



Dairy cow veterinarians team up with dairy farmers to keep milk cows happy and healthy. Everyone works together to make sure our milk, ice cream, and other dairy foods are safe and healthy to eat. In this game, your brain and body will stay healthy too as you mooove and do milk math to complete cow puzzles. Play by yourself or with a herd of friends!

Credits

Moooo Vet was developed by a veterinarian, Dr. Sandy San Miguel. Drs. Rafael Neves and Jon Townsend, dairy veterinarians, provided dairy facts. Erin Will, a veterinary student, had the idea for puzzles. Coach Mike Robertson recommended exercises.

Illustrations and Design by: Vicky Fieldhouse

We hope that you enjoy playing!

More fun can be found at:
www.VetaHumanz.org

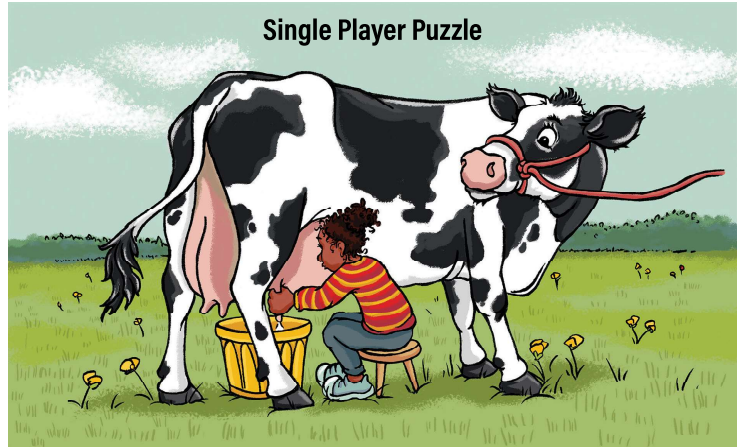
How to Play: Single Player

Master Moooo Vet Challenges to win puzzle pieces. Complete a challenge to win a puzzle piece. Collect 16 different puzzle pieces to complete the puzzle.

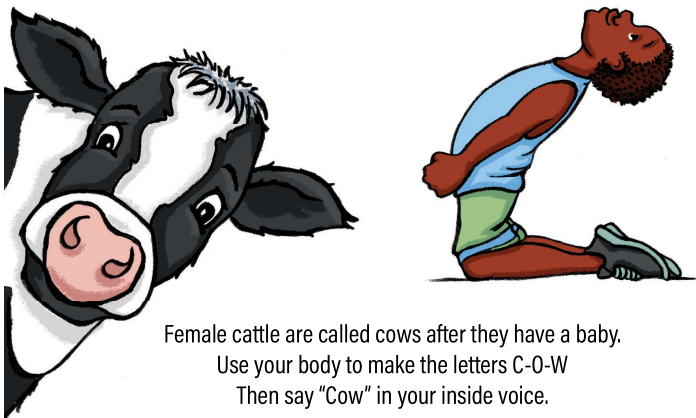
How to Play

1. Shuffle the cards and place them face down in a pile.
2. Pick a challenge card.
3. If you complete the challenge, pick a puzzle piece to complete the puzzle.
4. If you need more practice, put the card in a pile and pick another challenge.
5. Win by completing the Holstein Cow puzzle.

Single Player Puzzle



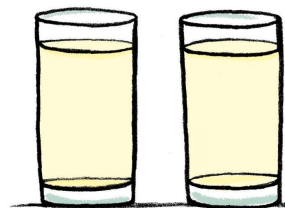
Word Parlor Challenge



Female cattle are called cows after they have a baby.
 Use your body to make the letters C-O-W
 Then say "Cow" in your inside voice.

Milk Math Challenge

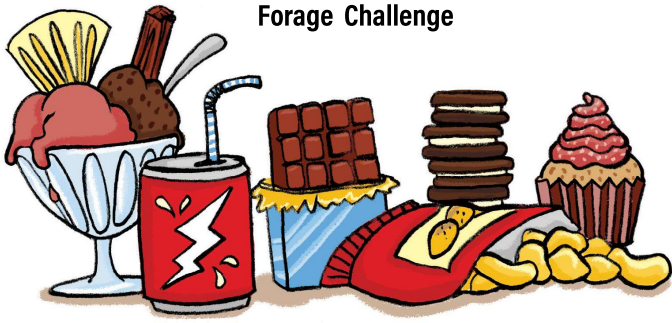
If 2 cups of milk weigh 1 pound, and it takes 12 pounds of milk to make 1 gallon of ice cream. How many cups of milk do you need to make 1 gallon of ice cream?
 Check your answer below.



