skins/hides</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bones</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sinew</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stomach</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teeth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. **One of my Elders told me a situation. He said we can get rid of all of the Dene people in Denendeh [our land]. We can all die off for some reason, but it there was another human being that came stumbling along and came to Denendeh, the environment would turn him into a Dene person**

- A Dene man

Explain what this means.
5. Tell about three ways we can learn about the way First Nations lived.
   a. 
   b. 
   c. 

6. Think about the issue: *Should cultural objects of First Nations be kept in museums.* In the chart below, tell about two different points of view. Support each point of view.

<table>
<thead>
<tr>
<th>Issue: Should cultural objects of First Nations be kept in museums?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Point of View:</strong></td>
</tr>
<tr>
<td>Reasons:</td>
</tr>
<tr>
<td><strong>Point of View:</strong></td>
</tr>
<tr>
<td>Reasons:</td>
</tr>
</tbody>
</table>
7. Read the article on the Woodland Cree. Then make point-form notes (jot notes) to summarize the information in the article.
The Woodland Cree

The Woodland Cree are one of the largest group of native Canadians. They lived in the Boreal Forest region. Their territory covered about half of Alberta.

Their houses looked like giant cones. They are made from a frame made of long poles. They covered the frame with pine boughs, spruce bark, and caribou hides. The thickness of this covering depended on the season. In colder weather they added more layers of caribou hides which helped to keep the inside warm.

Men and women each had their roles. The men hunted, fished, made canoes, hunting tools, and weapons of war. Women trapped rabbits and other small animals, tanned hides, cut firewood, made snowshoes, hauled wood, wove fish nets and made clothing.

The Woodland Cree ate what nature provided. They gathered berries and snared rabbits. They also hunted for larger game like moose, caribou, and deer. Birds such as ducks, geese, and ptarmigan were also part of the diet of the Woodland Cree.

The Woodland Cree used legends to tell stories of long ago. Many legends have to do with some aspect of the environment, such as “How the raven stole the sun” and “Deawitchita and the fire rock”. It is said that those who tell the legends have the most wisdom.
## Jeopardy

