Hi! It’s Brittany again! I live in Edson in the Alberta Foothills region. My father is a wildlife officer. One of his projects is researching the herds of woodland caribou in the region. My mother organizes wilderness treks. I’ve been able to hike, canoe, and horseback ride all over our region with Mom and Dad. We really love the outdoors!

That’s why I think I have something in common with David Thompson. He was an early explorer, surveyor, and mapmaker who travelled in Canada in the early 1800s.

Long before Thompson arrived in what is now Alberta, First Nations people lived here. Francophone voyageurs (vwa ya zhur) from Québec and Métis voyageurs carrying trade goods to and from the east had also become familiar with the area.

When Thompson arrived, he had the stars in the sky and the help of First Nations guides, such as Blackfoot, Nakoda, and Tsuu T’ina (tsoot ina) people, and voyageurs to find his way through the foothills. He made maps and kept journals that described the land, people, and wildlife.

I’ve thought a lot about how much our region has changed since David Thompson was here. I keep my own journal to write about my ideas and experiences.

When David Thompson canoed through the foothills, it was wilderness. Today, much of the region has protected areas and parks. Communities like my town, Edson, developed because of the many natural resources in the region. I wonder what David Thompson would write in his journal if he could see our Foothills region today.
...About the Foothills Region

The Alberta Foothills region is located along the eastern slopes of the Rocky Mountains.

How can people’s activities affect animal life?

How can we use our natural resources wisely?

How are we connected to nature?

What do you value about the Foothills region?

Why do communities form?
Landforms

Alberta’s foothills were formed millions of years ago. The same folding of the land that created the Rocky Mountains also made the foothills. The Foothills region has forested hills, rolling grasslands, and broad river valleys.

![Elevation chart]

The average elevation at the top of the foothills is about 1800 metres. By comparison, the Rocky Mountains average 2500 metres. Mount Columbia, Alberta’s highest peak, is 3747 metres.

These grassy foothills are located in the Nordegg area.
Bodies of Water

A **river system** is an area of land drained by a large river. It includes all the smaller rivers and streams feeding the bigger river. About 90 per cent of the water in the North and South Saskatchewan Rivers comes from the mountains and foothills. The Red Deer and Athabasca Rivers also flow from the glaciers and snow packs. They start in the Rocky Mountains and cross the foothills.

The Brazeau Dam

Dad had to go to the Brazeau (bra zoh) Dam and **Reservoir** and invited me along. People build dams and reservoirs to control water. A reservoir is like a lake. It collects and stores water. Rivers get higher in summer because of melting snow. Dad said the dam was built to keep the rate of flowing water at the same level in summer and winter. It helps stop flooding in Edmonton. Éric will be really glad to hear this!

### The Brazeau Dam

The Brazeau Dam controls water flow and is used to produce electricity. The area surrounding the dam is visited by many nature watchers.

### NAMES IN ALBERTA

The Brazeau Dam and Reservoir were named after Joseph Brazeau, who came from Missouri for the fur trade in 1830. He spoke various First Nations languages, English, and French.

### Pause

1. Look at a map of Alberta in an atlas. Name some communities in the Foothills region that are located on a river. Why do you think communities need a river nearby?
2. What is a river system near your community?
Climate

The Pacific Ocean and the Rocky Mountains affect the climate of the Foothills region.

1. Warm, moist air comes from the Pacific Ocean.
2. As the air rises over the Rocky Mountains, most of the moisture is dropped on the British Columbia side of the mountains.
3. Smaller amounts of rain are dropped on the upper foothills.

As winds come from the mountains to the foothills, they pick up speed. This causes the winds to warm up. In the winter time, these warm winds are called **chinooks**.

A sudden chinook can mean slushy roads, flooded basements, and muddy cars. I remember one chinook that melted all the snow and thawed the ground, creating deep puddles.

I practised racing down a hill on my bike, bouncing over a jump, and trying to clear a huge puddle at the bottom. A few times I made it, but most of the time, splat! I don’t think I’ll ever outgrow the nickname my family gave me—Miss Mud! Alberta children sure enjoy the puddles created by chinooks.
Vegetation

Coniferous trees have needles and cones and usually stay green all year. The upper foothills are forested with coniferous trees, including lodgepole pine, spruce, and fir trees.

The lower foothills area is a mixture of short grasses, bushes, and deciduous trees. Deciduous trees have leaves that drop off in the fall. Aspen, birch, willow, and poplar trees grow in the lower foothills. The trembling aspen is the most common tree.

Why do you think these trees are called trembling aspens?

