

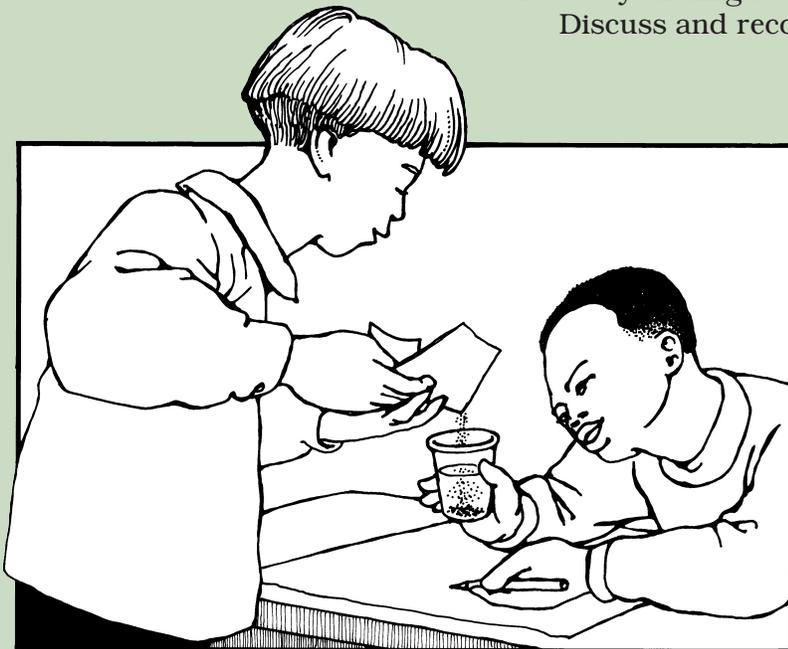
## Student Instructions for Examining Earth Materials

**Directions:** Read all the directions before you begin. You will do each of the following steps four times, once for each of the four soil components, in the order listed on **Record Sheet 5-A: Examining Earth Materials**. Start with gravel. Then test sand, clay, and finally humus. Work as a group. Complete your record sheet as you make observations about each soil component.

1. Pour the gravel onto the sheet of paper.
2. With your hand lens, look closely at the gravel.
3. What do you notice about the appearance of the gravel? How does it look? Discuss your observations with the group. Record your observations on Record Sheet 5-A.



4. Use your fingers to feel the texture of the gravel. Discuss and record your observations.



5. Gently fold your sheet of paper. Using it like a funnel or chute, drop the gravel into the cup of water. Watch it fall. Discuss and record your observations on your record sheet.

6. Stir the water gently with your spoon.  
Record your observations.
7. Repeat Steps 1 through 6. This time use sand. Record your observations on your record sheet. Use the same cup of water that you used for the gravel.
8. When you are finished testing sand, test clay, then humus. Use the same cup of water each time. Record your observations on the record sheet each time.



9. When you have tested all four soil components, stir the mixture of soil and water again. Record any additional observations on the record sheet.

10. Clean up by doing the following:

- Pour the soil and water from the cups into the rinse bucket. Rinse the cups.
- Return all materials to their original positions on the distribution table.
- Throw away any soiled newspaper. Sponge down and dry your work space.

**Record Sheet 5-A**

Name(s): \_\_\_\_\_

Group: \_\_\_\_\_ Date: \_\_\_\_\_

**Examining Earth Materials**

	<b>Gravel</b>	<b>Sand</b>	<b>Clay</b>	<b>Humus</b>
Appearance (how it looks: color, shine, clumping)				
Texture (how it feels)				
What it does when you put it in water				
What it does when you stir the water				
Other observations				

**Examining Earth Materials, *continued***

1. Stir the cup of soil and water again. What happens to the soil when the water begins to move?

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2. What happens to the soil when the water slows down?

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3. Which soil component drops to the bottom of the cup first? \_\_\_\_\_

Why do you think this happens?

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4. Which soil floats on the water? \_\_\_\_\_

Why do you think this happens?

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In Lesson 7, you will learn more about the way soil is picked up and dropped off in your stream table.