<table>
<thead>
<tr>
<th>Natural Regions</th>
<th>Buffalo</th>
<th>Learning about the Past</th>
<th>Shelter</th>
<th>Food</th>
<th>Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>100</strong> The natural region where the Plains Cree lived.</td>
<td><strong>100</strong> Another name for <em>buffalo</em>.</td>
<td><strong>100</strong> A method of passing knowledge on from one generation to the next by telling stories.</td>
<td><strong>100</strong> The name of a cone-shaped dwelling used by many Alberta First Nations.</td>
<td><strong>100</strong> The most important source of food for the Blackfoot, Nakoda, and Plains Cree.</td>
<td><strong>100</strong> Before 1730 how First Nations in Alberta moved from place to place.</td>
</tr>
<tr>
<td><strong>200</strong> The two natural regions where the Nakoda and Dunne-Za lived.</td>
<td><strong>200</strong> The part of the buffalo used to kill flies and mosquitoes.</td>
<td><strong>200</strong> A person respected for his or her wisdom and understanding of traditional knowledge.</td>
<td><strong>200</strong> The blackfoot used these to cover their homes.</td>
<td><strong>200</strong> What the Dene Tha’ used to catch fish.</td>
<td><strong>200</strong> Large frames worn on the feet used by Plains Cree, Woodland Cree, Dene Suline, Dunne-Za, and Dene Tha’.</td>
</tr>
<tr>
<td>Transportation</td>
<td>Food</td>
<td>Shelter</td>
<td>Learning about the Past</td>
<td>Natural Regions</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>------</td>
<td>---------</td>
<td>------------------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>Before 1730 how First Nations in Alberta moved from place to place.</td>
<td>The most important source of food for the Blackfoot, Nakoda, and Plains Cree.</td>
<td>The name of a cone-shaped dwelling used by many Alberta First Nations.</td>
<td>A method of passing knowledge from one generation to the next by telling stories.</td>
<td>The natural region where the Plains Cree lived.</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Large frames worn on the feet used by Plains Cree, Woodland Cree, Dene Suline, Dene Zazi, and Dene Tha.</td>
<td>What the Dene, Dene Zazi, and Dene Tha used to catch fish.</td>
<td>Itepec (wigwam) buffalo hiles</td>
<td>Elder</td>
<td>Parkland</td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>200</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bison</td>
<td>nets</td>
<td>buffalo hiles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Regions</td>
<td>Buffalo</td>
<td>Learning about the Past</td>
<td>Shelter</td>
<td>Food</td>
<td>Transportation</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------</td>
<td>-------------------------</td>
<td>---------</td>
<td>------</td>
<td>----------------</td>
</tr>
<tr>
<td><strong>300</strong> The First Nations group that lived on the Canadian Shield.</td>
<td><strong>300</strong> Type of hunting method where buffalo are chased over a cliff.</td>
<td><strong>300</strong> The park where you will see rock paintings and carved images in rock.</td>
<td><strong>300</strong> Besides animal hides, what the Nakoda used to cover their homes in summer.</td>
<td><strong>300</strong> Four different foods eaten by the Dene Suliné.</td>
<td><strong>300</strong> A frame used for moving a teepee or carrying belongings.</td>
</tr>
<tr>
<td><strong>400</strong> The natural region where the Dene Tha’ and Woodland Cree lived.</td>
<td><strong>400</strong> On the Parklands, where buffalo spent the winter.</td>
<td><strong>400</strong> The word for symbols that tell a story. The can be seen on a Kainai story robe.</td>
<td><strong>400</strong> The purpose of wooden pins to the Plains Cree.</td>
<td><strong>400</strong> The way many First Nations used to preserve meat and fish.</td>
<td><strong>400</strong> A device used by the Dene Tha’ to move things.</td>
</tr>
<tr>
<td><strong>500</strong> The four Blackfoot First Nations that lived on the Grassland.</td>
<td><strong>500</strong> The buffalo product that the Blackfoot used as fuel.</td>
<td><strong>500</strong> A scientist who studies objects and buildings from the past.</td>
<td><strong>500</strong> For the Nakoda the advantage of moss and pole dwellings.</td>
<td><strong>500</strong> Besides the meat, four buffalo parts eaten by the Blackfoot.</td>
<td><strong>500</strong> What First Nations used to pull a travois before 1730</td>
</tr>
</tbody>
</table>
7. Read the article on the Woodland Cree. Then make point-form notes (jot notes) to summarize the information in the article.

Answers will vary

Location - lived in Boreal Forest
  - territory - half of Alberta

Shelter - looked like giant cones
  - frames - long poles
  - covered with pine boughs, spruce bark, caribou hides

Roles - men hunted, fished, made canoes, weapons
  - women gathered berries, trapped rabbits, made snowshoes, gathered
    hunted wood, made clothing

Food - berries, rabbits, large game, birds

Legends - many have to do with environment
5. Tell about three ways we can learn about the way First Nations lived.

a. **Oral Teaching** - remembering the past through stories and spoken explanations

b. **Pictographs** - symbols and pictures carved into stone or made on skins

c. **Artifacts** - items uncovered and examined by archaeologists

6. Think about the issue: *Should cultural objects of First Nations be kept in museums.* In the chart below, tell about two different points of view. Support each point of view.

<table>
<thead>
<tr>
<th>Issue: Should cultural objects of First Nations be kept in museums?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Point of View:</strong> Cultural objects should be kept in museums.</td>
</tr>
<tr>
<td><strong>Reasons:</strong></td>
</tr>
<tr>
<td>- on display for all to see and learn from them</td>
</tr>
<tr>
<td>- museums can look after them</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
4. Fill in the chart to show how the buffalo was used by First Nations of the Grasslands, Parkland, and Foothills. **You may not be able to fill all the spaces.**

<table>
<thead>
<tr>
<th>Part of Buffalo</th>
<th>Food</th>
<th>Clothing</th>
<th>Shelter</th>
<th>Home Furnishings</th>
<th>Tools/Hunting</th>
<th>Recreation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscle</td>
<td>meat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skins/hides</td>
<td></td>
<td>jackets</td>
<td>teepee</td>
<td></td>
<td>knifesheath</td>
<td></td>
</tr>
<tr>
<td>Horn</td>
<td></td>
<td>pants</td>
<td>covers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bones</td>
<td></td>
<td></td>
<td></td>
<td>uruwa shafts</td>
<td>paintbrushes</td>
<td>glasses</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>points</td>
<td>needles</td>
<td></td>
</tr>
<tr>
<td>Sinew</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>hunting bows</td>
<td>glasses</td>
</tr>
<tr>
<td>Stomach</td>
<td></td>
<td></td>
<td></td>
<td>cooking pots</td>
<td>water buckets</td>
<td></td>
</tr>
<tr>
<td>Teeth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>necklaces</td>
<td></td>
</tr>
</tbody>
</table>

