

Finding Alberta Beef

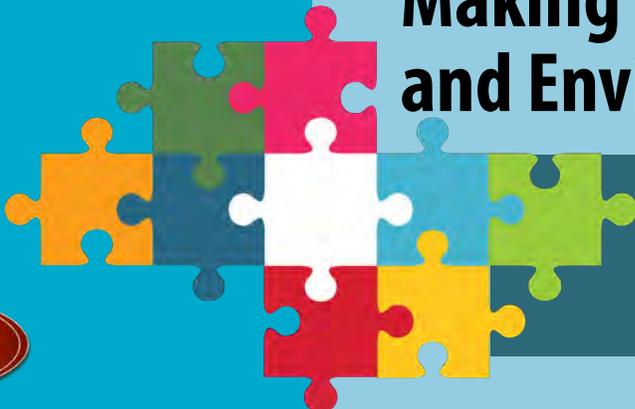


Places, Spaces and Stories
about Beef Cattle Farming
and Ranching in Alberta for
Elementary Classrooms

Grade 2/Grade 3

LEARNING PAGES

**Making Connections to Land
and Environments**



The **Finding Alberta Beef** learning pages encourage students to explore cattle farming and ranching in Alberta. From family farms and ranches, passed down through generations, to new, state-of-the-art feeding and breeding operations, Alberta’s farmers and ranchers are proud of their industry.

The many authentic photos and stories used in these learning pages share the land, resources, experiences and stewardship that are part of Alberta cattle farming and ranching families.

It is our hope that students develop understandings of the ways of life involved in raising cattle and contributing to Alberta’s and Canada’s food system while respecting the different choices that people make about their food. Alberta Beef Producers is proud to support education and provide the **Finding Alberta Beef** resources for teachers and students in Kindergarten to Grade 5 Social Studies, Science and Health/Wellness programs.

Alberta Beef thanks the cattle farmers and ranchers who have shared stories and photos that are used in these resources.

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Every effort has been made to acknowledge sources used in the **Finding Alberta Beef** resources. In the event of questions arising as to the use of any material, we will be pleased to make the necessary corrections in future versions.



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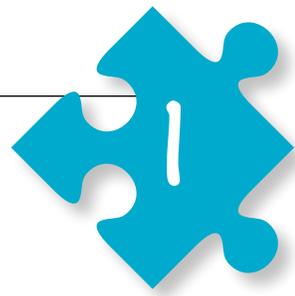
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These **Finding Alberta Beef** learning pages are part of a mini-unit that encourages students to explore Canada’s agricultural communities and the importance of the beef production industry to Alberta’s vitality.

Student learning pages in this resource include photos and stories from current Alberta cattle farms and ranches and some feature fillable fields that allow students to respond and save their work as evidence of their learning.



People have connections to the land

Many people feel a strong connection to the land. They may live on grasslands or by mountains. They may live on a hill or beside a river or stream.

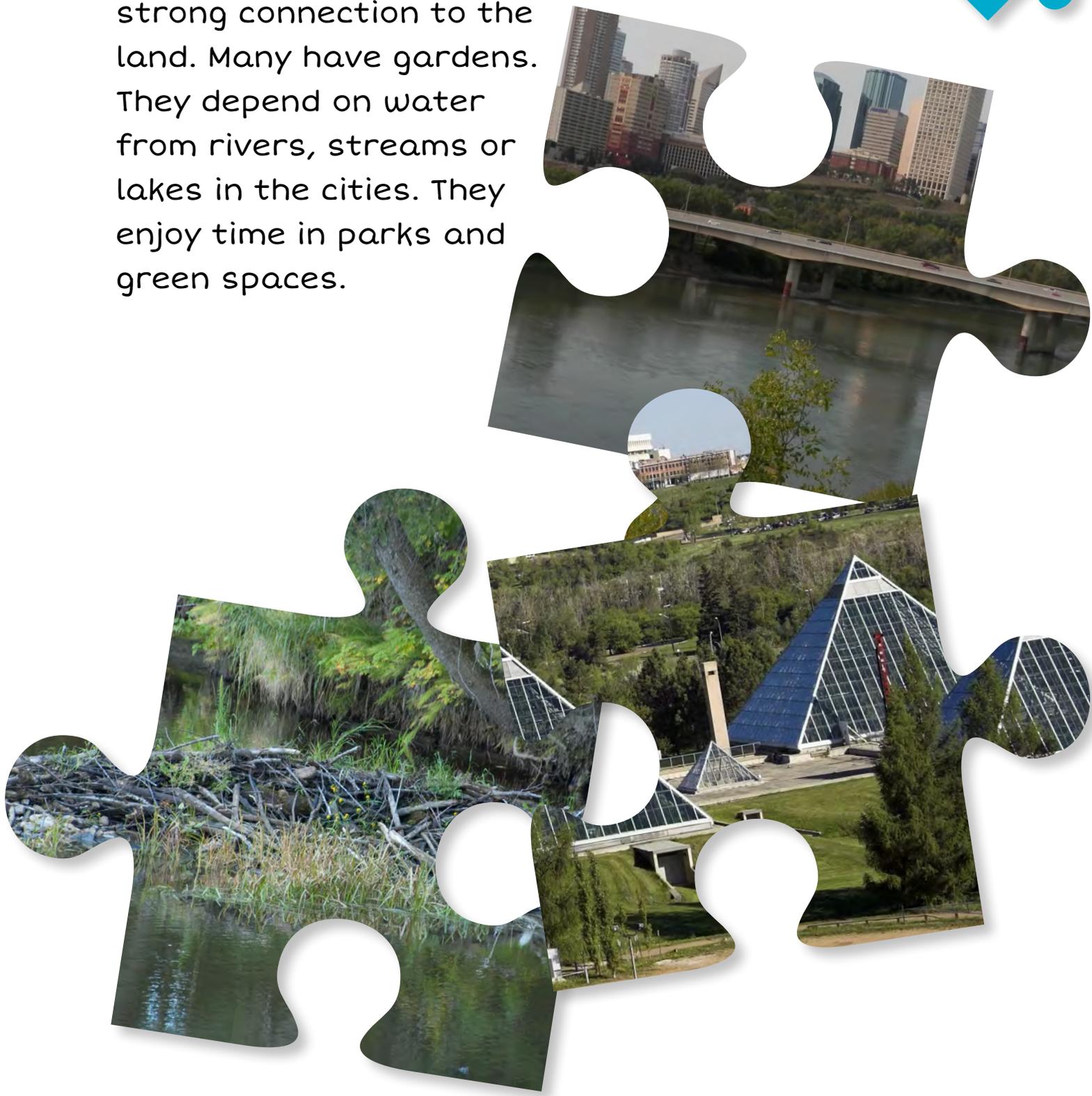
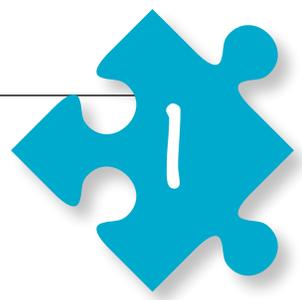
These are all examples of **features**. Features are things that you can see and find on the land. They can be natural or made by people.

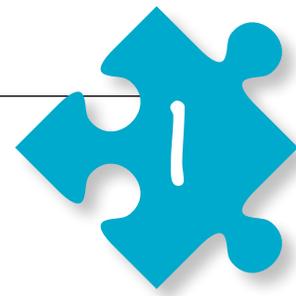
Farmers depend on the land. They grow crops and raise animals on this land. Beef cattle often live on pastures. These pastures are also homes for wildlife.

Many farmers plant native grasses in the fields that cattle graze on. They protect sources of water on this land.



People who live in cities and towns can also have a strong connection to the land. Many have gardens. They depend on water from rivers, streams or lakes in the cities. They enjoy time in parks and green spaces.





