

STEMsational Ag: The Virtual Farm



MIDDLE TENNESSEE STATE UNIVERSITY

Module 6: All About the Cows UNIT 1: A DAY IN THE LIFE Kindergarten – Grade 2





National Institute of Food and Agriculture
U.S. DEPARTMENT OF AGRICULTURE



MIDDLE TENNESSEE STATE UNIVERSITY. SCHOOL OF AGRICULTURE







Fermentation Science

This work is supported by the Agriculture and Food Research Initiative, Education and Workforce Development Program. [grant no. 2021-67037-33380/project accession no. 1024880], from the U.S. Department of Agriculture, National Institute of Food and Agriculture. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and should not be construed to represent any official USDA or U.S. Government determination or policy.

0422-0610 / Middle Tennessee State University does not discriminate against students, employees, or applicants for admission or employment on the basis of race, color, religion, creed, national origin, sex, sexual orientation, gender identity/expression, disability, age, status as a protected veteran, genetic information, or any other legally protected class with respect to all employment, programs, and activities sponsored by MTSU. The Assistant to the President for Institutional Equity and Compliance has been designated to handle inquiries regarding the non-discrimination policies and can be reached at Cope Administration Building 116, 1301 East Main Street, Murfreesboro, TN 37132; Christy.Sigler@mtsu.edu; or 615-898-2185. The MTSU policy on non-discrimination can be found at mtsu.edu/iec.

Materials are intended for educational purposes only. Content Contributors and the STEMsational Ag team have reviewed to ensure all content is cited. Please contact STEMsationalAg@mtsu.edu with any concerns.



STEMsational Ag—The Virtual Farm

Welcome to Module 6 Unit 1: A Day in the Life



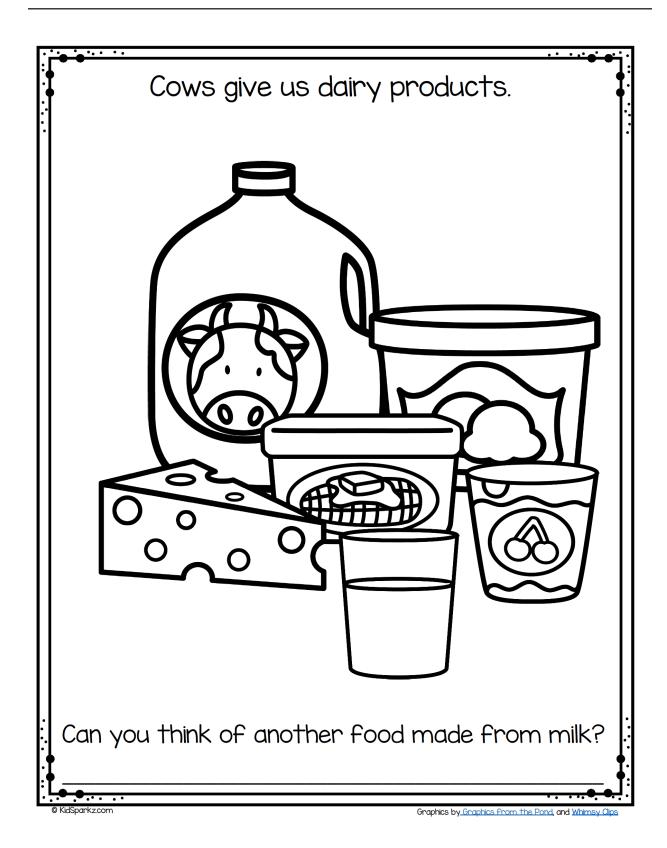
Introduction to the Unit:

View the video screen shots and narration from the video, "4 Reasons Cows are Awesome! Animal Science for Kids" on pages 5 - 26.



Complete the "K-2 Cows Give Us Dairy Coloring Sheet" on page 4.





