



SUPPLIES

- 3-4 Cups of different soils
- Spray bottle
- Bucket of water (for hand washing)
- Paper towel or rag (for hand drying)



FIGURE 1. To make a soil ribbon, moisten your soil and then push it across your pointer finger with your thumb. How long is it?

DIGGING INTO DIRT

Time needed: 20 minutes

Soils are important, from the growing of our food and favorite plants, to providing the materials to build the houses we live in, filtering our water, helping us recycle wastes, and providing recreational activities we enjoy. Yay soil! In this activity, you will be collecting and observing different soils that you can find!

LET'S DO IT!

Soil Ribbons

Soils contain four parts: weathered minerals, organic matter. All of these different parts work together and effect how plants grow and how the soil can be used.

Rocks and minerals weather or break down over time into smaller particles. These particles are called sand, silt, and clay. Sand is the largest soil particle, followed by silt, and clay is the smallest.

Soils are mixtures of sand, silt, and clay. The kind of mixture is called soil texture. Soil scientists determine soil texture by making something called a soil ribbon.

To make your own soil ribbon:

1. Take an egg-sized soil sample, and spray it with water to lightly moisten it.
2. Mix the soil and water together. If it is too dry, and completely falls apart, spray more water. If it is too wet, add dry soil.
3. When you are trying to figure out what kind of soil texture you have, think about this:

- Sand tends to have a gritty texture, like salt or sugar, and it falls apart when squeezed into a ball.
- Soil with a lot of silt has a silky feel, similar to flour.
- Clay tends to be sticky and greasy, and it easily forms a ball.
- Most soils have varying amounts of these particles, and will have a combination of the properties.

4. Once you have a moist soil ball, gently press your thumb and push the soil over your forefinger into a ribbon.
5. The longer you can make your ribbon, the higher the clay content. Clayey soil can ribbon out or three-fourths of an inch or greater, **Figure 1**.
6. If your ribbon is short (less than three-fourths of an inch) and cracks, the soil is considered to have a loamy texture (usually containing varying amounts of sand, silt, and clay).

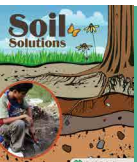
EARN YOUR SOIL BADGE

Complete all the soil activities and earn a Super Soil Sleuth award.



LIKE DIGGING IN THE SOIL?

This activity came from **Soil Solutions**. Ask your local 4-H Agent for more ideas from this book.



TALK IT OVER

1. What did you observe in the soil samples today?
2. What did the soil feel like?
3. Why do you think are there differences between soils?
4. Why is soil important?
5. Why does knowing about soil matter?