

# Natural Resources in Your Life

**W**ith a roar, oil gushed out of the new well at Leduc, near Edmonton. Five hundred people were watching. They roared back in excitement. They had come out on a bitterly cold day to see the opening of the well. It was February 1947. For many years the search had been on to find large deposits of oil in Western Canada, but without luck. Then the oil crews came to Leduc. They drilled for 10 weeks but found nothing. They were about to give up when, suddenly, one of the crew noticed a thick liquid oozing from the well. Success at last! Newspapers in Alberta and across Canada announced the discovery with headlines. There was a huge oil reserve in Alberta!



# Alberta's Story

Alberta is rich in **natural resources**. These resources are important in many ways to people in the province. In this chapter, you will find out how natural resources meet people's needs and help communities grow. You will learn how natural resources have helped build Alberta's identity.

**words** matter!

**Natural resources** are things found in nature that are useful to us. They include air, water, soil, oil and gas, minerals, forests, and animals.

## ? Inquiring Minds

Here are some questions to guide your inquiry for this chapter:

- How do we use natural resources?
- How have natural resources helped communities in Alberta grow?

Now try to add some questions of your own about natural resources in Alberta. Look for the answers in this chapter. If you can't find them here, explore more!



How can I organize the information I find?

I will

- make a two-column chart
- print each question as a heading
- make jot notes

# Why Was the Leduc Discovery Important?

## words matter!

**Energy** is power, or the ability to do work. We call oil and gas “energy” because they allow us to do our work, usually by giving power to the machines that help us.

Oil and gas were discovered in Alberta before 1947. However, the Leduc oil fields were the largest the province had seen. Many other natural gas reserves were found, and oil and gas companies grew quickly. They provided many jobs for people in Alberta. Alberta soon became known as an **energy** province.

## ALBERTA VOICES

### Big Changes in Our World

*Karen Bower was five years old when her parents took her out one night in 1947 to watch the flares from the Leduc oil field.*

### Thinking It Through

- How do you think people in Alberta use oil and gas? List some ideas and then read on to check if you were right.
- Why do you think oil and gas created jobs?

“Look at that!” my mother said.... It looked like the sky was on fire....

“Those are flares,” my father said. He said men put big pipes into the ground to get at the oil....

“Why are they burning up the ground?” I asked.

“It looks that way, but they are really burning the part they can’t use,” he explained. “They set it on fire to get rid of it.”

He said the oil could be made into other things like gas to make cars go, and someday it would heat houses all over Canada. I thought about that. The winter before, my blanket had frozen to the wall of my room because our house was so cold....

“There’s probably enough oil in the ground, Karen, to keep every house in Canada warm in the coldest winter...,” he said. “This is going to make big changes in our world.”



Oil rig workers at Leduc in 1947

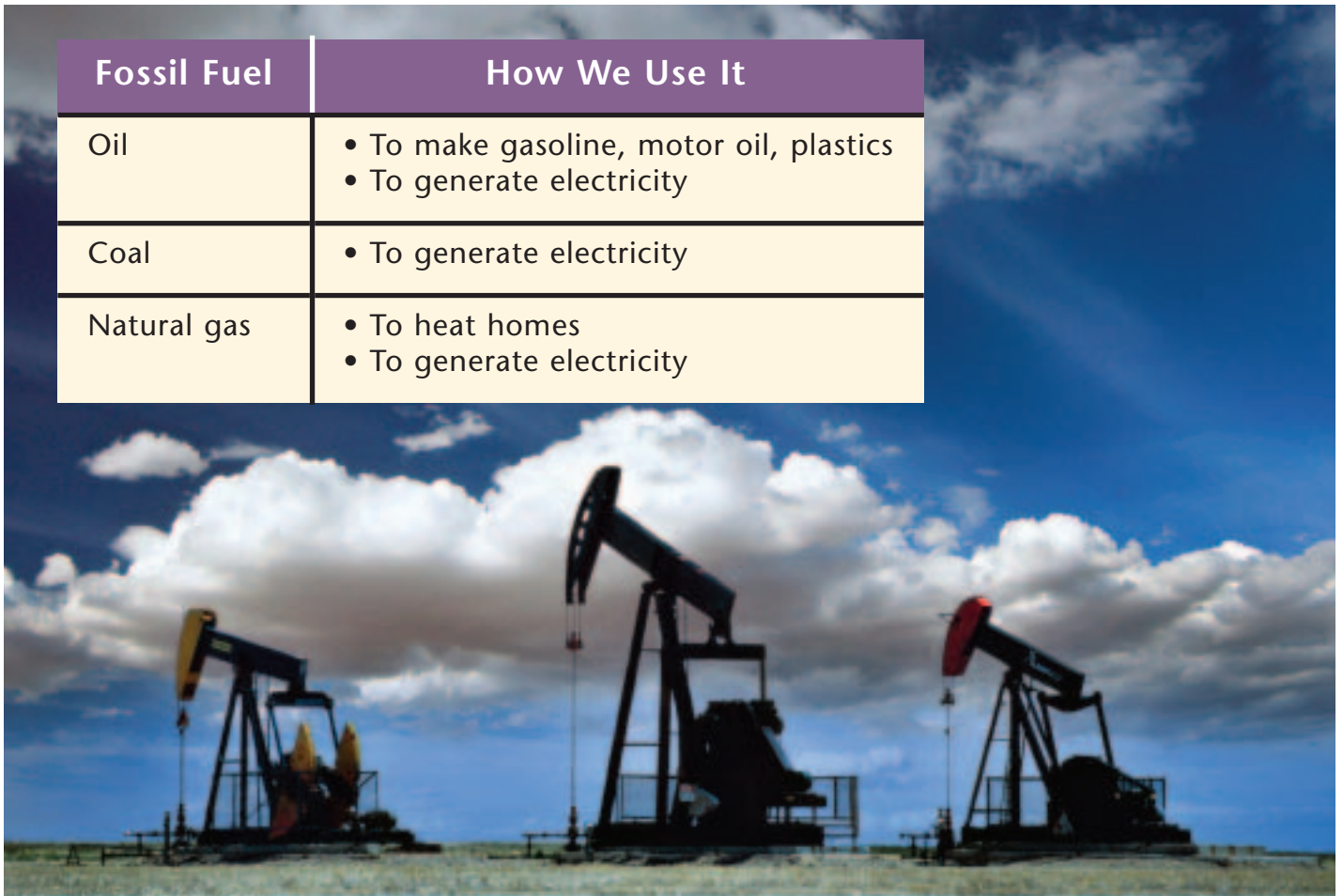
# How Do You Use Energy Resources?