Pause

1. How do you think people in the past might have used the forests, grassy hills, and rivers to meet their needs?
2. Why do you think there are so few communities in the Foothills region?
3. Predict what kinds of animals might live in this region. Why did you make these choices?
Animals have adaptations, or special features, to help them survive in their natural environment. Woodland caribou have several special adaptations, such as long legs for walking in snow and wide, curved hooves for pawing the snow to find food.

Scientists believe there are only 600 to 700 woodland caribou in the Foothills region. Their numbers are going down and the Alberta government considers caribou an endangered animal.

Dad and other wildlife officers put radio collars on adult caribou. This allows them to track their migration, or movement from area to area, and learn about them. If scientists can figure out the reasons for the declining population, they can work towards solutions.

1. Study the web. What solutions might help save the woodland caribou?
A Trail Ride

The natural environment in our region—the rolling hills and forests—make it great for outdoor activities. I often help my mother take people on trail rides. I keep watch for animals to point out to them. I remind them to stick to the trails to avoid damaging any uncovered tree roots.

Here is one of my journal entries from an overnight trek last summer.

What a terrific trail ride, even though we were very sleepy today! From midnight until early this morning, the howls of the wolves and the yips of the coyotes kept us awake. The howls would start with one wolf, and soon it seemed a dozen would be answering. Before long, the coyotes would join in. Luckily, we felt safe snuggled in our sleeping bags around the blazing campfire.

Every hilltop provided us with an amazing photo. The big excitement this morning was startling a moose and her calf. As we headed down the hillside towards them, the moose lifted her head and snorted. The horses began backing up the hillside. We were thrilled, but our horses were relieved when the moose tromped off into the trees.

Just when we thought it couldn’t get better, we spotted a black bear loping through the grass towards a clump of poplars. We watched it from a safe distance for more than 20 minutes before it disappeared over the hill.

Tonight, our camp has a spectacular view of the Rocky Mountains rising up against the rolling hills. This has to be the best way to spend a summer vacation!

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Pause

1. Do people always affect animal habitats?
2. What responsibilities do you think people have when visiting a natural area?
Many Nakoda people, also known as the Stoney Nakoda Nation, live in southwestern Alberta. The Nakoda people have always valued the natural environment. Their traditional calendar shows the patterns of nature, such as the changing seasons and the moon. Nakoda people understood and lived by these patterns in nature. For example, they knew when the berries would be ripe to pick, when there might be little food, and the best times to hunt.

**Nakoda Moons Calendar**

- **Frost-in-the-Lodges Moon**
  - The first frost makes the hills and sky crisp. The trees are leafless.

- **Joins-Both-Sides Moon**
  - This moon comes between winter and summer. It brings warm and cold weather. Most birds start to migrate to the south.

- **Elk-in-Heat Moon**
  - This is the start of the seven winter moons. Flowers, grasses, and leaves turn from green to yellow, to red, to brown. It is the rutting season for elk.

- **Ripening Moon**
  - This is when gooseberries, chokecherries, and wild berries are ripe to pick.

- **Red Berries Moon**
  - Thunder tends to bring rain. Lightening points to areas where water is needed. The thunderbirds then bring water.

- **Full Leaf Moon**
  - Grasses, trees, and other vegetation come with new growth and blossoms.

- **Grass Moon**
  - May is the great pause before summer arrives and the beginning of the growing time.

- **Frog Moon**
  - The frogs begin to sing and announce the first warm months.

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Alberta has many natural resources. Some people, such as oilfield workers and ranchers, make their living by collecting or using our natural resources. The resources and products help meet our needs and make our lives more enjoyable.

Natural resources can be **renewable** or **non-renewable**. Renewable resources can be regrown or replaced if used carefully. Non-renewable resources cannot be replaced. Once they are used up, they disappear forever. The use of Alberta’s natural resources requires planning and care to make sure they are not wasted.

### Some Types of Resources

<table>
<thead>
<tr>
<th>Renewable</th>
<th>Non-renewable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetation</td>
<td>Minerals</td>
</tr>
<tr>
<td>• grasses</td>
<td>• metals</td>
</tr>
<tr>
<td>• trees</td>
<td>• rocks</td>
</tr>
<tr>
<td>• shrubs</td>
<td>• sand</td>
</tr>
<tr>
<td>Animals</td>
<td>Fossil fuels</td>
</tr>
<tr>
<td>• fish</td>
<td>• oil</td>
</tr>
<tr>
<td>• birds</td>
<td>• gas</td>
</tr>
<tr>
<td>• fur-bearing</td>
<td>• coal</td>
</tr>
<tr>
<td>animals</td>
<td></td>
</tr>
</tbody>
</table>

Near Swan Hills is the Goose Mountain Ecological Reserve where rare Alberta plants are protected. Hikers are invited to enjoy this natural area, but people are not allowed to drive cars there or pick the plants.

