



Lesson 4: From Farm to Frozen Treat

Grade Level: 1st Grade

Time: 60 minutes

Subjects: ELA, Science

Overview: This lesson is Lesson 4 of 5 in the *Milk Comes From a Cow?* unit within the *Growing Readers* micro-curriculum, based on the book series by Kansas author Dan Yunk. Building on students' understanding of the farm-to-table journey, this lesson explores how cream becomes ice cream through a hands-on science investigation. After watching a short video about how ice cream is made, students make ice cream in a bag, observe changes in the cream using their five senses, and connect the process to dairy farming. Students then apply their learning by identifying consonant digraphs and writing an informative paragraph that names a topic, includes supporting facts, and provides a closing statement. Throughout the lesson, students strengthen their understanding that dairy products begin on Kansas farms before reaching consumers.

Skillset: Activating and connecting prior knowledge across the unit, gathering information from a video source, hands-on science investigation, observing and describing a process, consonant digraph recognition and application, features of a sentence, letter formation, informative writing with topic/facts/closure, and Kansas connections through dairy farming.

Kansas Academic Standards

Kansas ELA Standards

RF.1.3.a Know the phoneme-grapheme correspondences for common consonant digraphs (e.g., sh, ch, wh, th, gh).

RF.1.1.c Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).

W.1.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic and provide some sense of closure.

W.1.10.a Correctly produce upper- and lowercase letters.

Science Standards

1-PS1-1 Use your five senses to describe the properties of objects and materials.

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.

T3.K-2.b Recognize that agriculture provides our most basic necessities: food, fiber, energy, and shelter.

Objectives

Science Objectives

Students will be able to:

- Use their senses to observe and describe how cream changes from liquid to solid when mixed with ice and salt.
- Explain that ice cream is a dairy product made from cream that comes from a cow.
- Connect the ice cream they made to the dairy farming journey studied throughout the unit.

English Language Arts Objectives

Students will be able to:

- Gather information from a video source to build understanding of how ice cream is made.
- Identify the phoneme-grapheme correspondences for common consonant digraphs (sh, ch, wh, th) in dairy vocabulary words.
- Recognize the distinguishing features of a sentence including the first word, capitalization, and ending punctuation.
- Correctly produce upper- and lowercase letters when writing.
- Write an informative response that names a topic, supplies at least two facts, and provides a sense of closure.

Materials Needed

Whole Class:

- Smartboard or display screen
- Highlights Kids YouTube video: How is Ice Cream Made? | Ever Wonder? | Highlights Kids <https://www.youtube.com/watch?v=hO-7cz7gyAY>
- Chart paper and markers

Ice Cream in a Bag:

- Heavy whipping cream or whole milk (1/2 cup per student)
- Sugar (1 tablespoon per student)
- Vanilla extract (1/4 teaspoon per student)
- Small zip-lock bags (1 per student)
- Large zip-lock bags (1 per student)
- Ice (enough to fill large bags halfway)
- Rock salt or table salt (6 tablespoons per large bag)
- Plastic gloves or small towels (to hold cold bags while shaking)
- Spoons and small cups for tasting
- Paper towels or napkins
- Hand wipes

Writing:

- From Cow to Cone writing sheet — companion document (one per student)
- Pencils and crayons

Note: Check for milk allergies before this lesson. Students with a milk allergy should observe and participate in the shaking activity using a pre-sealed bag that contains no dairy ingredients. Have an alternative snack ready.

