

Lesson 5: Dairy vs. Beef

Grade Level: 2nd Grade

Time: 60 minutes

Subjects: ELA, Science

Overview: This lesson is Lesson 5 of 5 and serves as the culminating lesson in the *Milk Comes From a Cow?* unit of the *Growing Readers* micro-curriculum, based on the book series by Kansas author Dan Yunk. Building on learning from the previous lessons, students revisit the text through a purposeful final read, compare dairy and beef cattle, and create a Build-a-Cow craft that reinforces the characteristics and purposes of each type of cattle. As students analyze how illustrations and the author's reasons support the text, classify cattle by their observable properties, and write an informative paragraph using evidence gathered throughout the unit, they strengthen literacy, scientific observation, and agricultural understanding while reinforcing the farm-to-table connections introduced in *Celebrate Wheat*.

Skillset: Activating and connecting prior knowledge across the unit, purposeful rereading, explaining how specific images contribute to and clarify a text, describing how an author's reasons support specific points, identifying real-life vocabulary connections, comparing and categorizing dairy and beef cattle, hands-on craft and fine motor skills, explicit instruction in collective nouns, informative writing with a definition and concluding statement, applying conventions of capitalization and punctuation, and consulting reference materials to check and correct spelling.

Kansas Academic Standards

Kansas ELA Standards

RI.2.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.

RI.2.8 Describe how reasons support specific points the author makes in a text.

RI.2.12.a Identify real-life connections between words and their use.

W.2.2 Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.

W.2.8 Recall information from experiences or gather information from provided sources to answer a question.

W.2.10.a Use collective nouns when writing.

W.2.11 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

W.2.11.e Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

Science Standards

2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.

National Agriculture Literacy Outcomes

Plants and Animals for Food, Fiber, and Energy

T2.K-2.b Identify animals involved in agricultural production and their uses (i.e., work, meat, dairy, eggs).

T2.K-2.d Identify examples of food and fiber products that come from plants and animals.

T5.K-2.a Identify the ways farmers use land to grow crops and raise animals.

Objectives

Science Objectives

Students will be able to:

- Compare the observable properties of Holstein dairy cows, Hereford beef cattle, and Angus beef cattle and explain how those properties suit each breed for its intended purpose.
- Explain that dairy cows and beef cattle are both raised on Kansas farms but serve different purposes.
- Sort dairy and beef cattle into categories and define each category by its key attributes.

English Language Arts Objectives

Students will be able to:

- Explain how specific images in *Milk Comes From a Cow?* contribute to and clarify information in the text.
- Describe how the author's reasons support specific points he makes in the text.
- Identify real-life connections between dairy and cattle vocabulary words and their use.
- Use collective nouns correctly when writing about cattle and other farm animals.
- Write an informative paragraph that introduces a topic with a definition, uses facts to develop points, and provides a concluding statement.
- Recall information from the book, the video, and the unit to develop their writing.
- Demonstrate command of the conventions of capitalization, punctuation, and spelling.
- Consult reference materials to check and correct spelling of technical dairy and cattle vocabulary.

Materials Needed

Final Read-Aloud:

- Book: *Milk Comes From a Cow?* by Dan Yunk, physical copy or author read-aloud on unit landing page

Build-a-Cow Craft:

- YouTube video Exhibit Farm: How do I know if a cow is a beef or a dairy cow?
<https://www.youtube.com/watch?v=Qja-hTYltkk>
- Paper plates (one per student)
- Black and white paint or markers (for Holstein dairy cows)
- Solid black paint or markers (for Angus beef cattle)
- Brown and white paint or markers (for Hereford beef cattle)

- Pre-cut cow ear, horn, tail, leg, and nose pieces — black/white for dairy, brown/white or black for beef (see companion document)
- Googly eyes (2 per student)
- Glue sticks
- Chart paper labeled: “Dairy Cow” | “Beef Cattle” (T-chart, teacher-prepared)
- Markers

Writing:

- Build-a-Cow writing response sheet — companion document (one per student)
- Pencils and crayons
- Content vocabulary reference card (one per student — key terms: Holstein, Hereford, Angus)
- Beginning dictionaries or classroom word reference materials (one per student or pair)
- Collective nouns chart (teacher-prepared — see Step 8)

Lesson Procedures

Note: Divide the class in thirds before the lesson. Assign one-third to dairy cows (Holstein), one-third to Hereford beef cattle, and one-third to Angus beef cattle. Prepare pre-cut ear, horn, tail, and leg pieces in the correct colors for each group before the lesson begins.

