

Pleased To Meet You, Please!

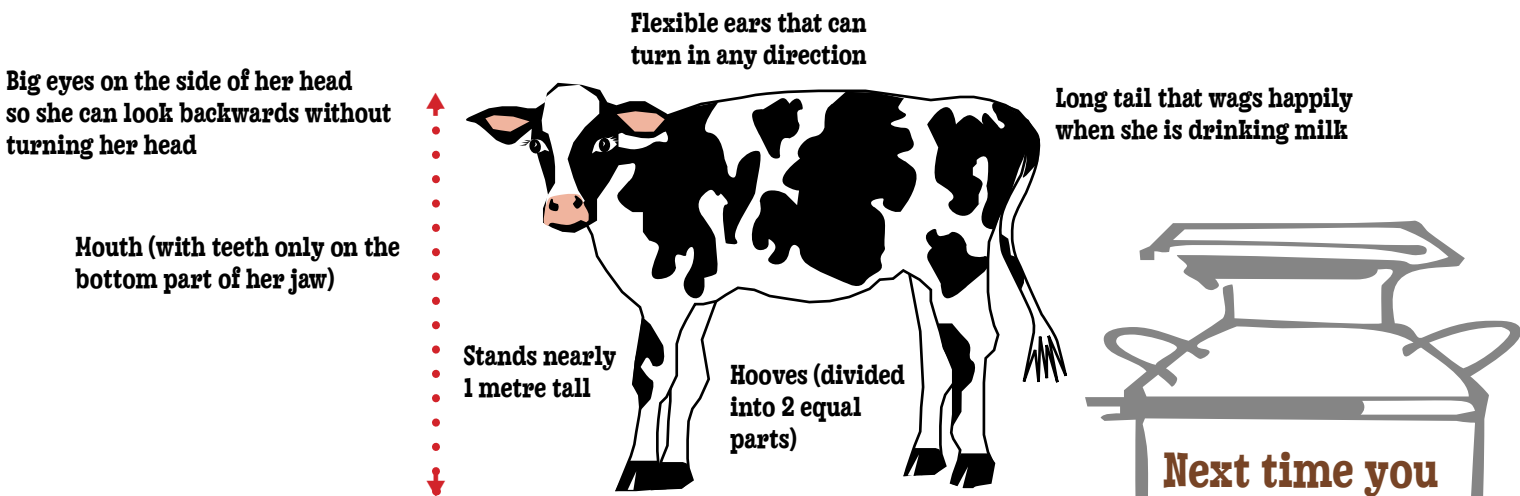
Since we're drinking milk with our snack today we thought it would be fun to learn more about where it comes from. *Please* can help us. *Please* is a newborn calf. Her mother is a dairy cow. Did you know that only the adult female cattle that have had babies are called 'cows'? *Please* lives on Cowsville Dairy Farm with other calves and cows. Together they are called a 'herd'.

From Moo to Milk

Milk comes from dairy cows like *Please's* mother. Like all mammals her body makes milk to feed her babies. A dairy cow feeds her calf as soon as it can stand up, very soon after it's born. Since her mother produces five times more milk than her calf needs, there's plenty of extra for *Please* to share with us. Dairy farmers look after their herd and milk their cows for people to drink.

Please grew inside her mother for nine months before she was born – just like a human baby does! She's a lot bigger. Human babies weigh around 3 kilograms. *Please* already weighs nearly 45 kilograms – that's about the same as a very big dog.

Before she gets too big, let's look at *Please* from nose to tail...



Please drinks her mother's milk for the first few days only. Then the farmer will feed her milk and, when her stomach is ready, other foods too. She'll grow up fast and we'll join her on new adventures on Cowsville Dairy Farm.

Next time you want milk don't forget to say thank you, *Please!*



How Now Brown Cow

Do brown cows make chocolate milk? No, dairy cows may come in many colours but they only make white milk. We have to add the chocolate flavour in ourselves. Chocolate milk has all the great nutrition of regular milk with the yummy taste of chocolate.

A cow, like Please's mother, can make enough milk every day to fill over one hundred glasses of milk.

Drink up and Reuse It...

After we drink up, we can rinse out our milk cups to make a game...

Materials: plastic cup, foil top, yarn, tape, coloured construction paper and crayons.

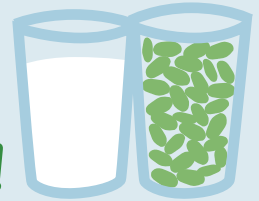
Cut a piece of construction paper into a rectangle 5 cm wide x 25 cm long. Decorate it, then tape one end to your cup; wrap it around and tape the other end. Use a pencil to make a hole in the centre of your cup. Cut a piece of yarn to about as long as your arm and tie a big knot on one end. Then, use a pencil to push the yarn end without the knot through the hole, and pull it all the way through. Wrap the foil around the loose end of the yarn and shape it into a ball.

Now you're ready to play... Hold the cup in one hand and swing the cup to toss the ball into the air. Try to catch it in the cup on its way down.

We'll be learning lots of new words from **Please** as we enjoy our milk this year. Here are some new milk words from this week's +Milk Scoop.

cow – adult female • calf – a baby

**Soy
for Me
Please!**



Sometimes it's good to have a choice. That's why some parents have chosen soy beverage instead of milk for their children. Soy beverage looks like milk and has lots of the same nutrients (only if it's fortified). It doesn't come from a dairy cow; it comes from the beans of a plant. We drink the liquid that's left over after soybeans are soaked, finely ground, then strained through a fine cloth. Just like milk, it comes in chocolate flavour too!

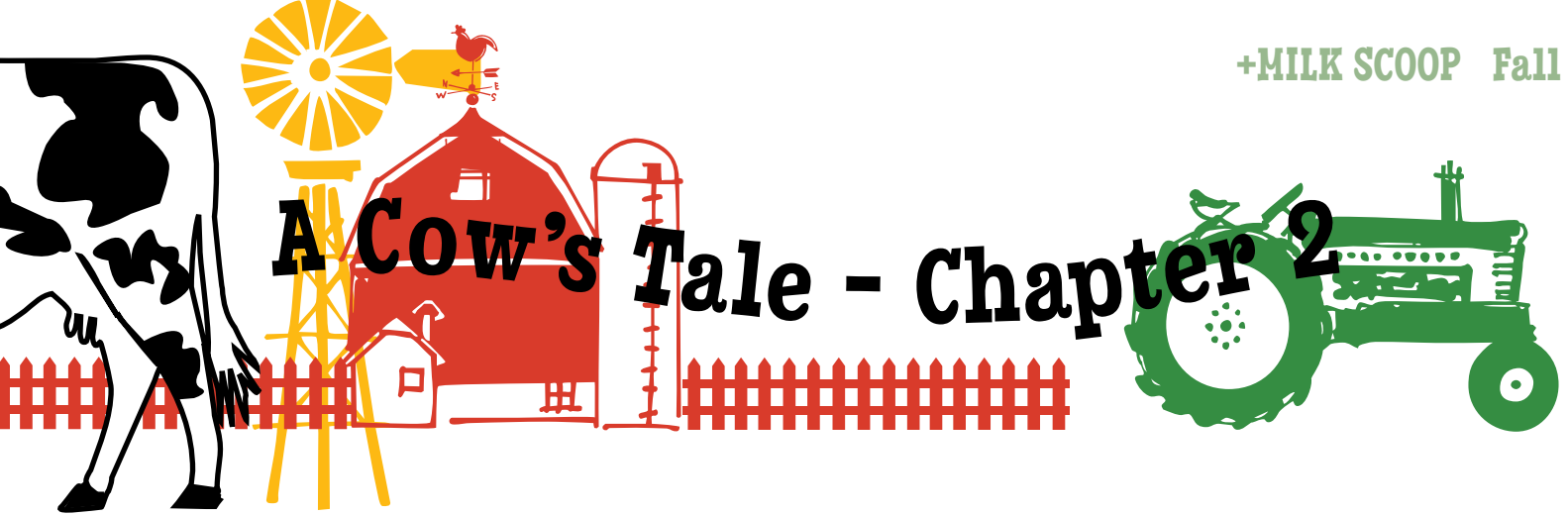
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Healthy FamiliesBC

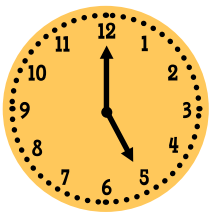
BC Agriculture in the Classroom

BC SFVNP + MILK



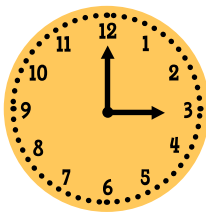
A Day on Cowsville Dairy Farm

Please is growing and becoming more curious about what's going on around her. Like you, *Please* has a daily routine. Let's see how *Please* spends her day.



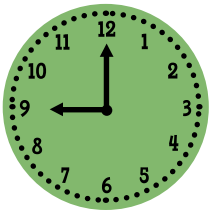
Rise and shine!

Please is an early riser. While you're still sleeping, she and the other calves are enjoying a breakfast of warm milk from a bottle. The dairy farmer gets up early to milk, feed and look after his cows and calves.



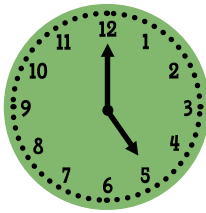
School's out and the farmer is still hard at work.

Today the farmer might have to repair the tractor, mix the grains and grasses with vitamins for feed, pay the bills or help the vet with the cows' check-ups.



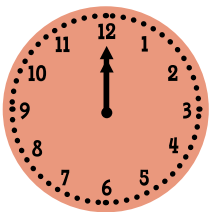
Morning chores!

As your school bell rings, the farmer starts the daily chores. The farmer cleans the alleys in the barn, then makes sure each cow has clean bedding.

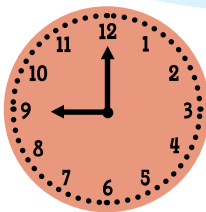


Time to head back to the barn for afternoon milking and feeding.

The farmer milks his cows at the same time every day.



Lunchtime, then more chores. There's always lots of field work for the farmer to do in-between milking times.



Lights out *Please*!

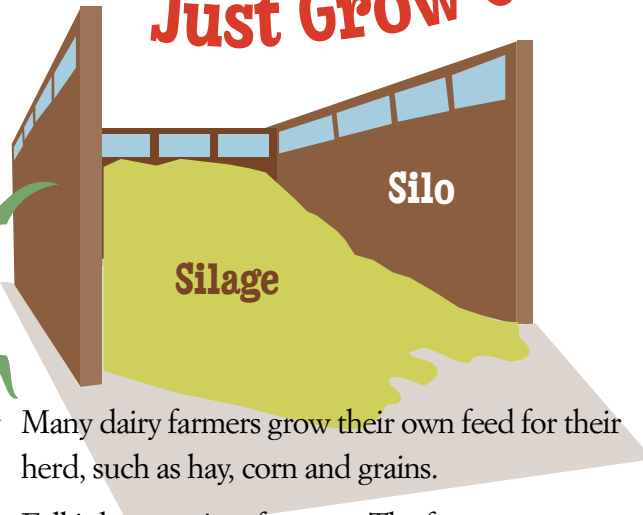
Even when his cows and calves are sleeping, the farmer might have to get up in the middle of the night to help a cow that's ready to give birth.

What time do you go to bed?



Dairy cows don't take weekends or holidays off. They need to be milked and taken care of 365 days of the year. A dairy farmer has a round-the-clock job!

Dairy Farmers Don't Just Grow Cows!



Many dairy farmers grow their own feed for their herd, such as hay, corn and grains.

Fall is harvest time for corn. The farmer uses a machine to harvest and cut each plant up into little pieces then stores it all, along with grass, in a silo. The greens stay moist and make animal feed called 'silage' —a tasty treat for cows.

Keep it Cool, Keep it Fresh

If milk comes from a cow warm, why do we need to keep it cool? All milk contains harmless bacteria. In light and warm temperatures the bacteria become active and can make the milk spoil. Cold slows the bacteria down. That's why we keep milk in the fridge, where it's cool and dark. How cold? Use a thermometer to check the temperature in the fridge - it should always be 4 degrees C or lower.

