



Cattle

Curriculum links:

- **Science** Living things
Environmental awareness and care
- **Geography** Human environments
- **SPHE** Myself and the wider world

Lesson objectives:

To revise material covered in previous modules. To develop awareness of different breeds of cattle. To become aware of the process of milking and associated dairy products.

Teacher guidelines

It is suggested that teachers ensure that students are familiar with the vocabulary and concepts introduced in the previous modules before starting this lesson.

Keywords and concepts introduced in previous modules:

cattle cow bull calf herd grazing beef milk cream butter cheese leather

For most of the year cattle live outside in fields but they can also be kept in sheds. Most cattle have horns but these are removed when the calf is young. We get leather, beef and milk from cattle. Beef can be eaten as a roast, steak, mince and burgers. We use milk to make cream, butter, cheese, yogurt, ice cream and chocolate.

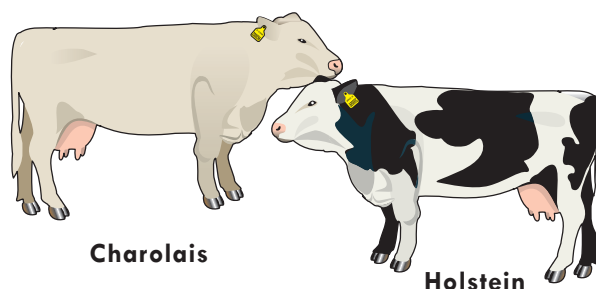
After revision of the above, teachers could discuss the more detailed information below.

Keywords for this lesson:

breed dairy udder milking parlour refrigerated churning pasteurised dairy products

Breeds

There are several hundred different breeds of cattle in the world today. They can be many different sizes and shapes. Some are better for producing milk and are called **dairy** cows. In Ireland, the most popular dairy cows are the black and white Holstein and Friesian breeds. Other cattle breeds are better for producing meat, for example, Charolais, Limousin, Angus and Hereford cattle.

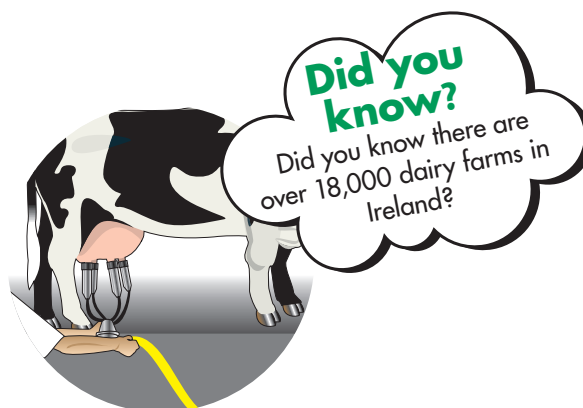


Charolais

Holstein

Milking

Like all mammals, cows feed milk to their calves. A newborn dairy calf feeds from the cow for three days and is then fed by the farmer. The cow will continue to produce milk for about 10 months and so she must be milked. Cows are milked twice each day, once in the morning and once in the evening. In the past, farmers milked cows by hand but today, milking is carried out by milking machines in a **milking parlour**. Before milking, the cow's **udder** is thoroughly washed by the farmer and the milking machine is attached. After milking, the milk is kept **refrigerated** until it is brought to the dairy by a milk tanker. At the dairy, it is **pasteurised**. Pasteurising is when the milk is heated and then cooled down to kill any bacteria that might cause disease.



Did you know?

Did you know there are over 18,000 dairy farms in Ireland?

Dairy products

Milk is a healthy food which can be used in many different ways for example to drink, with cereal and in baking (See Healthy eating, page 5). All foods made from milk are called **dairy products** these include cream, butter, cheese, yogurt and ice cream.

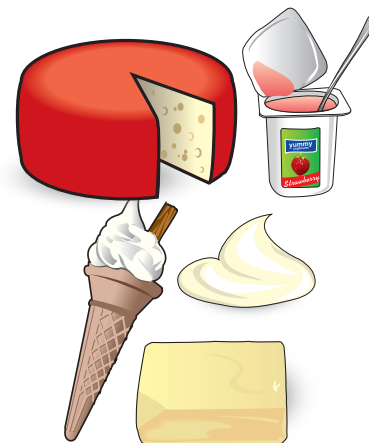
Long ago, cream was made by allowing milk to 'settle'. When milk settles, cream rises to the top. Today, a machine in the dairy separates the cream from the milk. To make butter, cream is shaken very hard for a long time until small pieces of butter form. This process is called '**churning**'.

Beef

Beef is the name given to the meat that comes from cattle. We can buy many different types of beef for example steak, round beef, minced beef and burgers. Irish beef is famous all over the world for being of very high quality. This is because the beef animals in Ireland live on a diet of grass, either fresh or in the form of silage and hay.

Did you know?

People from all over the world get to enjoy eating Irish beef and dairy products. Irish food and drink is sent to more than 180 countries all across the world!



Did you know?

In 2019, Ireland's dairy cows produced around 8 billion litres!

Suggested activities:

- Photocopy the activity sheet page 43
- Research the various different breeds of cattle found in Ireland e.g. Friesian, Charolais, Hereford, Angus. Compare and contrast their colour, size (and uses)
- Research Celtic festivals with links to cattle e.g. Samhain, when cattle were brought in for winter and Bealtaine, when cattle were put back out to graze
- Ask students to choose their favourite dairy product and research how it is made
- As a class, make a flow-chart showing the steps in the production of milk, cheese, yogurt and/or butter.
- Research the types of food Ireland exports and map where in the world they go
- Discuss the importance of dairy products in our diet (see Healthy Eating page 5)
- Discuss the interrelationship between people, animals and plants and the way in which we rely on farming to provide us with food (See 'The Irish Farmer' page 2)
- Discuss the different ways that beef can be cooked and eaten
- For extension material, see Module 4

Learning outcomes:

At the end of this lesson, students should be aware of the most common cattle breeds in Ireland and their uses. They should also know the steps in the production of milk and various dairy products.

Additional resources:

- www.agriaware.ie



Cattle

Name: _____

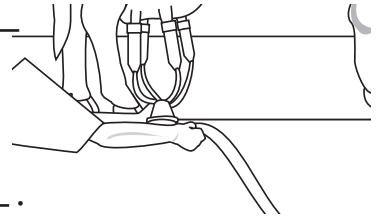
Date: _____

1 Use the words below to fill the blanks in 'The story of milk'

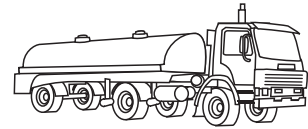
refrigerated, dairy, pasteurisation, dairy products, milking parlour, cartons, milk tanker, udder



Cows are milked twice a day in the _____ .
The farmer attaches the milking machine to the cow's _____ .

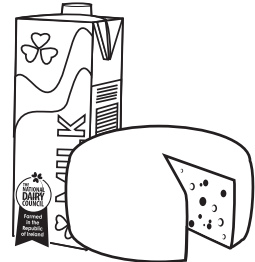


After milking, the milk is _____ .
It is brought to the dairy in a _____ .



At the _____ , the milk is heated to kill bacteria that could cause disease. This is called _____ .

The milk is ready to be put into _____ and sold in the shops. It could also be used to make cream, butter, cheese or other _____ .



2 Read the description below and match it to the correct dairy product.

When milk is allowed to settle, this dairy product rises to the top.



Yogurt

When cream is shaken for a long time (churned), small pieces of this dairy product are formed.



Cream

Milk and flavours like strawberry, hazelnut, and chocolate are used to make this dairy product.



Butter



*To be used with teacher guidelines, page 6