

Can You Dig It

Essential Question(s):

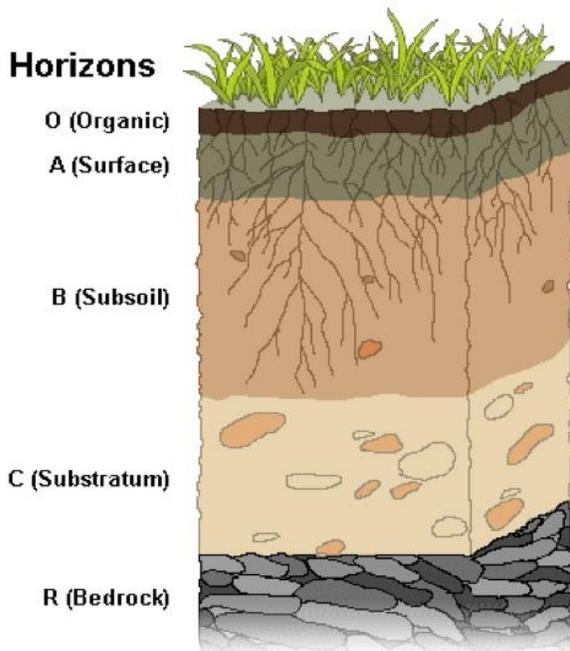
What is soil made of?

What do different soil layers look like?

Background Information:

An ecosystem is a community of living and non-living things that work together. The soil is a thriving ecosystem comprised of a combination of materials, both living and nonliving. Soil is broken down rock and organic matter made up of decaying plants and animals. Water and air are also a part of soil.

There are horizons or layers in the soil. They are named O, A, B, and C. The top horizon is O; it is about an inch thick made up of dead stuff that breaks down and keeps the soil healthy. Horizon A is topsoil and has the highest concentration of organic matter and microorganisms. It is alive with roots, tiny microorganisms like bacteria and fungi, and other kinds of critters. Plants and animals have a tough time getting through Horizon B because it is very hard. Horizon C is made up of the rock and soil that formed the layers above it, and has less living matter in it than O. Soils vary greater from place to place - rich Iowa farmland has an A horizon that is 3 feet thick, while a typical eroded Georgia soil may have little or no A horizon.



Preparation:

Gather soil samples of varying color/type and a cup of water for craft

Objectives: Learners will...

- 1) Learn that soil has different layers
- 2) Understand why soil is important
- 3) Explore soil hands on

Location: Anywhere you can dig!

Supplies:

- Something to dig with
- Ruler
- Pencil
- Crayons
- Soil samples
- Water cup
- Paintbrushes
- Paper

Standards:

- SKE2.
- SKP1.
- SKL1.
- S2E3.
- S2P1.

Procedure:

A. Background:

1. Explain what soil is made from
2. Talk about the different layers using picture above
3. Demonstrate to the students how to dig to different layers

B. Main Activity:

1. Allow them to choose an area to observe and mark and/or draw what they find on the soil
2. When students are done observing their location, they can come back to get a digging utensil, ruler, and some crayons
3. Students will dig to obtain samples of the soil and write/draw what they found at the different layers
4. Tell students that when they finish digging, they should put the soil and organisms back where they were found

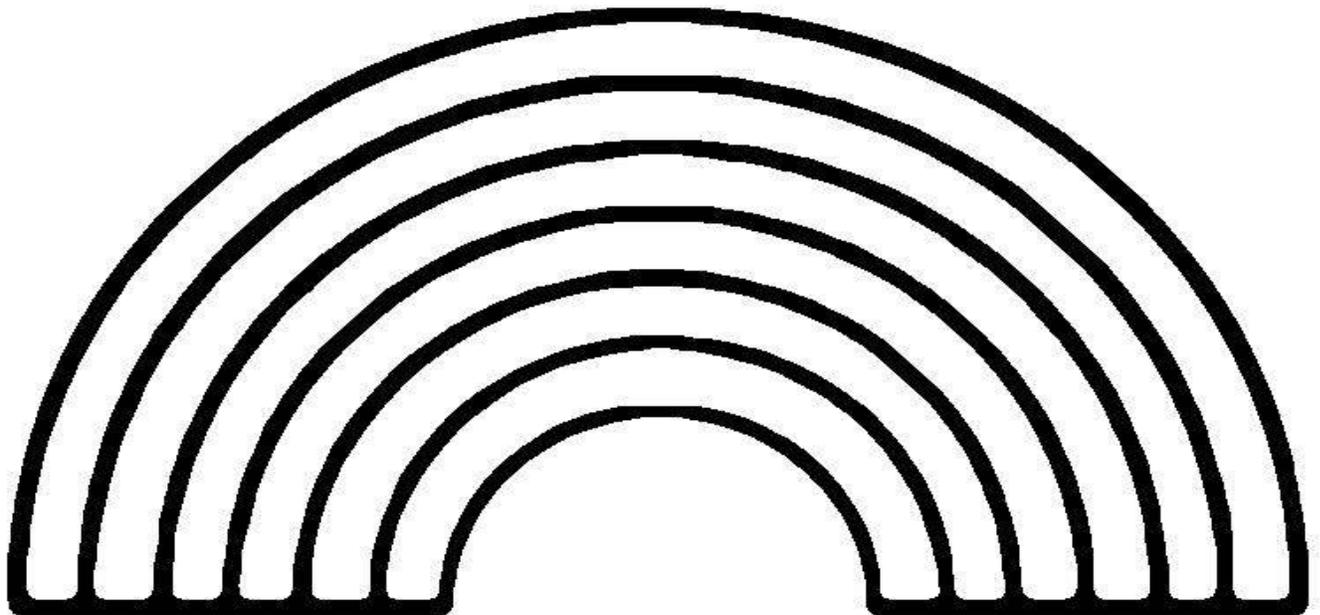
C. Craft: Soil rainbow

Discussion/Assessment:

- Did the soil have living and non-living material?
- What organisms did you see in the soil?
- Did all the locations have the same materials in their soil? The same colors?

Take Home Message: Soil is made up of many things and has different layers.

Soil Rainbow



SOIL RAINBOW

1. Add some water to the soil sample that you would like to use, but don't add too much
1. Take your paint brush and dip it into the mud-like mixture
2. Paint away!