STEMsationalAg.com | mtsu.edu/chhs | A Day in the Life | Kindergarten - Grade 2





4 Reasons Cows Are Awesome! | Animal Science Kids

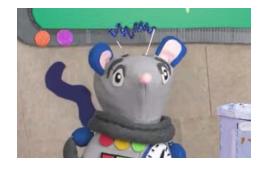
Also available online at: https://youtu.be/m9eqt6YPI7Y



Hey Squeaks, can you guess what animal I'm thinking of?



It's big, with black and white spots, and it sounds like "Mooooooo!"



[Squeaks thinks it's a cow]







You got it, it's a cow!



It's actually ... only the girl animals that are called cows.



The boys are called bulls or steers, and ...







Baby cows are called calves.



When you put them all together, they're called cattle.



Cattle are some of my favorite farm animals, and they're pretty awesome!







The animals themselves are amazing, and ...



there's a whole story behind how we humans started having them on our farms.



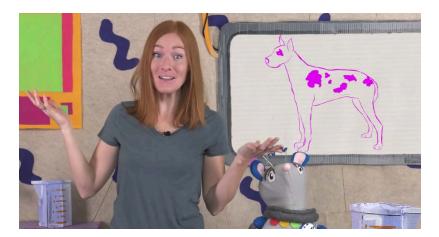
Cattle come in all shapes and sizes.







It's like how there are lots of different kinds, or breeds, of dogs.



There are big ones,



small ones,



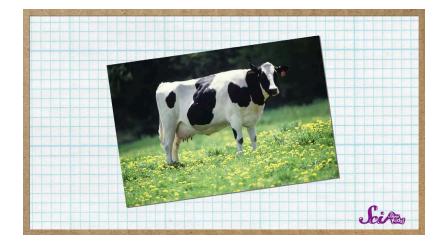




Extra fluffy ones,



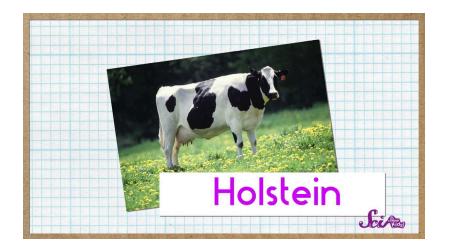
ones with certain colors or patterns...



Cattle are like that too!







The black and white spotted kind are a breed called the Holstein.



But there are also cattle that are brown, like Jersey cattle, or ...



red, like this Devon bull.







Khandari cattle are also reddish, and they have big humps on their backs, kind of like camels!



Other kinds of cattle have huge horns, and some are really fluffy!
The furry cattle are my favorite kinds.



There are well over 200 kinds of cattle, and they're all unique!







[Squeaks squeaks]

I agree, Squeaks! Some cattle can be pretty cute!



But even though they're cute, cattle aren't really pets.



They're farm animals, which means that a lot of the time, people keep them so that the cattle will make them food.







People have been living with and taking care of cattle like this for a very long time.



You see, long ago, people lived near a relative of today's cattle — an animal called an aurochs.



People knew that aurochs could make milk that was good to drink, and meat that was good to eat, but ...







The young aurochs could get attacked by predators — that is, other animals that wanted to eat them, like wolves.



In order to get food from the aurochs, people would watch out for them, and keep any predators away from them.



Soon, people began working so closely with the aurochs that these ancient cattle felt pretty safe with the humans.







The aurochs would let people take their milk, and people would have something to eat and drink when they couldn't find food growing around them.



The aurochs began to rely on humans for safety, so they slowly became what we call domesticated.



meaning that these cattle lived with humans and weren't very afraid of them.







People had already domesticated some other animals, like dogs and cats, but cattle and other farm animals are a bit different.



People take care of farm animals in return for what they give us for food.



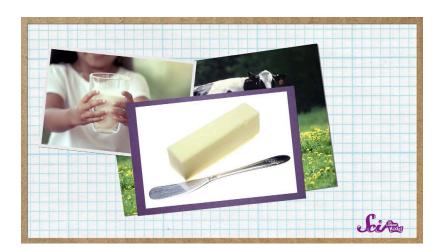
From cattle, we can get things like ...







milk,



butter,



cheese, and ...







