

Lesson 2: Exploring Wheat

Grade Level: 1st Grade

Time: 60 minutes

Subjects: ELA, Science

Overview: This lesson is Lesson 2 of 5 in the *Celebrate Wheat* unit within the *Growing Readers* micro-curriculum, based on a series of books written by Kansas author Dan Yunk. Lesson 2 serves as a hands-on literacy and science lesson focused on planting wheat to deepen students' understanding of how wheat begins as a seed and grows into a food source. Students build understanding by applying background knowledge from the shared reading in Lesson 1 while engaging in structured discussions and a real-world planting experience connected to agriculture in Kansas. First graders are expected to write informative sentences that name a topic and supply facts, use conventional spelling for common patterns, apply capitalization and punctuation rules, and demonstrate understanding of reading terminology. This lesson reinforces those skills through explicit, systematic instruction in the context of meaningful science and agricultural content. Connections to *The Soil Neighborhood* unit are woven throughout as students physically experience what they learned about soil's role in plant growth.

Skillset: Activating and connecting prior knowledge across units, wheat growth and seed observation, oral language and vocabulary development, descriptive language, informative writing with topic and facts, reading terminology, recognizing sentence features, capitalization and punctuation conventions, conventional spelling, use of pronouns, and Kansas connections through wheat and food knowledge.

Kansas Academic Standards

Kansas ELA Standards

RF.1.1.b Have an understanding of important reading terminology (e.g., word(s), letter(s), beginning of sentence, top of the page, bottom of the page).

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 Demonstrate command of the conventions of standard English grammar and usage when writing.

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

W.1.10.d Use personal, possessive, and indefinite pronouns (e.g., I, me, my).

W.1.11 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

W.1.11.a Capitalize dates and names of people.

W.1.11.b Use end punctuation for sentences.

W.1.11.c Use commas in dates and to separate single words in a series.

W.1.11.d Use conventional spelling for words with common spelling patterns (e.g., floss rule) and for frequently occurring irregular words.

Science Standards

1-LS1-1 Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.

1-LS3-1 Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.

National Agriculture Literacy Outcomes

Plants and Animals for Food, Fiber, and Energy

T2.K-2.a Describe how plants are grown and used for food.

T2.K-2.e Identify the importance of natural resources (e.g., sun, soil, water) in farming.

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:

- Recognize that wheat begins as a seed and grows into a plant.
- Observe and describe what plants need to grow (soil, water, sunlight).
- Explain that wheat is a plant grown by farmers to make food.
- Connect the role of healthy soil to wheat growth, drawing on prior knowledge from *The Soil Neighborhood*.
- Make observations as evidence that young wheat plants grow from seeds, connecting to the life cycle of wheat.

English Language Arts Objectives

Students will be able to:

- Demonstrate understanding of reading terminology, including word, letter, beginning of sentence, and ending punctuation.
- Recognize the distinguishing features of a sentence: first word, capitalization, and ending punctuation.
- Write an informative sentence that names a topic (wheat), supplies at least one fact, and provides a sense of closure.
- Print upper- and lowercase letters correctly.
- Apply the correct use of the pronoun "I" in a sentence.
- Capitalize the first word of a sentence and names where applicable.
- Complete written sentences with appropriate end punctuation.
- Write words with common spelling patterns and frequently occurring irregular words. using conventional spelling.

Materials Needed

- Wheat seeds (one per student, plus extras)
- 9oz clear plastic cups (one per student)
- Soil wafers (one per student)
- Water
- Trays or newspapers to protect surfaces
- Chart paper
- Markers
- Student drawing and writing paper
- Pencils or crayons

- Hand wipes or paper towels

Lesson Procedures

1. Activating Prior Knowledge

- Explain to students: *"In our story Celebrate Wheat, Kailey's grandma told her where pizza crust comes from. Today, we are not rereading the book, but we are going to use what we already know to do something farmers do — plant wheat."*
- Ask students:
 - *"What does wheat start as?"*
 - *"What does wheat need to grow?"*
 - *"What food do we eat that comes from wheat?"*
- Briefly restate key ideas from Lesson 1: *"Wheat starts as a seed. It grows with sun, water, and soil. Farmers grow wheat to make flour, and flour is used to make foods like pizza crust."*
- Bridge to *The Soil Neighborhood*: *"We also learned something important in The Soil Neighborhood — soil is not just dirt. It is a neighborhood full of helpers that give plants the nutrients they need to grow. Today, your wheat seed is going to go into that same kind of healthy soil. The soil neighborhood is where the wheat story begins."*

2. Wheat Seed Exploration (Before Planting)

- Give each student one wheat seed to examine.
- Explain to students: *"Before we plant our wheat seed, we are going to look at it closely. Scientists and writers look carefully before they write. This practice is called making observations."*
- Prompt students to observe using their senses:
 - *"What does the seed look like?"*
 - *"Is it big or small?"*
 - *"Is it smooth or rough?"*
 - *"What color is it?"*
- Model descriptive language as students respond. Record a few student words on chart paper (e.g., small, brown, hard).
- Connect observation to prior knowledge: *"In the story, Grandma said wheat starts as a seed. This small seed can grow into a tall wheat plant that will eventually produce more seeds — just like the one you are holding. And remember what we learned about soil? The soil neighborhood is going to take care of this seed once we plant it."*
- Explain to students: *"We look closely so we can use good, specific words when we talk and write about wheat."*

3. Wheat Planting Activity (Hands-On Investigation)

Prepare materials so each student has their own planting container, soil, and wheat seed before beginning this step.

