



Lesson 3: Soil Helpers and Healthy Soil

Grade Level: 2nd Grade

Time: 1 hour

Subjects: ELA, Science

Overview: This lesson is Lesson 3 of 5 in *The Soil Neighborhood* unit within the *Growing Readers* micro-curriculum, based on a series of books written by Kansas author Dan Yunk. Lesson 3 focuses on a purposeful second read of *The Soil Neighborhood* to deepen student understanding of soil as a living system. Students explore how soil helpers support healthy soil through rereading, multimedia, and hands-on center activities. Instruction emphasizes comparing information across texts, analyzing word choice to understand meaning, and engaging in collaborative discussion. Through vocabulary analysis, text comparison, observation, and discussion, students strengthen listening comprehension, understanding of informational text, and academic language while making connections to soil use in Kansas agriculture and everyday environments.

Skillset: Listening comprehension, rereading for understanding, collaborative discussion, vocabulary development, comparing and contrasting informational texts, analyzing shades of meaning, categorization, questioning and clarifying meaning, oral language, observation, soil health concepts, and place-based connections.

Kansas Academic Standards:

Kansas ELA Standards

SL.2.1 Participate in collaborative conversations with diverse partners about Grade 2 topics and texts with peers and adults in small and large groups.

SL.2.2 Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.

RI.2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

RI.2.9 Compare and contrast the most important points presented by two texts on the same topic.

RI.2.12 Demonstrate understanding of word relationships and nuances in word meanings.

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

RI.2.12.b Distinguish shades of meaning among closely-related verbs and closely-related adjectives.

Science Standards

2-LS1-2 Plan and conduct an investigation to determine if plants need sunlight and water to grow.

National Agriculture Literacy Outcomes

Plants and Animals for Food, Fiber, and Energy

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

Objectives:

Science Objectives

Students will be able to:

- Identify living and nonliving components of soil through text, discussion, and hands-on exploration.
- Describe how soil helpers support healthy soil and plant growth

English Language Arts Objectives

Students will be able to:

- Participate in collaborative discussions about soil helpers using appropriate listening and speaking behaviors.
- Recount key ideas from a second read-aloud and informational video.
- Compare important ideas about soil helpers across two informational texts.
- Analyze closely related verbs and adjectives to explain how soil helpers move and how soil functions.
- Connect soil-related vocabulary to real-life experiences in farming, gardening, and daily life.

Materials Needed

- *The Soil Neighborhood* by Dan Yunk
- Chart paper and markers
- Smartboard/projector to show YouTubeKids Video: Soil Is Alive!
<https://www.youtubekids.com/watch?v=Q-J2FErZHuA>
- Plastic or rubber earthworms
- Clear plastic container or jar
- Soil (or layered sand/soil)
- Small spray bottle with water
- Sorting cards and mats (living vs. nonliving soil components) provided below
- Informational text: Soil Helps Plants Grow (one per student or pair) provided below
- Compare Two Texts: Soil Helpers recording sheet (one per student) provided below.
- Verb cards: move, wiggle, dig, burrow
- Adjective cards: soft, loose, packed, hard
- Pencils

Lesson Procedures

1. Activating Prior Knowledge
 - a. Gather students and explain: "In our last lesson, we explored how soil feels. Today, we are going to reread *The Soil Neighborhood*. This time, we are listening very carefully because we want to learn new information."
 - b. Explain the purpose of a second read: "Good readers read books more than once. The first time we read to understand the story. The second time, we read to learn more details."
 - c. Ask students:
 - "What do you remember about the soil neighbors?"
 - "What do you think might be living in the soil?"
2. Purposeful Second Read-Aloud
 - a. Set a listening purpose: "While I read today, listen for who or what helps the soil stay healthy."



- b. Read *The Soil Neighborhood* aloud.
Pause at key pages to:
 - highlight illustrations,
 - clarify vocabulary,
 - ask brief text-dependent questions.
 - c. Ask students during reading:
 - “Who is helping the soil here?”
 - “What job are they doing?”
 - d. After reading, ask students:
 - “What new information did we learn today?”
 - “Why is soil more than just dirt?”
3. Video Exploration: Confirming Understanding Through Media
- a. Introduce the video: “We learned more from our book *The Soil Neighborhood*, and now we are going to watch a short video that helps us see soil helpers we cannot see easily, like tiny living things.”
 - b. Set a viewing purpose: “While you watch, listen and look for who lives in the soil and what they do.”
 - c. Watch the video: SciShow Kids – Soil Is Alive! (YouTube Kids)
<https://www.youtubekids.com/watch?v=Q-J2FErZHuA>
 - d. Ask students:
 - “What living things did you see in the soil?”
 - “What did the video show that the book could not show?”
 - “What jobs do soil helpers do?”
 - e. Invite questions:
 - “What does bacteria do?”
 - “Why do earthworms move through soil?”
 - f. Explain to students: “Books and videos can teach us the same idea in different ways.”
4. Hands-On Learning Centers: Modeling Soil Health
- a. Explain to students: “Scientists do not just read and watch videos; they observe, build models, and talk about what they notice. Today, we are going to work at different centers to help us understand how soil helpers keep soil healthy.”
 - b. Review expectations before beginning:
 - Use gentle hands with materials
 - Talk quietly with your group
 - Take turns and listen to others
 - Stay at your center until it is time to rotate
 - Keep your hands to yourself
 - c. Students rotate through centers in small groups. Each center lasts approximately 10-12 minutes.