Answer: 24 cups of milk



Forage Challenge



Cows and people can get a kind of high blood sugar called Type 2 diabetes. Sometimes this can be controlled with diet and exercise. Walk around and find one high sugar food (like candy) that would not be a healthy choice. Then, use the card to complete the puzzle.

Moove Challenge



Cows walk on 4 legs. Crawl like a cow on all fours as slowly as you can for 10 steps. Keep your knees a tiny bit off the ground when you crawl.

Word Parlor Challenge



We get milk from dairy cows.
Use your body to make the letters M-I-L-K
Then say "Milk" in your inside voice.

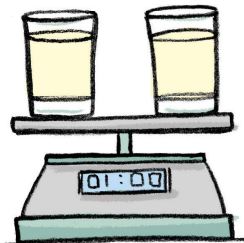
Moove Challenge



You are a superhero dairy veterinarian and there is an emergency. Fly to the farm! Lie on your stomach. Lift your arms to fly up. Lift your legs to fly down.

Milk Math Challenge

If 2 cups of milk weigh 1 pound, and it takes 21 pounds of milk to make 1 pound of butter. How many cups of milk do you need to make 1 pound of butter?
Check your answer below.



Answer: 42 cups of milk



Word Parlor Challenge



Cow veterinarians who specialize in dairy (dare-ee) cattle are called dairy veterinarians.

Use your body to make the letters D-A-I-R-Y
Then say "Dairy" in your inside voice.

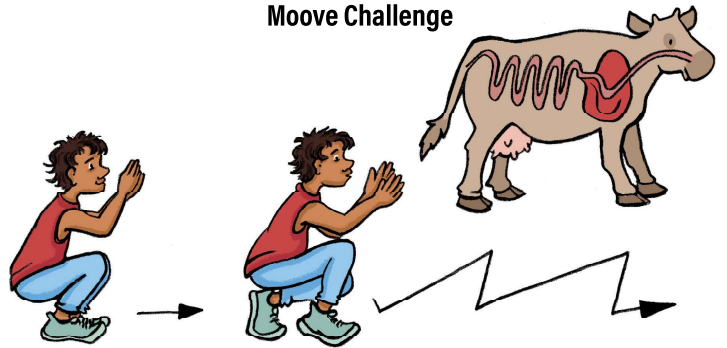
Milk Math Challenge

Cows drink 40 gallons of water every day. How many 5 gallon buckets of water would you need to give your cow 40 gallons of water? Hint: Count by fives. One bucket is 5 gallons, two buckets is 10 gallons, three buckets is fifteen, 20, 25, 30, 35, 40. Check your answer below.



Answer: You need 8 full 5-gallon buckets to give 40 gallons of water for your cow.

Moove Challenge



Food leaves the cow's stomach and travels inside curvy intestines or guts. The guts squeeze to push the food forward. Squat down and walk 20 steps in a curvy pattern like food moving through intestines.

Word Parlor Challenge



Cattle (cat-ell) means more than one cow or bull.
Use your body to make the letters C-A-T-T-L-E
Then say "Cattle" in your inside voice.

Moove Challenge



Before each cow is milked, the udder must be cleaned-like washing your hands before you eat. Squat down and reach forward, palms up. Move your hands in small circles to clean the udder.

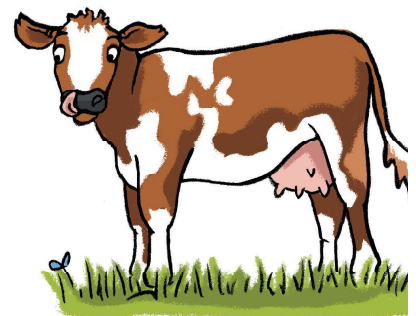
Milk Math Challenge

A cow's rumen can hold 50 gallons of feed and water! How many 5 gallon buckets of feed and water would you need to fill a cow's rumen? Hint: Count by fives. One bucket is 5 gallons, two buckets is 10 gallons, three buckets is 15, 20, 25, 30, 35, 40, 45, 50. Check your answer below.