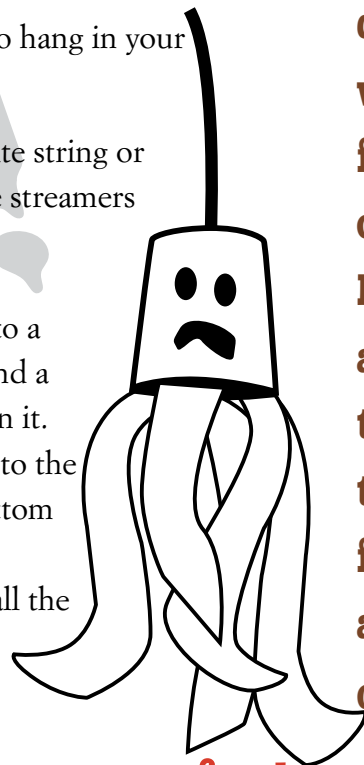


Drink up and Reuse It...

Make some spooky ghosts to hang in your classroom for Halloween.

Materials: empty milk cups, white string or yarn, black crayons, tape and white streamers (or tissue paper cut into strips).

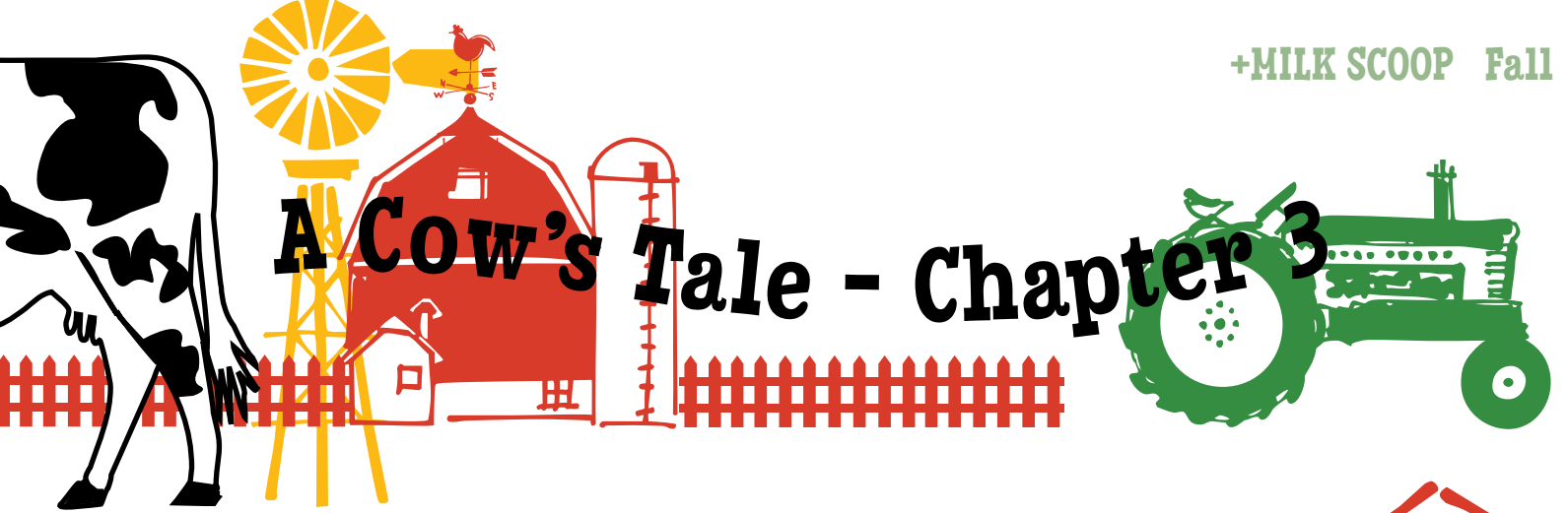
Cut a piece of white construction paper into a rectangle 5 cm wide x 25 cm long. Tape the paper around a cup, turn it upside down, and draw eyes and a mouth on it. Cut the streamer into a few 15 cm strips and tape them to the inside of the cup. Use a pencil to make a hole in the bottom of your cup. Tie a knot to one end of a piece of yarn, push the other end through the hole, then pull it all the way through. Hang your ghosts from the ceiling or a doorway.



feed - food for farm animals • **graze - to feed on grass growing in a field**

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Rise and Shine, It's Breakfast Time

The morning sun is peaking into the barn. This is *Please's* favourite time of day. She hears the familiar noises as the farmer comes into the barn. **THUMP** goes a mucky boot. **BANG** goes the barn door as it closes. **CLANG** goes the milk bucket as the farmer places it on the hook.

Please leans her head out of the pen, reaches for the nipple bucket and drinks her morning milk. The farmer reaches over to pat *Please's* nose and takes the bucket away. What's this new smell? *Please* sniffs the hand and reaches her long tongue out as dry kernels are gently pushed into her mouth. They feel rough, but they have a sweet taste.

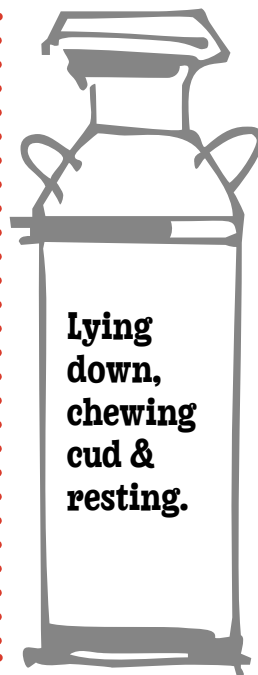
The farmer is giving *Please* her first taste of 'calf starter', a mix of cracked corn, rolled oats and soybean meal (with some added molasses for sweetness). The grain has nutrients and protein to help her grow strong. It also helps her special stomach, called a 'rumen', to develop. *Please* is a quick learner and soon she won't need any milk at all.



What do cows do all day?

Graze, Chew, Drink, Rest...Repeat

14 hours
(most of the day)



4 hours



6 hours



Can a dairy farmer have only 1 cow?



Cows are social animals. That means that they are happier when together with other cows in a herd. Farmers know that happy cows make more milk. A dairy farm is a business, and farmers choose the size of herd that they can best take care of on their farm. A small dairy farm might have a herd of fifteen cows. Cowsville Dairy Farm is a larger farm with a herd of about 120 milking cows and their calves.

They have a lot of calves to name. Cows can have their babies at any time of the year. To help keep track of their age, the farmer gave all the calves born in September names that start with the letter P... *Please, Pansy, Pebbles, Pearl, Peaches, and Parsnip*. Can you think of some other names starting with the letter P?

Can you count 10 cows in this herd?
Where's **Please**?



Hello My Name is...

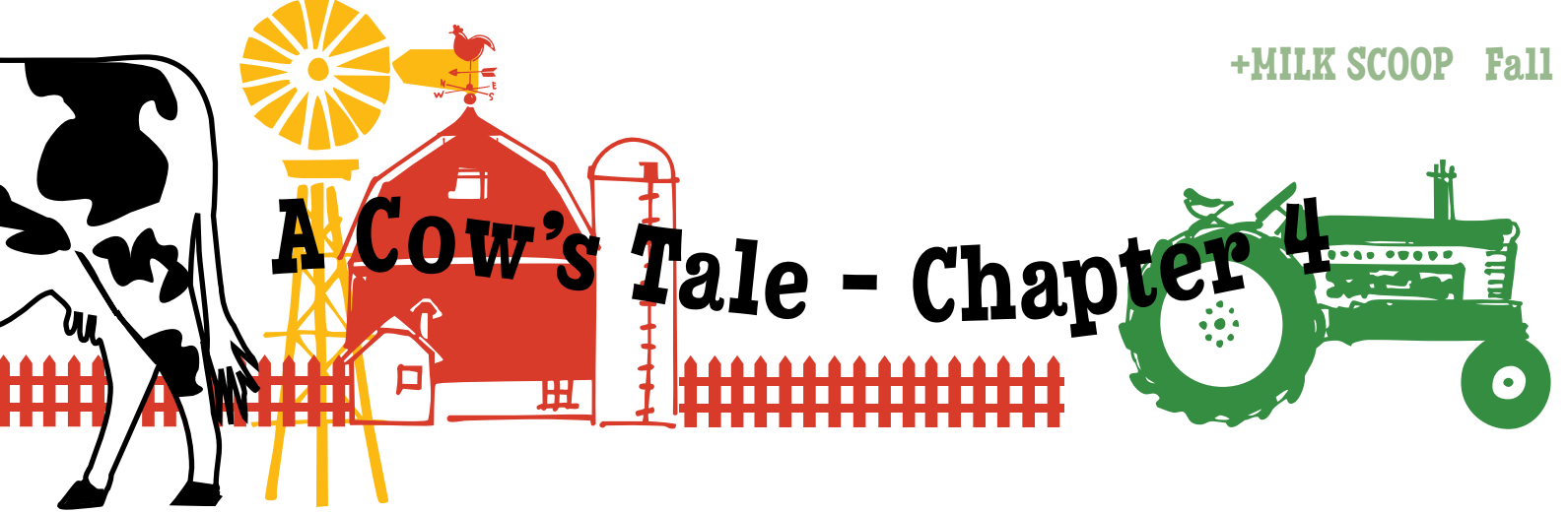


Please

- **dairy** - a farm that produces milk
- **herd** - a group of cows

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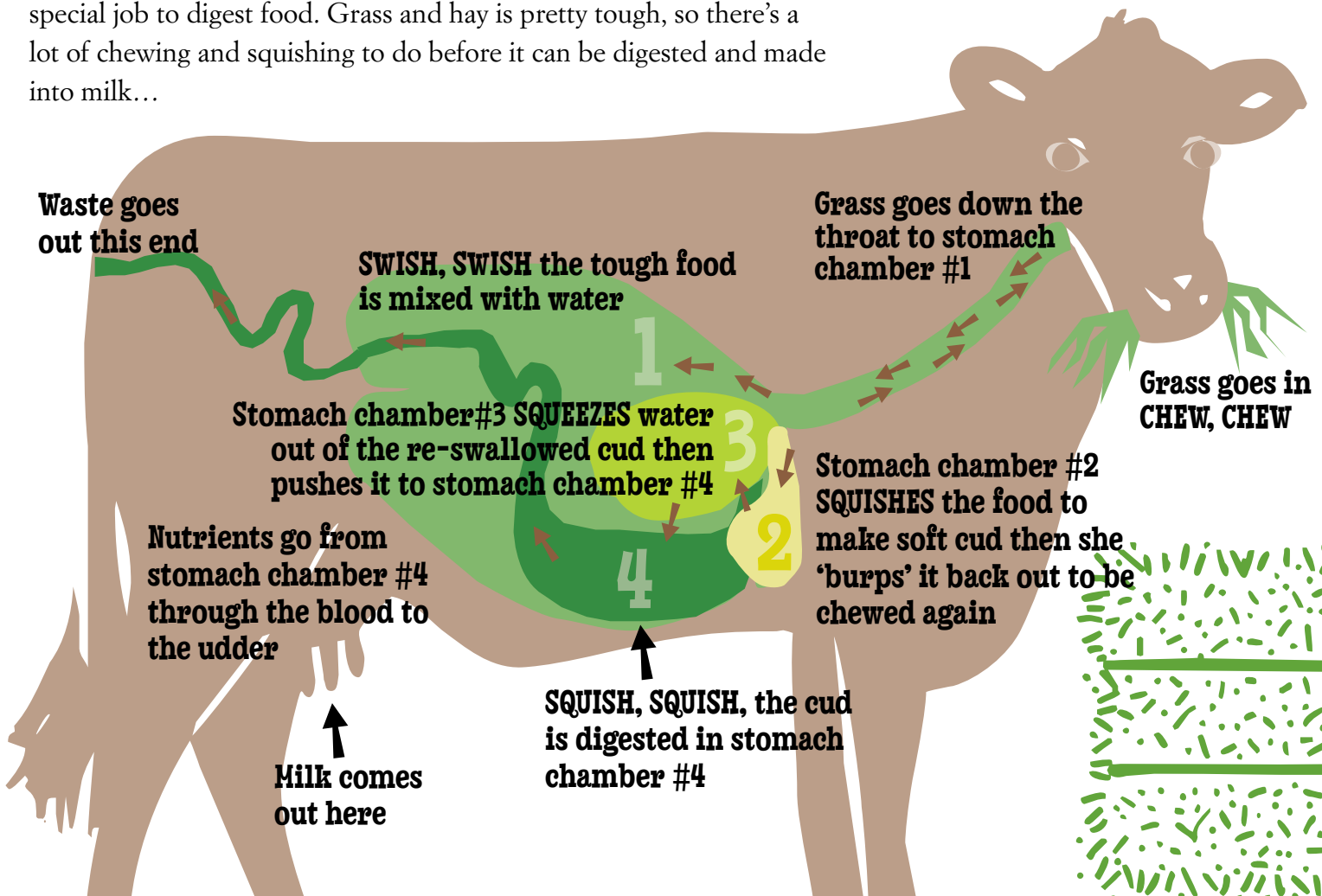
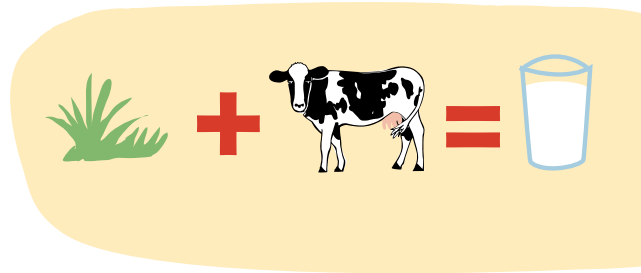




