

Gardeners Plant in Soil Not Dirt

OVERVIEW: Dirt is dead, but soil is a living ecosystem. A single teaspoon of garden soil can contain one billion microbes, not to mention worms, pill bugs, and other decomposers. In this simple lesson, students examine soil to discover what's inside.

OBJECTIVES: The student will be able to:

- * examine a small scoop of soil from their garden and describe what it contains.
- * describe soil is an ecosystem and explain what that means for the plants growing in it.

GRADES: K-4

MATERIALS:

Soil Not Dirt worksheets
Small magnifying glasses
Trowel to collect the soil

White or light-colored paper
Small bucket to collect soil
Newspaper to cover desks,
if necessary



PREPARATION:

This lesson is ideally done outside, but if it is too cold for students to work in the garden, you can bring a small bucket of garden soil into the classroom

PROCEDURE:

Explain the difference between dirt and soil, asking these questions:

What happens to all the leaves that fall to the forest floor every fall? Why are they not there in the spring? Where do they go and how do they get there? (The leaves are decomposing and becoming a part of the soil, providing important nutrients for plants.)

Each child sits with *Soil Not Dirt worksheet* and a piece of white construction paper. Place a small scoop of soil from the school's garden on the construction paper. The students first describe what the soil looks and feels like and then examines the soil with a magnifying glass to see what is in it. (Among the things students will find are: roots, leaves, seeds, stems, sticks, grasses, stones, insects, and worms.)

EVALUATION:

Completed *Soil Not Dirt* worksheet

New Jersey Learning Standards

Science: K:LS1.C 1:LS1.A 2:LS2.A 3:LS1.B 4:ESS2.A

Gardeners Plant in SOIL, Not Dirt

Dirt is dead – It's mostly minerals like pebbles and finely ground rock.

Soil is an ecosystem – It contains a multitude of life including insects, fungi, and bacteria that live in a nutrient-rich world made up of decaying plants and creatures.

What does your soil look like? Describe its color and texture (how it feels.)

What do you find in your soil? Make a list.