Answers will vary

5. **One of my Elders told me a situation.** He said we can get rid of all of the Dene people in Denendeh [our land]. We can all die off for some reason, but it there was another human being that came stumbling along and came to Denendeh, the environment would turn him into a Dene person

- A Dene man

Explain what this means.

Answers will vary

The climate, natural vegetation, landforms, and bodies of water influence how we live. People use natural resources found in the area where they live to meet their needs.
2. Tell how each of the following natural resources was used historically, by one or more of Alberta’s First Nations. 

<table>
<thead>
<tr>
<th>Natural Resource</th>
<th>How the Natural Resource Was Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffalo</td>
<td>meat, clothing, teepee covers, etc.</td>
</tr>
<tr>
<td>Trees</td>
<td>teepee poles</td>
</tr>
<tr>
<td>Fish</td>
<td>food, decoration</td>
</tr>
<tr>
<td>Moose</td>
<td>food</td>
</tr>
<tr>
<td>Berries</td>
<td>food</td>
</tr>
<tr>
<td>Roots</td>
<td>food</td>
</tr>
<tr>
<td>Cliffs</td>
<td>hunt buffalo – buffalo jump</td>
</tr>
<tr>
<td>Marshes</td>
<td>hunt buffalo – chase buffalo into marsh, then kill them</td>
</tr>
<tr>
<td>Rivers and lakes</td>
<td>get fish, transportation</td>
</tr>
<tr>
<td>Ducks</td>
<td>food</td>
</tr>
</tbody>
</table>

3. Tell about four ways that First Nations used to hunt buffalo.

- buffalo pound
- buffalo jump
- buffalo chase
- chase buffalo into deep snow
- chase buffalo into marshy areas
<table>
<thead>
<tr>
<th>Natural Regions</th>
<th>Buffalo</th>
<th>Learning about the Past</th>
<th>Shelter</th>
<th>Food</th>
<th>Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 The First Nations group that lived on the Canadian Shield. Dene Sulîné</td>
<td>300 Type of hunting method where buffalo are chased over a cliff. buffalo jump</td>
<td>300 The park where you will see rock paintings and carved images in rock. Writing-on-Stone Provincial Park</td>
<td>300 Besides animal hides, what the Nakoda used to cover their homes in summer. spruce bark</td>
<td>300 Four different foods eaten by the Dene Sulîné. fish, water birds, moose, caribou (wood buffalo)</td>
<td>300 A frame used for moving a teepee or carrying belongings. travois</td>
</tr>
<tr>
<td>400 The natural region where the Dene Tha' and Woodland Cree lived. boreal forest</td>
<td>400 On the Parklands, where buffalo spent the winter. in the forests</td>
<td>400 The word for symbols that tell a story. The can be seen on a Kainai story robe. pictographs</td>
<td>400 The purpose of wooden pins to the Plains Cree. hold down teepee edges</td>
<td>400 The way many First Nations used to preserve meat and fish. drying / smoking</td>
<td>400 A device used by the Dene Tha' to move things. toboggan / sled</td>
</tr>
<tr>
<td>500 The four Blackfoot First Nations that lived on the Grassland. Tsuu T'ina Pîkani Siksika Kainai</td>
<td>500 The buffalo product that the Blackfoot used as fuel. dung</td>
<td>500 A scientist who studies objects and buildings from the past. archeologist</td>
<td>500 For the Nakoda the advantage of moss and pole dwellings. cool in summer warm in winter</td>
<td>500 Besides the meat, four buffalo parts eaten by the Blackfoot. heart, liver, kidney, tongue</td>
<td>500 What First Nations used to pull a travois before 1730 joy</td>
</tr>
</tbody>
</table>
Lesson Eleven

Concept: Chapter Four Test

Resources/Materials: Chapter Four Test
1. Give five examples of natural resources historically used by some First Nations. Tell about how each natural resource was used.