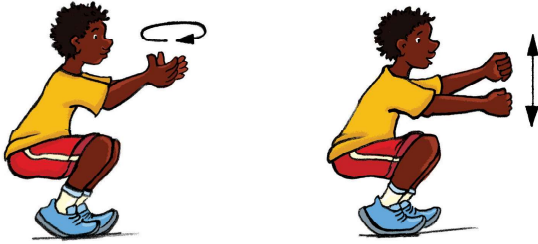
Answer: You need 10 full 5-gallon buckets to fill the rumen with 50 gallons of feed and water. 5 gallons times 10 equals 50 gallons.

Word Parlor Challenge



Female cattle are called heifers (heff-ers) before they have their first baby.
Use your body to make the letters H-E-I-F-E-R
Then say "Heifer" in your inside voice.

Moove Challenge



You can milk cows by hand or use a machine attached to the cow's udder. Some farms have robots that milk cows. Squat down and reach forward, palms up. Move your hands in small circles to clean the udder. Then, move your hands up and down 4 times to practice milking the cow. Do this 2 more times because cows get milked 2-3 times a day.

Milk Math Challenge

Cows can make 40 to 60 gallons of saliva or spit every day! How many 5 gallon buckets would you need to hold 40 gallons of spit? Hint: Count by fives. One bucket is 5 gallons, two buckets is 10 gallons, three buckets is 15, 20, 25, 30, 35, 40. Check your answer below.



Answer: You need 8 full 5-gallon buckets to hold 40 gallons of cow spit. 5 gallons times 8 equals 40 gallons.

Word Parlor Challenge



Baby cattle are called calves. Use your body to make the letters C-A-L-V-E-S. Then say "Calves" in your inside voice.

Moove Challenge



We need 4 cups of milk to make a quart. Squat down and reach forward. Rotate your hands to clean the udder. Then, move your hands up and down 4 times each and moo 4 times to remember.

Forage Challenge



Black and white Holstein (hole-steen) cows are the most common dairy cows in the United States. Look around and find something that is black and white. Then say, "Holstein" in your inside voice.

Word Parlor Challenge



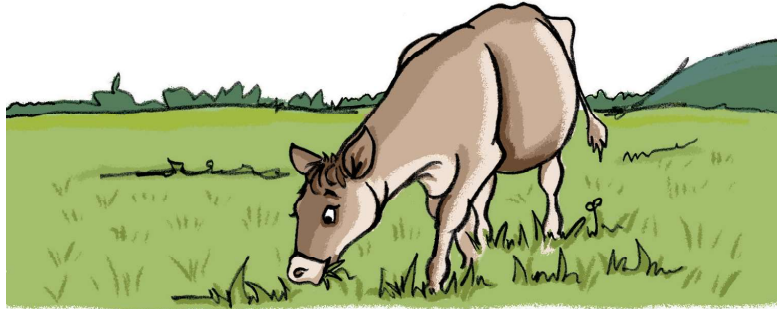
A group of cattle is called a herd. Use your body to make the letters H-E-R-D. Then say "Herd" in your inside voice.

Moove Challenge



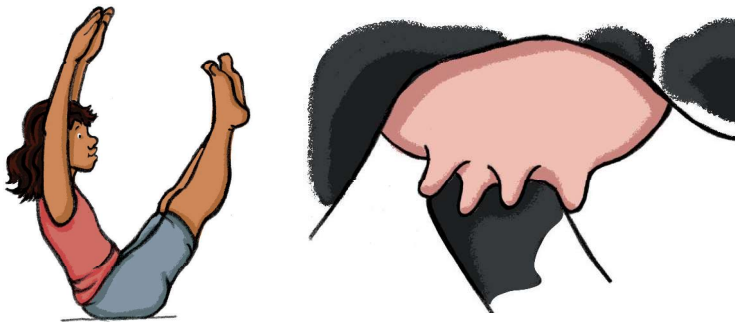
We need 16 cups of milk to make a gallon of milk. Squat down and reach forward, palms up. Move your hands in small circles to clean the udder. Then, while counting out loud ("One Cup, Two Cups, Three Cups, Four Cups..."), move your hands up and down 16 times to remember.