Did you turn on the light this morning? Did you travel to school by car or bus? If so, you used energy resources. Energy produces **electricity** for heat and light, and it runs machines. Most of the energy resources we use in Alberta are fossil fuels. Do you remember why, from Chapter 2? Alberta has far more fossil fuels than any other province in Canada. The chart below shows some uses of fossil fuels.



I'll add this information to my chart about how we use energy resources.

Fossil Fuel	How We Use It
Oil	<ul style="list-style-type: none"><li>• To make gasoline, motor oil, plastics</li><li>• To generate electricity</li></ul>
Coal	<ul style="list-style-type: none"><li>• To generate electricity</li></ul>
Natural gas	<ul style="list-style-type: none"><li>• To heat homes</li><li>• To generate electricity</li></ul>



## Siksika Oil Reserves

The oil and gas industry in Alberta has benefited many communities. For example, oil and gas were found on lands of the Siksika First Nation. Now the Siksika work with companies to drill for oil.

This oil field is near Brooks in southern Alberta. These machines are called pumpjacks. They pump the oil out of the ground.



This sample of oil sands contains bitumen, which is a sticky black substance. Scientists had to find a way to separate it from the sand.

## Working on the Oil Sands

Thousands of people in Alberta work in jobs related to oil and gas. Many work on the Athabasca Oil Sands near Fort McMurray. The **oil sands** are a mixture of sand, clay, and rock. They also contain **bitumen**, a thick, sticky tar made of oil.

The oil sands in Athabasca are the largest oil reserve in the world. Look at the steps below to see how workers remove oil from the oil sands.



### How Oil Is Taken from the Oil Sands

1. Before mining begins, all the trees in the area must be cleared away. The topsoil, sand, clay, and gravel are also removed.



2. The oil sand is dug up by huge vehicles called shovels. Massive trucks take the sand to the crusher, which breaks up the lumps and removes the rocks.



3. The oil sand is mixed with hot water. The bitumen separates from the sand.



4. The bitumen is cleaned in several stages. Then it can be made into different products such as gasoline, heating oil, and motor oil.



5. It is time to restore the land to its natural state where possible. Clean sand replaces the oil sand, and topsoil is added. Shrubs and trees are planted on the topsoil.

## Discovering the Oil Sands

We visited my uncle in Fort McMurray. While we were there, we spent a day at the Oil Sands Discovery Centre. The centre was built to tell people all about the Athabasca Oil Sands. The exhibits show how the oil sands formed and how the oil is removed. I saw some of the biggest machines on Earth!

The shovels can scoop up about 100 tonnes of oil sand at a time. Our guide said that's about the same weight as 58 elephants!



Then the shovels dump the sand onto the back of a heavy hauler truck. The tires of the truck alone are about three metres high. That's about twice my size! The biggest piece of equipment was the bucket wheel excavator. It's as tall as a seven-storey building!



# Viewpoints

## What Are Some Oil Sands Challenges?



Mining the Athabasca Oil Sands

People in Alberta have different opinions about the way the oil sands are used and mined. Let's look at what they have to say.

