# SPROUTS' MONTHLY BOOK

**SC Farm Bureau**
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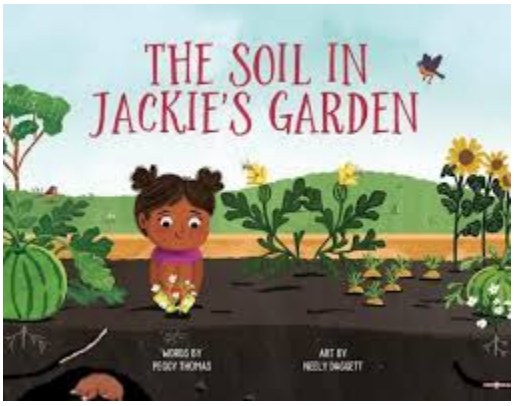
**February 2025 Monthly**

*The Soil in Jackie's Garden*
Written by: Peggy Thomas
Illustrated by: Neely Dagget

Grade Levels Suggested: 3-4

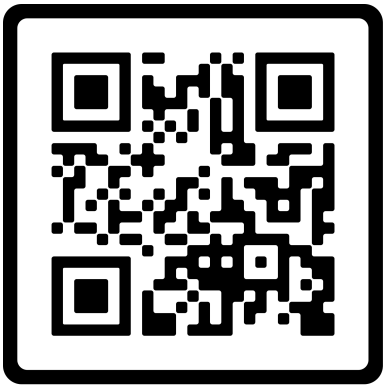
Lesson by: Allison Whiten




Join Jackie and her garden friends in this charming picture book as they discover the wonders of gardening, soil secrets, and the magic of composting. Jackie and her garden friends embrace the joys of planting a garden, nurturing and harvesting their own food, and recycling scraps to compost, ensuring that the magical cycle of growth and sustainability continues anew. Science facts about soil, plants, pollinators, decomposers, and more are included on every spread. A fantastic book to engage young readers in becoming environmental stewards, learning how to care for a garden, understanding a plant life cycle, discovering the power of pollinators

and the importance of composting. Written in the cumulative style of "The House that Jack Built," this playful celebration of how things grow, return to the earth, and grow again will inspire young readers to try their hands at gardening and composting. Back matter includes information on the soil cycle and how to make a compost pile.

Scan here for Lesson Slides!



February Slides

# Science Lesson

**Grade Level:**

- 4th

**Time length of the lesson:**

- 1 hour 30 minutes

**Standards Addressed:**

- 4-ESS2-1. Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.

**Objective of the lesson:**

- I can make observations to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.

**National Agricultural Literacy Outcomes:**

- Explain how the interaction of the sun, soil, water, and weather in plant and animal growth impacts agricultural production. (T1.3-5.b)
- Identify land and water conservation methods used in farming systems (wind barriers, conservation tillage, laser leveling, GPS planting, etc.). (T1.3-5.c)
- Recognize the natural resources used in agricultural practices to produce food, feed, clothing, landscaping plants, and fuel (e.g., soil, water, air, plants, animals, and minerals). (T1.3-5.e)
- Explain how the availability of soil nutrients affects plant growth and development. (T2.3-5.c)
- Understand the concept of stewardship and identify ways farmers/ranchers care for soil, water, plants, and animals. (T2.3-5.e)

**Materials list:**

- Computer
- Projecting screen
- Pencil
- Paper
- Soil
- Basin
- Water
- Journal sheet

**Instructor procedure:**

- The teacher will read *The Soil in Jackie's Garden*
- The teacher will review the I can statements.
- The teacher will review vocabulary.
    - Weathering-the process by which rocks and minerals break down or dissolve on the Earth's surface.
    - Erosion-process that removes and moves soil, rock, and dissolved material from one place to another
    - Vegetation-Plants and the ground coverage they provide
    - Wind barriers-Wind barriers, also known as windbreaks or shelterbelts, are rows of trees, shrubs, or grasses that help protect crops from wind
    - Conservation tillage-a farming method that reduces the amount of tilling done in a field.
    - Terrace agriculture-a farming technique that involves cutting into hillsides to create flat areas for growing crops.
- The teacher will place the class into groups of three or four students.
- Each group will receive a basin with soil and some water.
- The students will pour the water on the soil and observe the changes.
    - Students will record changes on the journal sheet..
- The students will share their observations to the class.
- Each group will receive a new basin with soil and paper.
- The students will use the paper to fan  the soil and observe the changes.
    - Students will record changes on the journal sheet.
- The teacher will ask the students how this could impact our Earth as well as agricultural land.
- The teacher will review the slides on agricultural methods to prevent erosion.
- Each group will collaborate for 5 minutes to decide on:
    - A method to demonstrate
    - A hypothesis (what they think will happen)
- Students will circle their method (Wind barriers, conservation tillage, terrace agriculture) and write their hypothesis on the journal sheet.
- Each group will choose a method and model the method in their basin of dirt.