From Moo to Chew, to Milk for You!

Cows spend a lot of time grazing and lying down chewing. You might think they're being lazy, but they're hard at work making milk. Cows eat a lot of food and their body uses almost half of it to make milk.

How do mother cows turn grass and hay into milk? It starts with their special stomach. Cows have four parts to their stomach, called 'chambers' (each one with a funny-sounding name). Each chamber does a special job to digest food. Grass and hay is pretty tough, so there's a lot of chewing and squishing to do before it can be digested and made into milk...

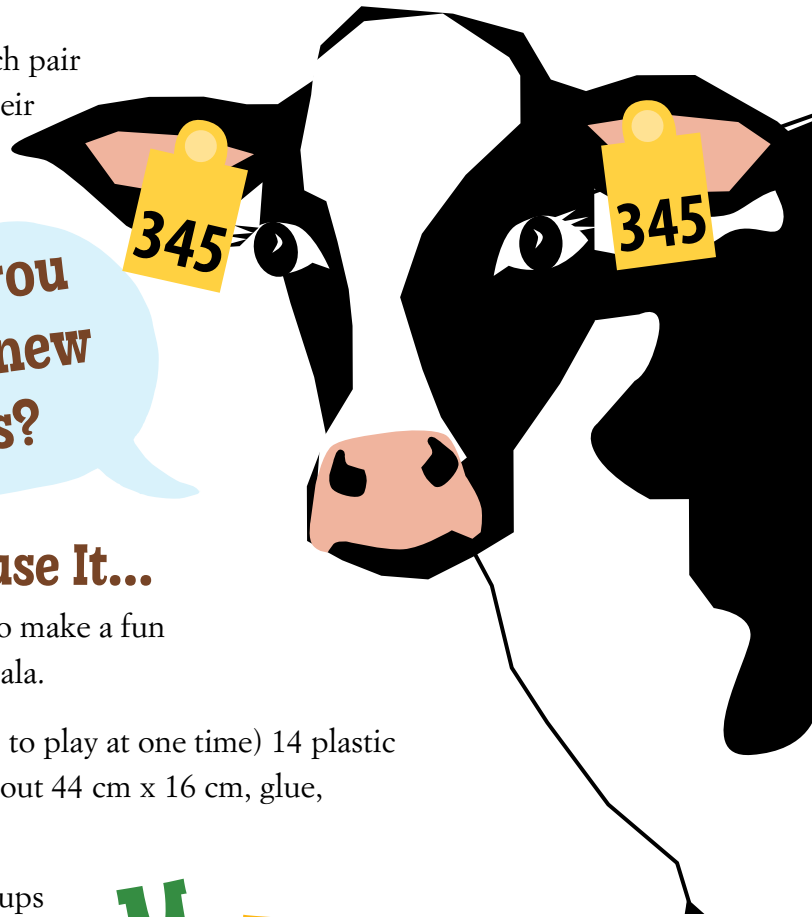


Brrr...cows get cold too!

It's late fall and cold and rainy on Cowsville Dairy Farm. It's tricky (and a bit silly) to put a jacket and boots on a cow, so the farmer moves the herd inside the dairy barn where it's warm and dry. Barns are like houses for cows. The cows will spend the winter in the barn where they will sleep, eat, and be cleaned and milked. Since they can't graze on wet or frozen fields, the farmer feeds the herd corn, hay, silage and mixed feeds.

Please and the other calves got a set of ear tags, each pair stamped with their own number. They will wear their ear tags all their lives. These numbered tags help dairy farmers keep track of every cow in their herd as they grow and start to have calves of their own.

How do you like my new earrings?



Drink up and Reuse It...

We can use our milk cups to make a fun counting game called Mancala.

Materials: (1 game for 2 players to play at one time) 14 plastic milk cups, 1 piece of cardboard about 44 cm x 16 cm, glue, 36 pebbles, beads or beans.

To make the game board, line up 2 rows of 6 cups leaving a space at each end of the board. Glue the bottom of each cup to the board. Glue one cup at each end to be the 'store' for each player. Get ready to play the game by placing 3 beans in each cup, leaving the store cups empty.

Not sure how to play Mancala? Download our step-by-step instructions on our website at

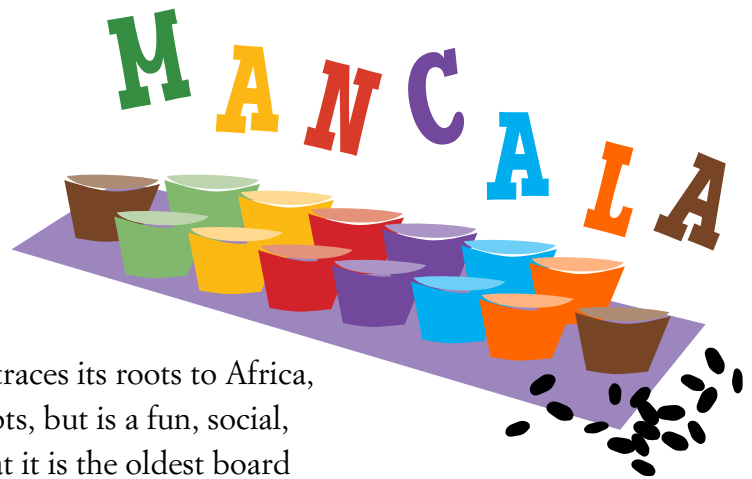
<http://www.sfvnp.ca/for-teachers-2.php>



- **udder** - part of the cow's body where milk is made
- **cud** - small ball of partly eaten food that the cow burps up and chews on again

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Mancala, a classic game of strategy that traces its roots to Africa, not only facilitates the learning of math concepts, but is a fun, social, novel way to learn. Many historians believe that it is the oldest board game in the world. The word Mancala means “to transfer” in Arabic. There are many versions of play but basically players transfer, or move, playing pieces from one space (or cup) to another.

How to Play Mancala

The game is played with two players, and the object of the game is to finish the game with the most beans (or similar objects such as beads) as you can. Two players share a game board, one on each side. To set up, each player places 3 beans in each cup on their side, leaving the store cup (also called a ‘kalaha’) at the end empty.

To begin play, choose who goes first. Player 1 picks up all of the beans from any cup on his/her side and moves them clockwise, dropping one bean in each subsequent cup. When player 1 comes to their own ‘store cup’ they also drop a bean in it. When he/she reaches player 2’s ‘store cup’ they skip over it and do not drop a bean in it.

Player 1’s turn is over unless the last bean he/she drops lands in his/her store. If it does, Player 1 gets another turn, starting from wherever he/she wants.

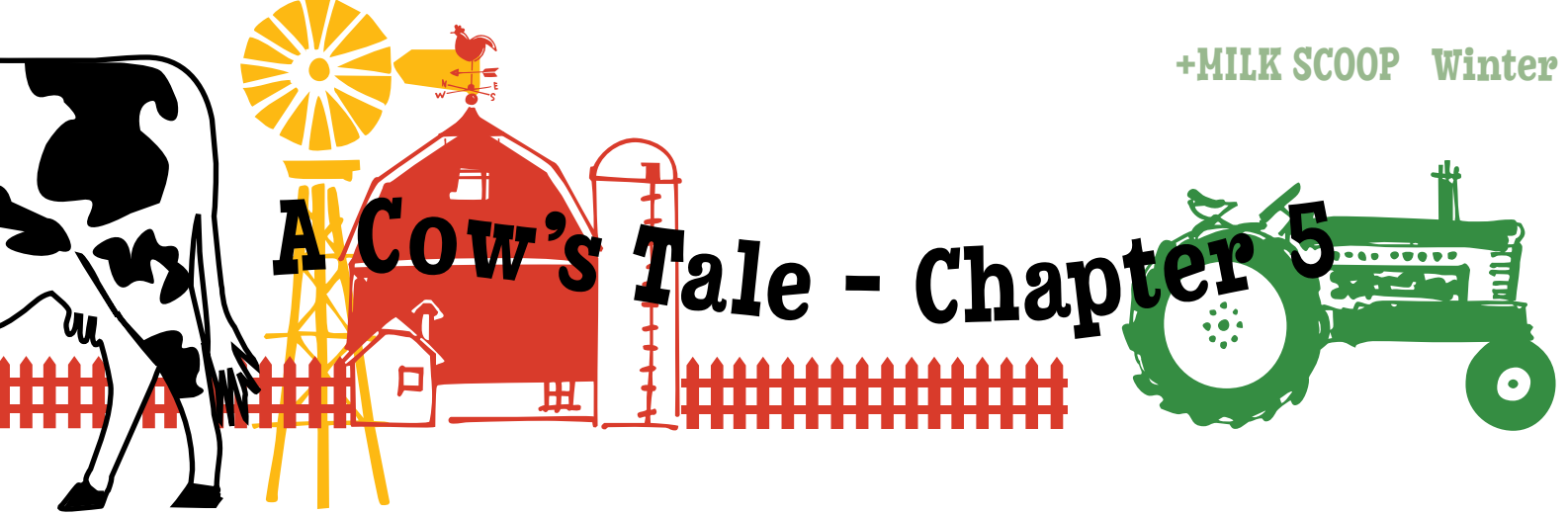
Whenever a player lands a bean in an empty cup, he/she gets to collect the opposing player's beans in the cup opposite the one he/she landed in. The opponent's last beans get placed in his/her store.

Play continues in this way until one player is out of beans on his/her side. He/she then gets to collect the opposing player’s remaining beans. Both players count their beans and the one with the most at the end of the game is the winner of that round.

Since the first player has an advantage in Mancala, alternate turns for the next round.

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Udderly Amazing

We know that a cow has four special parts to her stomach for digesting food, but that's just the beginning of the story of 'Moo to Milk'. A cow makes and stores milk in her udder – it's her milk factory. *Please* is a calf so she doesn't have an udder yet, but her mother does. *Please's* mother developed her udder just before she gave birth to *Please*. The udder is like a large sack that hangs between her back legs. Her udder has four parts and each part has a teat – that's why a cow has four teats.

The milk comes squirting out through tiny tubes in the cow's teats when she's milked or when she feeds her baby. When it's milking time, all four teats need to be milked. When a cow knows it's time to be milked she uses special muscles to help squeeze the milk out. Her udder is like a sponge full of water – the sponge has to be squeezed.

mother cow



What goes "oom, oom"?
(A cow walking backwards).

