

Core Sampling

SECONDARY

Materials



1 bag of dark sand



1 bag of light sand



1 bag of soil



Ruler



Water in a spray bottle



Plastic spoons



1 bag of small gravel

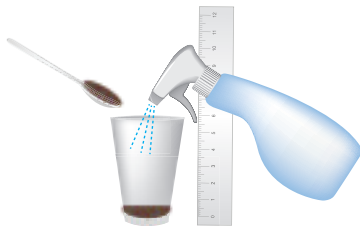


1 clear plastic cup per student (8 ounce)



10 clear plastic straws

Activity



1. Using the ruler to measure, add a 1 cm layer of one of the earth materials to the cup and mist with the spray bottle of water until damp, but don't soak. Layer the types of earth materials in any order you choose.



2. Place another earth material 1 cm deep on top of the first layer. Moisten with water until damp.



3. Continue alternating layers of earth materials and water. The layers should be a total of 4 cm deep in the cup.



4. Use a straw to extract a core sample by pushing the straw straight down through the layers of the cup.



5. Place your finger tightly over the top end of the straw and withdraw it from the cup. Observe the layers in the straw core sample.



6. Lay several core samples from different cups side by side. Compare results.

Explanation

NOTE: Some students will hit rock and find it difficult to continue. Relate this to real-world drilling and why drill bits are used to churn up and break up rock in the sampling path. Explain to students that core sampling is one way that geologists determine the geologic formation of rocks and sediments when exploring for oil and gas. Ask students what core samples are and what petroleum geologists look for when they examine core samples.