1. Connecting to What We Know: Explain to students: “This is our last lesson in the *Milk Comes From a Cow?* unit. We have learned that dairy cows produce milk, we made butter, we analyzed the journey of milk from farm to home, and we made ice cream. Today we are going to read our book one final time, build our own cows, and write about what we have learned. As you read today, I want you to pay close attention to two things: how the illustrations contribute to the text, and the specific reasons the author gives for why dairy farming matters.”
 - a. Ask students:
 - “What is the main topic of *Milk Comes From a Cow?* What is Dan Yunk’s main purpose in writing it?”
 - “In our book, Farmer George had black and white cows. What breed were they? What is one key detail you remember about Holstein cows?”
 - “In Lesson 3, we compared this book to *Celebrate Wheat*. What was the most important point each book wanted us to understand?”
2. Final Read-Aloud of *Milk Comes From a Cow?*
 - a. Hold up the physical copy of *Milk Comes From a Cow?* by Dan Yunk.
 - b. Set a listening purpose: “This is our final read. Listen for the specific reasons Dan Yunk gives for why it matters where milk comes from, and pay attention to how the illustrations contribute to those reasons. We are going to talk about both after we finish.”
 - c. Read *Milk Comes From a Cow?* aloud.

Stopping Point Suggestions (2 total, brief). Keep stops brief. Push students to be specific: “Not just what the image shows, but what it contributes to the meaning of the text.”

 - Stop #1 — Images Contribute & Clarify: After Farmer George describes the Holstein cows.
Ask students:

- “Look at this picture. What specific information does it contribute that the words do not fully explain?”
 - “How does this image clarify what the words are describing? Would you understand this as well without the image?”
- Stop #2 — Author’s Reasons Support Specific Points: After the milking parlor on the page with the picture of the udder and milking machine attached.
Ask students:
 - “Dan Yunk’s point on this page is that milk comes from the cow’s udder. What reasons or details does he give to support that point — what does he tell us about what the udder is and how the machine gets the milk out?”
 - “Look at the picture of the milking machine attached to the cow’s udder. What does the picture show us about how the machine works that the words do not fully explain?”
 - “How do the words and the picture work together on this page to help us understand what happens in the milking parlor?”
- 3. Real-Life Vocabulary Connections: Explain to students: “Good readers connect the words they read to real life. This means thinking about where you actually see or use a word outside of school, not just saying you have heard it, but identifying a specific real-life context.”
 - a. Ask students to identify specific real-life contexts for each word:
 - “Dairy — Where have you actually seen this word used? Think of a specific place, label, sign, or product.”
 - “Herd — Where would you use or hear this word in real life? Who uses it and when?”
 - “Processing — Have you seen this word on a food package or sign? What was it describing?”
 - “Ranch — Where have you seen or heard this word used? What does it describe in real life?”
 - b. Push for specificity: “Don’t just say ‘I’ve heard it.’ Tell me where — on a carton, on a sign, in a place name, in a conversation. Real-life connections are specific.”
- 4. Introducing Beef Cattle. Explain to students: “We have learned that milk comes from a cow — but milk is not the only thing we get from cows. There is another type of cattle that ranchers raise: beef cattle. Beef cattle are raised for meat. Kansas is one of the largest beef-producing states in the country.”
 - a. Ask students:
 - “Have you ever eaten a hamburger? That beef came from beef cattle on a farm or ranch.”
 - “Do you think dairy cows and beef cattle look the same or different?”
 - “If a dairy cow gives milk and beef cattle are raised for meat, what is the same about both? What do they both need to survive?”
 - b. Explain to students: “In a few minutes, we are going to build our own cows. But first, let’s watch a short video to see what beef cattle look like so we can compare their properties to what we know about Holstein dairy cows from our book.”
- 5. Video — Beef or Dairy? Explain to students: “As you watch, pay attention to the properties, or traits, of the beef cattle — their markings, body shape, and size — and think about how those traits compare to what we know about Holstein dairy cows.”