Enjoy a hamburger.



That allows people to have food all year round, even when the crops they plant aren't growing food.



It also allows the cattle to be a little safer out in the open.

It's a trade!







Cattle are still very important to many farms.

People all over the world want to:





drink cow's milk, eat cheese and ice cream, and eat beef.











Farmers raise their cattle in all kinds of ways. Some farmers keep huge herds, and ...



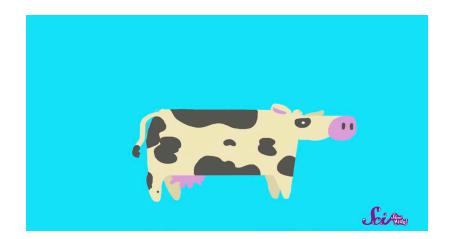
others only have a few cows.



But even the smallest farm uses science to help take care of their cattle!



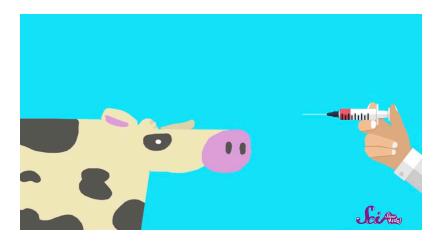




Farmers can keep track of what makes their cows healthy and strong.



They can measure out just the right amounts of different foods to help their cows grow really big.



Farmers can even use medicine to keep their cows healthy.







[Squeaks chimes in]

Exactly!



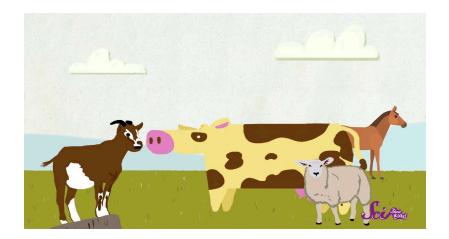
Those are all ways that farmers have to think like scientists sometimes.



Farmers also have to keep track of other animals that cattle can live with on a farm.







Cattle can live with goats, sheep, horses, and lots of other animals that like to group up together in a big herd.



These animals all have to get along and feel safe with each other.



They'll usually stay in their herd together as they all try to find plants to eat and watch for predators.









The farmers taking care of them need to keep track of all of their animals' needs, from the biggest to the smallest.



Each animal provides something for humans, and in return we take care of them.



What's your favorite farm animal?







Have you ever visited a farm or milked a cow?



Have a grown-up help you leave a comment, or send us an email at kids@scishow.com



Thanks and we'll see you next time here at the fort!





Pre-assessment:

Discussion for the Classroom

Educators: For breakfast, introduce common dairy products (milk, cheese, yogurt, etc.). Have a nice glass of milk, yogurt, or even a bowl of cereal (with milk of course). Begin a conversation about where milk comes from. It doesn't just come from the fridge - a farmer must produce it using cows! Continue the conversation of other products that come from cows (milk, cheese, ice cream, beef, hotdogs, etc.).

For Individual Learners

Students: What types of dairy products do you eat for breakfast? Common dairy products include milk, cheese, and yogurt. Milk comes from cows. It doesn't just come from the fridge - a farmer must produce it using cows! Other products also come from cows, including milk, cheese, ice cream, beef, and hotdogs.

Written Assessment for Students

Answer the following questions.

You can check your answers later in the answer key on page 30:

- 1. What sound does a cow make?
- 2. What are female cows called?
- 3. What are male cows called?
- 4. What are baby cows called?
- 5. What food items do we get from cows?
- 6. What is the name of a person who cares for cows?

Purpose:

The purpose of this lesson is for students to learn how cows contribute to food and fiber.

Student Learning Outcomes for the Unit:

- Student will create an at-home model for the cow milking activity.
- Student will explore how dairy cattle are used to produce milk.
- Student will demonstrate an understanding of basic cattle terminology related to food and fiber.