**Alana Ingram:** I am an environmentalist. I work with others to care for and protect the land in Alberta. The oil sands industry is tearing up the boreal forest. The oil companies have dug deep craters wider than football fields. Animals have to find new homes.

**Philip Marceau:** I am a trapper. A new oil sands project near where I trap has changed the land. There are no moose, no rabbits, or squirrels anymore. The land is dead.

**Myrtle Calahaisn:** I am a Cree Elder. People have lost respect for Mother Earth. We take oil and gas out of the ground, but we do not offer anything back. Whatever you take, you have to put back. Even a tree. If you take a tree for firewood or shelter, you must replace what you took.



The Athabasca Oil Sands

**Jim Miller:** I drive large trucks at the Athabasca Oil Sands. Oil companies reclaim land after it has been dug up. This means they put down new soil and plant trees to replace the ones they took from the earth. They also bring wood buffalo to land that has been reclaimed.



The oil companies replace the trees they cut down.



A hauler truck at the Athabasca Oil Sands

**Kahlil Jiwa:** I work at the Athabasca Oil Sands. Before my company plans a new dig in the Athabasca area, I meet with Cree and Chipewyan First Nations. We work together to protect areas that are important to these Nations.

**Anna Itto:** I drive a minivan. I use it to take my children to school, to get to work, and to run errands. My van runs on gas. Mining and drilling for oil may affect the land, but we cannot go back to the days of the horse and carriage!

### Over to YOU!


1. What are some oil sands challenges? How are these challenges being met?
2. How do you think the oil sands challenges might affect you?




## Energy from Coal

Coal is another fossil fuel found in Alberta. It is found in **seams**, or long layers of coal below Earth's surface. Coal is mined in communities such as Grande Cache, Hinton, and Wabamun. Some of the coal is used to make electricity in plants like the one at Sheerness, near Hanna. Some of the coal is sold in other parts of Canada and the world.

Using coal can bring some challenges. Coal mining disturbs the land. Burning coal to make electricity can also harm the environment. What can mining companies do? They are reclaiming some of the land they mine. They are also looking for new ways to burn coal without polluting the air.



People in Alberta also mine for salt, limestone, gravel, and sandstone. This old city hall building in Calgary is made of sandstone.



Coal mining at Wabamun, just west of Edmonton. Alberta generates most of its electricity from coal.

# How Can We Meet Some Energy Challenges?

Some people believe we should reduce our use of fossil fuels. Burning fossil fuels produces gases that pollute the air. These gases smell and can make people ill. Also, fossil fuels are **non-renewable resources**. This means they cannot be replaced. As you saw in Chapter 2, fossil fuels take millions of years to form. It will take a long time to use up all of our fossil fuels. All the same, once they are gone, they will be gone forever. None will be left for future generations. What are some of the things we can do?

## Conservation

If you said we can try not to waste energy, you are on the right track. We can all help to **conserve** our resources. This means we can use them carefully, so that they last longer. **Conservation** will help to protect our resources for the future.

### HOW CAN YOU CONSERVE ENERGY?

Home	School	Both
Hang clothes out to dry.	Write on both sides of the paper.	Turn off lights and computers when not in use.



How are these students conserving energy?

### words matter!

**Non-renewable resources** are resources that cannot be replaced or renewed.

**Conservation** means using our natural resources carefully, so that they will not run out.



I see that we can work together to discuss problems, find solutions, and save our resources. That's a great way to improve quality of life!

### Skill Smart

Look at the chart to the left. Identify two other ways you can conserve energy. Make a flyer or poster to encourage people to save energy in these ways. Use a paint and draw program on the computer, if you can.

## words matter!

**Renewable resources** are resources that can be replaced, if they are used carefully.



I wonder if we use solar power in my community. I'll ask some people who might know.

## What Are Other Sources of Energy?

If you said we can save fossil fuels by using other sources of energy, that's another good idea. Scientists have been using wind, sun, and even animal or plant waste to make electricity! These **resources** are all **renewable**. They won't run out.

### Super Sunshine

Energy from the sun can be collected in solar panels that sit on the roofs of buildings. Then the sun's energy can be turned into electricity to be used inside the building. Solar power is useful in sunny areas. Which parts of Alberta do you think would be ideal?



New solar panels on the roof of Cochrane High School

### Pig Power

The Iron Creek Hutterite Community, on the Prairies south of Viking, uses pig manure to make electricity. The manure is closed in a concrete container, where it gives off methane gas. This gas is then used to produce electricity.



## Wind Power

### ALBERTA VOICES

### Modern Windmills

Lethbridge is known for its windy days. I remember the fun I had as a child, playing with the wind. I took my coat off and held it over my head. My coat filled up with air, just like a parachute. The wind pulled me along the field. I imagined I was flying!

Who would have thought all this wind would someday come in handy? Around Lethbridge we have some unusual farms. We call them wind farms. Driving along the highway you can't miss the tall, metal windmills called turbines. These turbines produce electricity. Stronger winds produce more power!

