

Focus on: Garden Soil

This lesson is meant to support the unit on Plants on Earth. It can be done to generate background knowledge prior to teaching the unit, during the unit to reinforce lessons, or as a follow up to the unit to increase the retention of information. How you guide your students will depend on the information you have already taught and the information you want to introduce.

Clarifying Objectives:

3.L.2.2 Explain how environmental conditions determine how well plants survive and grow.

3.L.2.4 Explain how the basic properties (texture and capacity to hold water) and components (sand, clay and humus) of soil determine the ability of soil to support growth and survival of many plants.

Key Vocabulary:

Definitions can be found at <http://learnersdictionary.com>

- Environmental Conditions
- Survive
- Properties
- Texture
- Capacity
- Components
- Humus
- Soil
- Support
- Survival

Focus Question(s):

How is the garden soil similar to or different from sand, clay and/or humus?

Materials:

- School Garden
- Cups to Collect Soil
- Hand Lens
- Paper or Paper Plate
- Stirrer

Activities:

- Review what students know about clay, sand and humus.
- Visit the school garden to collect soil samples in vials.
- Ask students to shake the sample gently back and forth in its cup to explore the kind of sound it makes and record observations.
- Have students pour their samples on paper for investigating with a stirrer and hand lens. Students rub the sample between their fingers and smell and record observations.
- Students discuss their observations and discoveries about garden soil as it compares to sand, clay, humus.
- Discuss.

Guiding Questions:

- What do you notice about the garden soil?
- How does it sound?
- Does it sound similar to or different to the clay, sand or humus?
- Does it feel similar to or different to the clay, sand or humus?
- Does it look similar to or different to the clay, sand or humus?
- Does it smell similar to or different to the clay, sand or humus?
- How is the garden soil similar to or different from sand?
- How is the garden soil similar to or different from clay?
- How is the garden soil similar to or different from humus?
- What combines to make garden soil?