- a. Play this YouTube video. Exhibit Farm: How do I know if a cow is a beef or a dairy cow? <https://www.youtube.com/watch?v=Qja-hTYltkk>
 - b. After the video, ask students:
 - “What properties, or traits, did you notice about the beef cattle?”
 - “How do those properties compare to the Holstein dairy cows in our book?”
 - “Based on the properties you observed, how do each breed’s physical traits suit it for its purpose — dairy or beef?”
 - “What properties does a dairy cow need to have to be suited for milk production? Think about physical traits.”
 - “What properties do beef cattle need to have to be suited for meat production? How might those be different?”
 - c. Explain to students: “Now that we have seen real beef cattle, it is time to build our own cows. One group will build a Holstein dairy cow with black-and-white spots, just like Farmer George’s cows. One group will build a Hereford beef cow, brown with a white face. One group will build an Angus beef cow — solid black. Then we are going to sort them into categories, analyze their properties, and write about what we built.”
 - d. Kansas Connection: Explain to students: “Kansas is known for raising cattle. Most cattle in Kansas are beef cattle, but dairy farms are growing across the state and producing the milk and dairy products we enjoy every day. Whether you live on a ranch and have seen cattle your whole life, or you live in a city and see them only on drives through the country, cattle are part of Kansas. Do you know anyone who works on a dairy farm or ranch, or lives near one? If not, do you know someone who works in a grocery store or restaurant that sells dairy or beef products? Either way, you are connected to the Kansas cattle story.”
6. Build-a-Cow Craft Activity. Distribute materials based on pre-assigned groups.
- a. Explain to students: “As you build your cow today, think about the properties that make your breed suited for its purpose. Holstein cows are bred to produce a large amount of milk. Their large udders store the milk until it is collected. A Hereford’s muscular build makes it suited for beef production. You are building a model that shows those properties.”
 - b. Model building the cow step by step before students begin:
 - Add the markings: The Holstein group adds black spots to a white plate. Hereford group colors the plate brown and adds a white circle for the face. Angus group colors the plate solid black.
 - Add ears on the top sides of the plate.
 - Add short horns above the ears.
 - Add four legs along the bottom edge.
 - Add a tail on one side.
 - Glue on two googly eyes.
 - Glue on the pink nose.
 - c. Students build their cows. Circulate and support.
 - d. While students work, prompt analytical thinking:
 - “What properties does your breed have? How do those properties suit it for its purpose?”
 - “How is your breed similar to the other breeds? How is it different?”

- e. Allow approximately 15 minutes for the craft. Have early finishers begin thinking about their writing: “How would you define your breed? What category does it belong to, and what is its key attribute?”
7. T-Chart Comparison — Sorting, Properties & Defining. Gather students with their finished cows. Display the T-chart: Dairy Cow | Beef Cattle.
 - a. Guide students to fill in the T-chart. Record properties, not just names:
 - Dairy Cow: large udder suited for milk production; Holstein breed most common; black-and-white markings; raised on a dairy farm; provides milk and dairy products.
 - Beef Cattle: muscular build suited for meat production; Hereford (brown/white face) and Angus (solid black) are common breeds; raised on a ranch, they give us meat.
 - b. Guide students to identify shared properties:
 - “Both are cattle — same animal type. Both need food, water, and shelter. Both are raised by Kansas farmers. Both give us food.”
 - c. Ask students:
 - “Analyzing the properties on our chart, which properties tell you most clearly which category each breed belongs in?”
 - “If you only looked at the properties and not the breed names, could you still sort them correctly? How?”
8. Writing Instruction — Collective Nouns. Explain to students: “Now that we have sorted and defined our cows, it is time to write about them. Before we write, we are going to learn about a special type of noun that farmers and ranchers use every day called a collective noun. A collective noun names a group of animals or things as one unit. When you write about cattle today, you can use these collective nouns to make your writing sound more precise and sophisticated.”
 - a. Display a collective nouns chart on chart paper. Teach each one with a dairy or livestock connection:
 - “A herd of cattle — Farmer George has a herd of Holstein dairy cows. Herd is the collective noun for cattle.”
 - “A drove of cattle — A drove of cattle is a group being moved from one place to another, like from a ranch to a market.”
 - “A flock of chickens — Chickens, which also give us food on Kansas farms, travel in a flock.”
 - “A litter of pigs — Baby pigs born together are called a litter.”
 - b. Ask students:
 - “If I write ‘The cows grazed in the field,’ how could I use a collective noun to say the same thing more precisely?” Answer: A herd of cows grazed in the field.
 - “Why do you think farmers and ranchers use these specific words? When would you hear herd or drove used in real life?” Answer: 1. Farmers and ranchers use these words because they are precise — a herd tells you it is a group of cattle staying together, while a drove tells you they are being moved somewhere. Answer: 2. You would hear herd on a farm or ranch, in a news story about cattle, or at a livestock auction. You might hear drove when cattle are being moved from pasture to pasture or to market.