*Nicole Mills  
Lethbridge resident*



Most of Alberta's wind farms are south, in the foothills where the winds sweep down from the Rockies. Wind power provides only a small amount of the energy used in Alberta, but it is becoming more important. Why do you think this is so?

This doesn't mean that wind is the perfect source of energy. Some people think that wind turbines are ugly. The blades make a noise as they turn, and sometimes birds get caught in them. Other people like the way the turbines look. What do you think?

### ALBERTA VOICES

### *Land of the Piikani*

It's good to get up in the morning and see the turbines and know they're working to make our lives better.

*William Big Bull—in charge of installing a wind turbine on the land of the Piikani First Nation, 16 km west of Fort Macleod*

# Why Is Agriculture Important?

## words matter!

**Agriculture** includes growing crops and raising animals.

## ALBERTA VOICES

### *Life on a Ranch*

As a child, I gathered eggs, and I saw the cow grazing in the field behind my house become the roast beef on our dinner table. I ate fresh vegetables from our garden and waited every year to taste fresh grain seeds plucked from... a shaft of barley. I had no idea that most people only bought their milk in bags or cartons and never saw the actual source.

*Gina Lorinda Yagos*

Alberta's land is rich in fossil fuels, but some of the land in the province is also good for **agriculture**. Nearly one third of Alberta is farmland, and the province has about 59 000 farms and ranches! Look at the map of natural regions on page 30. Which regions do you think have the most agricultural land?

## How Do We Use Agricultural Products?

Where do you get your food? People who live on ranches and farms might produce some of their own food, but most Albertans buy their food from a store or market. All the same, a lot of the food we eat comes from the ranches and farms across the province. Look at the table below. What other examples can you add?

### FOOD FROM ALBERTA

Dairy cattle	Milk, cheese, yogurt, ice cream
Beef cattle, pigs, sheep, buffalo, chickens, bees	Meat for steaks, hamburgers, roasts; eggs, honey
Grains such as wheat, oats, barley	Bread, cereals, crackers, muffins
Canola	Cooking or salad oil
Vegetables, fruits	Corn, sugar beets (to make sugar), potatoes, blueberries, strawberries

This is a canola field in Hairy Hill. When canola plants flower, the fields turn bright yellow. Canola is used to make cooking and salad oil. In fact, its name comes from "Canadian oil."

# Why Is Ranching Important?

Alberta is sometimes called “Cowboy Country.” That’s because ranchers in Alberta raise more beef cattle than any other province. Almost half of Canada’s beef is produced in Alberta. Some cattle graze on the rich grasslands. Others are raised in pens and are given food at feedlots. Some ranchers also raise sheep, buffalo, llamas, and even emus.

## ALBERTA VOICES

### Home on the Range

*Nate is a rancher near Cochrane. Read his journal to learn how the weather and land affect his work.*



Ranching near Cochrane

- 5:00 a.m.** Time to get up! I grab a bowl of cereal before I step outside into the crisp morning air. The cattle stay outside all year, even in the winter. They can find shelter in the coulees. The chinook winds also help keep the cattle warm. We bring the pregnant cows into the barn in case they have trouble giving birth.
- 8:00 a.m.** I check the weather reports on the computer and phone the veterinarian about a young calf I am concerned about.
- 9:00 a.m.** Every morning, I ride my all-terrain vehicle and do chores. I pass a large oil derrick on my way to check on the cattle. I make sure the cattle have enough water. Fences okay? Any signs of coyotes? Our ranch has almost 13 000 hectares. Sound like a lot? Alberta has almost 7 million hectares of rangeland!
- 1:00 p.m.** In the afternoon, I go to meetings, make phone calls, and plan which cattle I will buy and sell.
- 7:00 p.m.** Guess what we had for dinner tonight? Beef! Nothing tastes better.
- 9:30 p.m.** The Web site on Alberta agriculture had interesting information about reducing the number of calves born at night. Simple! You feed the cattle in the evening.

## Why Is Wheat Important?

Have you ever noticed the picture of wheat on Alberta's flag? Take a look at page 310. Wheat is included on the flag and on Alberta's coat of arms because it is part of Alberta's identity. Wheat grows well in Alberta and is a very important crop. Page 81 shows some examples of products made from wheat.

### ALBERTA VOICES

### Growing Wheat

My grandpa tells me how his family has been farming wheat since they settled near Hanna in 1911. His eyes always dance when he talks about working on the farm. He tells how he loved the smell of the moist earth in the spring because it made him feel that the earth was coming to life again after the winter. He says he is proud to be a farmer because it is so satisfying to watch the crop coming in and to know he had a part in making that happen.