Making milk is thirsty work.
A cow drinks about a bathtub-
full of water each day!

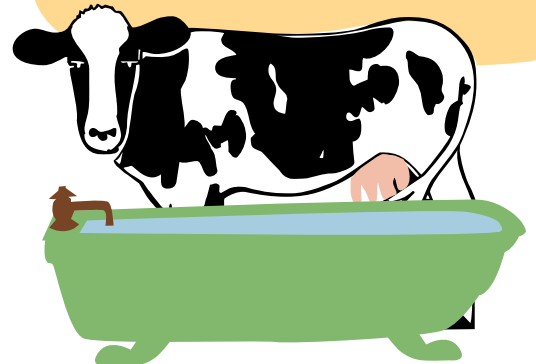
udder



tail (fly swatter)



teats




















Udders full of milk are uncomfortable. That's why dairy farmers need to milk their cows at least two times a day, every day.
















Would you like a job taking care of calves?

Most of the farmers working on dairy farms were born there. Almost all of the dairy farms in BC are family owned. It's still a business though and everyone in the family has a job to do. Imagine growing up on Cowsville Dairy Farm. Let's read a story about how you might spend your day...

It's a cold and dark December morning. I hide under my covers to dream of . But farm work doesn't stop in the winter, even when there's  on the ground. We've got hungry calves to feed and   calling out to be milked. After a quick breakfast I bundle up in my  and  and head out to the  for morning chores. While Mom and Dad milk the  , my sister and I help out with the .

It's cold inside the  and we scrape ice off the cow's  trough. We fill the nipple  with warm milk, and use a  to hand feed the new babies. We give the older calves a  of  and make sure the calves have clean, dry sawdust for bedding to help them stay warm. Time to run to catch the ! While we're at school Mom and Dad still have lots of work to do.

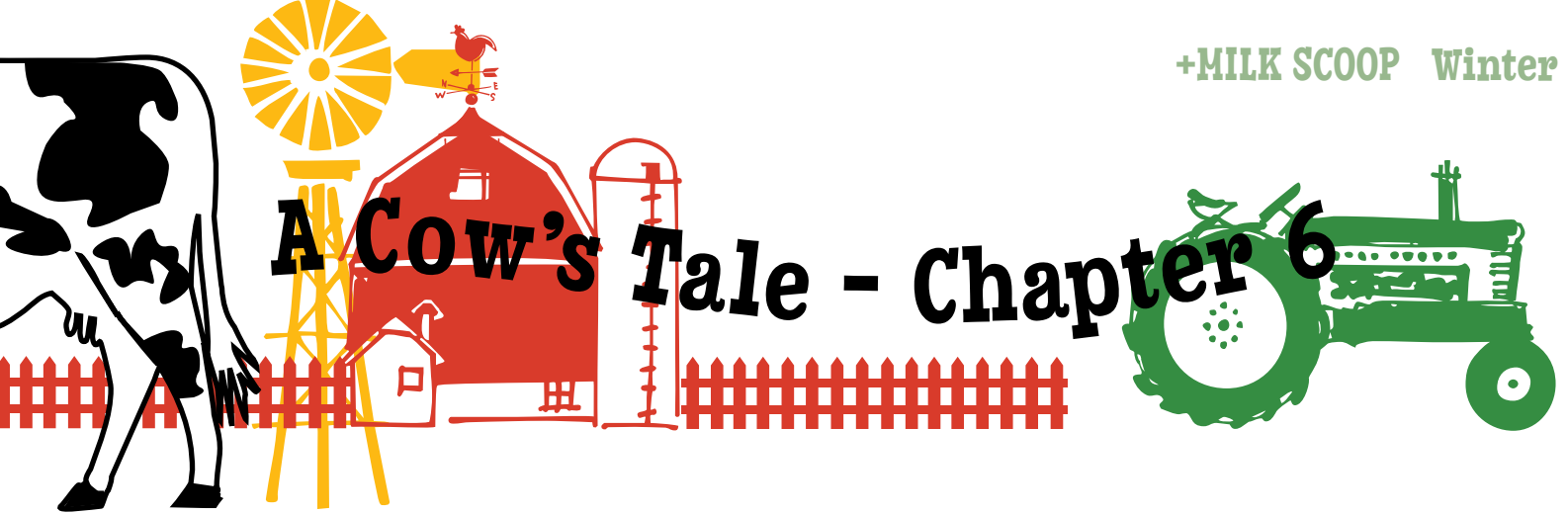
Dad spends the rest of the morning fixing the . Winter is the time to make sure all of the farm equipment is ready for spring planting. Inside the  Mom  and scrapes the floor to clean up any manure. On really cold days like today she turns on a heater so that the floor won't freeze. She doesn't want the cows to slip and fall. It takes longer to do the work in the cold, and today the cows need extra  +  to keep warm.

In the afternoon, Mom helps the veterinarian give the cows their . Dad works on the  paying bills and planning for next season. When the  drops us off we head straight to the  to feed and check on the . Mom and Dad are already taking care of the afternoon milking. By , with no field work to do, everyone's done for the day and after dinner we read  and watch TV before we go to .

teat - a cow's milk flows from each of the four teats on her udder

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Milking Time

A line of cows walk the familiar route from their stalls to the milking parlour. They do this more than once every day, so they know the way. The cows wait together in the sorting area for their turn in the milking parlour. After each group is milked they return to the loafing barn to wait for the rest of the herd.

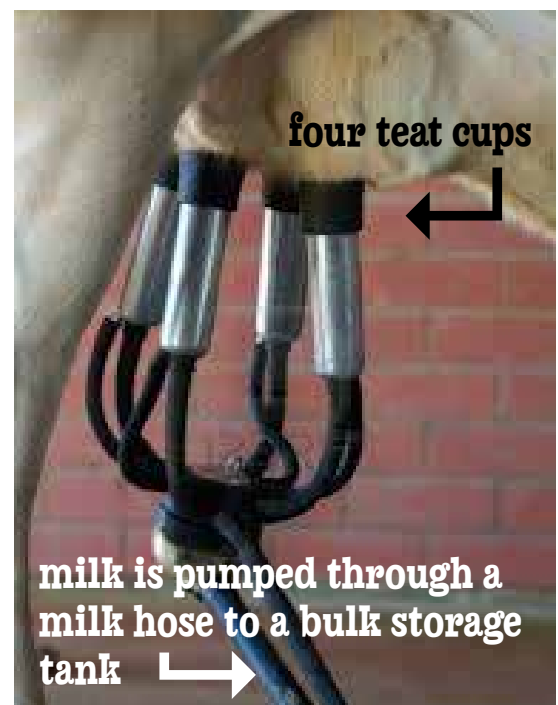
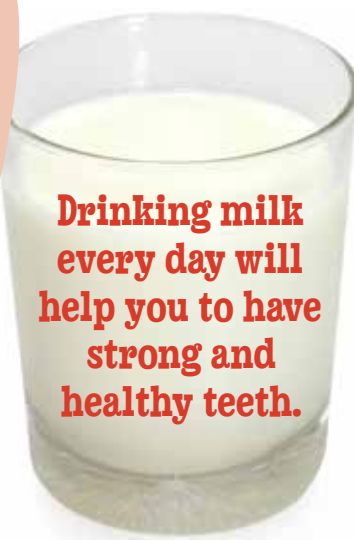
Please's mother follows her group into the parlour and takes her place in the neat row of cows, each one facing the same way. She patiently chews her cud, waiting her turn. She's comfortable in the warm parlour with the familiar sounds of music playing and the hum of the milking machine. She can't see the farmer, but she trusts the farmer and is relaxed as he greets her with a friendly word and a pat. The cows are on a raised platform so that the farmer doesn't have to bend down to milk them. The cows have an important job to do and the farmer's job is to keep them calm. If something upsets a cow before or during milking she won't give milk.

Please's mother gives a gentle kick as the farmer sprays cool disinfectant on her udder – that tickles! The farmer places a teat cup over each of the cow's cleaned teats. The gentle squeezing (like a vacuum) of the milking machine lets the cow know it's time to squeeze the muscles around her udder to let her milk down.

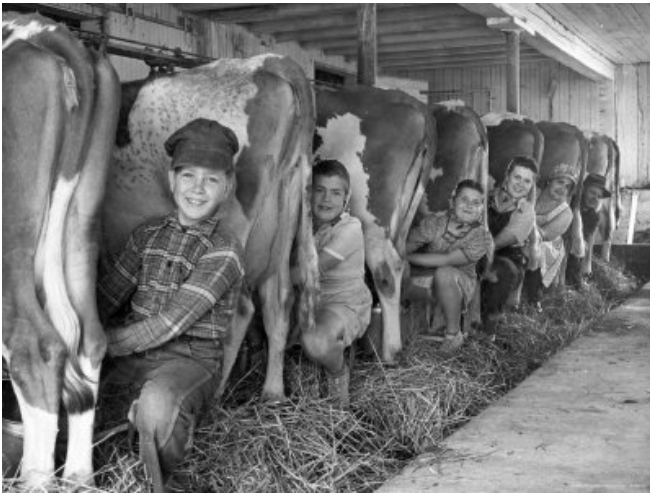
It only takes about five minutes to milk a cow – about as long as it takes to brush and floss your teeth.



Drinking milk every day will help you to have strong and healthy teeth.



Dairy farmers used to milk their cows by hand.



Today dairy farmers use special milking machines so that they can milk more cows at the same time. Milking machines also keep a record for the farmer of how much milk each cow gives.

A dairy farmer spends a lot of each day cleaning. Not only do the barns, stalls and milking parlour need to be cleaned, the milking equipment needs to be kept spotless. Even the cows need to be cleaned. Before and after each milking, the farmer cleans each cow's udder and teats so that no dirt or germs will get into the milk.



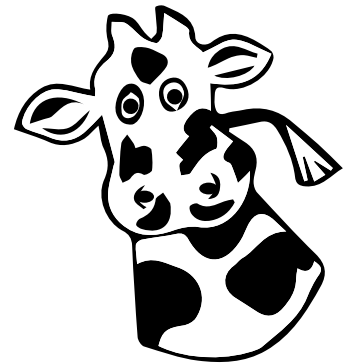
Drink up and Reuse It...

Let's use our milk cups to make jumping cows!

Materials: cleaned milk cups (2 per child or team), rubber bands, glue, scissors, construction paper and coloured pencils or markers.

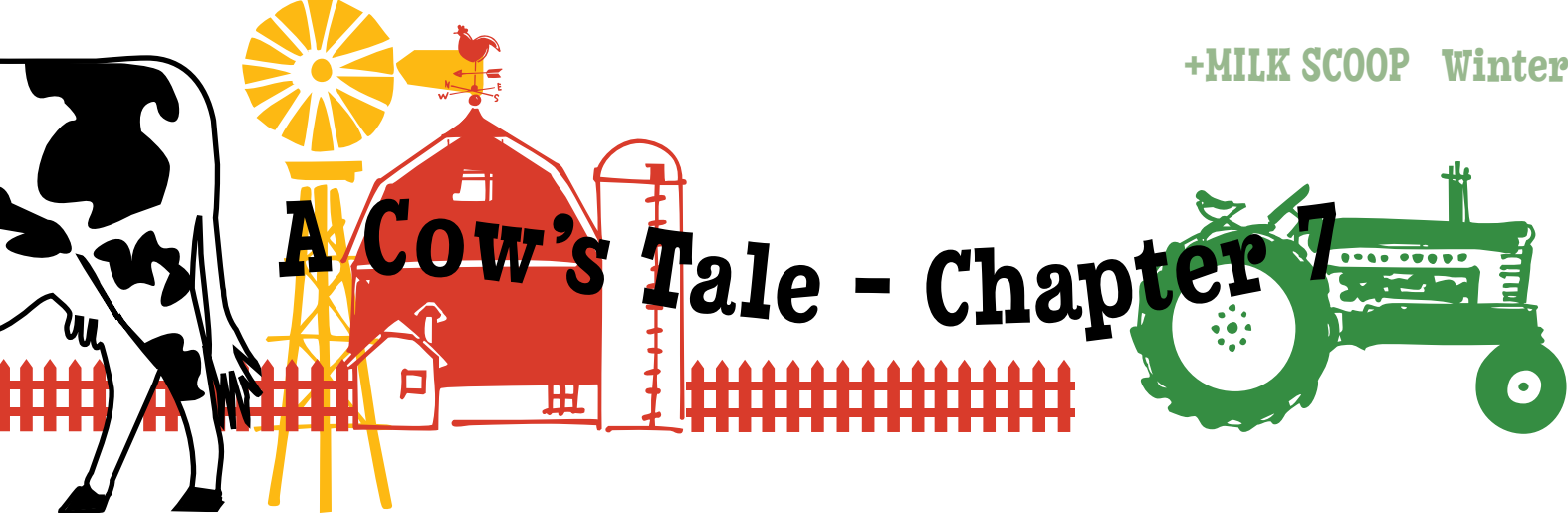
First create your cow face. Cut out the shape (you can make your own or use ours as a guide) and using coloured paper or pencils, give your cow spots, eyes, nose and a mouth. Using scissors, an adult can punch 4 small holes in one of the cups near the rim. Tie 2 pieces of rubber band through the holes, forming an "x" across the cup. Turn the cup over and glue your cow's face to the cup.