<table>
<thead>
<tr>
<th>Natural Resource</th>
<th>How the Natural Resource Was Used</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

2. Many First Nations relied on the buffalo to meet many of their needs. Use the chart below to show how the buffalo was used.

<table>
<thead>
<tr>
<th>Part of the Buffalo</th>
<th>How It Was Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat</td>
<td></td>
</tr>
<tr>
<td>Bones</td>
<td></td>
</tr>
<tr>
<td>Hides and skins</td>
<td></td>
</tr>
<tr>
<td>Horn</td>
<td></td>
</tr>
</tbody>
</table>
3. First Nations believed that “When you take something from nature, you must put something back.”

Explain what this means and give examples.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

4. Use the article “Plains First Nations” to do this question. Choose two of the topics below. Put a check mark (✓) beside those two topics. Read the information on those topics in the article. Then make point-form notes (jot notes) to record the information. (If you run out of space, continue on the back of this sheet.

☐ Environment
☐ Food
☐ Shelter
☐ Clothing
☐ Transportation
☐ Technology
☐ Art
5. Think about the different points of view about keeping cultural objects of First Nations in museums. Tell about two of those points of view. Give two reasons that support each point of view.

<table>
<thead>
<tr>
<th>Issue:  Should cultural objects of First Nations be kept in museums?</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Nations cultural objects should be kept in museums.</td>
</tr>
<tr>
<td>•</td>
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<tr>
<td>•</td>
</tr>
</tbody>
</table>

6. We learn about the past in several ways. Tell about each of the following.

   a. Oral Teaching  

   b. Pictographs  

   c. Artifacts  
7. Draw lines to match the First Nations of Alberta with the natural regions in which their traditional homelands lay.
1. Give five examples of natural resources historically used by some First Nations. Tell about how each natural resource was used. *Answers will vary*

<table>
<thead>
<tr>
<th>Natural Resource</th>
<th>How the Natural Resource Was Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>buffalo</td>
<td>food, clothing, teepee covers, tools, etc.</td>
</tr>
<tr>
<td>trees</td>
<td>teepee poles, teepee covers</td>
</tr>
<tr>
<td>fish</td>
<td>food, fertilizer</td>
</tr>
<tr>
<td>rivers, lakes</td>
<td>fishing, transportation</td>
</tr>
<tr>
<td>large game</td>
<td>food, clothing, tools</td>
</tr>
</tbody>
</table>

2. Many First Nations relied on the buffalo to meet many of their needs. Use the chart below to show how the buffalo was used. *Answers will vary*

<table>
<thead>
<tr>
<th>Part of the Buffalo</th>
<th>How It Was Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat</td>
<td>Food made pemmican (dried)</td>
</tr>
<tr>
<td>Bones</td>
<td>tools, recreation</td>
</tr>
<tr>
<td>Hides and skins</td>
<td>teepee covers, clothing</td>
</tr>
<tr>
<td>Horn</td>
<td>cups, utensils, ladles</td>
</tr>
</tbody>
</table>
3. First Nations believed that “When you take something from nature, you must put something back.”

   *Answers will vary*

   Explain what this means and give examples.

   When people use nature, they must use what they take carefully.
   There must be no waste. Return what is not useful directly back to nature. Example: bury fish guts so it will act as fertilizer.

4. Use the article “Plains First Nations” to do this question. Choose two of the topics below. Put a check mark (✓) beside those two topics. Read the information on those topics in the article. Then make point-form notes (jot notes) to record the information. (If you run out of space, continue on the back of this sheet.

   - Environment
   - Food
   - Shelter
   - Clothing
   - Transportation
   - Technology
   - Art

   *Answers will vary*
5. Think about the different points of view about keeping cultural objects of First Nations in museums. Tell about two of those points of view. Give two reasons that support each point of view.