National Agricultural Literacy Outcomes Theme 2: Plants and Animals for Food, Fiber & Energy Outcomes

T2.K-2

B: Identify animals involved in agricultural production and their uses (i.e., work, meat, dairy, eggs)

Vocabulary:

• Cow: female cattle

• Bull: male cattle

• Calves: baby cattle

• Milk: a product from dairy cows

• Herd: a group of cattle

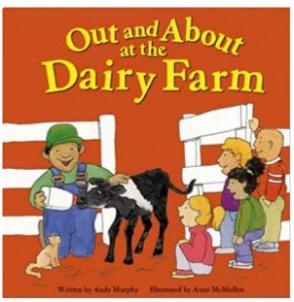
• Cowman: a caretaker of cattle

Materials Needed:

- Scissors
- Brown lunch bag
- Popcorn kernels
- Popcorn seasoning of choice

Activity 1

Read the book "Out and About on the Dairy Farm".



https://youtu.be/IE5c0Y_N9oA





Activity 2: Create Your Own Dairy Cow!

- 1. Gather your materials:
 - Cow coloring sheet (provided on page 30)
 - Color pencils
 - Rubber glove
 - Needle
 - Water or Milk (personal preference)
 - Bucket, bowl, or pail
- 2. Color the dairy cow provided on page 30.
- 3. Wash and rinse the rubber glove.
- 4. Fill the glove with water or milk (personal preference).
- 5. Tie the glove so that the liquid does not spill out.
- 6. Hang up your cow print out, attach the glove as an udder, and place pail under the udder.
- 7. Take a needle and prick the ends of the fingers (be sure the pail is under the glove!).
- 8. Let the fun begin!
- 9. Here's an example of the finished product!



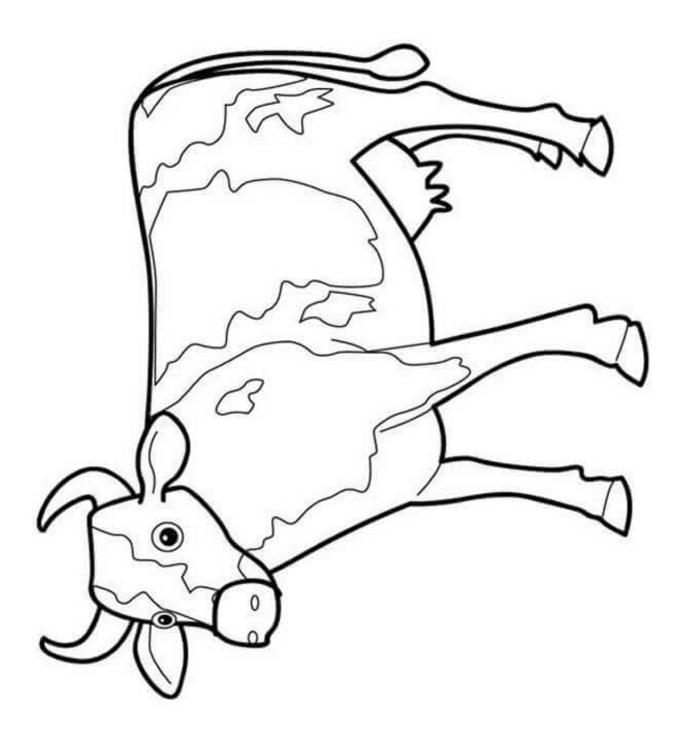




Resource: Baby Chakra website

(https://www.babychakra.com/learn/3453-fine-motor-skills-activity-milking-a-cow)









Post-Assessment

We have learned a lot in this lesson! Now, let's show it off.

- 1. Write down on paper three things you have learned in this lesson.
- 2. Then, create a poster with the three things you learned. Include pictures.
- 3. When you are done, share it with one of your parents, siblings, or friends to help teach them about cattle!

Answer Key to the Pre-Assessment (page 26)

- 1. MOOO
- 2. Heifer
- 3. Bull
- 4. Calves
- 5. Milk, beef, ice cream, butter, yogurt
- 6. Herdsman, cowman