

# How do sedimentary layers form?

## Materials:

Empty two-liter bottle with a cap  
Different types of mud, dirt, sand, rocks collected from outside  
Funnel (optional)  
Water  
Ruler  
Piece of paper  
Pencil

## Instructions:

Find a place outside to gather as many different types of dirt, mud, sand, and rocks as you can find. Use the funnel to put them in the bottle as you go.

When the bottle is about half full of collected materials, fill it the rest of the way with water.

Close the cap tightly. Shake the bottle vigorously until everything is completely mixed up. Let it sit for 15 minutes, or until everything has settled.

Look closely at how everything has settled in the bottle. Draw on your piece of paper what the contents of the bottle look like and whether layers have formed. Mark on your paper what materials settled at the bottom, in the middle, and on the top. Use your ruler to measure the layers.

## Additional variations:

Repeat the above instructions, but add a viscous liquid like cooking oil or maple syrup to the collected materials. Where does it settle? Do different viscous liquids settle in different places?

Shake the bottle again after your first observation. Do the materials settle the same way each time?