Make your cow jump. Place the cow cup with the rubber bands over the bottom of another cup. Holding the bottom cup steady, grasp the sides of your cow cup, push down hard then let go. Can your cow jump over the moon? Set up a bucket, or circle on the floor and have a contest trying to fly your cows into or over the target.



Milking parlour - a special area on the farm where the cows are milked

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MOO-VING Milk From Cow to You

After the cow is milked she can head back to the barn to eat, drink and rest in her comfortable stall bedded with dry sawdust. What about the milk? Let's follow the milk from cow to you...



1

Making milk



2

Farmer milks the cow

3

The raw milk flows through pipes to a bulk cooling tank in the barn

4

A special refrigerated truck, called a milk tanker, comes to the farm every second day to pick up the raw milk



8

The milk you are drinking at school today could have come from a cow 2 days ago!



7

The milk is bottled and delivered to stores

6



Raw milk is pasteurized

5



The raw milk is pumped into storage tanks

The milk tanker driver does more than drive the truck. It's the driver's job to make sure that the milk is fresh, clean and high quality. The driver checks the temperature and measures, inspects and smells the milk before pumping it into the tanker and delivering the milk to the milk processing plant.



Raw milk from a cow is just as warm as the cow's body temperature. Warm milk spoils quickly though, so as soon as it leaves the cow it is cooled to refrigeration temperature (4°C) and kept cold at all times. From cow to cup, milk is all natural - nothing is added except Vitamins A and D.

Please is Growing Up

She's six months old and no longer a calf. Until she's about 2 years old and gives birth to her first calf, she's called a 'heifer'. It's still winter, so *Please* and the other heifers stay indoors in the dry barn where they have plenty of room to stand up, lay down and socialize. The heifers hang out in small groups so they learn to get along with each other – it's like cow elementary school.

Please weighs about 180 kilos, she'll weigh twice that when she's fully grown.

Please has a really long tongue that feels like sandpaper. It comes in handy for pulling long grass and hay to eat. Cows can even clean their noses with their tongues!



Do Cows Take Baths?

Cows are healthier when they are kept clean, but a dairy farmer would need a pretty big bathtub, and lots of water to give the cows a bath. Instead, farmers use large brushes that the cow walks through and rub against. It's like a 'cow car wash'. A daily brushing keeps her coat healthy, shiny and clean. In the summer it keeps pesky flies away.

That feels moo-velous!



Drink up and Reuse It...

Let's use our milk cups to make bird feeders.

Materials: cleaned milk cups, a mix of bird seed, sunflower seeds, suet or lard and string for each cup cut into 30 cm lengths.

In a large pan, melt the lard or suet and transfer to a mixing bowl. Stir in seeds until blended together. Let cool slightly. Using a spoon, fill each cup with mixture and let it cool and harden – about an hour. Using scissors, cut 2 small holes across from each other just below the rim of the cup. Knot one end of the string then push it through the holes to form a loop for hanging the feeder. Knot the other end to hold it in place.

Take your feeders outside and hang them on a nearby branch so you can watch the hungry birds come and enjoy a tasty snack.

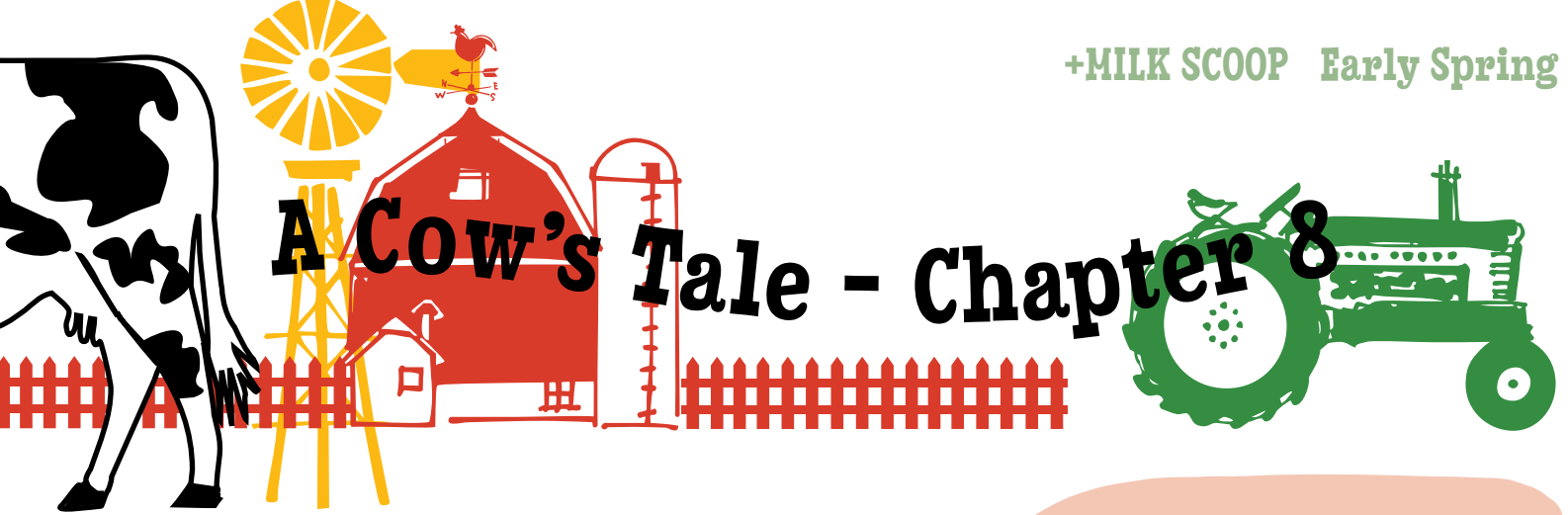


Raw milk - milk that comes straight from the cow

Pasteurization - heating and cooling raw milk quickly to kill harmful bacteria

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Spots Are Tops

Dairy cows come in lots of different sizes and colours. Some are black and white, some are brown and white, and some are all brown. Dairy cows might look different from one another, but they all give milk. Some breeds give more milk than others, and some breeds give milk that is richer and creamier.



Hey, check out our spots!
We are Canada's #1 dairy breed.

All of the dairy cow breeds in Canada came from other parts of the world. When early farmers settled here they brought their cows with them. The Holstein breed originally came from the Netherlands.

Why is the Holstein the most popular dairy breed in Canada? Their black spots make it easier for dairy farmers to find them in a snowstorm. No, that's not the real reason. Although dairy farmers can tell their Holsteins apart by their one-of-a-kind pattern of spots, Holsteins are tops because they give the most milk.



Jerseys are light brown cows with long eye lashes. Jerseys come from a small island in the English Channel. Jerseys are the small cows that produce a lot of rich, creamy milk for their size.



Brown Swiss cows come from Switzerland. Guess what colour they are? Brown Swiss cows are gentle, friendly cows with big ears.



Guernseys come from a small island between England and France. The Guernsey is a small reddish brown-coloured cow that makes milk that has a nice golden, buttery colour.



Ayrshires come from Scotland and have a glossy red and white coat. Ayrshires are hardy cows that don't mind cold weather and are good for farms with lots of rocky ground.

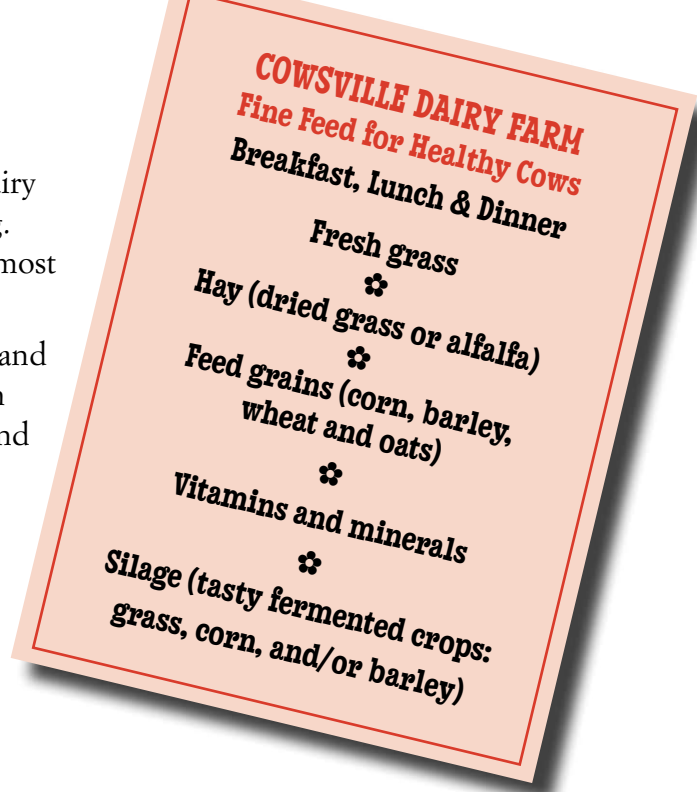
Some of the other
main dairy breeds
you'll find in Canada.



What's for Lunch?

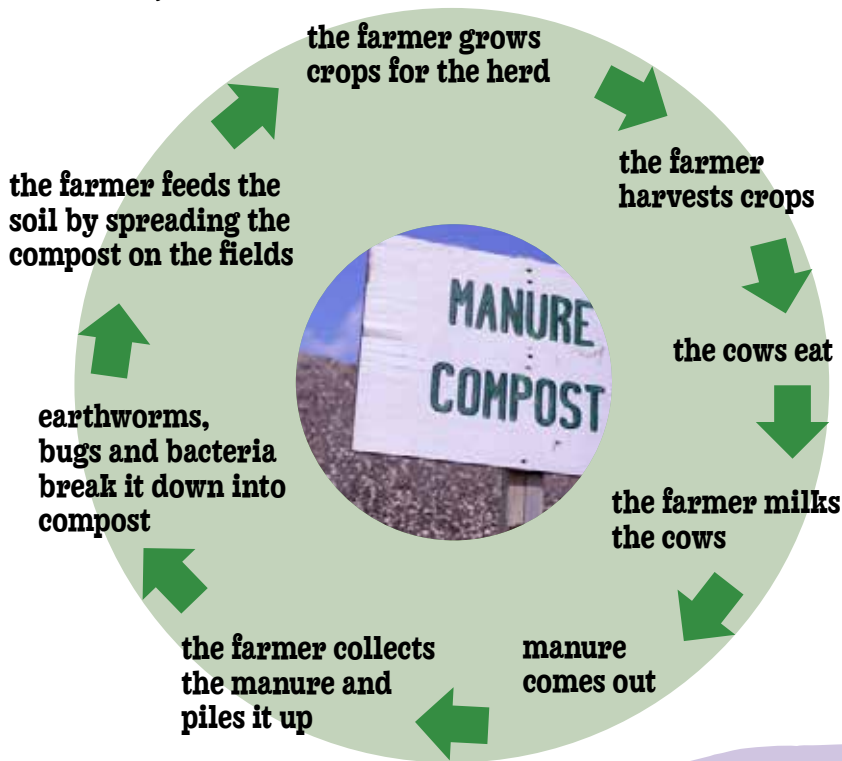
Holsteins are big cows that produce a lot of milk. Like us, dairy cows need a balanced diet in order to stay healthy and strong. Healthy cows are happy cows, and happy cows produce the most milk, especially happy Holsteins.