Forage Challenge



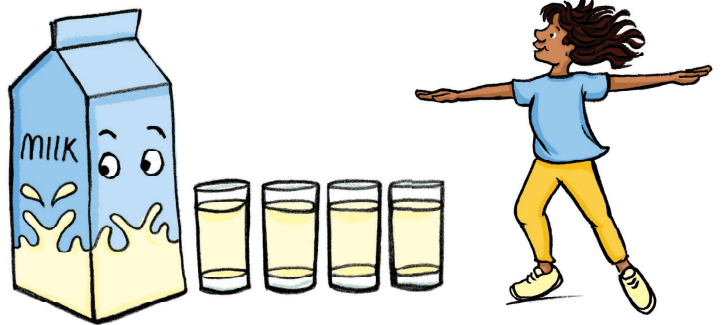
Jersey (jurr-zee) cows are dairy cows that are tan or light brown. Look around and find something that is tan or light brown. Then say "Jersey" in your inside voice.

Word Parlor Challenge



The udder is the part of the cow where the milk comes out.
Use your body to make the letters U-D-D-E-R.
Then say "Udder" in your inside voice.

Moove Challenge



We need 4 cups of milk to make a quart of milk. Count to four cups out loud ("One Cup, Two Cups, Three Cups, Four Cups...") as you spin in a circle 4 times. Then, whisper, "Four cups makes a quart." as quietly as you can.

Forage Challenge



Guernsey (grrrn-zee) cows are dairy cows that produce golden yellow milk. Look around and find something that is yellow. Then say "Guernsey" in your inside voice.

Word Parlor Challenge



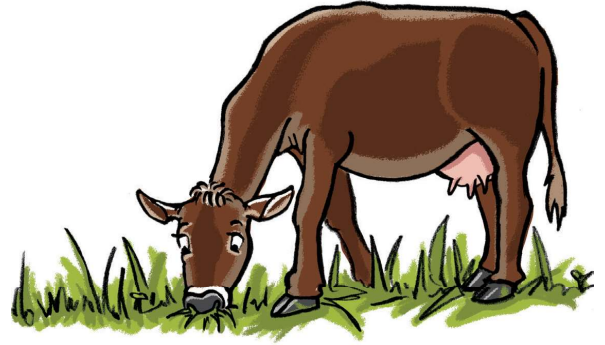
Male cattle are called bulls.
Use your body to make the letters B-U-L-L.
Then say "Bull" in your inside voice.

Moove Challenge



We need 4 quarts of milk to make a gallon of milk. Quarter means one fourth. Count to four quarts out loud ("One Quart, Two Quarts, Three Quarts, Four Quarts") as you jump 4 times. Then, yell, "Four quarts makes a gallon" as loud as you can.

Forage Challenge



Brown Swiss cows are dairy cows that are brown. Look around and find something that is brown. Then say "Brown Swiss" in your inside voice.

Moove Challenge



Dairy cows need fresh air. They can live inside or outside. Go to a spot inside or outside and take 10 big breaths.

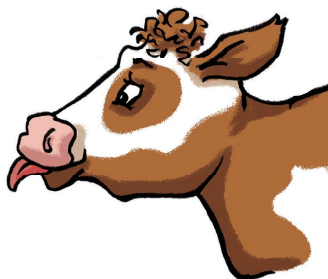
Moove Challenge



We need 4 quarts to make a gallon of milk. Count to four quarts out loud ("One Quart, Two Quarts, Three Quarts, Four Quarts") as you squat down 4 times. Then say, "Four quarts makes a gallon." in a deep voice.

Milk Math Challenge

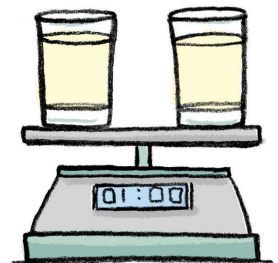
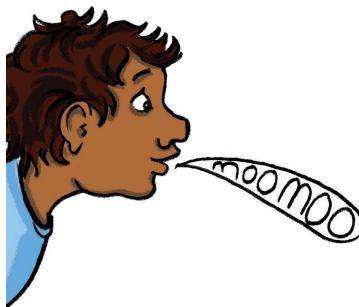
Cows can make 40 to 60 gallons of saliva or spit every day! Count from 40 to 60 by twos. Check your answer below.