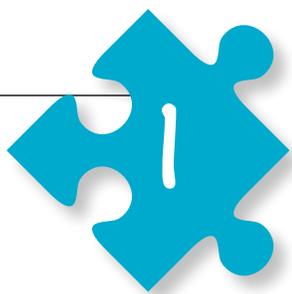
Think about how features in different places are important. Choose one of the communities you have learned about. Finish the sentences in the environment wheel.

The environment wheel is a large circle divided into four quadrants by a vertical and a horizontal dotted line. In the center of the wheel is a light blue puzzle piece. Each quadrant contains a sentence to be completed, with dotted lines for writing.

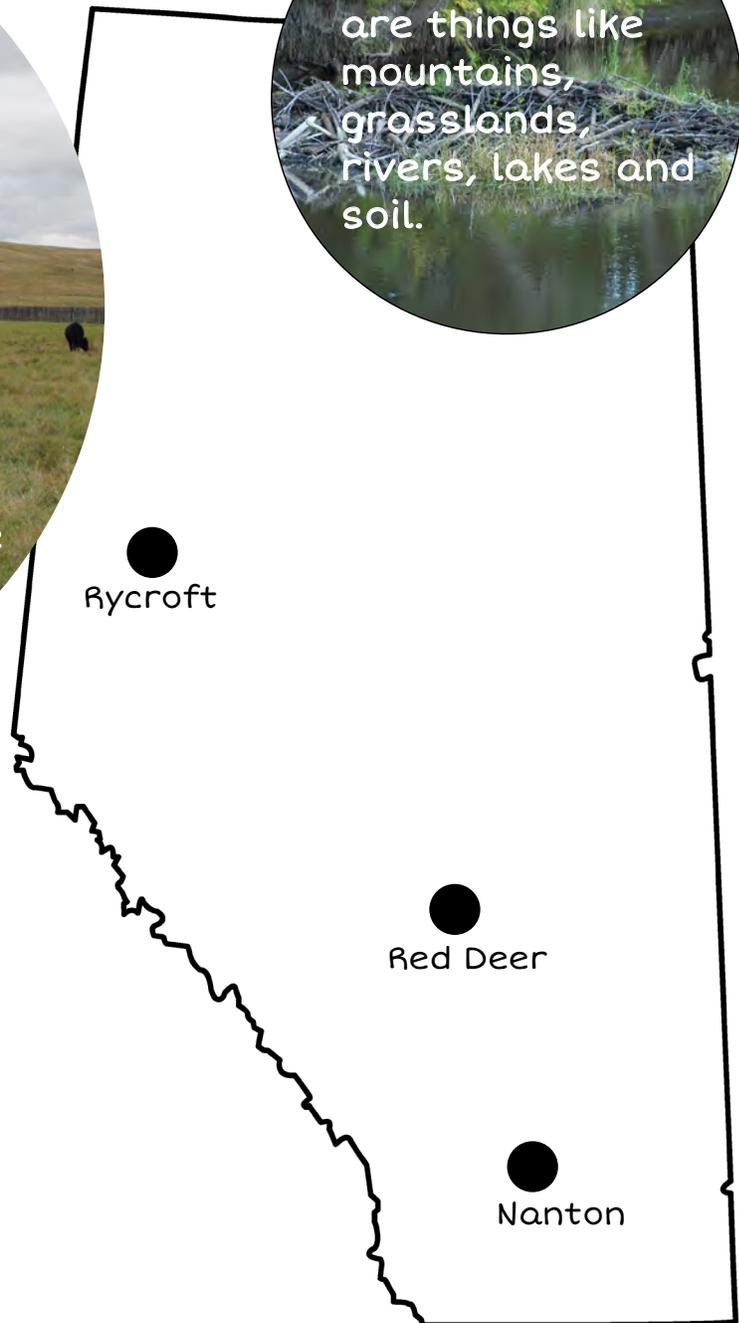
- Top Left:** The land looks like
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- Top Right:** Hills look like
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- Bottom Left:** A stream can provide
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- Bottom Right:** Soil is important because
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Below the wheel, the following sentences are also provided for completion:

- Grass is important for
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- Forests can be used for
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Most farms in Alberta are family farms. These farms are often passed down to children who continue farming.



What natural features would you expect to find on this cattle ranch?

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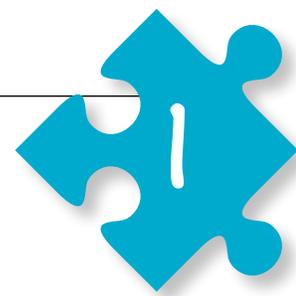
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Christoph and Erika Weder lived and worked on Spirit View Ranch north of Rycroft. They work with Ducks Unlimited to protect wetlands on their ranch. Ducks and geese live in these wetlands. The cattle graze on grassland pastures. The river banks and forests protect the cattle from winter winds.

What natural features would you expect to find on this cattle ranch?

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The Radau family ranch is near Red Deer. Most of their cattle graze in Spruce Coulee. A coulee is a valley that has been made by water movement. It usually has small streams or lakes. The family has planted trees to provide shelter for the cattle. They also grow crops on their land.

What natural features would you expect to find on this cattle ranch?

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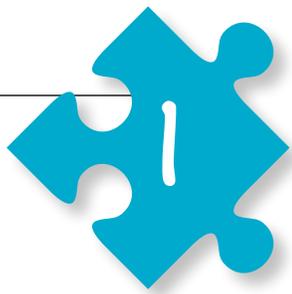
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For Indigenous people, the land is an important part of their way of life. First Nations, Métis, and Inuit people have inhabited the land now known as Alberta for many generations.



The land in northern Alberta has permafrost with small shrubs. Some areas have forests. Dene and Woodland Cree followed and hunted animals and harvested plants.

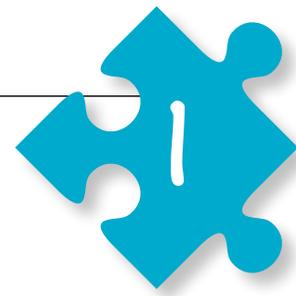


Draw some natural features you would expect to find in each area of Alberta on the map.

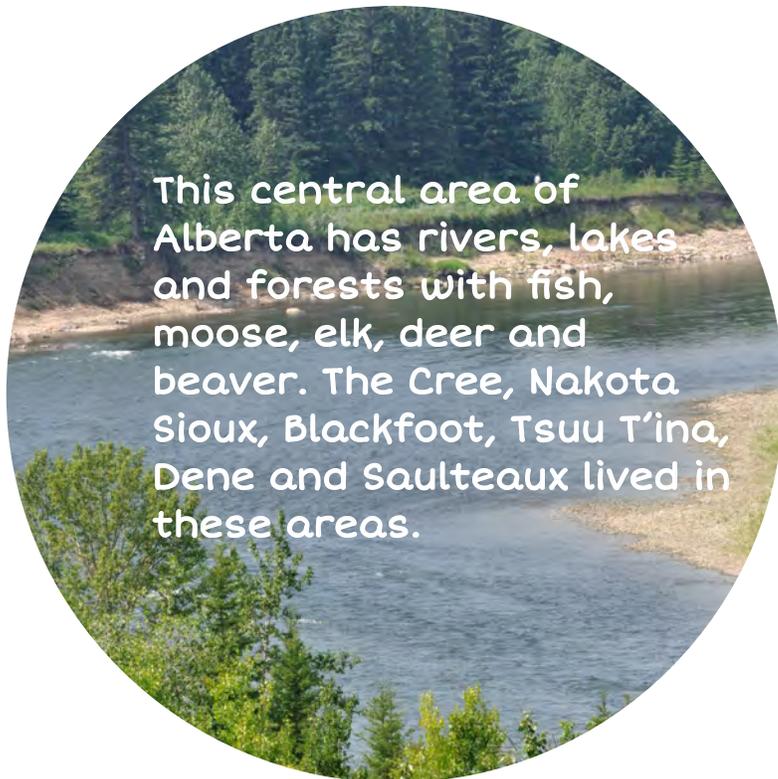
What natural features would you expect to find in this part of the land?