A cow's unique digestive system means she can digest plants and other foods that humans and other animals with one stomach compartment cannot. Dairy cows eat lots of different feeds and forages and convert them into nutritious milk.



Cows Eat A Lot...

so they produce a lot of cow dung or cow pies – other names for cow manure. During the winter months it can really pile up in the barn. What does the farmer do with it all? Recycles it!



The Purple Cow

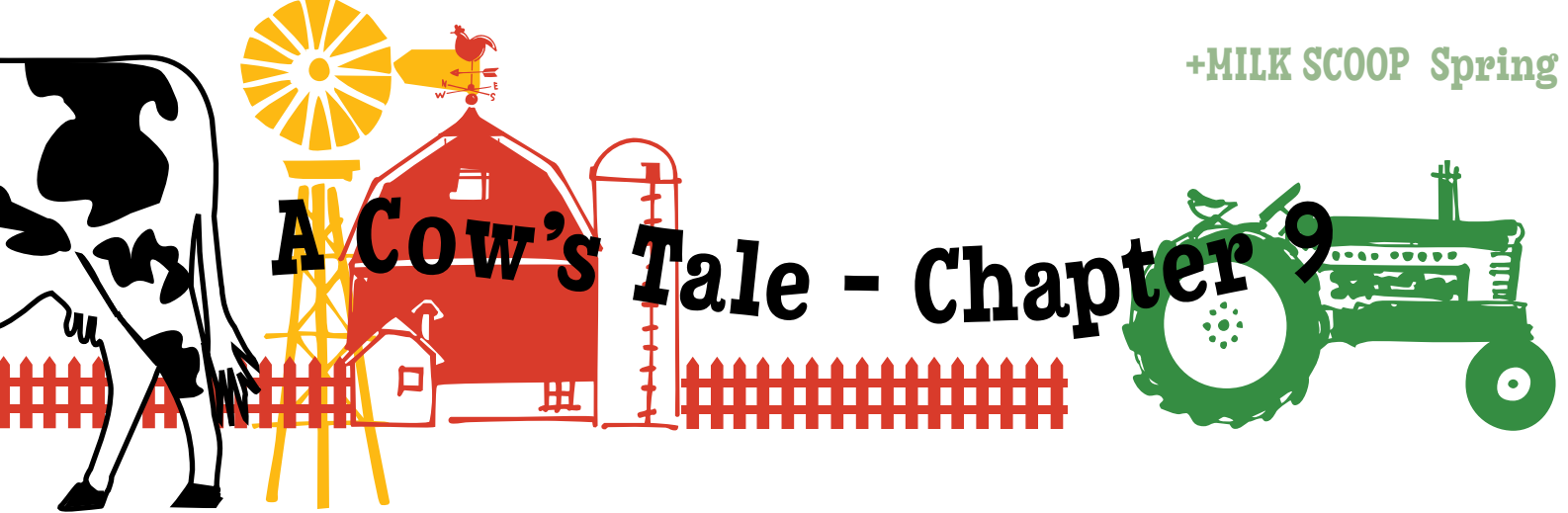
- by Gelett Burgess

I never saw a purple cow,
I never hope to see one,
But I can tell you, anyhow,
I'd rather see than be one!

Let's make up our own rhyming poems with words that rhyme with 'cow'. Here are a few to help you out... bow, chow, vow, wow, pow, brow, how, now, sow, allow, bowwow, plough, meow, somehow, snowplow, eyebrow

Manure - animal waste put on land to improve soil quality and to make crops grow better

Breed - a particular type of animal



On the Road with the Mobile Dairy Classroom

Please can't wait to tell you about the coolest thing for cows and kids – The Mobile Dairy Classroom Experience. It's like a dairy barn on wheels that travels all around BC visiting schools to help kids to learn all about dairy farming! It's not really a barn, but a fifth wheel trailer that fits two cows, a calf and all their milking equipment. *Please* is studying up on the Mobile Dairy Classroom Experience so that when she's old enough to have her own calf and give milk she might have a chance to go on the road too.



BC Dairy's team (called 'The Moo Crew') sets up their outdoor classroom to show the kids a live milking demonstration.



The kids love how excited the calf gets when one of the Moo Crew bottle feeds her.



Some of the kids get to feel the milking pump. They put their fingers right inside the part that attaches to the cow's teat! It tickles when the suction of the milking machine tugs on their finger.

The kids always ask lots of questions and learn some fun dairy facts too. They think it's pretty funny when they find out that cows don't sweat. Maybe that's why cows like to live in cool, shady spots like barns?

Say Cheese, Please...

Milk is an amazing natural food made of water, protein, carbohydrate, fat, vitamins and minerals. The amount of protein and fat in the milk from each cow depends on her breed, her age and what she eats. We make other foods from milk called 'dairy products'.

Please has a basket full of dairy products. Can you name them all?



Cheese contains many of the nutrients found in milk. Why? Because it's made from milk! It takes a lot of milk to produce a package of cheese.



5 litres of milk



454 grams of cheese



Activity

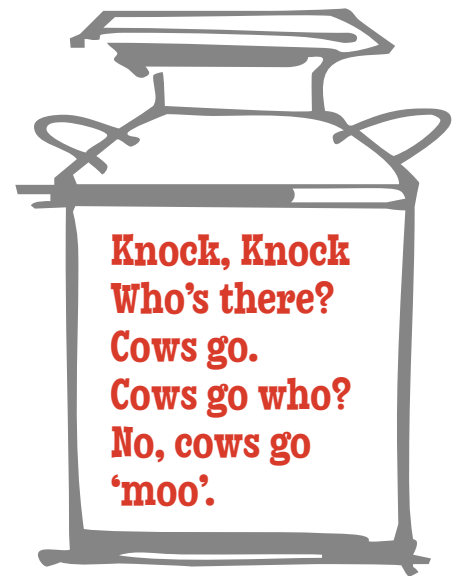
Shake and Make Butter

Some dairy foods are made by taking out different parts of milk. When milk fat is separated from milk it is called 'cream'. We can make butter from cream.

Materials: 50 mL whipping cream and a jar with a lid.

(1 cup cream makes about 1/2 cup butter and 1/2 cup whey)

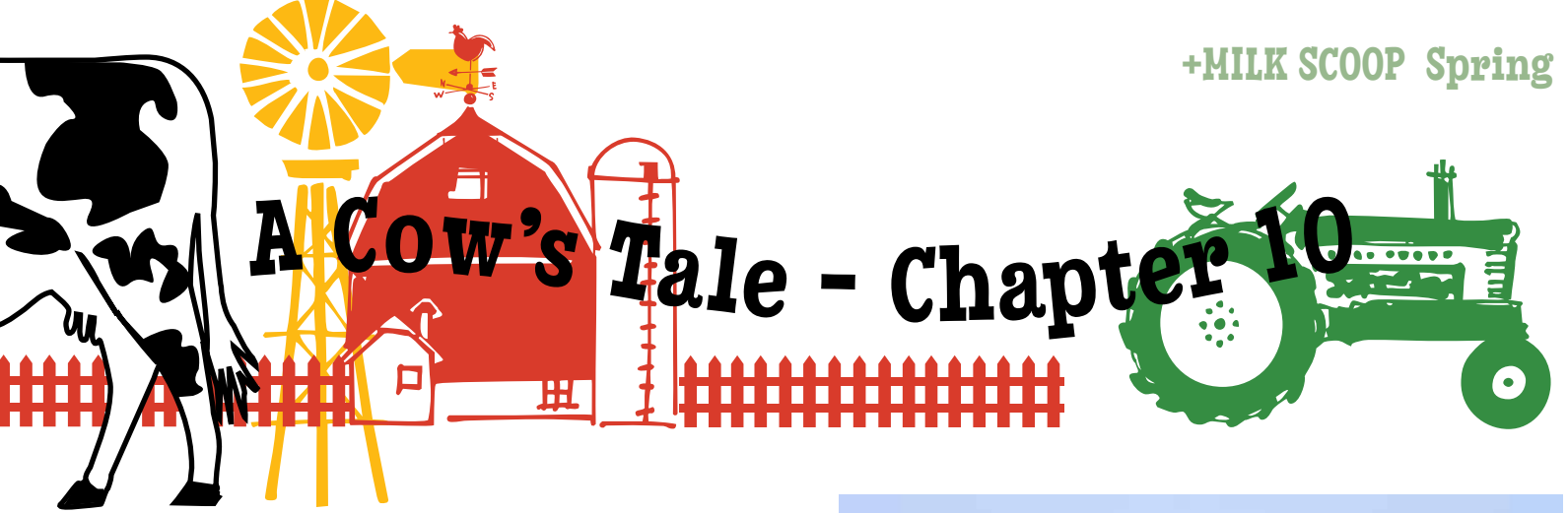
Pour the cream into a jar, screw the lid on tight and start shaking it. Keep shaking the jar back and forth. It takes at least 15 minutes, so everyone will get a turn. As you shake the jar, little fat and protein globs in the cream hit each other and stick together, forming a larger clump. When you have about half the amount of liquid and solid in the jar your butter is ready. Pour out the liquid left on top. This liquid is called 'whey'. The solid clump left in the jar is butter.



Cream - the thick part of milk that contains fat

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Spring on the Farm

The dairy cows on Cowsville Dairy Farm get a special treat today! While some dairy farmers prefer to keep their cows in the barn year-round, the cows on Cowsville Dairy Farm are given some time outside during nice weather. Right after first milking, just as the sun is peaking over the horizon, the farmer opens the barn doors wide so that the cows and heifers can head out to the fields. Cows are grazing animals and after spending the winter in the barn they're eager to be outside munching on fresh grass. Taking a break from milking to kick up their hooves and graze in the pasture is like morning recess for dairy cows. *Please* will be a year old soon, but she's not ready to have her own calf and still likes to play and hang out with the other 'teenagers' in the herd.



Spring is a busy time on a dairy farm. Warmer weather and longer days mean more time outside for the cows and more time for chores for the farmer. Along with the regular work of milking, feeding and caring for the herd, the dairy farmer has lots of extra work to do. While the herd grazes in the pasture, the farmer gets to work on his spring checklist.

What do you call a sleeping bull?



A bull 'dozer'.

- COWSVILLE DAIRY FARM
SPRING CHECKLIST**
- ✓ Clean mud from the cow lots and heifer pens
 - ✓ Prepare the fields for planting
 - ✓ Plant corn and grass
 - ✓ Check feed supplies to make sure there's enough to keep the cows fed until the first harvest
 - ✓ Take manure from the barns to the fields to fertilize the soil
 - ✓ Harvest the fall rye for silage
 - ✓ Plow the fall rye into the soil
 - ✓ Check and repair the farm equipment
 - ✓ Check and repair fences, farm buildings and pens

Dem Bones & More...

Did you know that the main minerals in cow's milk are the same as those found in our own bodies? Calcium is a mineral that helps you build strong bones. It's important to take care of your bones. Bones keep your body together, protect your insides and let you move in many ways. Your bones are all alive, growing and changing all the time.

Every person has a skeleton made up of many bones. Babies start with 300 bones. As they grow, some of their bones grow together to form larger ones. By the time you are an adult, you will have 206 bones, with over half of them in your hands and feet! That's a lot of bones to take care of.

Let's look at the wonderful ways milk helps your body grow and stay healthy – both on the inside and the outside...

