

Name \_\_\_\_\_

Date \_\_\_\_\_

## Investigating Soils

### Materials

- 4 50 mL graduated cylinders
- 4 funnels
- 4 coffee filters
- 50 mL beaker
- 30 mL gravel
- 30 mL potting soil
- 30 mL sand
- 30 mL raw or natural clay
- paper towels
- water
- timer

### Procedure

1. Set up the graduated cylinders.
2. Place one coffee filter in each funnel. The filters may need trimming depending on the size of the funnels.
3. Set one funnel and filter in each cylinder.
4. Pour 30 mL of gravel into one cylinder. Repeat putting a different soil in each remaining cylinder.
5. Pour 20 mL of water into each cylinder and allow the water to drain for 3 minutes.
6. Record the amount of water in each cylinder in the below table.
7. Calculate the amount of water retained, or held, in each cylinder by subtracting the amount of water collected from the amount of water added.

Amount of Water Added - Amount of Water Collected = Amount of Water Retained

### Data

Soil Type	Amount of Soil	Amount of Water Added	Amount of Water Collected	Amount of Water Retained
gravel	30 mL	20 mL		
potting soil	30 mL	20 mL		
sand	30 mL	20 mL		
clay	30 mL	20 mL		

Which soil allowed the most water to collect in the soil sample, or drain through it? Why?

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Which soil retained, or held, the most water? Why?

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