- c. Explain to students: “Today, when you write about cattle, try to use at least one collective noun. It shows you know how farmers and ranchers actually talk about their animals.”
9. Writing Response. Distribute the Build-a-Cow writing response sheet.
 - a. Explain to students: “You built a cow today. Now you are going to write an informative paragraph about your breed using what you know from the book, the video, and this unit. Your paragraph must: introduce your topic with a definition, include at least one fact, use a collective noun, and end with a concluding statement.”
 - b. Model writing on chart paper, thinking aloud:
 - “My introduction with a definition: A Holstein dairy cow is a type of cattle that is bred specifically to produce large amounts of milk for people. The word ‘cattle’ is a plural noun because it refers to more than one, which is why we never say ‘one cattle’. I introduced my topic and defined it — I named the category (cattle) and gave the key attribute (bred to produce milk).”
 - “My fact with a collective noun: A herd of Holstein dairy cows produces thousands of gallons of milk each day for Kansas families. I used herd — a collective noun for cattle — right before the noun it describes.”
 - “My second fact recalled from the book and unit: Holstein cows are the most common dairy cattle in the United States, and their milk is used to make butter, cheese, and ice cream.”
 - “My concluding statement: Kansas dairy farmers who raise herds of Holstein cows help put food on tables across the country. I ended with a thought that wraps up my paragraph.”
 - c. Point to each part and name it:
 - Introduction with definition: names the category using cattle, and gives the key attribute
 - Fact with collective noun: uses herd correctly before the noun it describes
 - Fact from the book or unit: recalls specific information
 - Concluding statement: wraps up the paragraph
 - d. Remind students: “Your vocabulary reference card and dictionary are at your table. The breed names — Holstein, Hereford, and Angus — are on your card. Use it. Check any other spelling you are unsure of in your dictionary. Good writers always check.”
 - e. Ask students to say their definition sentence to a partner before writing.
 - f. Students write their paragraphs independently.
 - g. As students write, circulate and support:
 - Prompt for the definition: “Your first sentence should define your breed. Name the category and key attribute.”
 - Prompt for collective noun: “Can you use herd when writing about your cattle?”
 - Prompt for concluding statement: “How does your paragraph end? Write a final thought.”
 - Check conventions: capitalization at the start of sentences, periods, correct spelling.
 - Encourage the use of reference materials: “If you are unsure of a spelling, check your card or dictionary.”