Nutrients to help you think and learn

Vitamins for good eyesight and healthy eyes

Fuel and energy to play and learn

Protein for building strong muscles

Nutrients for healthy, shiny hair

Nutrients for developing brains

Helps you fall asleep at bedtime

Calcium for strong bones

Calcium for strong teeth and preventing cavities

A dairy cow produces about 90 glasses of milk each day. How much milk should you drink every day? At least 2 servings of milk or dairy products for children aged 4 to 8.

White moustaches for making your friends smile

Vitamins for healthy skin



Activity

Drink up and Reuse It

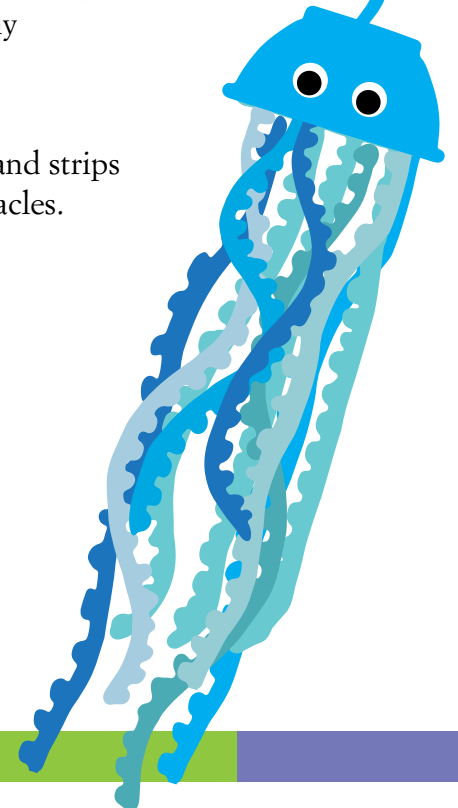
While we have lots of bones, jellyfish don't have any bones at all. Use your empty milk cups to make a 'bloom' of swimming jellyfish.

Materials: empty cups, string for hanging, tissue paper, googly eyes, and strips of solid coloured plastic (bubble wrap is fun), paper or ribbons for tentacles.

Leave your cup plain for a white jellyfish, or make different coloured ones using tissue paper. Cut tissue paper into small squares and glue paper to the outside of your cup, about a couple of layers. Allow tissue to dry then poke a small hole through the centre of your cup. Glue strips of tissue or plastic for tentacles to the inside of the cup. Tie a knot at one end of string and thread it through your cup for hanging your jellyfish. Place them next to a fan or open window and watch their tentacles sway.

Minerals – natural substances in food that help keep us healthy and strong

Bulls – adult male cattle, the fathers of the dairy herd



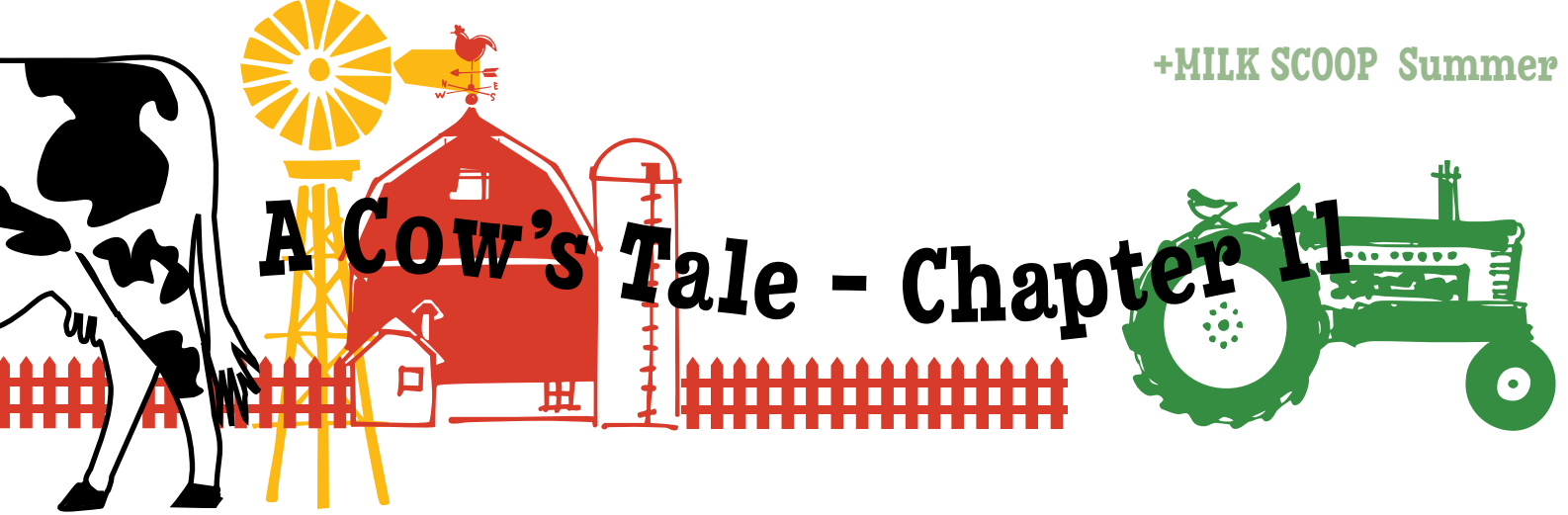
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Healthy FamiliesBC

BC Agriculture in the Classroom

BC SFVNP + MILK



Summer on Cowsville Dairy Farm

It's almost summer and *Please* will soon be one year old. She's still a young heifer and her main job is to hang out with the other heifers in the barn or out in the fields, eat lots of feed and forage, and keep growing till she's ready to have her own calf.

Summertime is extra busy for a dairy farmer. The fields are ready for planting corn and the spring grass is tall enough to be cut and made into round silage bales. They still have to keep up with the feeding, milking and cleaning up after their cows. It's hot outside, but large fans, roll up sides and water misters keep the cows cool and comfortable in the dairy barn.

Family Farming...

Almost all of the dairy farms in BC are owned by families. There are plenty of things to do on a dairy farm and everyone pitches in to help take care of the dairy cows.

Children have special jobs to do and are a great help on a dairy farm. Bottle feeding and teaching calves to drink from a milk bucket are part of their daily chores. Spending time with the calves helps them to grow up to be quiet, friendly cows.

New calves are born year-round on a dairy farm, so there's always hungry mouths to feed. A friendly pat helps the milk go down.



"While I check the water troughs at the other end of the barn, you boys give these cows clean straw and sawdust for their bedding."



Children learn about dairy farming by working alongside their parents and helping take care of the cows.



What Makes a Dairy Cow?

Please has taught us a lot about dairy cows. We've learned that the milk we drink comes from dairy cows and, like all mammals, they produce milk for their babies. Since a mother cow produces more milk than her calf needs, there's extra for the dairy farmer. We've also learned that not all cows look the same and that there are different breeds of dairy cows.

Let's take Please's Dairy Fun Facts Quiz to see how much we've learned about these MOO-velous milking machines!

True or False?

1. A dairy cow makes enough milk every day to fill just **1 glass**
2. A dairy cow makes and stores milk in her udder
3. A dairy cow drinks a swimming pool full of water every day
4. It takes about **1 hour** to milk a dairy cow
5. Holsteins are a breed of cattle with purple spots
6. Dairy cows have long tongues
7. Dairy cows have one stomach with four digestive parts
8. Dairy cows only eat popcorn
9. Dairy cows like to be alone
10. Dairy cows don't have tails



Remember, next time you take a drink of milk don't forget to say "Thank you, Please!"



DID YOUR CLASS HAVE THE CORRECT ANSWERS TO ALL OF THE QUESTIONS?

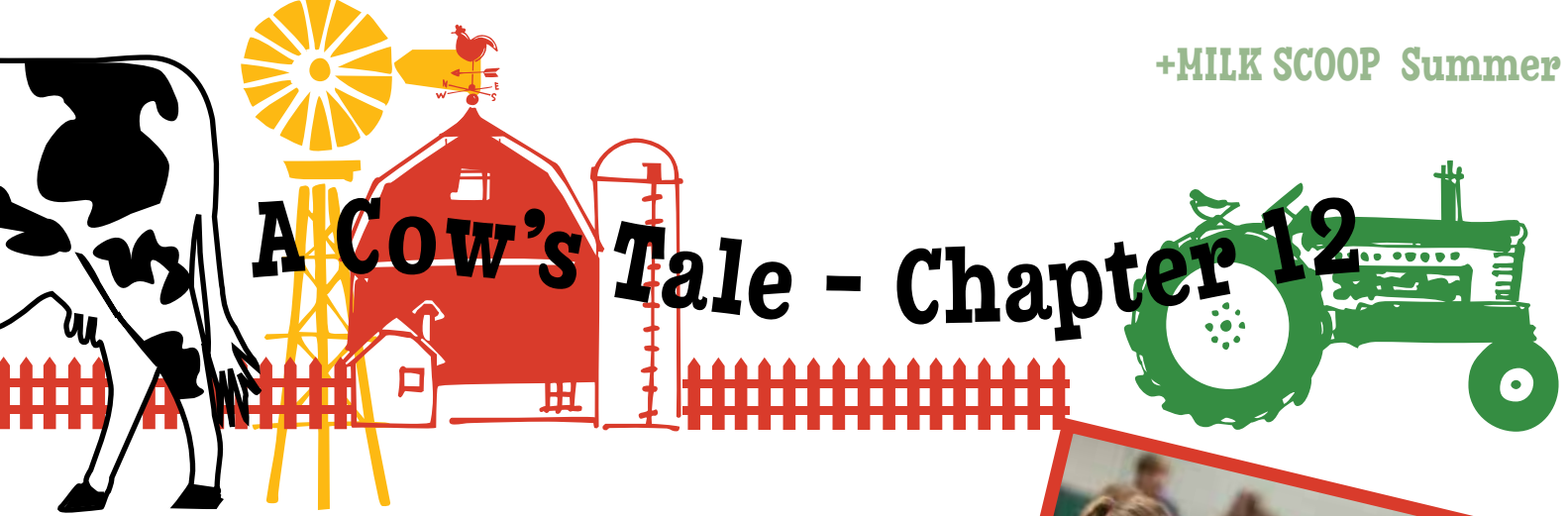
YOU'RE OFFICIAL DAIRY COW EXPERTS!

ANSWERS

- | | | |
|---|---|--|
| <ol style="list-style-type: none"> 1. FALSE: She could fill over 100 glasses of milk. 2. TRUE: It's her milk factory! 3. FALSE: She drinks about a bathtub full of water every day – that's still a lot of water! 4. FALSE: With modern milking machines it only takes about 5 minutes to milk a cow. | <ol style="list-style-type: none"> 5. FALSE: Each Holstein has her own one-of-a-kind pattern of black and white spots. 6. TRUE: They use their tongue to curl around long grass to pull it into their mouths. 7. TRUE: Each chamber does a special job to digest food. 8. FALSE: Cows eat lots of different feeds and forage and convert them into nutritious milk. | <ol style="list-style-type: none"> 9. FALSE: Dairy cows are very social animals and like to be together in herds. 10. FALSE: Dairy cows have long tails that are handy fly swatters. |
|---|---|--|

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A Cow's Tale - Chapter 12

Fair Time "Please"

Where can you find hundreds of dairy cows, sheep, and chickens under one roof? Or climb on a pumpkin as big as a cow? At an agricultural fair! Kids from dairy farms around the province pick the best of their herd to enter in the livestock competitions and to share what they know about raising calves.

Please has been training to get ready for the fair. She's learned to wear a halter, be led with a rope, and stand calmly in one spot. Daily brushing has made her coat smooth and shiny.

They'll get to the fair bright and early on show day so that *Please* can relax and get used to things. There are lots of people, machines, cows, and other animals – what a racket they make!

The animals are put together in groups based on their breed type and age. *Please* is in the group of Holstein summer yearlings. Her group is led into the ring and paraded in front of the judges. *Please* is calm in the ring and loves the attention. She's a natural contestant and puts on a good show!



"Our show outfits are black and white, just like our Holstein calves!"