Lesson Procedures

1. Connecting to What We Know
 - a. Explain to students: “In this unit, we have learned that milk comes from dairy cows on a farm. We made butter by shaking cream. We tasted whole milk, skim milk, and heavy whipping cream. All of those things came from one place — a dairy cow. Today we are going to make one more dairy product: ice cream!”
 - b. Ask students:
 - “Where does milk come from?”
 - “What dairy foods have we made or tasted in this unit?”
 - “Do you think ice cream comes from a cow? How?”
2. Whole Class — Video: How Ice Cream is Made
 - a. Gather all students for the whole-class video before making ice cream.
 - b. Explain to students: “Before we make our ice cream, we are going to watch a short video about how ice cream is made. As you watch, listen for any dairy words you recognize from our book and our unit. Think about: Where does the cream come from, and what happens to it to make ice cream?”
 - c. Play this YouTube video. Highlights Kids: How is Ice Cream Made? | Ever Wonder? | Highlights Kids <https://www.youtube.com/watch?v=hO-7cz7gyAY>
 - d. After the video, ask students:
 - “What did you notice about where ice cream starts?”
 - “What dairy words did you hear or see in the video?”
 - “How is the ice cream in the video like the butter we made? How is it different?”
 - “What do you think will happen when we shake the cream with ice and salt today?”
3. Ice Cream in a Bag: Hands-On Science Investigation
 - a. Explain to students: “Now we are going to make our own ice cream. We are going to use cream, sugar, and vanilla — all things that connect to a dairy farm. Use your senses — sight, touch, smell, and taste — to observe what happens. You are going to write about this experience right after, so notice everything you can!” (Check allergy list before beginning. Students with milk allergies should have an alternative activity ready.)
 - b. Model each step before students begin:
 - Pour 1/2 cup of heavy whipping cream into the small zip-lock bag.
 - Add 1 tablespoon of sugar and 1/4 teaspoon of vanilla.
 - Seal the small bag tightly, pressing out as much air as possible.
 - Place the small bag inside the large bag.
 - Fill the large bag halfway with ice.
 - Add 6 tablespoons of rock salt over the ice.
 - Seal the large bag tightly.
 - Shake and squeeze the bag for 8–10 minutes. Use gloves or a towel — the bag will get very cold!
 - c. Prompt sensory observation while students shake:
 - “What do you see happening inside the small bag?”
 - “What do you feel? How has the temperature changed?”
 - “What does it smell like?”
 - “It is getting thicker! What do you think will happen next?”

- d. Once ice cream has formed, open the small bag carefully and scoop into cups for tasting.
 - e. Ask students:
 - “What happened to the cream? How did your senses tell you it was changing?”
 - “Where did the cream come from?”
 - “So where did our ice cream come from — all the way back to the beginning?”
 - f. Kansas Connection: Explain to students: “The cream in your ice cream started with a dairy cow on a Kansas farm. Whether you live near those fields and pastures or you have only ever seen a cow in a book, that Kansas farmer helped make your ice cream possible. From the cow on the dairy farm, to the milk in the truck, to the cream in your bag, to the ice cream in your cup — that is the journey of milk. And it starts right here in Kansas.”
4. Bridge to Writing. Gather students together after tasting.
- a. Explain to students: “You just made ice cream with your own hands. You watched it change, you felt it change, and you tasted it. You know exactly what ice cream is and where it comes from because you just lived it. Now you are going to write about it as an informative writer.”
 - b. Explain to students: “In first grade, informative writing has three parts: you name your topic, you give some facts, and you close with a final thought that wraps up what you shared. Think about what you could teach someone who has never made ice cream before.”
 - c. Ask students to verbalize before writing:
 - “What is your topic? Name it in one sentence.”
 - “What are two facts you know about ice cream or where it comes from?”
 - “How could you close your writing? What final thought wraps it up?”Allow 2–3 minutes for oral rehearsal. Students who verbalize their informative piece before writing produce more complete and detailed responses.
5. Shared Writing: Modeling the Writing Process
- a. Consonant Digraphs: Explain to students: “Before we write, let’s look at some special letter pairs in our dairy words today. A digraph is two letters that work together to make one new sound — you cannot hear each letter separately. Let’s find digraphs in the words we are about to write.”
 - b. Write each digraph on chart paper and connect it to a lesson word:
 - sh — /sh/ — shake — “We shook the bag to make ice cream. S and h together make /sh/. You cannot hear /s/ and /h/ separately.”
 - ch — /ch/ — churn — “A butter churn works like our jar. C and h together make /ch/.”
 - wh — /wh/ — whipping — “We used heavy whipping cream. W and h together make /wh/.”
 - th — /th/ — that — “T and h together make /th/. We use this word all the time when we write.”
 - c. Ask students: “How is a digraph different from a consonant blend? What is the key difference?”
 - d. Gather students on the carpet where they can all see the chart paper clearly.