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First Nations peoples see everything in nature as living. They respect and take care of the land. The land takes care of them by providing plants and wildlife.



This central area of Alberta has rivers, lakes and forests with fish, moose, elk, deer and beaver. The Cree, Nakota, Sioux, Blackfoot, Tsuu T'ina, Dene and Saulteaux lived in these areas.

What natural features would you expect to find in this part of the land?

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The Kainai (Blood), Siksika, Piikani, Tsuut'ina and Stoney Nakoda lived in southern Alberta and moved across the land with the seasons. They hunted animals and harvested plants. Bison jumps, such as Head-Smashed-In Buffalo Jump west of Fort McLeod, provided meat.

What natural features would you expect to find in this part of the land?

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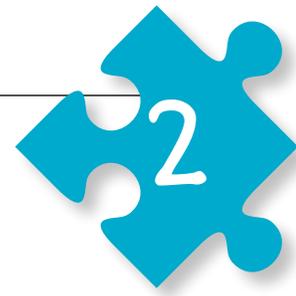
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The activities of farmers and ranchers are connected to the environment

Cattle are raised on ranches. How do you think ranchers depend on the environment to help them do their job? How are they connected to the land? Read these family stories to learn more.



The Radau Family

The Radau family makes improvements on their ranch to protect the environment. They have developed springs and fenced them off. This gives their cattle fresh water.

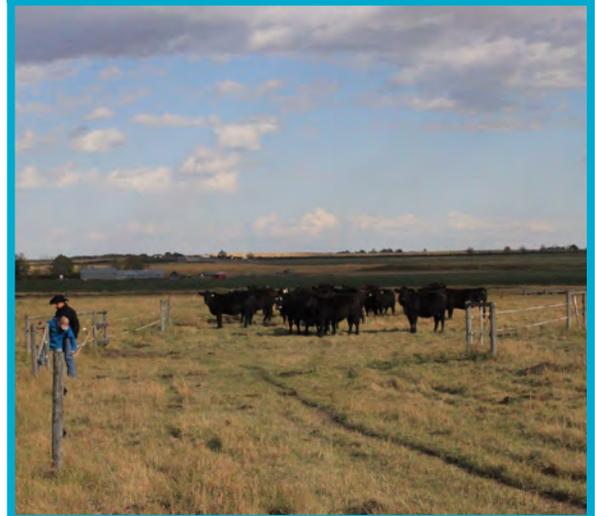


The Radau family has restored wetlands on their land. They use solar power for their water systems. They make sure that cattle do not go near the springs. They try to make one improvement to the environment every year.

The Murray Family

Ian and Carman Murray's ranch goes back to 1883. They believe that the health of the soil on their land is very important. They work with nature as much as they can. They use solar power for their water systems.

The Murray family protects trees to provide a home for wildlife and give cattle a shelter. Ian says "I feel my connection to the land, water and air is really strong and getting stronger."



The McGrath Family

Sean and Tanya McGrath work with Sean's father Fred on their ranch near Vermilion. The ranch is important to Sean because his parents and grandparents have worked hard to build it.





Sean says that his connection to the land is there because it has been important to him and the generations before him. Sean believes that nature can do amazing things if you let it and work with it.

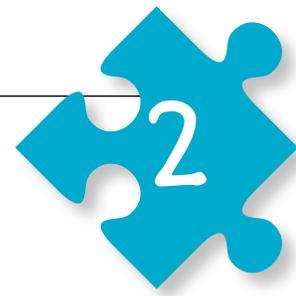


The Vandervalk Family

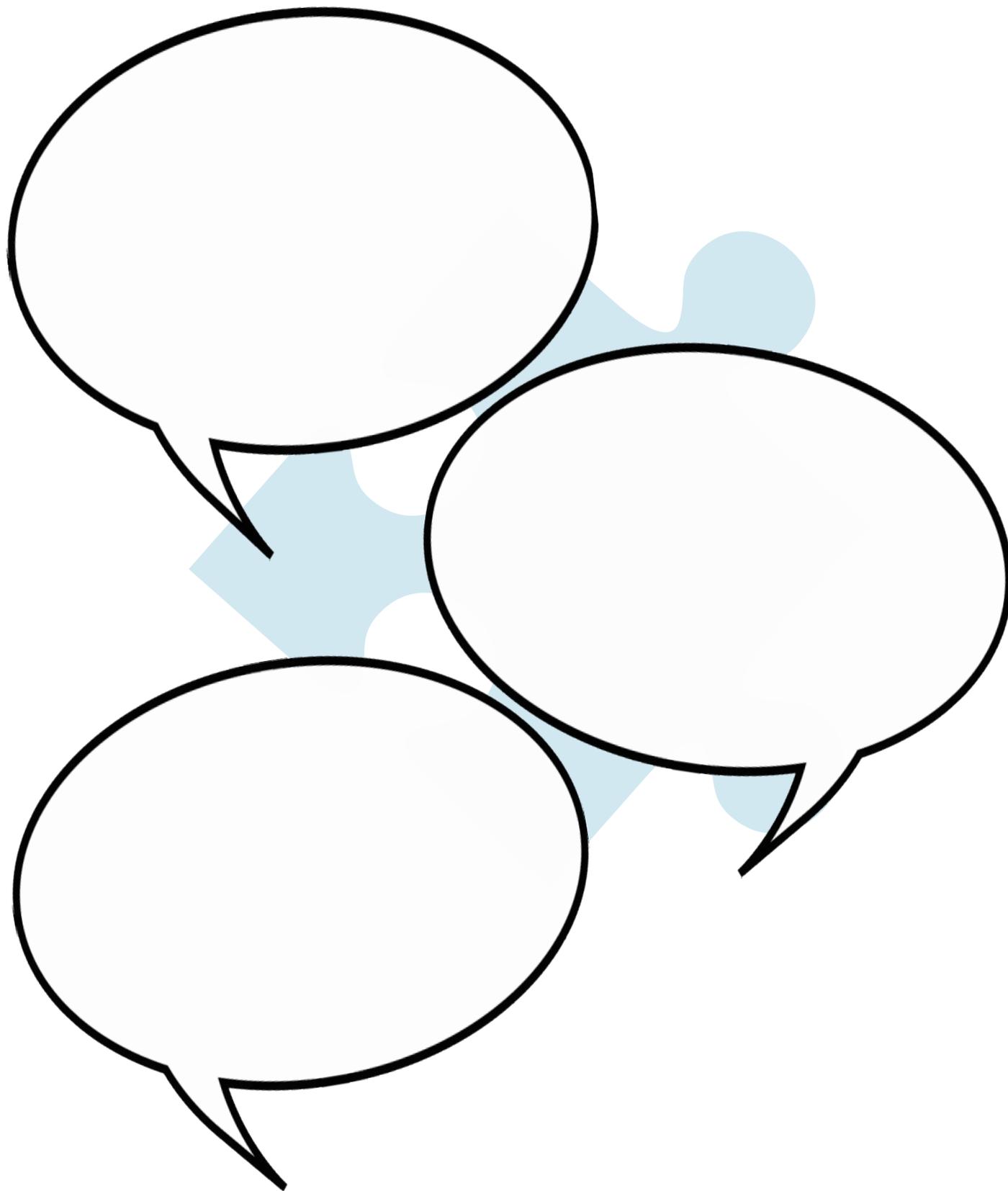
Jack Vandervalk and his family have a cattle ranch in the Porcupine Hills. Jack says that he wants to make sure the land is better than when he found it.



He says, “The cattle harvest our grass when they graze on our fields. The grass needs the sun to grow.” The family has developed dams with water troughs made from recycled truck tires. Left over tire materials have been used to build a wind fence that protects the cattle during winter.



Use the bubbles to write or draw three ways that you think raising cattle is connected to the environment.