Judges Scoring Card - Score 1 to 5
 Contestant: *Please* Breed: Holstein, yearling

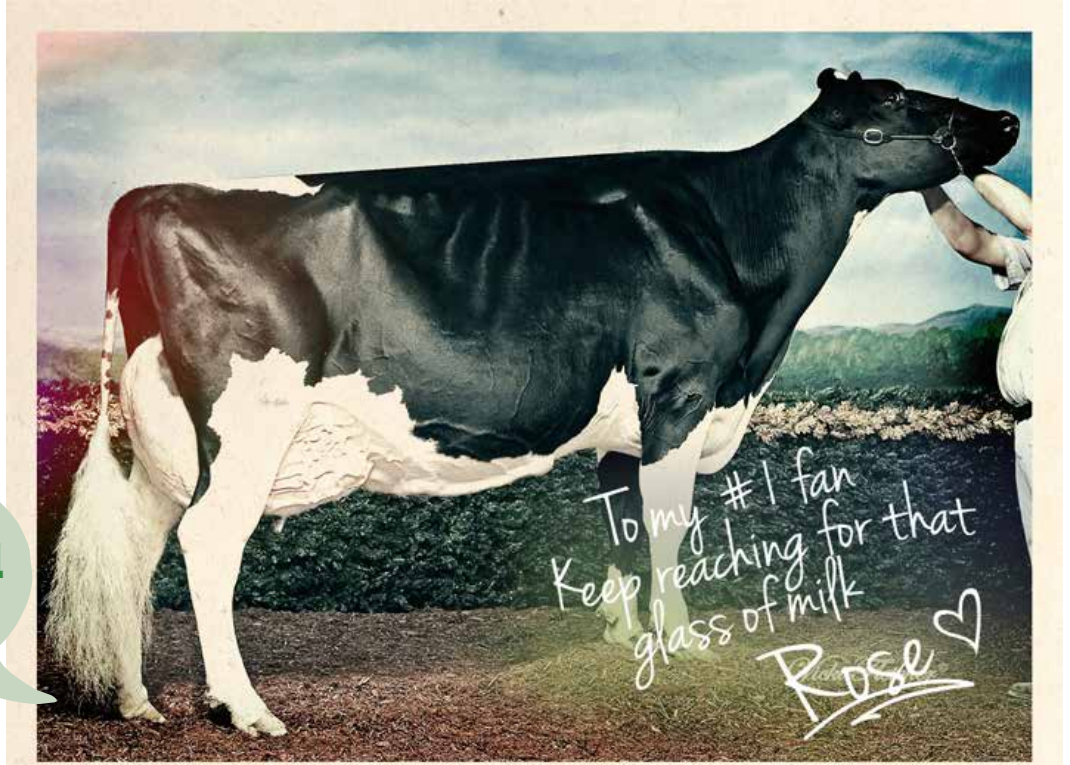
- Good qualities of her breed
- Straight and strong back
- Nice skin and shiny coat
- Straight, sturdy legs
- Smooth, even walk
- Good size and height for her age
- Strong, healthy feet



What Makes a Beauty Queen Dairy Cow? Meet Rose...

Rose is a Holstein from Quebec. She's been named the world's most beautiful cow. Her shiny, black coat and beautiful white spots have helped her win a total of 37 prizes. Rose has been named Grand Champion twice. Judges all agree that Rose has the perfect udder for producing milk.

Rose has her tail clipped and brushed before each show.



Drink up and Reuse It

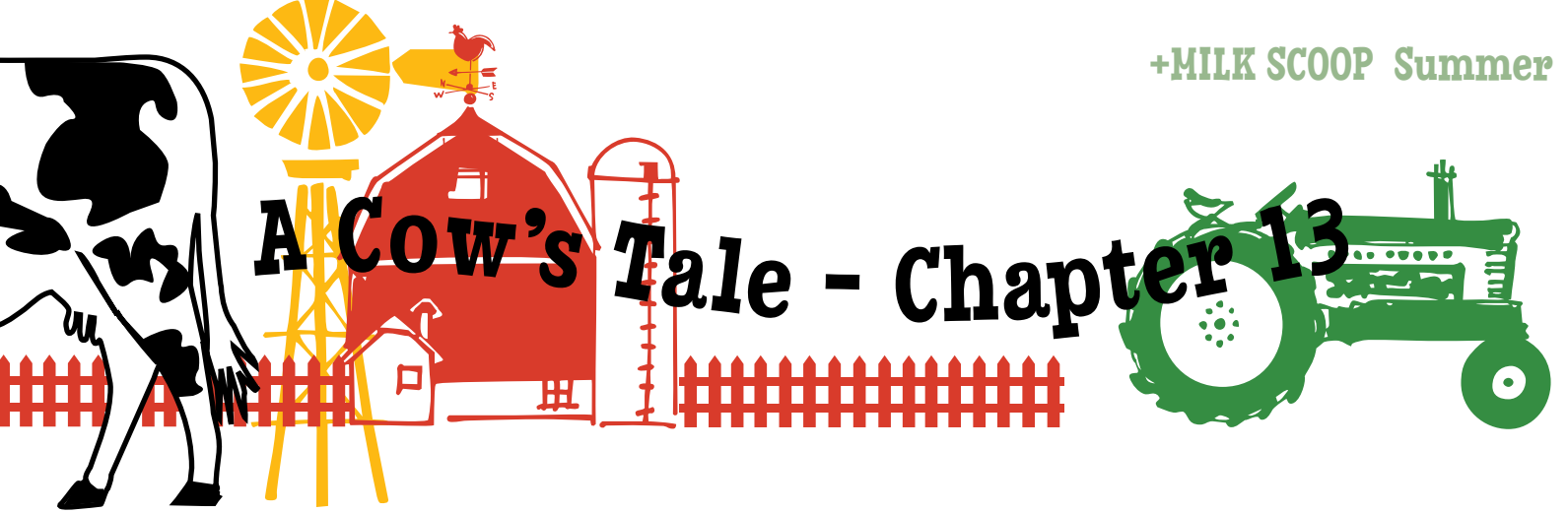
Magic Number Cups: Milk provides essential vitamins and minerals for our bodies and our brains. Now that we've had our drink of milk, let's use our empty cups to play some fun counting and math games...

Materials: Empty, clean milk cups and a marker. To start, write one number on each cup starting with '1' up to the number of cups available.

- 1. Put the numbers in order:** Each child gets one cup, then they work together to put the cups all in a row in number order. Children can also put the cups into even and odd rows
- 2. Missing Number:** Once the numbers are all in order, all the children close their eyes while the teacher takes away one of the cups. See who can guess the missing number.
- 3. Hidden Treasure:** Children close their eyes again while the teacher hides 'prize beans' under five or so of the cups. Using simple math problems and clues given by the teacher, the children figure out the correct number where to find each bean. The game can be switched up with the children hiding the beans and making up clues for the teacher to solve.

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Dairy Farmers Love Tractors



Dairy farmers use different machines for different jobs. They need machines for milking and caring for their dairy cows, and machines to store the milk and get it ready for delivery. They also use special equipment for cleaning the barns and milking parlour, and for planting and harvesting their crops.

It's fun to drive big farm machines. It's not as much fun when they break down though – farmers need to know how to fix machines.

Tractors work long days all year round – just like dairy farmers! Tractors come in different sizes and every dairy farm has at least two – one for the barn, and one for field work and everyday chores. By mounting different attachments to the front of their tractors, like a hay fork, or to the back, like a seeder or a manure spreader, farmers can use their tractors to do almost any job.

Any Time is Tractor Time!

Sometimes the attachments are bigger than the tractor. A farmer attaches a forage harvester to his wagon so he can drive alongside a row of corn to mow the corn, chop it up and blow it into a silage wagon. Back at the dairy he uses the front loader shovel on his tractor to push it all into a big pile.

Bring in feed

Plow snow

**Wrap and roll cut
hay into bales**

Lift heavy stuff

Collect sawdust for bedding

Plant corn

Mow rye grass

Give hayrides

**“Even the muddiest
fields are nothing
for these big tires!”**

**Spin and fling manure
across the fields to
fertilize the soil**

**“Every farmer
needs these –
for mucking out
the barn and
keeping their
feet dry”**

**Scrape manure from
the barn**

**Push grass into a
silage pile**



What Makes a Dairy Farmer?

Being a dairy farmer is a hard job. Most dairy farmers have about 120 milking cows to take care of – and on a dairy farm, the cows always come first! That's a lot of milking, feeding and cleaning. Dairy farmers also need to be able to fix machines, pay bills and manage their farm as a business. They also have to grow and harvest crops to feed their herd.

Many dairy farmers were born and raised on their farms. They take care of the land they live and work on so that they can pass it on to their own children.

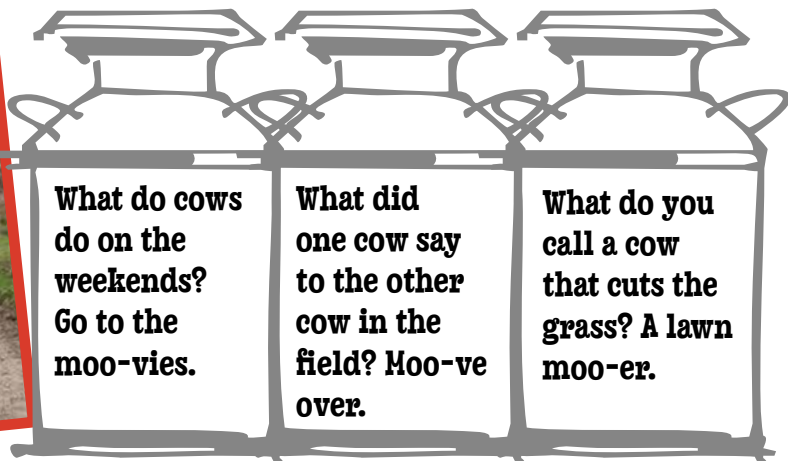
A Dairy Farmer's Favourite Things...

- Getting messy
- Working with animals
- Driving tractors
- Working with family
- Working outside
- Being your own boss
- Working hard
- Fixing things
- Waking up early
- Being busy
- Doing lots of different jobs every day
- Growing food



Dairy farmers care for their land, animals, families and community

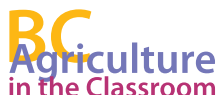
Let's end with a few of Please's favourite jokes...



Do you like these things too? Yes! You would be an awesome dairy farmer!



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A DAIRY GLOSSARY

BREED

A particular type of animal. The Holstein is the most popular dairy cow breed in Canada.



DAIRY

A type of farm that produces milk and milk products.

FEED

Food for farm animals. Forage is a special type of feed. To produce milk, cows need to eat a mixture of grass hay, alfalfa hay, grains as well as corn and grass silage.

BULLS

Adult male cattle. Bulls are the fathers of the herd. Young males are called bull calves.

CALF

A young female dairy animal. These are the babies of the herd.

COW

An adult female dairy animal. A cow starts to produce milk after her first calf is born, when she is about two years old.



CREAM

The thick part that is separated from the milk that contains fat. We make butter from cream.

GRAZE

To feed on a field or land covered by grass.



CUD

A small part of partly eaten food that a cow burps up and chews on again before she digests it in her stomach.

HERD

A group of cows that are kept together as livestock.

A DAIRY GLOSSARY

MANURE

Solid waste from farm animals put on land to improve the soil quality and make it better for growing crops.

MILKING PARLOUR

A special area on the dairy farm where the cows are milked. Cows are brought into the milking parlour for milking 2 or 3 times a day.



MINERALS

Natural substances in food that help keep us healthy and strong. Milk is full of vitamins A and D, calcium and protein, and is a part of a healthy and balanced diet.

RAW MILK

Milk that comes straight from the cow.



TEAT

A cow's milk flows from each of the four teats on her udder.

PASTEURIZATION

Heating and cooling raw milk quickly to kill harmful bacteria without effecting the taste or nutritional value.



UDDER

The part of a cow's body where milk is made. A cow makes and stores milk in her udder. An udder has four parts and each part has a teat.