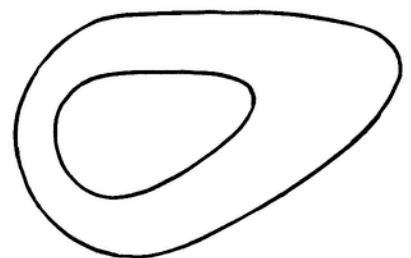
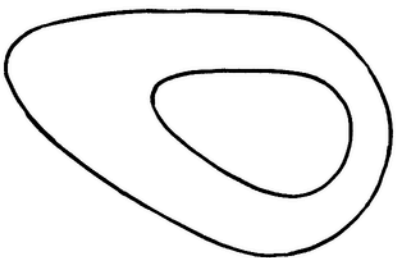
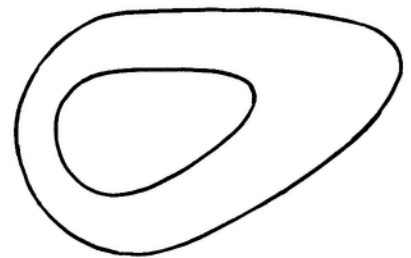
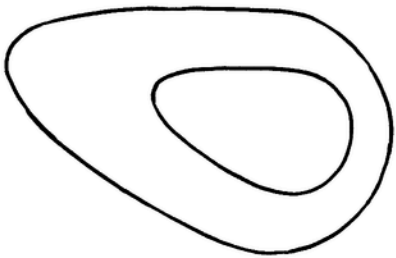
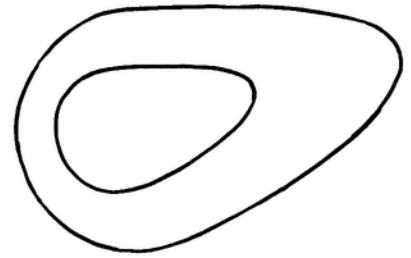
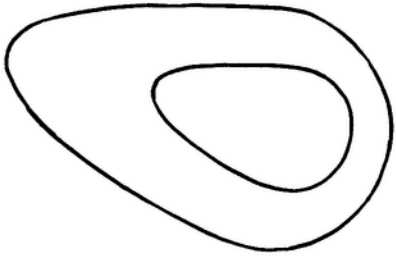
- h. Once their writing is complete, students glue their writing sheet beneath their paper-plate cow. (Differentiation note: For students who need additional support, provide a paragraph frame: “A ____ is a type of cattle that _____. A herd of ____ can _____. Kansas farmers who raise ____ help _____.” For students ready for a challenge, ask them to write a second paragraph comparing their breed to a different breed using the T-chart data.)
10. Unit Closing: Gather students with their finished Build-a-Cow crafts.
- Ask students:
 - “What is the main topic of *Milk Comes From a Cow*? What was the author’s main purpose?”
 - “What dairy products did we make in this unit? What breed of cow did they start with?”
 - “Using a collective noun — can you describe where the milk that became our butter or ice cream came from?”
 - Invite students to share their writing. After each one, ask the class:
 - “What definition did the writer use? Did it name the category and the key attribute?”
 - “Did the writer use a collective noun? Which one?”
 - “What was the concluding statement?”
 - Kansas Connection: Explain to students: “Kansas is known for raising cattle. Whether you live on a ranch and have seen cattle your whole life, or you live in a city and see them only on drives through the country, cattle are part of Kansas. Do you know anyone who works on a dairy farm or ranch, or lives near one? If not, do you know someone who works in a grocery store or restaurant that sells dairy or beef products? Either way, you are connected to the Kansas cattle story.”
 - Explain to students:* “But cattle are not the only animals that farmers and ranchers raise for food. Chickens give us meat and eggs. Pigs give us meat — that is where bacon and ham come from. Sheep and goats can also provide us with meat, and some provide wool or milk. A herd of cattle, a flock of chickens, a litter of pigs — farmers care for all of these animals every single day so that families have food to eat.”
 - Ask students:
 - “What other farm animals can you think of? What collective noun would describe a group of that animal?”
 - “Have you ever seen chickens, pigs, sheep, or goats? Where?”
 - “What is your favorite meat to eat?”

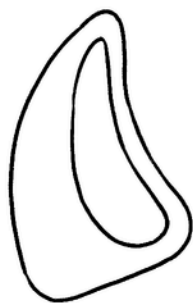
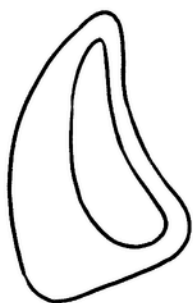
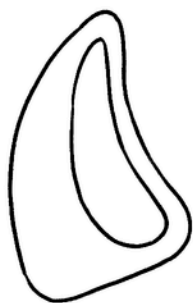
Assessment: Student understanding is assessed through teacher observation during the final read-aloud, image analysis, discussion of the author’s reasons, real-life vocabulary connections, craft construction, T-chart comparison, collective noun instruction, and written response. Teacher should note whether students can explain how specific images contribute to and clarify the text, describe how the author’s reasons support specific points, identify real-life connections between vocabulary words and their use, use a collective noun correctly in their writing, write an informative paragraph that introduces a topic with a definition, uses facts to develop points, and provides a concluding statement, recall information from the book, video, and unit to develop their writing, demonstrate command of conventions including capitalization, punctuation, and spelling, and consult reference materials to check and correct spelling. The Build-a-Cow craft,

