



# Soil Painting

*What is our soil made of?*

## ❖ Grade Level

4th Grade

## ❖ Subject Area

Life Science,  
Environmental Science,  
Ecology, and Human  
Impacts

## ❖ Key Topics

Soil Conservation

## ❖ Duration

Preparation: 15 min

Activity: 60 min

## ❖ Setting

Classroom

## ❖ Skills

Creativity

Critical Thinking

## Overview

Students will be able to identify the three main layers of soil (bedrock, subsoil, topsoil) and explain why soil is so important.

## Objectives

Students will be able to:

- Define soil and soil composition
- Understand what a healthy soil ecosystem includes
- Provide examples of different soil conservation methods

## Materials

- Computer
- Projector
- Soil Painting materials:
  - Different types of soil (dried and grounded up)
  - Clear glue/acrylic medium
  - Little plastic cups (3oz is perfect)
  - Paper plates
  - Stirring sticks
  - Water
  - Canvases/paper
  - Paint brushes

## Advanced Preparation

- Download slide show
- Prepare soil painting materials.



## Vocabulary

**Natural Resource** - A supply of something found in nature that can be used for survival, recreation, or to make money economic gain.

**Conservation** - The act of preventing a resource from being wasted so it can continue to exist for future generations.

**Erosion** - The gradual breakdown of rock or soil into smaller pieces by wind, water or other natural events.

**Fertility** - The ability of a soil to provide enough nutrients, air, water, space, and healthy microorganisms to support plants ability to grow in it.

**Microorganisms** - A microscopic animal, plant, bacteria, or fungus.

**Runoff** - The draining away of water from the surface of land and the stuff it carries with it.

**Organic Matter** - Decayed plant material that provides nutrients to the soil.

**Topsoil** - The topmost layer of soil where nutrients are delivered to plants through their roots.

**Subsoil** - The layer right below the topsoil; mostly made of weathered rock and clay minerals.

**Bedrock** - Solid rock beneath the soil.

## Procedures

### Warm Up (15 minutes)

- Introductions and a brief overview of lesson
- Soil slideshow
  - **Slide 2:** Ask kids what they think of when they think of soil and why they think it is important
  - **Slide 3:** Ask kids what they think soil is made of before you get to this slide
  - **Slide 4:** Soil forms the surface of most of the land on Earth. It also sustains a huge portion of life on Earth. It also:
    - Filters pollutants; stores water; provides food, fuel, and fiber for plant growth, regulates climate; stores carbon; provides antibiotics used to cure illnesses.
  - **Slide 5:** Ask students what they see when looking at the three layers of soil

### Activity (45 minutes)

- For each soil color, pour soil into the little plastic cups (about  $\frac{2}{3}$  full)
- Add enough water to each cup to make a batter similar to a mud pie. Stir.
- Add about one teaspoon of acrylic medium to each cup. Stir until combined and smooth.
- Be careful. Add the liquids sparingly...adding too much water or acrylic medium can dilute the soil so that it does not show up well on the paintings.

### Wrap Up (10 minutes)

- Clean up!

## Teacher Resources



## Resources

- [Slideshow!](#)