- Teacher models expectations before distributing materials:
 - *"Each of you will plant your own wheat seed."*
 - *"We handle seeds gently."*
 - *"We do not put the seed in our mouths."*
 - *"We keep soil in our own container."*
 - *"We listen and follow directions one step at a time."*

- b. Explain to students: *"In the story, Grandma told Kailey that wheat starts as a seed. Today, you are each going to plant your own wheat seed, just like farmers do."*
 - c. Distribute materials to each student, then model planting wheat step-by-step while students watch before they begin:
 - *"First, put the soil in your cup."*
 - *"Next, place your wheat seed in the soil."*
 - *"Then, cover the seed with soil."*
 - *"Last, add water to the soil."*
 - d. Students plant their own wheat seeds following each modeled step. Pause between steps to ensure all students are successful before moving on.
 - e. As students plant, prompt oral language using complete sentences. Emphasize the pronoun I and model correct usage:
 - *"I put the seed in the soil."*
 - *"I covered the seed with soil."*
 - *"I added water to the soil."*
 - f. Explain to students: *"Planting your own seed helps you understand what we learned in the story. Each of your seeds can grow into wheat, just like Grandma described. And now that seed is resting in the soil neighborhood, surrounded by all the helpers we learned about."*
4. Vocabulary & Oral Language Development
 - a. Introduce and reinforce vocabulary using the planted seeds as real-world examples:
 - Wheat – a plant farmers grow for food
 - Seed – the part of the plant that grows into a new plant
 - Soil – the living ground that holds nutrients and helps plants grow
 - Plant (verb) – to put a seed in soil so it can grow
 - Grow – to get bigger over time
 - b. Ask students:
 - *"What did we plant the seed in?"*
 - *"What do plants need to grow?"*
 - *"Why do farmers plant wheat?"*

Encourage students to answer using complete sentences. Prompt: "Tell me that as a complete sentence starting with I or The."
5. Reading Terminology & Sentence Features
 - a. Explain to students: *"Before we write today, let's review some important words we use when we talk about reading and writing. Knowing these words helps us understand directions and talk about our writing."*
 - b. Display the sentence: "Wheat grows from a seed," on chart paper.
 - c. Point to each feature and name it explicitly:
 - *"This is a word. A word is made up of letters and has spaces on each side. Point to one word with me."*
 - *"This is a letter. Letters make up words. Point to one letter."*
 - *"This is the beginning of the sentence. The beginning of a sentence always starts with an uppercase letter, also called a capital letter. What capital letter do you see here?"*
 - *"This is the end of the sentence. The end of a sentence has a punctuation mark. What punctuation mark do you see?"*
 - d. Ask students:

- *“How many words are in this sentence? Count with me.”*
 - *“How do you know where one word ends and the next begins?”*
 - *“What tells you this is the beginning of the sentence?”*
 - *“What tells you this is the end of the sentence?”*
 - e. Reinforce terminology: *“When writers talk about their writing, we use special words: word, letter, beginning of sentence, end of sentence, capital letter, and punctuation. We are going to use these words today when we write.”*
6. Shared Writing & Informative Writing Instruction
- Explain to students: *“Scientists write about what they observe. Today, we are going to write an informative sentence about wheat. An informative sentence names a topic and gives the reader a fact about it.”*
- a. On chart paper, write and model the sentence: *“Wheat grows from a seed.”*
 - b. Teacher models explicitly while pointing to each feature:
 - *Tracking words left-to-right*
 - *Pointing to each word with one-to-one correspondence*
 - *Identifying spaces between words*
 - *Identifying the capital letter at the beginning of the sentence*
 - *Identifying the period at the end of the sentence*
 - c. Ask students:
 - *“What is the topic of this sentence?” (wheat)*
 - *“What fact does this sentence give us?” (It grows from a seed.)*
 - *“Where does the sentence start? What capital letter do you see?”*
 - *“Where does the sentence end? What punctuation mark is there?”*

7. Student Writing Component

Gather students in a place where they can clearly see the chart paper and sentence frames before beginning.