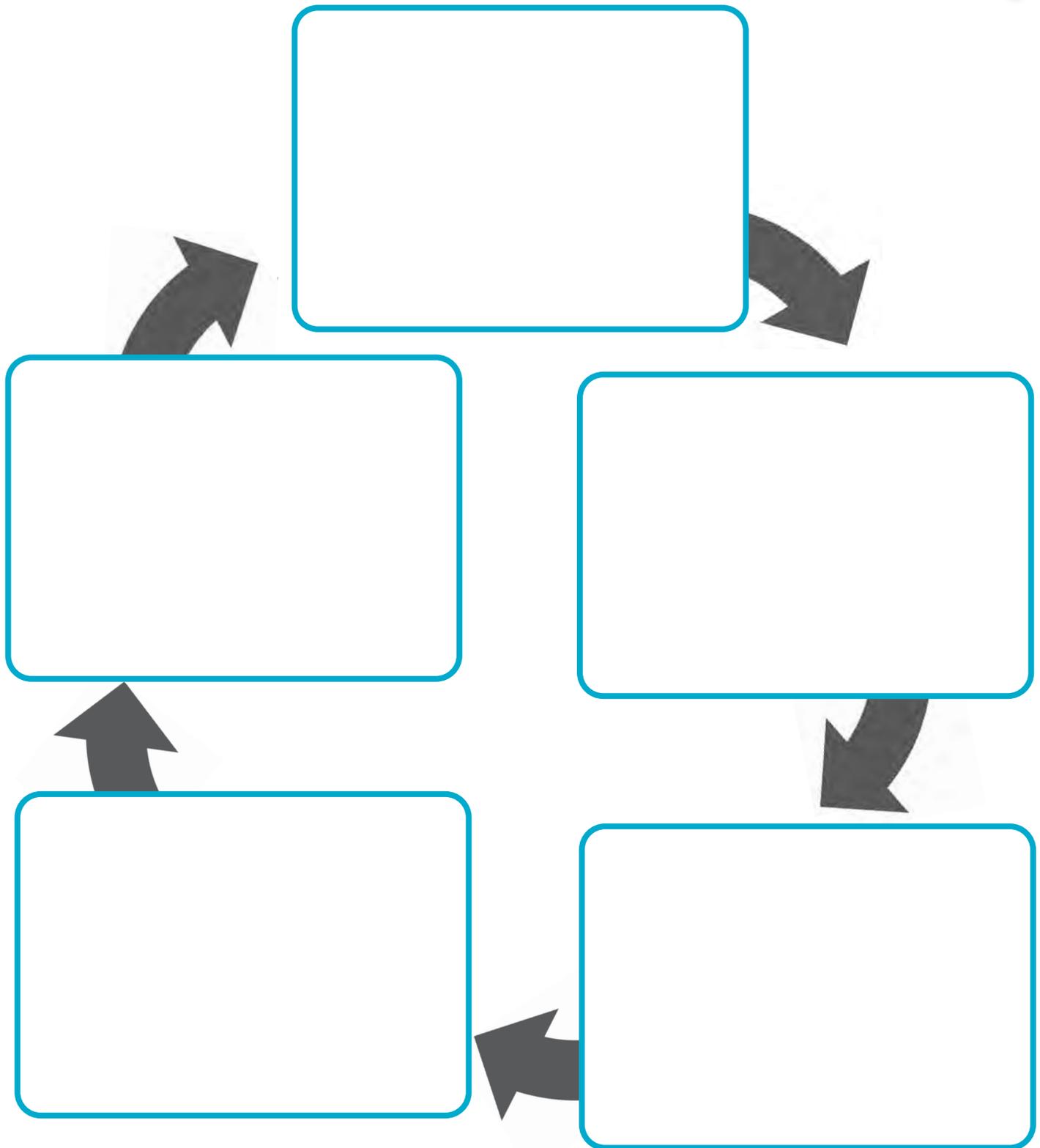
Cattle are recyclers

Did you know that cattle are recyclers? Recyclers reuse waste matter to make something useful. After cattle eat and drink, they produce manure. Their manure fertilizes fields and crops. The fields then grow more grass.





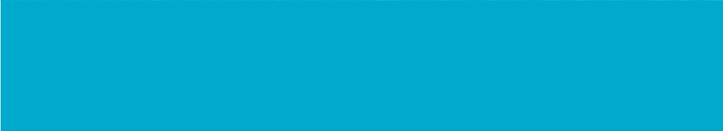
Choose from the photos or write a description to make your own cattle recycle cycle.



Farmers and ranchers take actions to protect land and places









The activities of farmers and ranchers provide benefits for people

When you travel on the road or highway and see cattle grazing in a pasture, you are probably seeing a cattle ranch in action. Calves are born and raised on ranches. The people who work on these ranches and own the cattle are called beef producers.

The ranchers have the job of caring for the cattle and the land every day. There are other people who work in the beef industry as well.



Cattle ranchers take care of the cattle herd and raise baby calves. Calves weigh about 36 kilograms when they are born. They drink milk produced by their mothers, called cows.

Once the calves reach a weight of about 230 kilograms, or about 500 pounds, they are often sold to a feedlot.

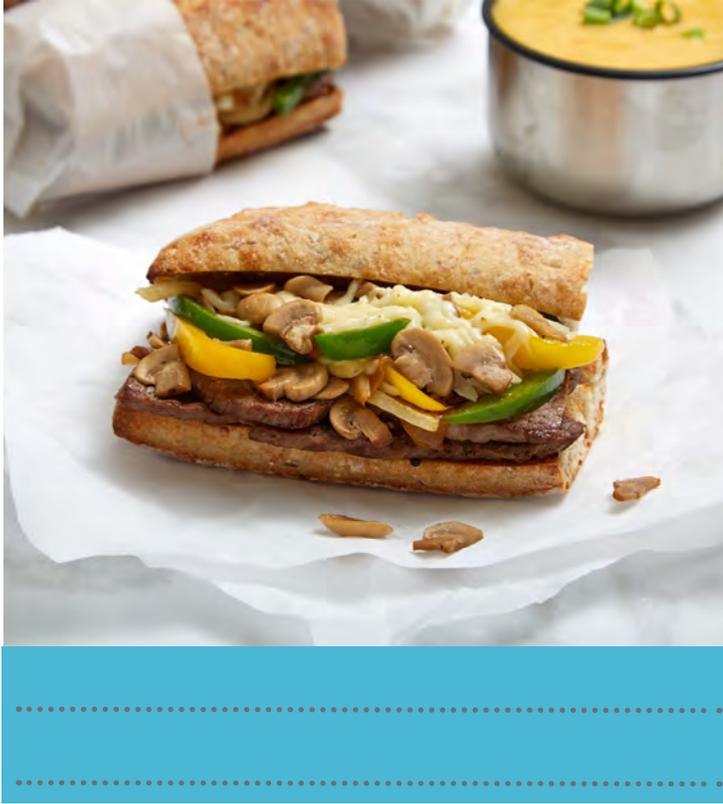
Often cattle are sold in an auction market. Cattle ranchers also have to grow crops or purchase grain to feed the cattle.

A **feedlot** is a place that buys calves and puts them on a healthy diet. Many feedlots in Alberta use barley to feed their cattle. This produces tender beef.

When the cattle reach about 590 kilograms, or about 1300 pounds, they are ready to be processed into beef.

A processing or packing plant prepares the beef by packaging it into different products. These products can include hamburger, steak, ribs and roasts. All meat is inspected to make sure it is safe.





The beef products are sold to stores, which then sell them to consumers. Most of the animal is used to make these products.

Consumers, or people who buy products, use the beef products as part of their daily lives. It can take between 18 and 22 months for cattle to reach your plate as beef!

How do the activities of farmers and ranchers benefit, or help, other people? Use the circles on the next page to share your learning.