    - Students will need to be aware that some methods that are used for wind and others are used for water.
    - Students will model the effectiveness of the model they chose.
    - Students will record the difference on the journal sheet.
- To close, the teacher will ask students to share with their neighbor why soil management methods and soil health are important.
- The teacher will allow students to share out.

**Assessment:**

- **Assessments**
    - Informal:
        - Think pair share
    - Formal
        - Group work and documentation on journal sheet.
- **Early finishers:**
    - In the Field with the Soil Experts - Overview
    - Digging Deep Into Soil - MN Ag Mag

**Additional resources which enhance the lesson:**

- Please give input for future lessons!
    - https://docs.google.com/forms/d/1eXB-TGh15ptoU9o61Iscyk070fEk3rlXmT05CkpMsoQ/edit
- **Activities:**
    - https://www.feedingmindspress.com/files/SOIL_coloring_sheet_2_lr.pdf
- **Ag Mags:**
    - https://www.agfoundation.org/resources/soils-ag-mag
    - https://www.agintheclassroom.org/media/fvgb5jql/soil-ag-mag_2019_online_interactive.pdf
    - https://www.agintheclassroom.org/media/41incpom/aitc_jr-agmag_soil_web.pdf
- **Resources:**
    - The Soil In Jackie's Garden Educator's Guide
    - https://des.sc.gov/sites/des/files/Library/OR-1520.pdf

    - Composting - KidsGardening
    - Teaching Resources—Erosion - Erosion: Water, Wind & Weather (U.S. National Park Service)
    - In The Field e-Learning Module | American Farm Bureau Foundation for Agriculture
- **Books**:
    - Under Your Feet... Soil, Sand and Everything Underground (Underground and All Around): Tang, Wenjia: 9781465490957: Amazon.com: Books
    - Dirt: The Scoop on Soil (Amazing Science)
    - Amazon.com: Erosion: How Hugh Bennett Saved America's Soil and Ended the Dust Bowl (Moments in Science)
- **Additional Lesson Plans:**
    - October Monthly Book
    - Vermicomposting (Grades K-2) | South Carolina Agriculture in the Classroom
    - https://www.feedingmindspress.com/files/low-rez-activity-5_compressed.pdf
    - Types by Texture | National Agriculture in the Classroom
    - Plants Around You | National Agriculture in the Classroom
    - How Does Your Garden Grow? (Grades K-2) | National Agriculture in the Classroom
    - How Does Your Garden Grow? (Grades 3-5)
    - Exploring Texture in the Garden (Grades K-2)
    - Exploring Texture in the Garden (Grades 3-5)
    - Color in the Garden
    - Backpack Garden
    - A Garden Plot: The Tale of Peter Rabbit
    - The Rotten Truth
    - The Case of the Missing Pumpkin
    - Whats in Soil? | National Agriculture in the Classroom
    - Keeping Soil in Its Place | National Agriculture in the Classroom.
- **South Carolina Agricultural Information**

- State Agricultural Facts
- TOP COMMODITIES
- Teacher Center | National Agriculture in the Classroom
- Food & Farm Facts | South Carolina Farm Bureau

**Resources:**

Names:


# The Soil in Jackie's Garden

## Erosion

| Water Erosion: | Wind Erosion: |
| --- | --- |
| | |

Our Method:

Conservation Tillage | Wind barriers | Terrace Agriculture

| Hypothesis: | Result: |
| --- | --- |
| | |

**References:**

*Benchmarks related to agricultural literacy and academic …* National Agricultural Literacy Outcomes. (n.d.). https://cdn.agclassroom.org/nat/data/get/NALObooklet.pdf

*Standards*. South Carolina Department of Education. (n.d.). https://ed.sc.gov/instruction/standards/

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