Answers will vary

<table>
<thead>
<tr>
<th>Issue: Should cultural objects of First Nations be kept in museums?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Nations cultural objects should be kept in museums.</strong></td>
</tr>
<tr>
<td>• then the public can view and learn from them</td>
</tr>
<tr>
<td>• they are safe and can be preserved</td>
</tr>
<tr>
<td><strong>First Nations cultural objects should not be kept in museums.</strong></td>
</tr>
<tr>
<td>• should be with First Nations people themselves. This helps to keep the culture alive</td>
</tr>
<tr>
<td>• Artifacts are sacred bundles and are not meant to be displayed. They are alive and are part of First Nations way of life</td>
</tr>
</tbody>
</table>

6. We learn about the past in several ways. Tell about each of the following.

   a. Oral Teaching **way of remembering the past through stories** and spoken explanation

   b. Pictographs **rock paintings and carved images; story robes**

   c. Artifacts **uncovered and studied by archaeologists**
7. Draw lines to match the First Nations of Alberta with the natural regions in which their traditional homelands lay.
Plains First Nations

Environment
The environment of the plains was very flat and dry. Some types of the grasses are, blue grama grass, bison fare, and gumbo evening primrose, these are only some of the types of grass. Some of the animals are bison, hawks, wolves, coyote, prairie dog, prairie chicken, rattle snake and antelope. The Plains First Nations environment had very little surface water. This made it so they didn’t need many boats. The winters were cold and long while the summers were hot and dry.

This is a picture of the Plains environment to show how flat it is.


Food
The Plains Indians main food source was buffalo. They first could only catch small amounts of food with the help of their dogs, but soon travelers introduced the Plains First Nation people to horses. They trained and rode them. Only the bravest men could catch the buffalo. They picked choke cherries in season and only ate fish if it was an emergency. They ate some roots
such as Canus roots or wild turnips. They did grow some crops. Once a year they would do a buffalo jump. The bravest men would yell and wave hide at the buffalo so they would run off a cliff. After the woman would slaughter and skin the buffalo, this would make it so they all had enough to eat for the winter.

This is a photo of a buffalo jump happening.


Shelter

The Plains Indians had movable homes. The movable homes were called tipis. They needed movable houses to travel when they followed the good game. The tipis were made from poles that were about 40 ft and were covered by bison hide. There was a fireplace and an opening at the top for smoke. The tipi builder would always dedicate the tipi to someone or something. The poles must be placed in the exact right spot in order for it not to fall. Tipis were always put up and taken down by women. The hide that had to cover the poles was made out of about 14 buffalo hides. There was also a flap as the door.
This is a photo of a family and a horse in front of their house called a tipi.

**Clothing**

The Plains made most their clothing from skins. The men wore thin shirts, and leggings that are almost like pants. They also wore moccasins and bison robes. Their clothes were made out of deer, antelope, bison, and elk skins. The children dressed the same as their parents. Their dresses were decorated with porcupine quills, they were also died and painted on.

This is picture of a traditional headdress and a decorated bison robe.
Transportation

The Plains Indians didn’t have many ways in traveling. They mostly walked because of flat land but sometimes they had a dog pull a travois. A travois was two long poles connected by two other poles near the bottom of the two long poles and it would carry something like food or babies. It was pulled by a dog until the Europeans and then the travois was pulled by horses. This is a photograph of what a travois that is attached to a horse.


Technology

The Plains Indians had many different technologies than we do now. Here are some of the tools they used for cooking: stone knives, pemmican hammers, wooden bowls, horn spoons, stone hammers with wooden shafts, crushing stones or mauls and ladles. Bison was not only a main food source for the Plains it was also a very good source for making tools such as: cups - made from the horns robes - made from their hair
scrapers - made from their bone
These are only very few of their uses for buffalo.
Coup stick, arrows in quivers, clubs, bows in special cases, tomahawk, these are some of their weapons.
This is a photo of some of their technologies.


Art
Some of the Plains Indians art included beliefs.
Here is one of there beliefs they had:
Vision quests - a boy would set off by himself with 3 pieces of corn and nothing else. He would be there for about 5 days, he would usually have a vision and then when he returned to his village he would tell about his vision and get a new name. He would also prove he is strong enough to be a man.

They also were fond of games, the little boys or girls played with their dolls or their tops. The woman played a game named "shinny" this was a game almost like floor hockey. The men or sometimes young men would wrestle or race on foot.

The Plains decorated their cloths and other stuff with
porcupine quills that are died and then after the Europeans came they started doing alot of bead work.