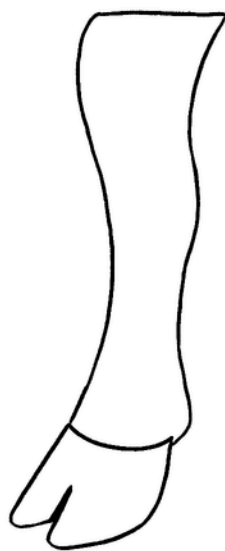
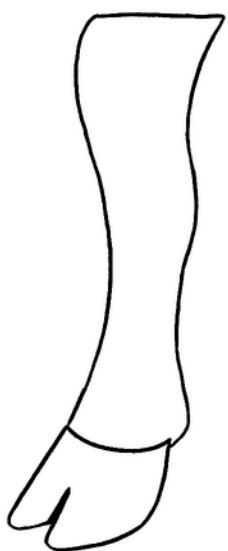
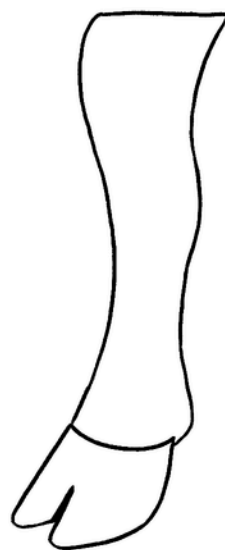
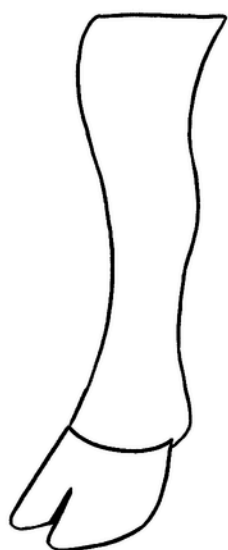
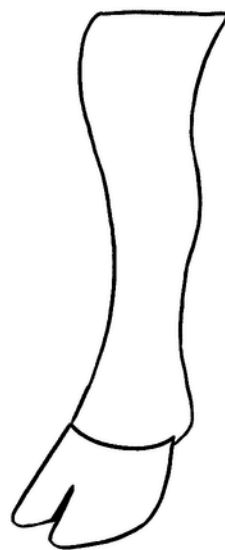
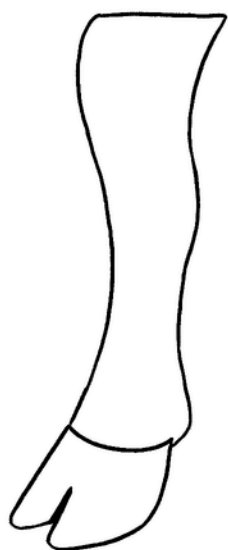
with the attached writing sheet, serves as the primary take-home artifact for this lesson and the unit.