Center 1: Earthworm Tunnel Model

Materials:

- Clear plastic container or jar
- Soil (or layered sand/soil if available)
- Plastic or rubber earthworms
- Small spray bottle with water (teacher-controlled)

Teacher Directions: Explain to students: “This container helps us see what usually happens underground where we cannot see.”



- a. Model first:
 - Place the worm on top of the soil.
 - Slowly move it through the soil to create tunnels.
- b. Student Task:
 - Students take turns gently moving the worm through the soil.
 - Observe how the soil changes when tunnels are made.
- c. Guiding Questions:
 - “What happens to the soil when the worm moves?”
 - “What do the tunnels help water and air do?”
 - “Why would this be helpful in a garden or field?”
- d. Explain: “Earthworms do this work every day in farm fields, pastures, gardens, and grassy land.”

Center 2: Living vs. Nonliving Soil Helpers Sorting

Materials:

- Picture cards:
 - earthworms
 - bacteria
 - plant roots
 - rocks
 - minerals
 - fungi
 - sticks
 - dead plants
 - bones
- Two labeled mats:
 - Living Soil Helpers
 - Nonliving Soil Parts

Teacher Directions: Explain to students: “This center helps us look closely at what is in the soil. Some things in soil are living, and some things are nonliving. Both are important.”

- a. Model expectations:
 - Place the two mats on the table or floor.
 - Spread the picture cards face up.
 - Demonstrate sorting one living item (e.g., earthworm) and one nonliving item (e.g., rock).
- b. Think aloud while modeling:
 - “This earthworm is living because it moves and grows.”
 - “This rock is nonliving because it does not grow or need food.”
- c. Student Task:
 - Sort cards into the correct category.
 - Talk with partners about why each card belongs where it does.
- d. Prompt students to explain their thinking:
 - “Why is this living?”
 - “How does *this* help soil?”
- e. Guiding Questions:
 - “Do living and nonliving things both help soil?”
 - “What would happen if soil was missing one of these?”

Center 3: How Soil Helpers Move and How Soil Feels

Materials:



- Verb Cards: move, wiggle, dig, burrow
- Adjective cards: soft, loose, packed, hard
- Headers: Verbs and Adjectives

Teacher Directions: Explain: “At this center, we are going to look closely at words. Authors choose words carefully to help readers understand ideas clearly. Some words are similar, but they don’t mean exactly the same thing.”

- Model with Verbs (Think Aloud) and Explain: “If I read that an earthworm moves through soil, I know it changes place, but I don’t know how. If I read that it burrows, I can picture the worm pushing through soil and making tunnels. Burrow gives me the clearest picture of how the worm moves underground.”
- Model with Adjectives (Think Aloud) and Explain: “If I read that the soil is soft, I know it is not hard. If I read that the soil is loose, I can picture air spaces where water can move, and roots can grow. Loose gives me the clearest picture of what healthy soil is like.”
- Explain to students: “To decide which word gives the clearest picture, ask yourself:
 - “Can I imagine what is happening in the soil?”
 - “Does this word tell me ‘how’ or ‘what kind’?”
- Student Task:
 - Sort verbs and adjectives
 - Decide which word in each group best explains:
 - How soil helps move underground (verbs)
 - What is the soil like when it is healthy or unhealthy (adjectives)
 - Explain their choice to a partner using:
 - “This word gives a clearer picture because...”
- Guiding Questions:
 - “Which word helps you imagine what the worm is doing underground?”
 - “Which adjective helps you picture healthy soil?”
 - “Why does this word explain the soil better than the other one?”

Center 4: Writing Center – Soil Helpers Informational Writing

Materials:

- *The Soil Neighborhood* by Dan Yunk (class anchor text; students may reference illustrations or charts)
- Independent informational text: Soil Helps Plants Grow (one copy per student or pair)
- Compare Two Texts: Soil Helpers recording sheet (one per student)
- Pencils
- Vocabulary support written on the chart (soil, earthworms, bacteria, minerals, healthy)

Teacher Directions: Explain to students: “At this center, you will read a short informational text by yourself. Then you will compare it to *The Soil Neighborhood*. You will use a worksheet to help you organize your thinking.”