My best time of the year is harvest time. Grandma and I always load up the back of the car with a hot meal and coffee and juice to take to Grandpa and the other workers in the field. I love hitting all those bumps and rocks as we make our way across the dusty field to



Harvesting wheat near Hanna



Products from wheat

where Grandpa is working. We spread the blanket out over the stubble and get everything ready for when the workers stop to eat. They don't like to take much time to eat, so I try to talk to Grandpa as much as I can while we're together. Harvest is very busy, so I don't see him much unless I get to go with Grandma to the field! Grandpa often tells us about the animals he spots while he's making his rounds in the field. I especially love to hear about the antelope!

Sometimes Grandpa lets me climb up on his combine and go for a ride around the field. The smell of wheat fills the air. My mom says that the dusty, sweet smell tells us "prairie kids" that fall is coming. Grandpa usually sneaks a few wheat kernels for me to chew on during my ride. He tells me if I chew long enough, it will turn to gum, but I usually lose patience. I love sitting on his knee, gazing out at the harvest moon and the stars through the big window. I'm having fun while most of my friends are at home getting ready for bed!

Harvest doesn't end when Grandpa gets his crop off. Often he'll take his machinery and help his neighbours get their crops off, too. Grandpa says that helping each other is an example of good citizenship.

*Elisabeth Grace Marks*



### Thinking It Through

In what ways do the weather, land, and resources affect the jobs and activities Elisabeth and her grandparents do?



## How Is Dry Land a Challenge?

Periods of drought and dry land make farming and ranching more challenging. Yet, people still use the grasslands for agriculture.

How can farmers grow crops where the soil is so dry? The answer is **irrigation**. Farmers build channels or use pipes and sprinklers to bring water from nearby rivers or dams to their fields.

The people of Kainai [KI-NI] (Blood) First Nation live southwest of Lethbridge. They worked with the government to overcome the challenge of dry land. They built a large irrigation system. Now about 10 000 hectares of land can be used for farming.

### words matter!

**Irrigation** is supplying the land with water, using dams, ditches, and sprinklers.

### ALBERTA VOICES

## Irrigation in Action

*Campbell Eaglechild is the general manager of the Blood Tribe Agricultural Project. He talks about the project in an interview.*

### What crops do you grow?

Barley, canola, wheat, and more. We also grow timothy grass for cattle feed and as hay for horses. The timothy grass is shipped as far away as Japan, Korea, and Taiwan.

### What is the best thing the project has accomplished?

It has become one of North America's largest irrigation systems! The project has also created lots of jobs. It makes us self-sufficient [able to support ourselves]. That's really important. The project is a challenge every year, and we're meeting the challenge.

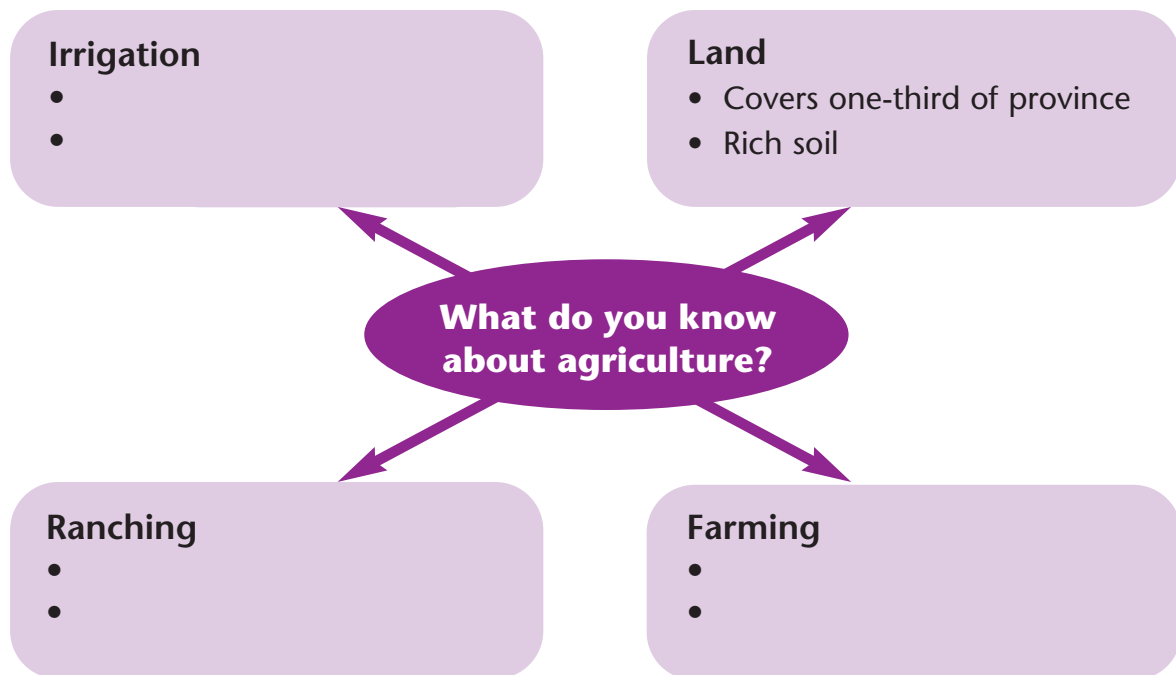


The Kainai irrigation project. Identify the dam that has been built for water, the fields that have been irrigated, and the land that has not been irrigated.

