Activity 6.4

Properties of Soil

Warning: Soil contains microorganisms that can be harmful if they get inside your body. Be sure to wash your hands thoroughly after completing your observations.

Materials

- 3 labeled soil samples 
- paper towel 
- hand lens 
- filter paper 
- funnel 
- 2 measuring cylinders 
- tablespoon 
- stopwatch 

Make a Prediction

Use the hand lens to observe each soil sample. Predict which sample is clay, sand and potting soil.

Sample A: _____

Sample B: _____

Sample C: _____

Procedure

1. Spread soil sample A onto the paper towel. Use the hand lens to closely observe the soil particles. Record the properties of the soil including particle size and amount of humus.
2. Line the funnel with filter paper. Place two tablespoons of soil sample A into the funnel. Place the funnel of soil on the top of one measuring cylinder.
3. Use the other measuring cylinder to pour 100 mℓ of water into the funnel.
4. Using the stopwatch, observe the volume of water that flows through the soil into the measuring cylinder.
5. Repeat Steps 1 to 4 for the other soil samples.

Observations

Use the table to record your observations.

Soil Sample	Properties	Water in Cylinder
A		
B		
C		

Analyze and Interpret

1. Was your prediction correct? Which type of soil was in each sample?

   _____

   _____

2. Order the soils by the amount of water that passed through, from the least (1) to the most (3).

   1. _____
   2. _____
   3. _____

3. Which type of soil do you think would be the best for growing plants? Explain your answer.

   _____

   _____

4. Which type of soil would not be suitable for growing plants? Explain your answer.

   _____

   _____