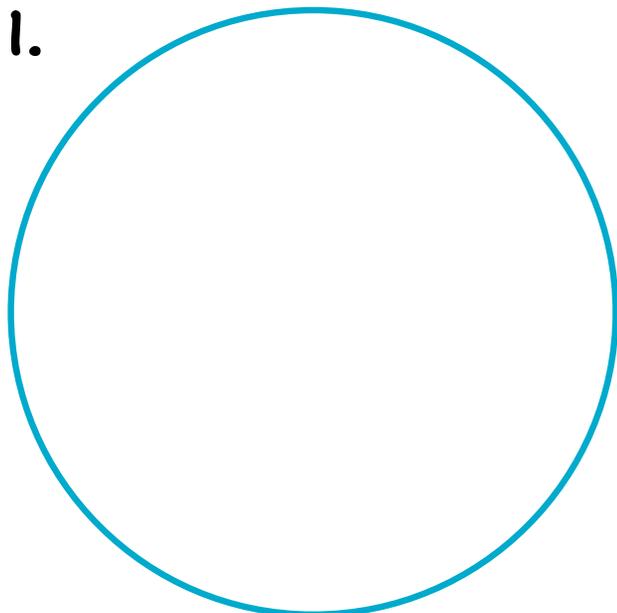
Think of two examples of activities that cattle farmers and ranchers do. Draw or describe them in the **first** circle.

In the **second** circle, describe or draw an example of a food that comes from cattle farming and ranching.

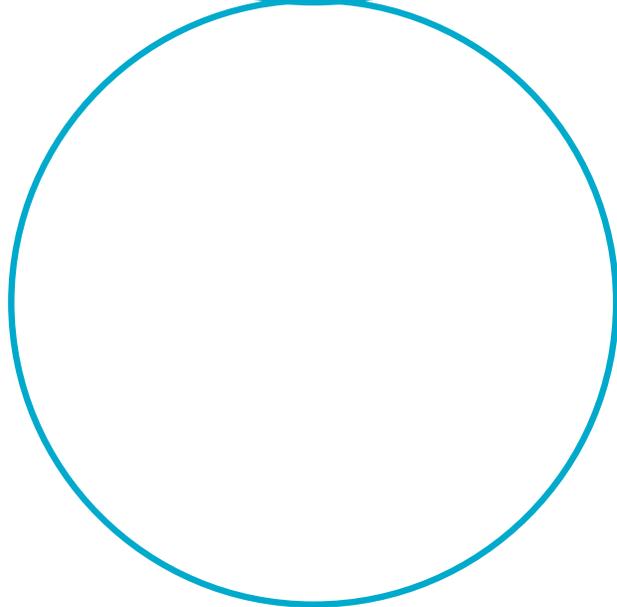
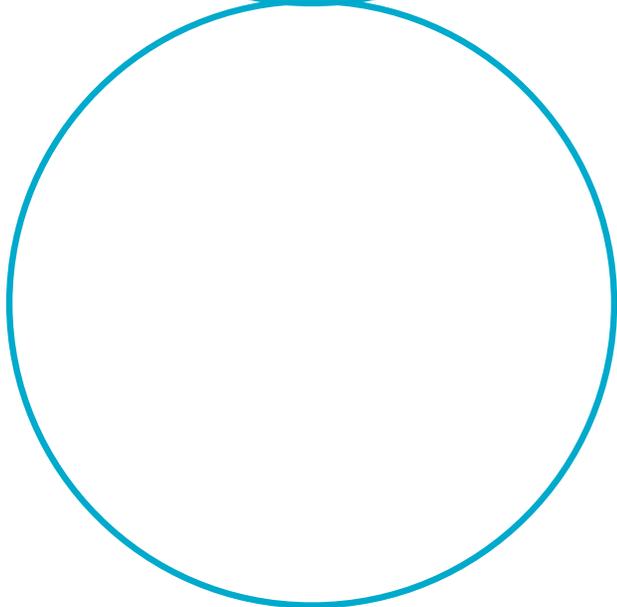
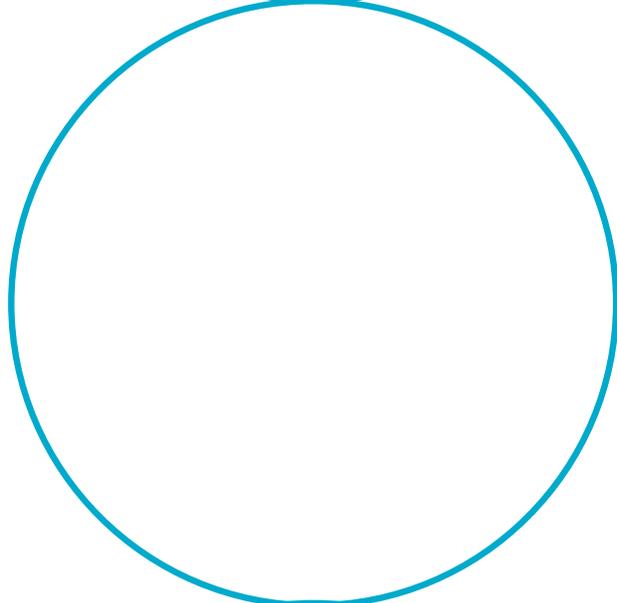
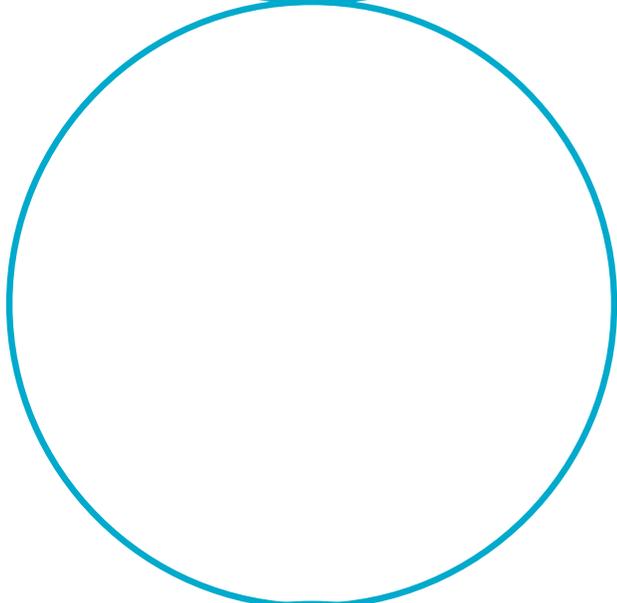
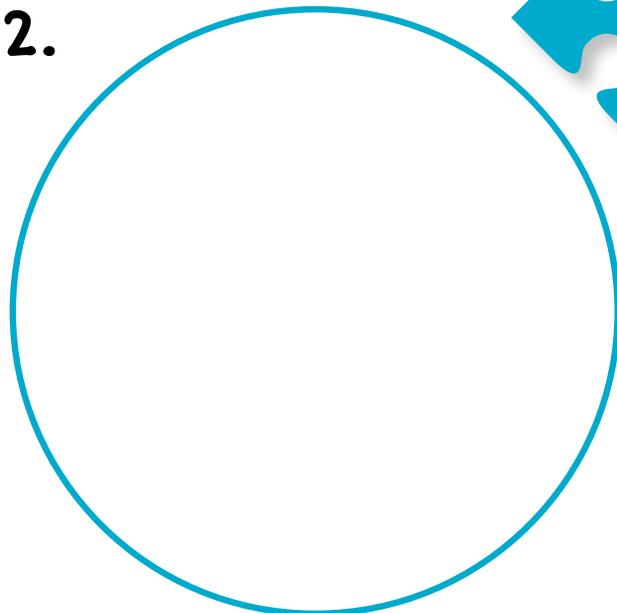
In the **third** circle, draw or write about ways that people benefit from agriculture and the food that comes from farming and ranching.