# Using a Concept Map to Organize Information

What do you know about agriculture? In this chapter, you read about agriculture, but how can you sort the information so you can answer this question? A concept map might help.

First, put your question in the centre of the concept map. Put the important topics around the question. Use simple phrases or single words to write your answers under each heading.



## Practise the Skill

Copy the concept map above into your notebook. Now complete it by adding in the missing details. Then make a similar concept map to organize information for the following topic: What do you know about fossil fuels? Look back at pages 62–63 and 69–77 for information.

Now use the information you have organized. Choose one of your concept maps, and use it to write a short essay on the topic.

# Alberta's Forests

## Skill Smart

What do people value the forest most for? Oxygen, wood, or recreation?

- Survey at least 10 people.
- Use tally marks to record responses.
- Share your findings.

Forests cover half of Alberta. Their roots hold the soil together. Their branches and leaves give us shade. They are home to thousands of birds and animals. Forests provide wood that we use in many ways. We also enjoy hiking and camping in the forests.

Forests are called the lungs of the Earth because they produce much of the oxygen we breathe. They give us beauty and peace, too. Forests are one of our most valuable resources. They are part of Alberta's identity.



A forest in Spray Valley Provincial Park in Kananaskis country

# How Do We Use Forest Products?

What is the paper in this book made of? What about the pencil you use to make notes? How about some of the chairs you use at home or at school? Or the power and telephone poles carrying the cables that bring important services to your home? All of these products came from wood.

Alberta's wood products come from trees that are logged, or chopped down, by forestry companies. Most of the **logging** takes place in two regions of the province: the boreal forest in Alberta's north and the foothills at the base of the Rocky Mountains. In many cases, the **lumber** is shipped to other provinces and countries, where it is made into the products we use. Then these products are shipped back to Alberta.

## words matter!

**Logging** means cutting down trees and taking the logs to mills. There the logs are cut into boards or wood chips.

**Lumber** is wood that has been cut into boards. These boards are used to make various products.



Some of the wood in Alberta is turned into OSB (oriented strand board). OSB is made from fibres, or strands, taken from trees. The fibres are pressed together to make boards that are so strong they can carry more weight than concrete! The boards are used for many purposes, including building structures and making furniture and shelving.

This is a lumber mill in Grande Prairie.



I'll ask three people how they think we should use the forests.

### Thinking *It Through*

What can you do to protect the forest?  
Share your ideas with a friend.

## How Should We Use the Forest?

People have different opinions on how the forest should be used. Consider the following points of view:

- Forests are a renewable resource. If we cut them down, they grow again.
- We can't replace the really big, old trees that have taken many decades to grow.
- Forest companies plan for the future. They replant or reseed to replace trees that have been cut. They also put limits on how many trees they can cut.
- New ways of making wood boards, like OSB, use small, young trees that can be replaced quickly.
- Logging can harm places that are sacred to First Nations people.
- Logging companies are working with First Nations groups, who explain which areas should be avoided.



To get to lumbering areas, companies often have to cut logging roads through the forest. Do you think this is a problem? Why or why not?

# How Can We Meet Some of Forestry's Challenges?

Read about the following forestry workers. How does each one help make Alberta's forests a **sustainable resource**?

## words matter!

A **sustainable resource** is one that is used only as much as it can be replaced, so that it lasts for the future.

### Replanting



I am a student, and every summer I get a job planting trees for the forestry company. I enjoy working outside. I also learn about different species of birds, plants, and wildlife that live in the boreal forest.

### Protecting



I am a forestry officer near Hinton. Tourists often visit the area. Every season, my job is to patrol the forest and keep it safe for wildlife. I love the fresh smell of the forest just after it rains. The leaves sparkle with raindrops.

### Educating



I am a park ranger at Cross Lake Provincial Park. I teach visitors different ways to protect and use the forests. Campers enjoy hiking, listening to the birds, and cross-country skiing on trails.

## ALBERTA VOICES

### Mapping the Land

*Rita Loonskin is a mapping technician for Little Red River Forestry. The forestry company is owned and operated by the Little Red River Cree Nation.*

Before we prepare a logging plan, people in our field services department collect information about what is on the land. We map out the land and resources, such as the trees, streams, and areas that are important to wildlife. We also map sites that are important to the community, such as historic cabins and medicinal plant sites.

# How Do Communities Form?

Many of Alberta's communities have grown because of natural resources. Look at the diagram to find out how.