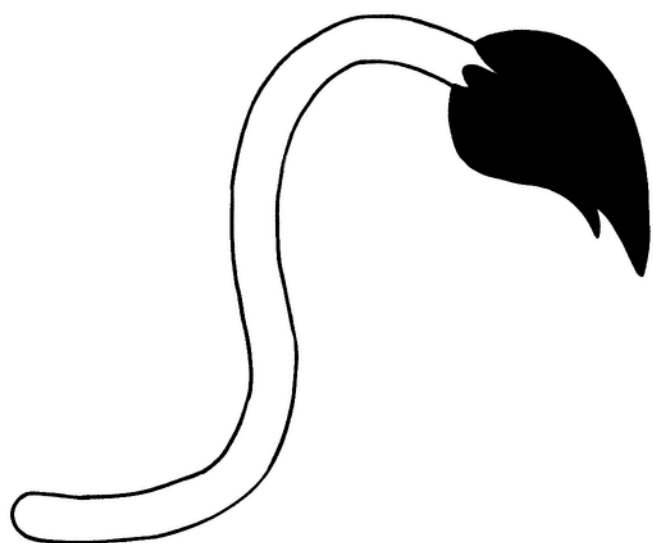
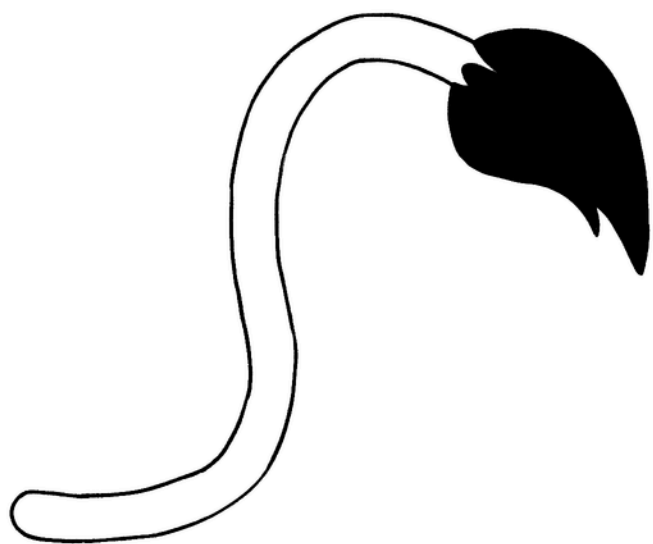
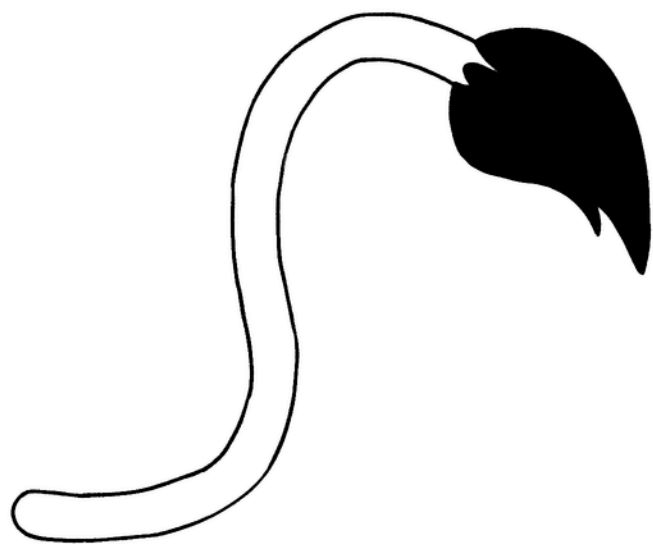
Supplemental Activities: Display the completed Build-a-Cow crafts, sorted by category, alongside the T-chart and the student-generated definitions from class. Post the unit's collected work: the Map the Journey sequence sheets from Lesson 2, the butter narrative writing from Lesson 3, and the From Cow to Cone writing sheets from Lesson 4. This full display tells the complete story of the unit. Add the collective nouns chart to the classroom wall as a permanent reference for writing. Invite students to find collective nouns in their independent reading books and add them to the chart throughout the week.

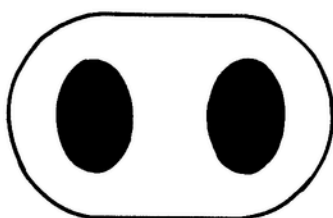
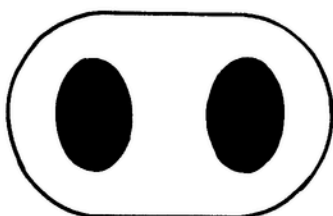
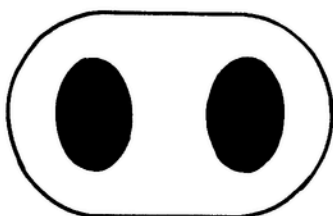
Author: Kelsy Sproul, Literacy Specialist, 2026 KFAC Teacher of the Year, KFAC Curriculum Advisory Council, Former Elementary Teacher. Edited by Marissa Cook, KFAC intern, Kansas State University Secondary Education.











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Student Name: _____

Beef or Dairy?