Answer: 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60.

Milk Math Challenge

Milk is measured in pounds. 2 glasses of milk weigh one pound. Moo twice to remember. Then use the card to complete the puzzle.



Moove Challenge



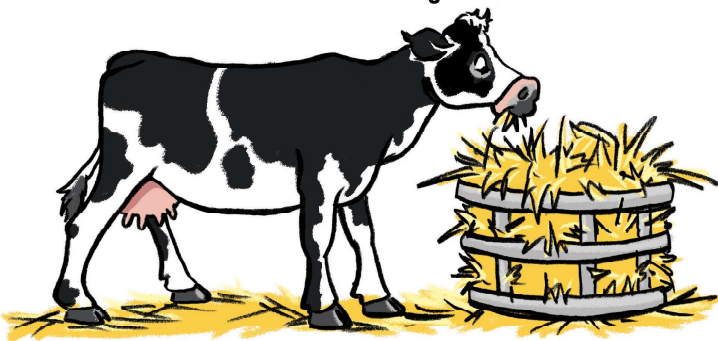
People have 1 part to their stomach and cows have 4 parts to their stomach. Lie on your back with your knees bent and arms reaching straight in the air. Keep your back flat on the ground. Slowly straighten and bring back your right leg. Repeat, switching legs each time. Count to four parts out loud ("One Part, Two Parts, Three Parts, Four Parts") each time you straighten and bring back your leg. Then say, "Cows have 4 parts to their stomach" as loud as you can.

Forage Challenge



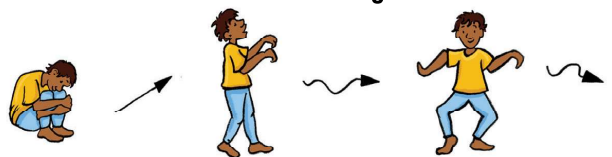
Cows aren't particular about what they eat so it's important to clean up any wires or other metal that gets left outside. If a cow eats something metal, she can get very sick. We call this sickness hardware disease. Look around and find something that is metal.

Moove Challenge



Cows eat 100 pounds of food every day. They eat plants like corn, oats, and hay. Pretend you are chewing your food like a cow.

Moove Challenge



The reticulum (rih-tic-you-lum) is the part of the cow stomach that traps big things that the cow swallows. If it's too big the food gets sent back into the cow's mouth so she can chew it up into smaller pieces and then swallow it again. This is called "chewing her cud." Pretend you are cow food that got swallowed.

1. Drop to the floor and make yourself as small as possible.
2. Oh no you are too big! You got stuck in the reticulum.
3. Yell "Reticulum" as loud as you can.
4. Pop back up to the mouth.
5. Wiggle around to get chewed into smaller pieces.

Moove Challenge



Did you know that cows can kick in all directions? Stand on your Right leg with your knee slightly bent. Kick to the front, Kick to the side, Kick to the back, without putting your leg down in between kicks.

Moove Challenge



Cows need vitamins and minerals just like kids. Pretend you are swallowing a big vitamin.

Moove Challenge



The rumen (roo-men) is the biggest part of the cow stomach. Tiny living things called microbes (bacteria, fungi, protozoa) live in the rumen and help digest the plants the cows eats. You just got swallowed!

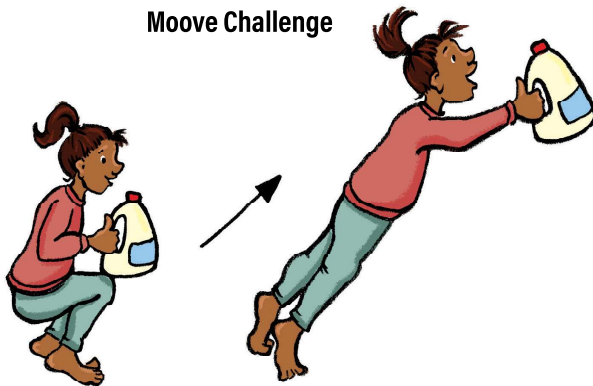
1. Drop down to the floor.
2. You made it to the rumen!
3. Yell, "Rumen" as loud as you can.
4. Log Roll 4 times to the left as you roll around the rumen.