1. What does the Nakoda calendar teach us about the climate, vegetation, and animal life in the region?
2. What activities would your own calendar show in winter, spring, summer, and fall? How are your activities affected by parts of the natural environment, such as our climate?
3. What could cause the renewable resources listed in the chart to disappear forever?
4. Do you think soil is a renewable resource? Explain your answer.
Developing Communities

Why do communities form?

With the help of First Nations people, European explorers and settlers learned to use the natural resources of the Foothills region to help them survive. People often settled near valuable natural resources to make a living.

People traded goods. They helped each other with hunting, building, and other work. Some early settlers in the Foothills region worked as fur trappers. In the fur trade, people exchanged fur for goods they needed. The furs were then sold. Other settlers were coal miners, loggers, and ranchers.

Communities sometimes form when people move to the area to develop a particular resource. Over time, resources may run out or may no longer be needed. Other resources may be discovered and developed.

These people were heading to the Edson area in 1907.

The Foothills region has a variety of natural resources. The town of Edson has grown because of the rich natural resources in the region. These include coal, gravel, oil, natural gas, and forests. Other communities I’ve visited were built around natural resources, too.

### Forming Communities Around Natural Resources

<table>
<thead>
<tr>
<th>Natural Resources</th>
<th>Some Early Communities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>Edson, Nordegg</td>
</tr>
<tr>
<td>Forests</td>
<td>Edson</td>
</tr>
<tr>
<td>Oil</td>
<td>Swan Hills, Edson</td>
</tr>
</tbody>
</table>
Cattle Ranching

In the 1800s, the vast rolling grasslands of the southern Foothills region attracted settlers. Over time, ranching families changed the open grasslands into cattle ranches. Many large ranches were started south and west of Calgary.

Ranchers know the advantages of the climate, vegetation, and land resources. The warm chinook winds keep winter temperatures mild. They melt the deep snow, making it easier for the cattle to move.

During a chinook, ice and snow melt quickly. Chinooks and heavy rainstorms result in powerful streams that rush down the hillsides. Valleys called coulees are formed by the force of the rushing water. Coulée is a French word that means “a path made by a flowing liquid.”

The summer rains produce abundant grasses. Ranchers know that to keep healthy grass, it should not be overgrazed. It must have time to regrow.

Open rolling hills are excellent grazing land for cattle.

Ranchers have helped make beef production a very important business in Alberta.

Pause

1. Study the photo on page 48. What might settlers such as these have done for a living?
2. How is the formation of a community linked to the natural resources it has?
3. How might early cattle ranchers have explained their reasons for coming to this region?
4. What are some natural resources located close to your community? What jobs are related to these natural resources?
Respecting Nature

How can we use our natural resources wisely?

Throughout history, First Nations and Métis people have used natural resources to meet their needs. They collected berries and hunted. They gathered plants for medicines and used trees to make shelters and canoes.

Their cultures and traditional teachings continue to guide Aboriginal people to live in harmony with nature. Many Aboriginal people believe nature shows us guidelines for how to live. For example, animals do not take more than they need from nature. Many Aboriginal people show respect for nature by discouraging wastefulness.

“According to the oral history as passed down by our Elders, the Nakodas of old moved with the seasons, so as not to use up the resources on which we depended. All that we need for food and comfort we were able to obtain from the natural surroundings.

The tipi was made of cured animal hides supported on the long, slim trunks of young pine trees. A bow was constructed of wood from the chokecherry or birch tree. A bowstring was fashioned from the long sinews lying along the backbone of a deer or buffalo. Arrowheads were carefully chipped from flint stone. A hide scraper was made of stone or a large leg bone. A fishhook was made using a thin bone from the front leg of a lynx.”

—Stoney History Notes (1983)
Community Connections

Foothills Model Forest

This weekend, I went with Dad to the Foothills Model Forest! Part of the forest is in the Foothills region, and part of it is in the Rocky Mountains. A model forest is a large forest area used for scientific study. Scientists can study natural events such as forest fires and tree diseases. They also study the effects of human activities, such as making roads and pipelines. Forestry companies want to learn how to harvest and reforest areas in more natural ways. Dad explained that studying the Model Forest enables the government and the forestry companies to better work together. Together, they can manage the forests and protect animal habitats.

Keeping our forests healthy for both people and animals in the future is a community responsibility. This is a view shared by Aboriginal people.