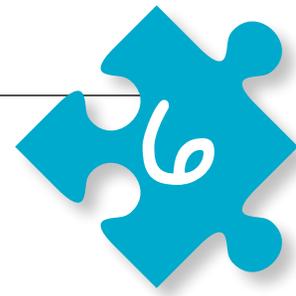


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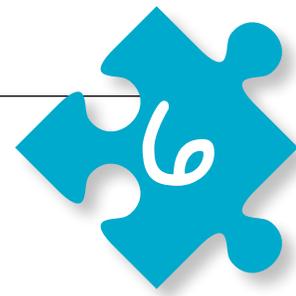


Foods come from farming and ranching

Fill your grocery cart with healthy food choices:

- Protein foods
- Whole grain foods
- Fruits and vegetables





FAST FACT
Beef has 14 nutrients.

FAST FACT
Vegetables and fruits are an important part of healthy eating.

FAST FACT
Beef comes from cattle and provides protein and vitamins. Protein helps build muscles, fight infections and heal body tissues.

FAST FACT
Vegetables and fruits provide:

- Fibre
- Vitamins
- Minerals

FAST FACT
Cattle are raised to provide food for people. They are not pets.

FAST FACT
Beef provides important vitamins:

- Zinc to increase immunities
- Vitamins B6 and B12 to grow and build your body
- Vitamin D to help build strong teeth and bones
- Iron to help with learning and concentration

FAST FACT
Whole grain foods come from crops that are grown by farmers.

FAST FACT
There are many healthy ways to prepare beef. For example, a lean beef burger has nutrients like protein, zinc and iron.



Nutrition information comes from food labels

Can you match these foods to their food labels?

Milk Vegetable juice

Frozen fruit Hamburger

Canola oil Peanut butter

Chocolate with nuts

Nutrition Facts

2 Tbsp (32 g) / Pour 2 cuillères à soupe (32 g)

Amount	% Daily Value % valeur quotidienne
Calories/ Calories 155	
Fat/ Lipides 16 g	25%
Saturated/ saturés 2 g	10%
+ Trans/ trans 0 g	
Cholesterol 0 g	
Sodium/ Sodium 0 g	
Carbohydrate/ Glucides 7 g	2%
Fibre/ Fibres 3 g	12%
Sugars/Sucres 2 g	
Protein/ Protéines 8 g	
Vitamin A/ Vitamine A	0%
Vitamin C/ Vitamine C	0%
Calcium/ Calcium	0%
Iron/ Fer	4%
Vitamin D/ Vitamine D	0%

Nutrition Facts

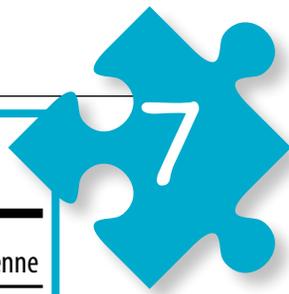
1 Tbsp (15 mL) / 1 c. à s. (15 mL)

Amount	% Daily Value % valeur quotidienne
Calories/ Calories 120	
Fat/ Lipides 14 g	22%
Saturated/ saturés 2 g	10%
+ Trans/ trans 0 g	
Carbohydrate/ Glucides 0 g	0%
Protein/ Protéines 0 g	
Not a significant source of cholesterol, sodium, fibre, sugars, vitamin A, vitamin C, calcium or iron.	
Source négligeable de cholestérol, sodium, fibres, sucres, vitamine A, vitamine C, calcium et fer.	

Nutrition Facts

Per 1 cup (125 g) / Par 1 tasse (125 g)

Amount	% Daily Value % valeur quotidienne
Calories/ Calories 80	
Fat/ Lipides 0 g	0%
Saturated/ saturés 0 g	0%
+ Trans/ trans 0 g	
Cholesterol 0 g	
Sodium/ Sodium 0 g	
Carbohydrate/ Glucides 21 g	7%
Fibre/ Fibres 3 g	12%
Sugars/Sucres 19 g	
Protein/ Protéines 1 g	
Vitamin A/ Vitamine A	8%
Vitamin C/ Vitamine C	50%
Calcium/ Calcium	0%
Iron/ Fer	0%



Nutrition Facts

Per burger (85 g) / Par burger (85 g)

Amount	% Daily Value % valeur quotidienne
Calories/ Calories 123	
Fat/ Lipedes 7 g	17%
Saturated/ saturés 3 g	17%
+ Trans/ trans 0.5 g	
Cholesterol 33 g	
Sodium/ Sodium 200 g	8%
Carbohydrate/ Glucides 1 g	2%
Fibre/ Fibres 0 g	12%
Sugars/Sucres 0 g	
Protein/ Protéines 14 g	
Vitamin A/ Vitamine A	0%
Vitamin C/ Vitamine C	0%
Calcium/ Calcium	2%
Iron/ Fer	12%

Nutrition Facts

Per 1 cup (250 mL) / Par 1 tasse (250 mL g)

Amount	% Daily Value % valeur quotidienne
Calories/ Calories 50	
Fat/ Lipedes 0 g	0%
Saturated/ saturés 0 g	0%
+ Trans/ trans 0 g	
Cholesterol 0 g	
Sodium/ Sodium 120 g	
Carbohydrate/ Glucides 11 g	4%
Fibre/ Fibres 3 g	12%
Sugars/Sucres 8 g	
Protein/ Protéines 2 g	
Vitamin A/ Vitamine A	15%
Vitamin C/ Vitamine C	100%
Calcium/ Calcium	2%
Iron/ Fer	4%

Nutrition Facts

Per 1 cup (250 mL) / Par 1 tasse (250 mL)

Amount	% Daily Value % valeur quotidienne
Calories/ Calories 130	
Fat/ Lipedes 5 g	8%
Saturated/ saturés 3 g	16%
+ Trans/ trans 0.1 g	
Cholesterol 20 g	
Sodium/ Sodium 120 g	8%
Carbohydrate/ Glucides 12 g	4%
Fibre/ Fibres 0 g	0%
Sugars/Sucres 12 g	
Protein/ Protéines 0 g	
Vitamin A/ Vitamine A	10%
Vitamin C/ Vitamine C	0%
Calcium/ Calcium	30%
Iron/ Fer	12%
Vitamin D/ Vitamine D	45%

Nutrition Facts

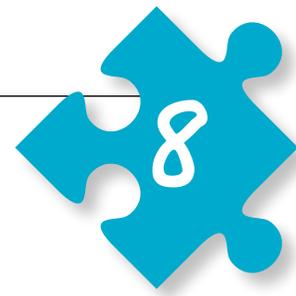
Per 4 squares (43 g) / Pour 4 carres (43 g)

Amount	% Daily Value % valeur quotidienne
Calories/ Calories 230	
Fat/ Lipedes 14 g	19%
Saturated/ saturés 7 g	36%
+ Trans/ trans 0.1 g	
Cholesterol 5 g	
Sodium/ Sodium 20 g	
Carbohydrate/ Glucides 24 g	7%
Fibre/ Fibres 2 g	12%
Sugars/Sucres 21 g	
Protein/ Protéines 3 g	
Potassium	4%
Calcium/ Calcium	6%
Iron/ Fer	11%



How do food labels help us make healthy eating decisions?

Foods to eat	Foods to avoid



People make different choices about the food they eat

What nutritious food choices do you make in different places or at different times? Write or draw a nutritious food in each puzzle piece that you would choose to eat at each time or place.