- Model how to compare while thinking aloud: “*The Soil Neighborhood* explains soil helpers using a story. This new text gives facts. I am going to look for ideas that appear in both texts.”

- b. Explain to students: “You will first read the text quietly. Then use the worksheet to show how the texts are the same and how they are different.”
 - c. Student Task:
 - Read the informational text Soil Helps Plants Grow independently or with a partner.
 - Look back at The Soil Neighborhood to recall key ideas.
 - Identify **at least one similarity** between the two texts about soil helpers.
 - Identify **at least one difference** between the two texts about soil helpers.
 - Use words or short phrases to record ideas on the worksheet.
 - Share one similarity or difference with a partner using a complete sentence.
 - d. Guiding Questions:
 - “What idea is in both texts?”
 - “What information is new in this text?”
 - “Where on your worksheet should that idea go?”
5. Collaborative Discussion & Reflection
 - a. Gather students back together and explain: “Now that you have explored soil helpers at your centers, we are going to come back together to talk about what we learned.”
 - b. Review discussion rules:
 - listening
 - taking turns
 - staying on topic
 - c. Explain to students: “When we talk together, we listen to each other and build on ideas.”
 - d. Ask students:
 - “How do earthworms help soil?”
 - “What other helpers did you learn about today?”
 - “Why do farmers, gardeners, and people who take care of parks care about healthy soil?”
 - e. Model and prompt students to respond to classmates:
 - “I agree because...”
 - “I want to add...”If needed, scaffold by saying:
 - “Who can add to what _____ said?”
 - “Does anyone have a different idea?”
 - f. Ask students:
 - “Which center helped you understand soil the most?”
 - “What is one new thing you learned about soil today?”
6. Kansas & Place-Based Connection
 - a. Explain: “Kansas has many farms and ranches, but everyone depends on healthy soil. Soil helps farmers grow crops, helps grass grow for animals, and helps plants grow in gardens, parks, and schoolyards.”
 - b. Show a simple map of Kansas and explain:
 - fields grow food,
 - pasture grows grass,

- towns and schools use soil, too.
- c. Ask students:
 - “Where have you seen soil near your home?”
 - “Why is it important to take care of soil?”
- 7. Vocabulary Review. Prompt students: “Let’s review our vocabulary to help us remember what we learned.”
 - a. Review:
 - Soil: loose material on the ground made of tiny pieces of rock and living things where plants grow.
 - Bacteria: very tiny living things in soil that help break down old plants.
 - Minerals: tiny pieces of rock in soil that help plants grow strong.
 - Earthworms: living helpers that move through soil and help keep it healthy.
 - c. Have students use each word in an oral sentence.

Assessment:

Student understanding is assessed through formative and observational measures embedded throughout the lesson, including participation in rereading and multimedia discussion, use of soil-related vocabulary during collaborative conversations, engagement in center-based exploration and word analysis tasks, and student explanations of learning. Additional evidence is gathered through students’ compare-and-contrast work, in which students identify similarities and differences between two informational texts about soil helpers using a recording sheet to organize ideas and support oral discussion.

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soft

loose

packed

hard

move

wiggle

dig

burrow

Center #4: Informational Text

Soil Helps Plants Grow

Soil is important for plants. Plants grow in soil because it provides them with what they need.

Soil has living and nonliving parts. Earthworms and tiny living things called bacteria live in soil. Earthworms move through the soil, making spaces for air and water. Bacteria help break down old plants and animals.

Soil also contains nonliving parts, such as rocks and minerals. Minerals help plants grow strong roots and stems.

Healthy soil is loose and full of life. Loose soil lets water move easily and helps roots grow. When soil is healthy, plants can grow better in gardens, fields, and farms.



Center #4: Compare Two Texts: Soil Helpers

Name: _____

Date: _____

Texts We Are Comparing

- Text 1: *The Soil Neighborhood*
- Text 2: *Soil Helps Plants Grow*

Same in Both Texts

(Write or draw one idea that both texts teach.)

Different in Each Text

Only in *The Soil Neighborhood*

(Write or draw one idea.)

Only in *Soil Helps Plants Grow*

(Write or draw one idea.)

Talk About It

Circle one and tell your partner:

- Both texts teach that _____.
- One difference is _____.





Minerals



Sticks



Earthworm



Rocks



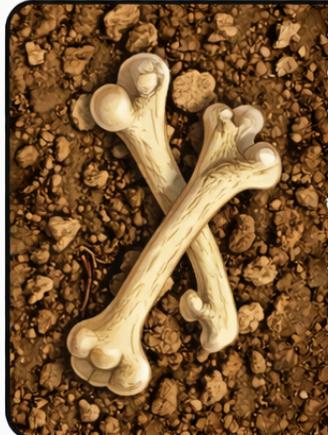
Dead Plants



Bacteria



Fungi



Bones



Plant Roots

Living Soil Helpers



Nonliving Soil Parts