- e. Explain to students: "I am going to write an informative paragraph about ice cream. Watch how I name my topic, give facts, and close. I will also show you how I check my letters and sentences as I go."
 - f. Model writing a three-sentence informative response, thinking aloud at every step:
 - "My topic sentence: Ice cream is a dairy food. I start at the top of the page, at the beginning of the sentence, with a capital I. I check: capital? Yes. That is the first feature of a sentence."
 - "My fact sentence: It is made from cream that we shake with ice and salt. Let me look at the word "shake" — I see a digraph right there: "sh". The letters s and h work together to make /sh/. I write s-h-a-k-e. Now I write each word carefully, leaving a space between each word. Let me check: does each letter sit on the line? Are my capitals and lowercase letters formed correctly?"
 - "My closing sentence: Dairy farmers in Kansas help make ice cream possible. I end with a period. Let me read back and check: capital at the start, period at the end."
 - g. Point to the completed paragraph and name each part:
 - Topic: "Ice cream is a dairy food."
 - Fact: "It is made from cream that we shake with ice and salt."
 - Closure: "Dairy farmers in Kansas help make ice cream possible."
 - h. Ask students to try their opening sentence orally with a partner before writing:
 - "Turn to a partner. Say your topic sentence. Make sure it names your topic."
6. Informative Writing — From Cow to Cone
- a. Distribute the From Cow to Cone writing sheet.
 - b. Explain to students: "Now it is your turn. Draw your ice cream in the drawing box first. Then write your informative paragraph: a topic sentence, at least one fact, and a closing sentence. Use what you know."
 - c. Keep the digraph chart visible for student reference.
 - d. As students write, circulate and support:
 - Correct production of upper- and lowercase letters
 - Check sentence features: capital at start, period at end
 - Digraph recognition when students write shake, whipping, or that
 - Prompt topic sentence for students who are stuck: "What did you make today? Start with that."
 - Prompt closure for early finishers: "How does your paragraph end? Write one final thought."(Differentiation note: For students who need additional support, provide a paragraph frame at teacher discretion: "Ice cream is _____. It comes from _____. Dairy farmers _____." For students ready for a challenge, prompt a second fact that connects ice cream to another dairy product from this unit.)
7. Closing Discussion & Reflection
- a. Gather students together with their completed writing sheets.
 - b. Ask students:
 - "What did we make today? Where did the cream come from?"

- “In *Celebrate Wheat*, wheat became pizza crust. In this unit, what did milk become?”
 - “What is the connection between a dairy cow and a bowl of ice cream?”
- c. Invite students to share their paragraphs. After each one, ask the class:
- “What was the topic sentence?”
 - “What fact did the writer give?”
 - “Did you hear a closing thought?”
- d. Reinforce the farm-to-table connection: “Dairy cows give us milk. Milk gives us cream. Cream gives us butter. Cream gives us ice cream. It all starts on a Kansas dairy farm.”

Assessment: Student understanding is assessed through teacher observation during the video discussion, phonics and spelling instruction, ice cream activity, and independent writing. Teacher should note whether students can identify the phoneme-grapheme correspondences for common digraphs (sh, ch, wh, th) in dairy vocabulary, demonstrate understanding of reading terminology including word, letter, and beginning of sentence, recognize the features of a complete sentence, correctly produce upper- and lowercase letters, and write an informative paragraph that names a topic, supplies at least one fact, and provides a sense of closure. The From Cow to Cone writing sheet serves as the primary written artifact for this lesson.

Supplemental Activities: Display the *From Cow to Cone* writing sheets alongside the butter sequence sheets and the “Map the Journey” sequence sheets from previous lessons. Guide students to look across all three displays and identify the farm-to-table connection. Add the digraph words from this lesson (shake, whipping, churn, that) to the classroom word wall. Students can use these for reference during independent reading and writing throughout the week.

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Student Name: _____

From Cow to Carton

I milked the cow. The cream
came from the