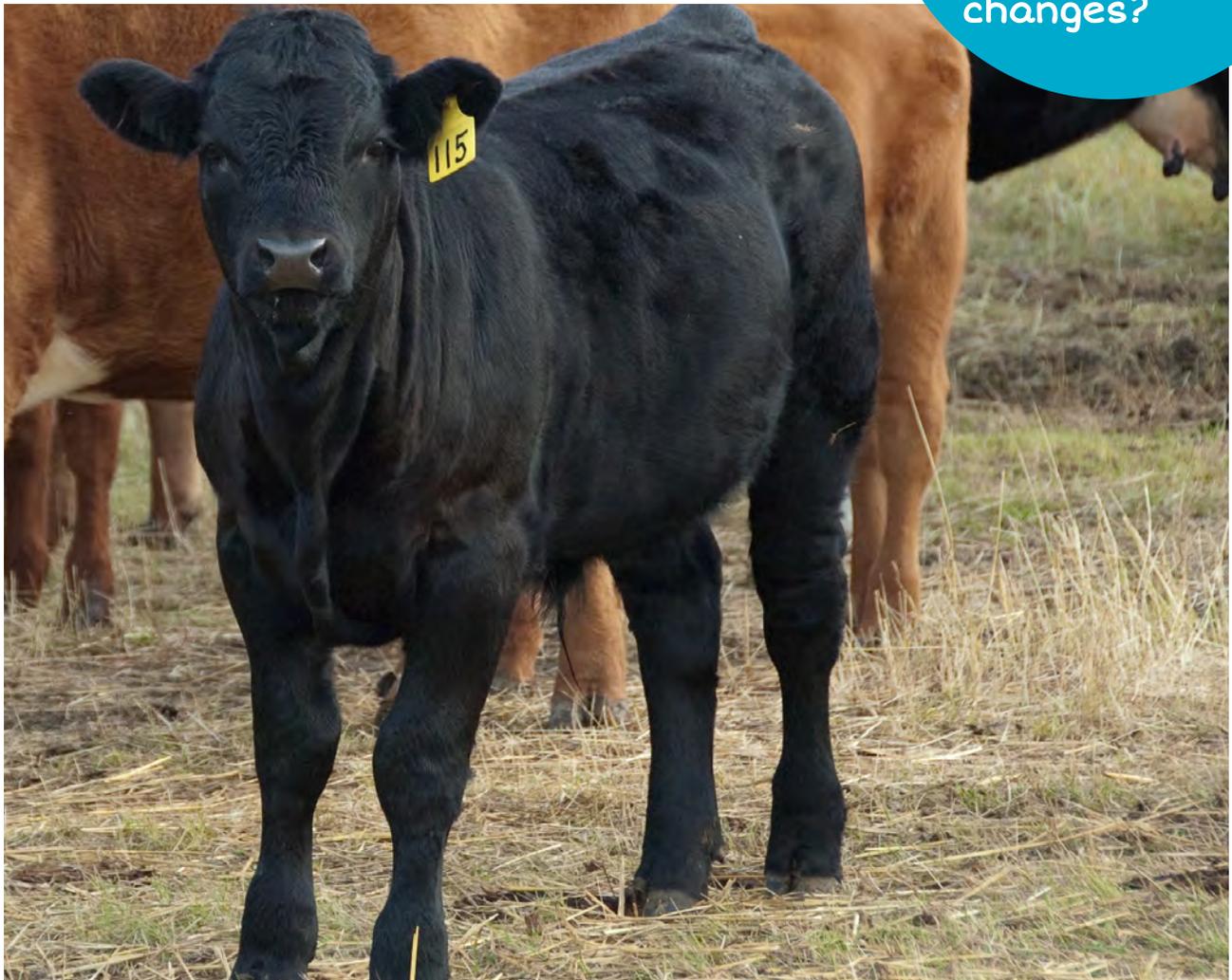
The image shows a large puzzle piece grid divided into four sections. Each section is a puzzle piece shape with a blue outline. The sections are labeled as follows:

- Top-left: At Home
- Top-right: At School
- Bottom-left: In a Restaurant
- Bottom-right: As a Snack

Living things grow and change

Describe the characteristics of the calf and the cow. How are these characteristics alike? How are they different?

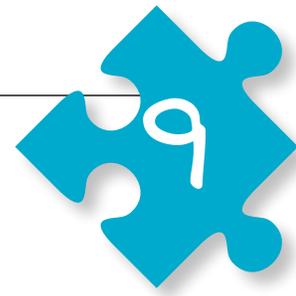
What do the differences between the calf and the cow tell you about how it grows and changes?





Hoof Ears Mouth Tail Ears
Muzzle Hide Eyes Udder

Use the word list to help you identify the characteristics of the calf and cow.

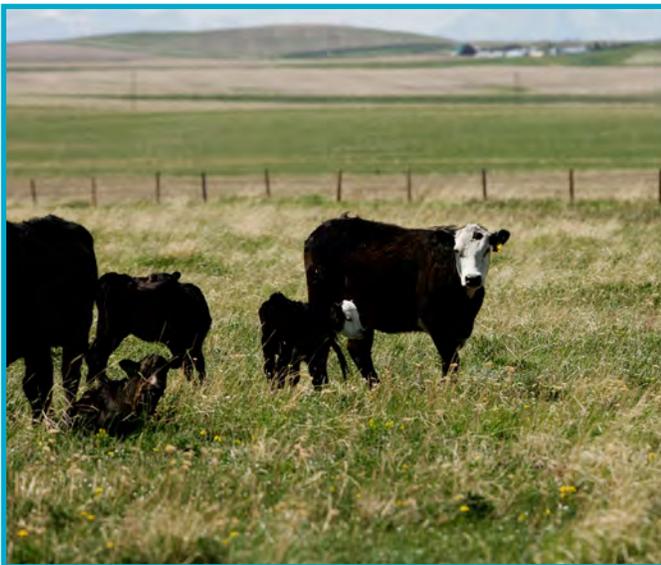
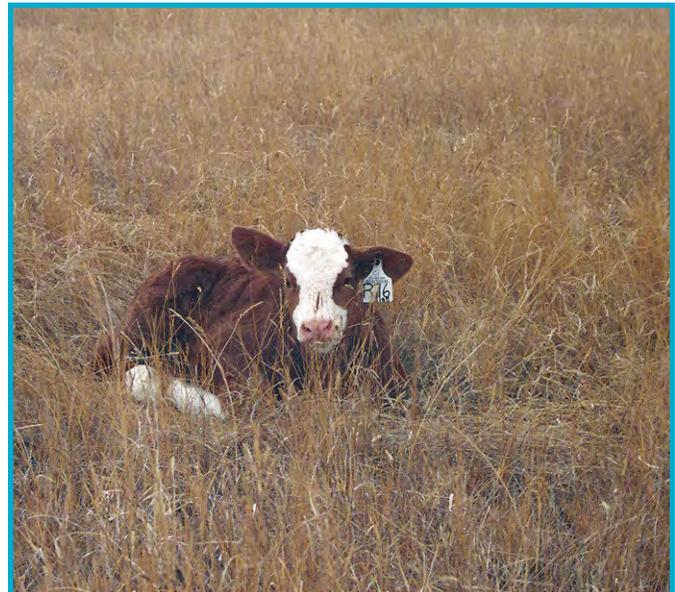


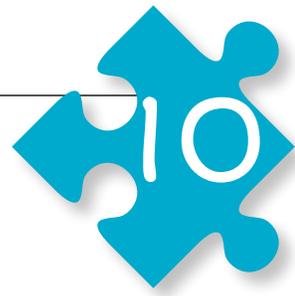
Describe two characteristics that will stay the same and two that will change as cattle grow and develop.