## HOW TOWNS GROW



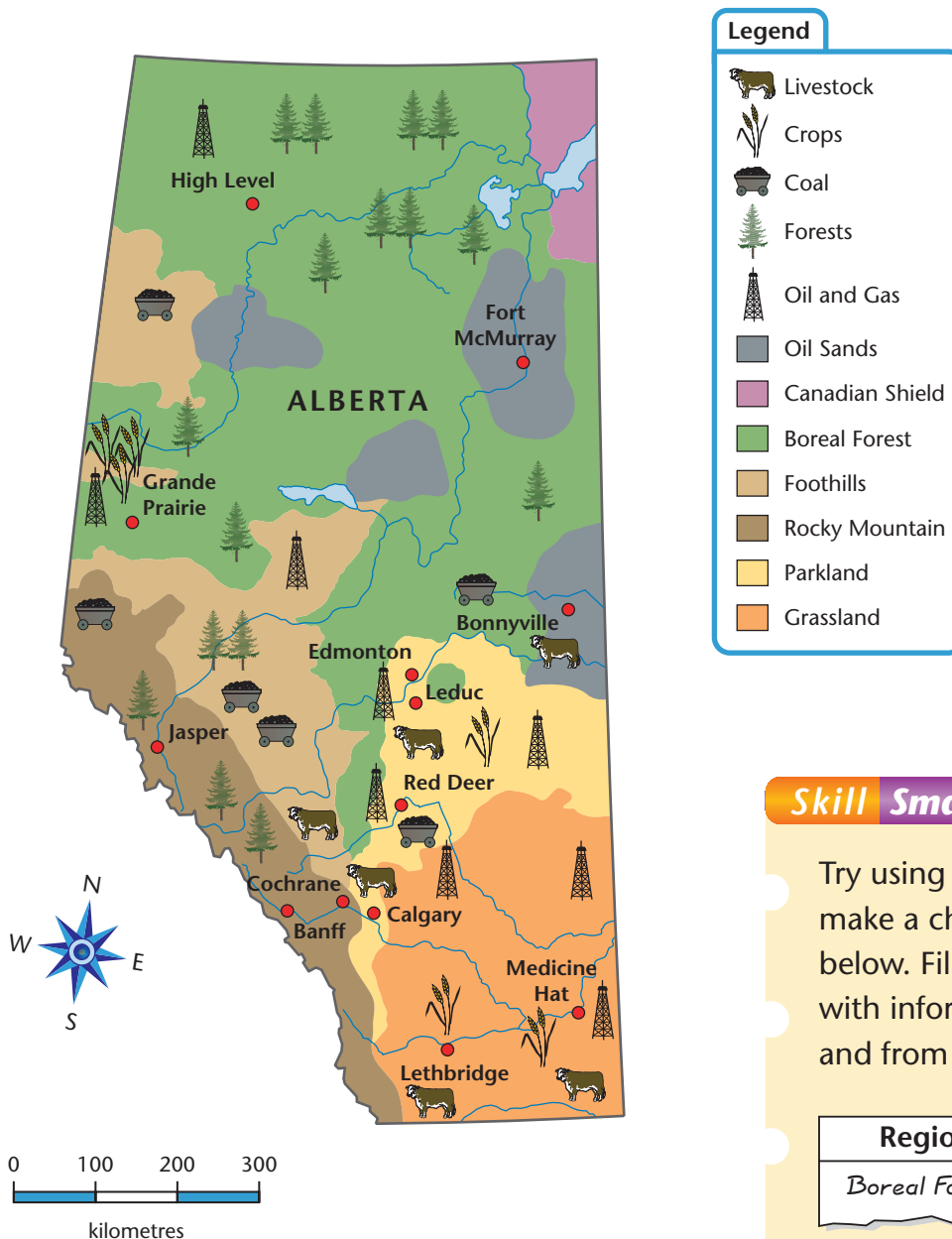
# Where Are Alberta's Natural Resources Found?

Look at the map below to find out where the natural resources you read about in this chapter are found. What link can you make between the natural resources and the natural regions? Look back to Chapter 1 for clues. Then read on to visit some communities that have developed around natural resources.



I'll check an atlas to find my community. I wonder how the land has helped my community to develop.

## Natural Regions and Resources



### Skill Smart

Try using your computer to make a chart similar to the one below. Fill in the two columns with information from the map and from Chapter 1.

Region	Resources
Boreal Forest	oil sands



## Some Communities Built Around Natural Resources

Locate these communities on the map on page 89. Predict which natural resources helped each one grow. Then read the text below to check your predictions.



### Medicine Hat

"Medicine Hat is in southeastern Alberta along the South Saskatchewan River. It is Canada's sunniest city. The weather and land are perfect for growing crops. I'm a gas pipeline operator. We have so much natural gas that Medicine Hat is known as 'Gas City.' The city uses gas for heat and electricity. I'm proud that my job helps the community meet its needs."