Moove Challenge



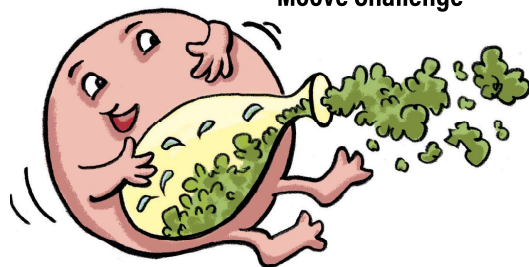
Did you know that cows can kick in all directions? Stand on your Left leg with your knee slightly bent. Kick to the front, Kick to the side, Kick to the back, without putting your leg down in between kicks.

Moove Challenge



A dairy cow produces 8-9 gallons of milk a day! Jump up and down 9 times to remember.

Moove Challenge



The omasum (oh-may-sum) is the part of the cow stomach that looks like a basketball. It squeezes out the water so the cow can keep the water in its body and the feed can move to the next part of the stomach.

1. Give yourself a big hug to squeeze the water out.
2. Yell, "Omasum" as loud as you can while squeezing.

Moove Challenge



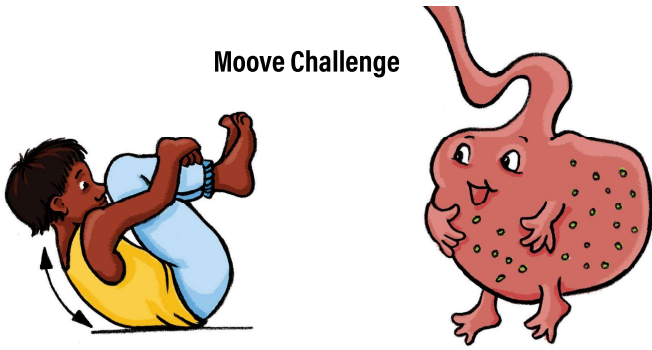
Vets have to be careful so they don't get kicked by cows. Practice moving away. Take small hops with both feet. Hop backwards, Hop forward, hop to the left, hop to the right.

Moove Challenge



Cows like to have a soft place to lie down. Farmers give cows straw, sand, mattresses, or waterbeds, to lie on. Lie on your right side with your knees bent, arms straight in front of you, and hands together. Keep your bottom half still, roll your top half slowly forward by moving your top (left) hand over your bottom (right hand), then slowly roll back to the starting position. Breathe in through your nose when you roll forward and out through your nose when you roll back. Relax and rock back and forth 5 times.

Moove Challenge



The abomasum (ab-oh-may-sum) is the part of the cow stomach that is like a person's stomach.

1. Roll back and forth on your back on the floor 10 times to get mashed up.
2. Yell, "Abomasum" as loud as you can.

Forage Challenge



To keep a cow safe from hardware disease we put a magnet in the cow's reticulum when she is about 1 year old. We use an instrument called a balling gun to help the cow swallow the magnet so it lands in the reticulum. The magnet stays there and catches the metal so the metal doesn't hurt the cow. Look around and find a magnet.

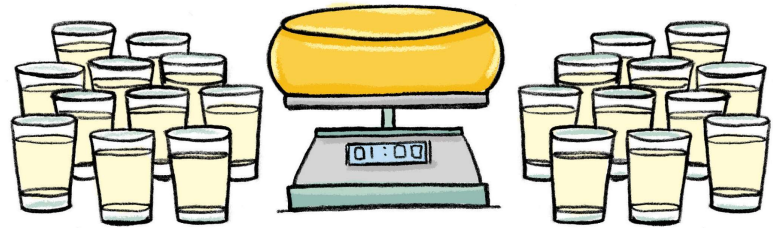
Moove Challenge



Cows come into a barn to be milked. Cows need to be milked 2 or 3 times a day. Crawl across the room as fast as you can on all fours (knees a tiny bit off the ground) and moo 3 times to remember.

Milk Math Challenge

If 2 cups of milk weigh 1 pound, and it takes 10 pounds of milk to make 1 pound of cheese. How many cups of milk do you need to make 1 pound of cheese? Check your answer below.



Answer: 20 cups of milk