These physical characteristics will stay the same as cattle grow and develop	These physical characteristics will change as cattle grow and develop

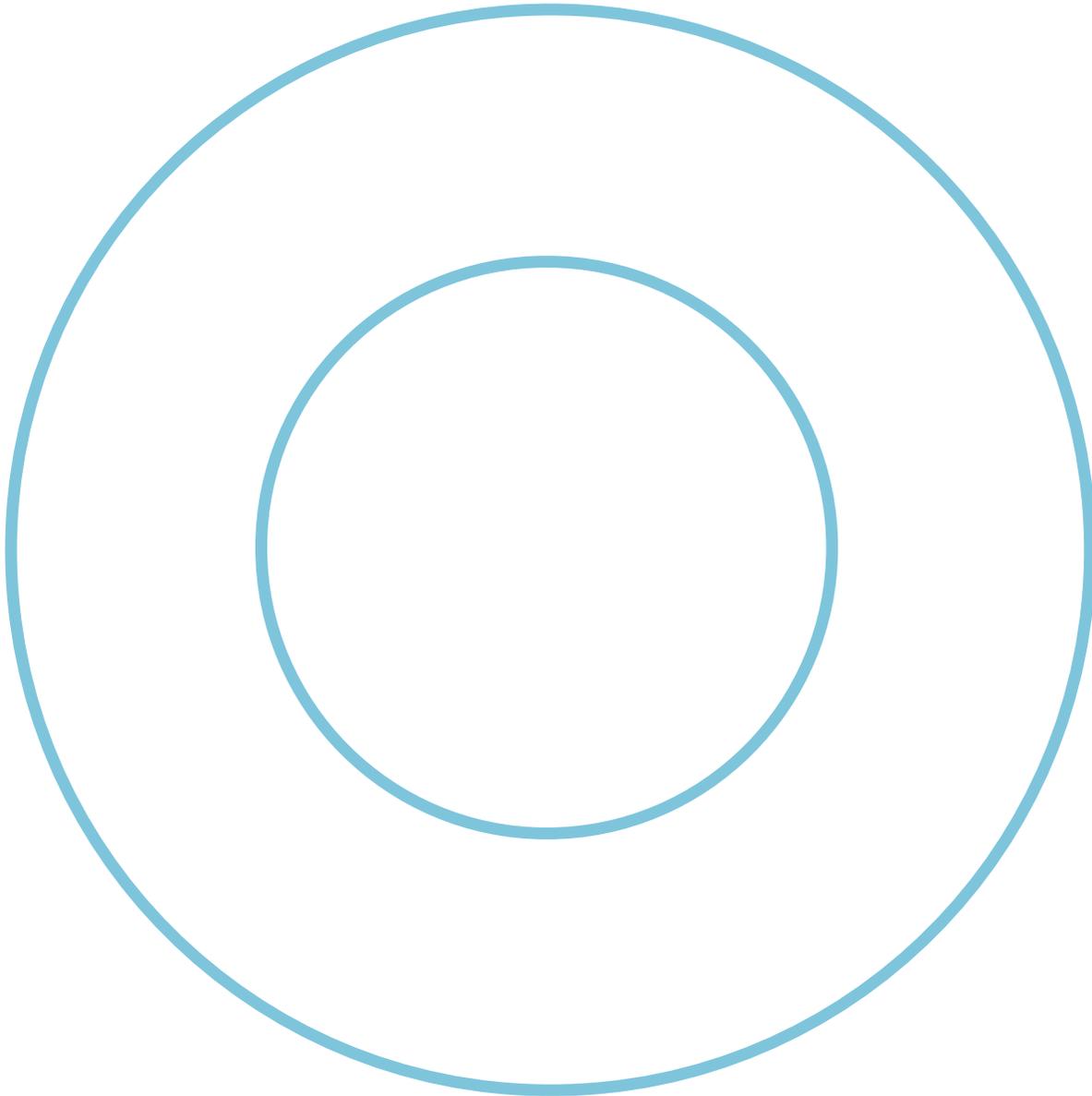
Cattle have a life cycle

All plants and animals go through life cycles. A life cycle is a series of stages a living thing goes through during its life. Use what you have learned about cattle and these photo cards. Make a life cycle diagram that describes how cattle change and grow through stages in their lives.





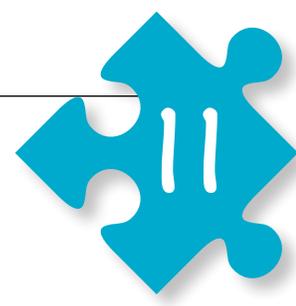
Write each of the sentences in the proper sequence in the **life cycle diagram**. Use the photo cards to add descriptions of each life stage and your own illustration.



Cattle grow and change to become adults.
As calves grow, they learn to graze grass.

Calves are born.

Adult cows have calves.



Cattle depend on the environment to live and grow

There are many cattle ranches across Alberta. Many of these are small family ranches.

A cattle herd is made up of calves, heifers, cows, bulls and steers. **Calves** are baby animals.

Cows and **heifers** are female cattle. **Steers** and **bulls** are male cattle. A cow usually has one calf every year.

The calves are usually born in the spring, when there is more nutritious grass available for the mother cow to eat.

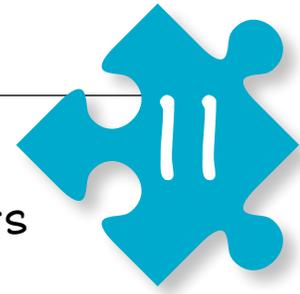
By the fall, the calf will be almost as big as its mother. These calves are ready to eat grass and hay on their own.



What questions would you ask a cattle rancher about this photo?

.....

.....



On cattle farms and ranches, cattle are raised with care. Ranchers and farmers watch over the cows and their calves carefully.

Cattle usually stay together in groups. These groups are called **herds**.

Cattle can live outside all year long. The land that is used for pastures is usually too hilly, rocky and not able to be used to grow food crops.



Windbreaks, like trees or fences, and barns are used to protect cattle from snow, wind, rain and the sun.

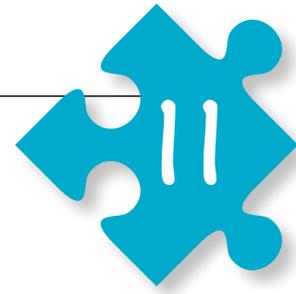
In the winter, their hair grows longer. This protects them from cold temperatures.

In the summer, their hair helps to keep them cool.

What questions would you ask a cattle rancher about this photo?

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Did you know that cattle have four stomachs? When cattle swallow their food, it goes into the first section of the stomach, called the rumen.

When the rumen is full, cattle will lie down to rest. During this time, it will burp up portions of food from the rumen.

These portions are called “cud.”

The cud is then chewed into a pulp and swallowed again. The chewed food goes into the other three stomachs where it is digested.

In the summer, cattle graze on pastureland. In the winter, cattle are provided with hay or other grains that have been stored.

Water is an important need for all crops and animals. Water comes from rain and snow. This water can collect in streams, rivers and lakes.



What questions would you ask a cattle rancher about this photo?

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Cattle graze on pastures. They get some water from the grass they eat and from water on the surface of the land.

However, cattle prefer clean water. They like to drink water from a trough, which is a large container used to hold the water.



What questions would you ask a cattle rancher about this photo?

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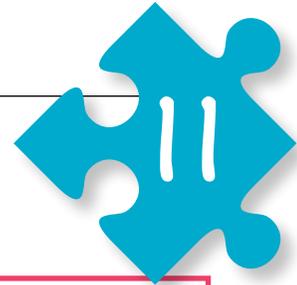
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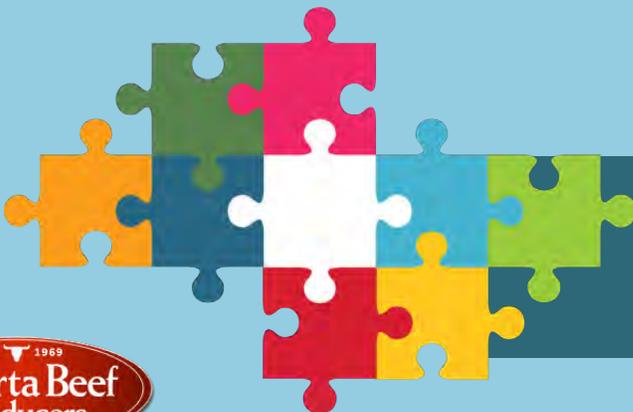
Cattle that drink clean water spend more time grazing.

Cattle farmers and ranchers provide troughs of clean water for their animals. This also protects natural water sources, like streams rivers and lakes.

Make a **cattle profile**. Illustrate how cattle needs are met in agricultural environments in each box. Write a caption that describes your illustration.

Cattle meet their needs in agricultural environments.





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