*Tom Ealey*



### Red Deer

"I live in the province's third-largest city. It is built along the banks of the Red Deer River in central Alberta. The area near Red Deer has rich soil for farming, and oil and gas. It's a great place to live. We have good hospitals and schools. We also have beautiful parks and trails. In winter, we skate on outdoor rinks."

*Joan Chin*



### Bonnyville

"My community borders the Athabasca Oil Sands, but it's also next to Jessie Lake in northeast Alberta. Bonnyville has farmlands and natural gas. But I think our most important natural resources are the wetlands, lakes, and wildlife. Residents and tourists like to fish in the lakes, walk along the wetlands trails, or bird watch. I'm glad not all the land is used for farms or natural gas."

*Chantal Mitchell*

## Grande Prairie

“Grande Prairie has rolling plains and forests. A Francophone missionary called the area *la grande prairie*, which means ‘the big prairie,’ and that’s how we got our name. When my grandparents were younger, many people were farmers. Then a large pulp mill was set up. That’s where logs are chopped up so they can be used to make paper products. My mom, and lots of other people, went to work there. My dad still works on our farm. Later, oil and gas were discovered. My cousin is a mechanic in an oil company.”

*Joe Breland*



## Fort McMurray

“I moved to Fort McMurray to work at the Athabasca oil sands. I love the scenery, fishing, and hiking trails. My job pays better than my old one did. But so many people are moving here that houses are hard to find, and they’re expensive. My wife and daughters stayed behind until I found a house. It took months! The hospitals and schools are overcrowded, too. Other services haven’t kept up with the population boom either. But as long as there is work at the oil sands, the community will keep growing!

“One thing that interests me about Fort McMurray is that it’s a new city with an old history. The Cree lived along the Athabasca River near here. They knew the land was rich in bitumen, and they used it to waterproof their canoes. Fur traders once lived here too, and later there were fish plants. It’s hard to believe how much has changed.”

*Terry Papadakis*



# Set Your Skills in Motion

## Create a Concept Map

How can responsible citizens protect or conserve natural resources? Consider energy resources, agricultural resources, and the forests. Make a concept map to organize your ideas.



## Research Natural Resources in Your Community

Look in the library or interview people to find out how your community is connected to natural resources. How do natural resources and the land help your community grow? Keep track of where you find your information. Make a PowerPoint presentation or give a speech to share what you know.

## Talk About a Current Event

In a small group, brainstorm a list of natural resources you read about in this chapter. Discuss some of the challenges of using one of these resources today. Look in the newspaper, listen to the radio, watch television, or search the Internet to find different views about the way we use natural resources. Post some of your information on the class bulletin board.

## Make a Chart

With a partner, pick a community from page 90 or 91. Make a chart to show how the land, weather, and natural resources in the community affect the jobs and activities people do.



# Look What You Have Learned!

Natural resources have helped Alberta become the province you live in today. Many towns and cities started near natural resources. Fossil fuels provide gasoline, heat, and electricity. Farms and ranches provide food such as grains, fruit, vegetables, eggs, dairy products, and meat. Forests provide oxygen, lumber, and places for recreation. Energy resources, agricultural resources, and forests provide goods and jobs. They are all part of the province's identity.

Review the inquiry questions for this chapter:

- How do we use natural resources?
- How have natural resources helped communities in Alberta grow?

Show what you have learned in the form of a collage. Think about where natural resources are found in Alberta. Which communities have started or continue to grow around natural resources? Include ways people use resources. Draw pictures, cut out photos from old magazines or calendars, or print images from electronic sources.

## Take Time to Reflect

Before you go on to the next chapter, think about what you have done in this one. What did you learn that might help you in future activities? How might you improve the way you did your work?



Choose something from this chapter to save for your Alberta Treasure Chest.

# Looking Back: Chapters 1, 2, and 3



Marc uses a web to outline what he thinks are the key points in Chapters 1, 2, and 3.



# Share What You Know

## ? Inquiring Minds

Study the web that Marc made. Then skim through Chapters 1, 2, and 3 to help you recall what you learned. Now turn to page 3 in *Getting Started*. Which one of the overall inquiry questions for the book is the main focus of these chapters? Why do you think that?



Work in a group to give an Alberta Treasure virtual tour of one of the regions in Alberta.

**Plan** to include information about

- where the region is in Alberta
- the landscape and any interesting landforms
- natural resources and how they are used
- the climate and how it affects the lives of people

You could have different group members work on each point, and then put the information together.

**Retrieve**, or recall, what you've learned about the region from this book. Check your projects and activities, too.

**Process**, or think about, your information. Select what fits with the four points you are to include.

**Create** your virtual tour by organizing your information. Combine captions, written or spoken information, and images.

**Share** your virtual tour by presenting it as a slide show, or as a series of images on a mural or in a scrapbook. Present this region as one of the many things to treasure about Alberta.

**Evaluate** how well you worked in each of these steps. Then ask yourself: Am I pleased with my tour? Did others seem to like it? Is there something I would do differently next time?

