

Thank You, Soil!

(Indoor Activity, Discovery)



Introduction

In the book *Mighty Mole and Super Soil*, author Mary Quattlebaum introduces children to an underground ecosystem. What creatures live in the ground and how do they help make the soil healthy? These underground happenings are largely invisible to humans but vital to the health of the planet. In this activity, children explore the many things in our lives that depend on soil.

Materials Needed

- ◆ The book *Mighty Mole and Super Soil*
- ◆ Index cards, 2 per child
- ◆ Pencils, 1 per child
- ◆ Scotch tape for each index card

Common Core Standards (ELA K-3)

- ◆ Reading: Literature
 - Key Ideas and Details K.1, 1.1, 2.1
 - Craft and Structure K.7, 1.7, 2.7

Procedure

1. Read aloud the book and ask children what creatures live in soil and how they help make it healthy.
2. List on the board the important jobs of soil (from the back pages of the book: to grow the plants we eat; to grow plants/trees for our clothes, houses, and paper; to grow plants that supply oxygen for us to breathe; to be the home for many creatures, etc.).
3. Give each child two index cards. Have students look for things in the classroom that came from or rely on the soil (wooden toys, lunch, individual books, pencils, class plants or pets, etc.).
4. On each card, have them write "Thank you, Soil," the name of the thing they found, and their name. Discuss all the things that rely on soil. Teachers might tape an index card on themselves, to highlight that humans, too, rely on soil.

At Home: Give children three more index cards and ask them to find things that are different from the things on their two classroom cards. One of these things should be a snack or dinner item. What did they find?

Next Generation Science Standards (DCI K-3)

- ◆ Life Science
 - LS1.A Structure and Function
 - LS2.A Interdependent Relationships in Ecosystems

Nature Extensions

Explain how plants depend on the nutrients in soil to grow. Identify the different parts of plants and what parts might be eaten. Bring in examples (first ensuring no one has allergies) and show photos of the whole plant. Tomatoes and apples (fruit), lettuce (leaves), celery (stems), corn and sunflower seeds (seeds), carrots and potatoes (roots). Let children taste them all. Thank you, Soil!

Have children name their favorite foods. Ask them to find out how this food can be traced back to a plant that relies on soil. For example: chocolate comes from the cacao beans of a cacao tree; ice cream from cows' milk, which the cow makes after eating grass; sugar comes from the sugar cane plant. Popcorn is the cooked seeds of a special kind of corn. (Six American states grow most of the popcorn in the world: Indiana, Illinois, Iowa, Missouri, Nebraska, Kansas. January 19 is National Popcorn Day.)

Additional Resources

- ◆ **Soil:** The Foundation of Culture
YouTube Video by Clay Robinson, aka Dr. Dirt,
www.doctordirt.org

Growing Plants:

Jo MacDonald Had a Garden by Mary Quattlebaum, illustrated by Jen Bryant

Garden Treats:

<http://www.kidsgardening.org/activity/cooking-classroom>