



SUPPLIES

- Clear, plastic bottle or jar, or glass jar (just be careful!),
- Soil samples
- Water
- Powdered dish (optional)
- Dancing shoes (optional)
- Ruler (optional)



FIGURE 1. One jar is a clayey soil still settling and the other is a loamy sand.

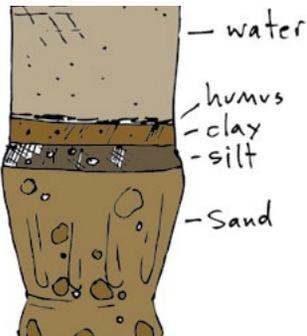


FIGURE 2. This shimmy illustration shows a really sandy soil.

This activity is adapted from the [Soil Solutions Curriculum](#) published by North Carolina Cooperative Extension. Any 4-H curriculum is freely available to any NC educator through a [local Cooperative Extension's](#) 4-H Youth Development Agent.

SOIL SHIMMY

Time needed: 10 minutes

Soils are composed of particles of different sizes: Sand (.05 to 2 mm), silt (.002 to .05 mm), and clay (smaller than .002 mm). Humus, or decomposed organic matter, is often a part of soils. A soil shimmy is another way to determine what kind of soil you have. Get your dance shoes on and get shaking (with your soil!)

LET'S DO IT!

- Put at least a half cup of soil (from your yard, not from a bag!) into a clear 20-ounce plastic soda bottle.
- Optionally, add a tablespoon of powdered dish detergent in with the soil
- Fill the bottle with water.
- Secure the bottle cap.
- Dance around and shake the bottle vigorously for at least two minutes.
- Place your bottle in a location where it can sit undisturbed for 24 hours. The soil should settle out from bottom to top in layers of sand, silt, clay, organic matter, respectively.

TALK IT OVER

- What happened to the soil in the jars?
- What type of soil settled out first? Why do you think so?
- Which layer has the most? Which layer has the least?
- What other things do you notice about your jar?
- What kind of soil do you think you have?
- What other ways can you figure out what soil you have?

ACTIVITY EXTENSION

- After the soil has settled from your shaking, measure the total height of settled soil.
- Then measure the height of the sand, then the silt, and then the clay.
- Then divide each measure by the total soil measurement.
- For example, if all three layers measured 2 inches in total, and the sand layer measured 1.5 inches, then the sample would consist of 75 percent sand ($1.5/2 = 75\%$ sand).
- Use this link to enter your sand, silt, and clay percentages to find out what soil type you have! https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/research/guide/?cid=nrcs142p2_054167