

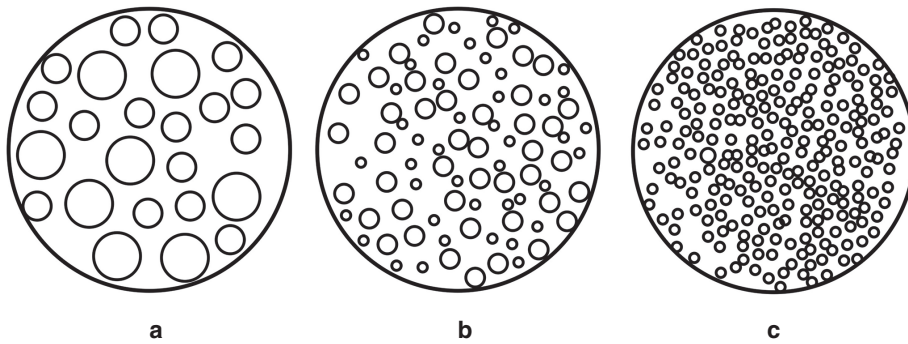
# LAB 11

## Checkout Questions

### Lab 11. Soil Texture and Soil Water Permeability: How Does Soil Texture Affect Soil Water Permeability?

1. Peyton has collected some soil samples. The figure below shows a microscopic view of his three different soils. Assume each sample is viewed under the same magnification.

○ = .002 mm



- a. Which soil is made mostly of clay?
- b. How do you know?
- c. Which soil has the highest rate of soil water permeability?
- d. How do you know?

## Soil Texture and Soil Water Permeability

*How Does Soil Texture Affect Soil Water Permeability?*

2. Jackson has a sample of soil. He sets up a ring stand and a funnel with a filter and places a beaker below. He places 100 ml of water into the soil and waits for the water to flow through it. After two minutes, 40 ml of water is in the beaker. What is the rate of soil water permeability of Jackson's soil sample?

3. Scientists use proportional relationships to classify matter.

- a. I agree with this statement.
- b. I disagree with this statement.

Explain your answer, using an example from your investigation about soil water permeability.

# LAB 11

4. Adrianna identified one of her soil samples as sandy clay loam using the flowchart for soil texture by feel. She tells her group that she has made an inference about the sample's texture.
  - a. I agree with this statement.
  - b. I disagree with this statement.

Explain your answer, using an example from your investigation about soil water permeability.

5. Scientists are influenced by many different factors when doing their work. The culture of science represents a shared set of values, norms, and commitments that shape what counts as knowing something in science, how to represent and communicate information, and how to interact with other scientists. How did your group decide that your claim was valid scientific knowledge? Give an example from your investigation about soil porosity.

## Soil Texture and Soil Water Permeability

*How Does Soil Texture Affect Soil Water Permeability?*

6. Scientists often track how matter moves into, out of, and within systems during an investigation. Explain why it is useful to track the movement of matter into, out of, and within a system using an example from your investigation about soil water permeability.