



Read & STEAM

The Soil in Jackie's Garden Seed Ball



Lesson Summary

Students will learn about the components of soil through the book *The Soil in Jackie's Garden* and a seed ball activity.

Grade Level

K-5

Length of Lesson

45 minutes

Materials

- Air dry clay (enough for every student to make a 1.5" ball)
- Potting soil or topsoil (enough for every student to have 2 Tbls)
- Seeds (approximately ½ tsp OR 10-20 seeds per student depending on seed size and variety)
- Water spray bottle (filled with tap water)
- Low profile plastic container
- Plastic table cloths
- Paper towels or napkins
- Small sandwich bags or airtight container

Reading Guide

1. Introduce the story using these questions **(2 min)**
 - a. Have you ever played or dug in the soil?
 - b. What did you find in the soil?
 - c. What do you think lives in the soil?
 - d. "Today we will learn about the different parts of soil and how they help plants grow!"
2. Read *The Soil in Jackie's Garden* by Peggy Thomas **(10 min)**
 - a. Student engagement tool
 - i. Print out enough of the Soil Component Cards for each student to have one. When the book mentions what is on their card, they can hold it up in the air.
3. Reflect on the story with these questions **(3 min)**
 - a. What is soil?
 - b. What are the different parts of soil?
 - c. What do these parts of soil do to help plants grow?

Vocabulary

Soil: the top layer of the Earth's surface where plants grow. It's made up of rock, decayed plants and animals (organic matter, water, air, and microorganisms).

Compost: decayed organic material used as a plant fertilizer

Nutrients: a substance that provides nourishment essential for growth and the maintenance of life

Additional Lesson Links

- Matrix Lessons
 - [Caring for the Land](#)
 - [Vermicomposting](#)
 - [What's Our Soil Worth?](#)
 - [Plant Growth Affects the Soil](#)
- Other Resources
 - [Indoor Gardening Curriculum](#)
 - [Construct a Compost Bottle](#)

Standards

NALO:
T1.K-2.b
T1.3-5.b
T2.K-2.e
T2.3-5.c

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Seed Ball Activity

1. Begin Seed Ball activity (25 min)

- a. Tell students: "Today we are going to make our own seed balls to help the soil - just like in Jackie's Garden!"
- b. Distribute the following materials to each student:
1.5" piece of clay and 2 tbs soil or potting soil
- c. Have students make a clay ball by rolling the clay into a small, smooth ball.
- d. Next, add the seeds. Roll the clay ball through the seeds or *gently* press a few seeds onto the surface of your clay ball.
- e. Then add the soil. Lightly spritz your ball with water. Roll it in the soil until it's completely covered. Add a bit more water if the soil doesn't stick.
- f. Place finished seed balls in a sealed sandwich bag or another airtight container.
- g. When the weather is warm (spring, summer, or fall), you can toss your seed ball into a garden or natural area. Rain will help the seeds sprout and grow!

2. Review the activity with these questions (5 min)

- a. What is in soil?
- b. How does each part of soil help plants grow?
- c. Why is soil important for us?
- d. Final message: "Soil has lots of parts, both living and non-living, that help plants grow!"