

What's Soil Made Of?

Name _____

The Earth's soil is a very important resource. Without healthy soil we would not be able to grow the plants we need for food, fiber, and shelter. There are many different types of soil and each is made up of different components, not just dirt!

The rock material in soil has been broken down over a very long time into smaller and smaller pieces by "weathering," which happens when rock and soil are exposed to wind, water, and changing temperatures. Water and air are also found in soil. Water, air, and rock particles are the inorganic components of soil, which means these components are not living and never were living. The organic components in soil are living, or were once living, organisms. Examples of organic soil materials include decayed plant and animal waste, worms, insects, bacteria, and more. Healthy soil is a mixture of a variety of inorganic and organic materials.

In this activity you will carefully dissect a soil sample to find out what it is made of. Farmers carry out soil tests like this on a regular basis. Farmers want to know the properties of their soil because it plays a role in the amount of nutrients that are available for plants to use.

Procedure

1. Obtain soil samples from your teacher.
2. Take a spoonful of soil from one sample and spread it out on your piece of white paper.
3. Look at soil components carefully and try to separate the different components. Use the magnifying glass for help identifying tiny objects in the soil.
4. Make a sketch of what you see in your soil sample and repeat the process for each sample. Answer the following questions for each sample.

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Soil Sample 1

What color is the soil sample? (*dark brown, light brown, reddish brown, gray, orange, etc.*)

How does it feel when you rub the soil between your fingers? (*sandy, smooth, slippery, sticky, spongy*)

What kinds of things can you see in the sample? (*leaves, twigs, rocks, sand, worms, insects, etc.*)

Soil Sample 2

What color is the soil sample? (*dark brown, light brown, reddish brown, gray, orange, etc.*)

How does it feel when you rub the soil between your fingers? (*sandy, smooth, slippery, sticky, spongy*)

What kinds of things can you see in the sample? (*leaves, twigs, rocks, sand, worms, insects, etc.*)

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Soil Sample 3

What color is the soil sample? (*dark brown, light brown, reddish brown, gray, orange, etc.*)

How does it feel when you rub the soil between your fingers? (*sandy, smooth, slippery, sticky, spongy*)

What kinds of things can you see in the sample? (*leaves, twigs, rocks, sand, worms, insects, etc.*)