Prompt: *“Now it is your turn to be a writer. You are going to write an informative sentence about wheat that names the topic and shares a fact.”*

- a. Explain to students: *“A good informative sentence names what you are writing about and gives the reader one fact. It starts with a capital letter and ends with a period.”*
- b. Model a complete sentence on chart paper, slowly writing:
“I planted a seed.”
- c. Model each step out loud:
Prompt: *“My topic is wheat. My fact is that I planted a seed. I start with a capital I — remember, the pronoun “I” is always capitalized. Then I write my words with spaces between them, and I end with a period.”*
- d. Ask students:
 - *“What is the topic of my sentence?”*
 - *“What fact does my sentence give?”*
 - *“Is this an uppercase I or a lowercase i? Why is it uppercase?”*
 - *“How many words are in my sentence? Count them with me.”*
- e. Explain to students: *“After I finish writing, I reread my sentence to make sure it makes sense, starts with a capital letter, has spaces between words, and ends with a period.”*
- f. Model finger stretching for conventional spelling: *“Let’s look at the word seed. When we spell it, we will look closely at the spelling pattern. The word seed has a vowel team. A vowel team is when two vowels are right next to each other and work together to make one sound. In seed, the letters e-e are a vowel team —*

two e's together make the long /e/ sound. You can hear it: seed. Let's think of other words with the ee vowel team: feet, meet, tree. Now let's spell seed together: s-e-e-d. The s makes the /s/ sound, e-e is our vowel team making the long /e/ sound, and d makes the /d/ sound. When you write the word seed today, remember: two e's work together as a team."

- g. Display sentence frames on chart paper:
 - *"Wheat grows from a seed."*
 - *"I planted a seed."*
 - *"The seed is in the soil."*
 - h. Prompt students: *"When you write today, name your topic, share one fact, and use our sentence rules: capital letter at the beginning, spaces between words, and a period at the end."*
 - i. Students complete a draw-and-write response. Students draw the wheat seed they planted and write their own informative sentence independently, using the sentence frames on the chart paper as a reference only. The expectation is independent writing — students name the topic and supply a fact in their own words, applying the spelling, capitalization, and punctuation conventions practiced in this lesson.

Differentiation note: For students who need additional support, the sentence frames may be used as a copying scaffold on a case-by-case basis at the teacher's discretion. For students who need additional challenge, prompt them to write two sentences — one naming the topic and one adding a second fact (e.g., "I planted a seed. The seed needs water and sunlight to grow."). Teacher scribing should be reserved for students with identified writing needs and used as a targeted support, not a general classroom option.
 - j. Ask students to write, circulate, and explicitly support:
 - *Capital letter at the beginning of the sentence*
 - *Correct use of the pronoun I*
 - *Spaces between words*
 - *Conventional spelling for common patterns*
 - *End punctuation*
 - *Tracking words while rereading sentences aloud*
8. Discussion & Reflection
- a. Ask students:
 - *"What did we do today that helped us understand the text better?"*
 - *"Why do farmers plant wheat?"*
 - *"What do you think will happen to our seeds next?"*
 - *"How is our planting cup like the soil neighborhood we learned about? What helpers are in that soil right now?"*
9. Kansas Connection
- a. Explain to students: *"We live in Kansas, and Kansas is a farming state. Some farmers in Kansas grow wheat to help feed the world. Wheat is one of the crops Kansas is best known for."*
 - b. Show a simple map of Kansas and point to where the school is located.
 - c. Explain to students: *"Right here is where we live. All around our community, farmers grow crops like wheat in big fields."*
 - d. Kansas Connection:

Kansas Connection — Teacher Script: *"Today, every one of you planted a wheat seed — and that is something farmers across Kansas do every single year. Wheat farming looks a little different depending on where you are. If you live out*

in the country or your family has land, you might have watched a farmer get a field ready, or seen rows of little green sprouts coming up in the spring. If you live closer to town, you might not have planted a seed before today, but now you have. And whether your family farms or not, that seed in your cup is doing the same thing that millions of seeds across Kansas are doing right now — putting down roots in the soil, reaching for the sun, and slowly becoming the food that shows up on all of our tables.”

e. Ask students:

- *“Have you seen wheat growing near your home or on a drive through Kansas?”*
- *“Who do you know that works on a farm or ranch?”*
- *“How does planting your own wheat seed help you understand what farmers do?”*

Assessment: Student understanding is assessed through ongoing formative and observational measures embedded throughout the lesson, including teacher observations, student discussions, hands-on planting activities, and the application of foundational literacy skills during shared and independent writing. Teachers should note whether students can articulate what a seed needs to grow, connect the planting experience to the text, correctly identify reading terminology (word, letter, beginning/end of sentence), apply conventional spelling for common patterns, use the pronoun I correctly, and use capital letters and end punctuation in their sentences. Students who make unprompted connections to *The Soil Neighborhood* demonstrate meaningful cross-unit learning transfer and should be noted.

Supplemental Activities: Wheat Journal: Give each student a simple folded-paper booklet to use as a wheat journal. On the first page, students write the date (reinforcing W.1.11.a — capitalizing dates), draw their planted seed, and write an informative sentence naming the topic and one fact (e.g., “I planted a wheat seed,” or “Wheat grows from a seed.”). As the wheat grows over the coming days and weeks, students add a new page each time they observe a change, drawing what they see and writing one observation sentence. Prompt students to use conventional spelling for words they know and to check that each sentence starts with a capital letter and ends with a period. The journal can be revisited in later lessons and brought home at the end of the unit as a take-home artifact connecting school learning to family conversations about food and farming.

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