

Name _____

Date _____

23. NAMING SOILS



Introduction

You can learn a great deal about soils by observing and feeling their texture. Texture refers to the quantity of different sized particles you may find in a soil sample. Some of the following words might describe how the soil samples feel when you touch them: coarse, gritty, velvety, slippery, sticky, floury.

1. Look at, feel, and smell each soil sample your teacher has given your group. They are labeled A, B, C, and D.
2. Write the words which best describe the texture of each soil sample in the proper space in Data Table 23A.
3. Perhaps you can think of other descriptive words to add to the list.

DATA TABLE 23A		
Sample	Description of soil texture	Soil name
A		
B		
C		
D		

5. Discuss and compare the textures based on the sizes of the particles. (Gravel is very rough; loam and clay are smooth.)
6. Now have the students continue with the activity by reading further and using the information on Chart 23B. Each soil sample can be named and the soil name recorded on Data Table 23A on the student worksheet.
7. Discuss the final paragraph. Soil identification in the field is done by the students in Activity 24.

Soil Name	Soil Description	Soil Color

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A simplified process which scientists use to classify soils is presented in this activity. Samples of the four basic soil types will be described by their texture and then identified with a name. Soil texture is determined by the quantity of the particle size in a given soil sample. The larger the size of the particles, the closer the soil is to its rock origin. As the particles are broken down by the weathering process, they become smaller, changing from rock to gravel and then to sand. When sand particles mix with organic materials, silt and loam are formed.

Objective

The student will describe the texture of soil samples and identify the four basic soil types: gravel, sand, loam, and clay.

Materials

Student Worksheet 23
Soil samples of the four basic soil types
24 styrofoam cups
Newspaper
Pencil

Pre-activity Preparation

Four soil samples must be available for the students to look at and feel. They must include gravel, sand, loam, and clay. Divide the four samples and place them in four separate styrofoam cups. Six of those soil sets should be prepared. Label the cups *A* for gravel, *B* for sand, *C* for loam, and *D* for clay. Provide newspapers to protect desks.

Teacher Instructions

1. Distribute Student Worksheet 23. Have students read the introduction.
2. Divide the class into six groups and hand out newspapers to protect desks. Distribute the prepared soil sample cups to each group.
3. Discuss the words *texture* and *particles* from the reading assignment.
4. Have students compare the soils by feeling, observing, and smelling them. For each sample they should write descriptive words on Data Table 23A. The descriptive words on the student worksheet should only get them started. Encourage the use of their own vocabulary in addition to the words provided.