“There is an Aboriginal tradition. We are told to make decisions for the seventh generation.”

—Roberta Jamieson, National Aboriginal Achievement Foundation

Pause

1. What message would you like to give others about respecting nature? Tell how we can show that we value the geography and living things around us. Explain why you think it is important to do so.

2. The seventh generation is about 150 years from now. Why is it wise to look ahead seven generations before making decisions today that affect the environment?
Forestry companies in Alberta cut down trees that are then used to make the products we need, such as furniture. Some of the trees are sent to pulp mills, such as the one in Hinton. Pulp is ground wood. It is sold and used to make paper products, such as tissue, newsprint, and writing paper.

In class, we discussed a newspaper article about waste disposal in Alberta. All kinds of waste, such as glass, metal, plastic, food, and yard materials, are sent to landfill sites. The landfills also contain a lot of paper.

We were glad to learn that many people are recycling. The article pointed out some of the benefits of recycling.

**Some Benefits of Recycling Paper**

- There are many uses for recycled paper, such as egg cartons and newsprint.
- Less energy and water is needed to make products from recycled paper.
- About 60 kilograms of recycled paper saves one tree.
Saving Trees

We all agreed that recycling is important. We also realized if we reduced the amount of paper we used, we could reduce the number of trees being cut.

We wanted to find ways to help save our forests by changing the ways we use paper. We decided to focus on three ways to take action:

1. raise people’s awareness of the problem
2. reduce the amount of paper used and wasted
3. reuse and recycle

We broke into three groups to brainstorm more details. Later, each group shared their ideas with the class and discussed how we would put our ideas into action.

### Raise Awareness

- keep track of the amount of paper used
- keep track of the amount of paper thrown away
- keep track of the amount of paper recycled
- share information and ideas with others

### Reduce

- use the board and overhead projector
- use both sides of writing paper
- if possible, repair books and other paper products rather than buying new ones
- refuse to buy products with too much paper packaging
- use a computer instead of writing on paper

### Reuse and Recycle

- put recycling boxes in each classroom
- make notepads from used paper
- reuse paper for art projects
- buy products made from recycled paper
- collect used telephone books

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1. Are trees a renewable resource? Explain your answer.
2. What might happen to the forest resources if no action is taken?
3. How did Brittany and her classmates take action to help make better use of forest resources?
4. What other school projects could be started?
What Have We Learned?

As we learned about the geography and some of the history of the Foothills region, we thought about what we value about our environment. We learned about renewable and non-renewable natural resources. We looked at links between these natural resources and the formation of communities.

We explored how the development of natural resources can affect the environment and animal life. Our inquiry on pages 52 and 53 about paper use helped us think of why and how to use our forest resources responsibly.

Inquiring

1. People in rural and urban areas of Alberta use and enjoy the natural environment around them. Is there a park in your community where you play baseball or fly kites? Do you toboggan on a nearby hill in the winter? Do adults you know work at jobs related to natural resources, such as forests, minerals, or fossil fuels?

Create a calendar to raise awareness about the importance of the natural environment in your community. You may wish to use a similar format to the Nakoda Moons Calendar on page 46. Use words and pictures to represent the surroundings and activities in your community each month. Remember to focus on the land and its resources. Show and tell how people use and enjoy the environment in responsible ways.

Developing Your Thinking

2. Create symbols for the major natural resources in the Foothills region. Place these symbols on an outline map of the region to show the location of the natural resources. Circle the symbols that represent non-renewable resources.

With a partner, list occupations that are related to each resource on your map. List as many as you can. Compare your list with another pair. Select a graphic organizer to organize your group’s ideas.
Appreciating Our Alberta

3. Look back at the questions on the strips of paper found throughout the chapter. Think about how much you have learned!

Now, it is time to share what you appreciate about our Alberta. Write or draw your ideas to answer these two questions:

What makes the Foothills region a unique part of Alberta?

What do you value about the Foothills region?

Reflecting

4. Look back at the inquiry model on page vi. Sometimes, we use all the parts and sometimes, we only do some of the parts. Sometimes, we go around the model in order and sometimes, we move in different directions. What would you say to help explain why the inquiry model works this way?

The Alberta Project

Brittany has been keeping a journal, just like David Thompson did. Both of them described their experiences and thoughts about the Foothills region.

Imagine you have just visited a community or area in the Foothills region. Write one journal entry to tell what you think is important or interesting about the geography, people, or history of the Foothills region.

These are some sample topic ideas:

• a community and its resource(s)
• caring for the natural environment
• a tourist site
• a person who works in the region