Test Your Soil

In this lesson, children will identify what type of soil is found at or near their home.

BACKGROUND:

Soil is made of distinct layers, called horizons. Each layer has its own characteristics that make it different from all of the other layers. These characteristics play a role in what the soil is used for and why it is important.

<u>Key:</u>

O Horizon Line: This layer is made up of living organisms and decomposed materials such as leaves, plants, and bugs.
A Horizon Line: Topsoil layer; it is made up of minerals and decomposed organic matter. Plant roots grow in this layer.
B Horizon Line: Subsoil layer, this layer contains clay and mineral deposits and has less organic materials.

C Horizon Line: This layer is made up of slightly unbroken rock.

MATERIALS:

- Water bottle
- Water
- Spoon
- Sample of soil

PROCEDURE:

- Using a spoon, collect a sample of soil found at or near your home.
- Add the soil to a plastic bottle filled with water.
- Observe the particles either float at the top, slowly submerge below, or sink to the bottom.
- Identify the different horizons using the "Background" section.

CONCLUSION:

This activity can be lengthened over the course of a day or more. The children can collect more samples while on walks around the neighborhood or hikes around their city. Have the children create an observation journal of the different soil samples that they have collected.



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This work is supported by the Hispanic-Serving Institution's

Education Grants Program, grant no. 2015-38422-24058/project

accession no. 1007104, from the USDA National Institute of Food and Agriculture.









Observation Journal



Scientists keep detailed notes of observations they make in the field. Use the spaces below to keep track of the different soil samples you collect!

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Collection Location: _____

Draw and label the different layers of your soil sample. What types of material settled at the bottom? What floated to the top?
Darker layers have more organic material and biological activity, such as wandering bugs and creeping plant roots. Which layer is the darkest in your sample? What animals do you think live there?
Which layer do you think holds the most water? HINT: this layer may be lighter than the others because it has more minerals.

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