

name: _____

**CLASSIFICATION OF SOILS
DATA SHEET**

STEP 1: THE PROBLEM

Soil scientists study soils and their properties, but soils are also important to people in many different occupations. Today you will examine different soil samples to see what you can learn about these soils and how they might be important to you even if you are not a soil scientist. You will examine these soil characteristics: **SOUND** **COLOR** **SMELL** **TEXTURE**

STEP 2: INVESTIGATE

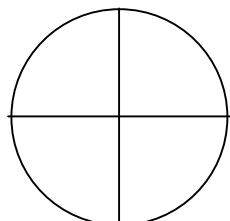
- (A) Select 3 or 4 soil samples from your table and investigate the properties of them using **FOUR** of your senses: **HEARING, SIGHT, SMELL, and TOUCH** (let's **not** taste the samples today!)
- (B) Record your observations below by circling the answers that best describe your samples. Remember to record the number of each soil sample you examine in the table.

SOIL #	SOUND	COLOR		SMELL	TEXTURE
	loud rattle none soft shoosh	reddish/orange white/almost white	black tan/brown	none “earthy” stinks!	smooth gritty lumpy
OTHER OBSERVATIONS:					
	loud rattle none soft shoosh	reddish/orange white/almost white	black tan/brown	none “earthy” stinks!	smooth gritty lumpy
OTHER OBSERVATIONS:					
	loud rattle none soft shoosh	reddish/orange white/almost white	black tan/brown	none “earthy” stinks!	smooth gritty lumpy
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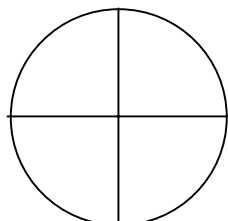
STEP 3: COMPARE AND CLASSIFY

Now work with the other class members at your table to classify the 12 soil samples according to each of the following characteristics: **SOUND**, **COLOR**, **SMELL**, and **TEXTURE**. Place your soil samples in the circle on the “classification mat” that best describes each characteristic. Then write the numbers of the soil samples in the appropriate circles below. Remember to classify all 12 soil samples at your table.

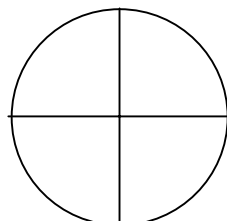
(A) Sound—classify the 12 soil samples by the **SOUND** they make:



none

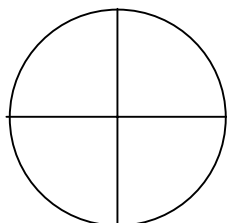


soft shoosh

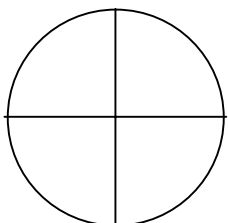


loud rattle

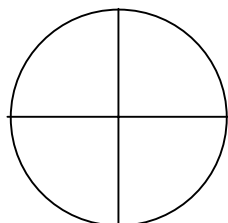
(B) Color—classify the 12 soil samples by **COLOR**:



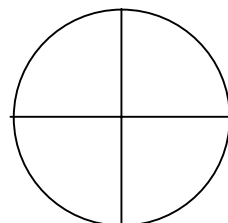
reddish/orange



black

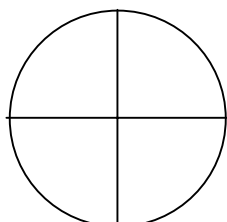


white or
almost white

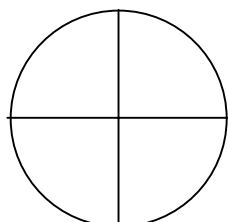


tan/brown

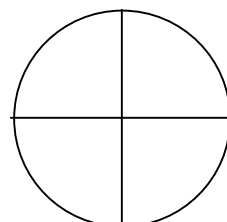
(C) Smell—classify the 12 soil samples by **SMELL**:



none

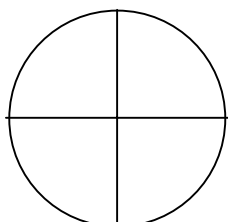


“earthy”

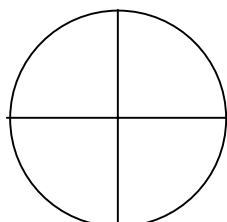


stinks!

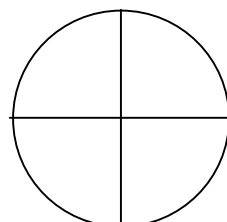
(D) Texture—classify the 12 soil samples by **TEXTURE** (how they feel):



smooth



gritty



lumpy

STEP 4: INFER

- (A) Now that you have had a chance to investigate the properties of several soil samples, and have worked with your group members to classify these soils using different criteria, imagine that you are an **ARTIST** who wants to use these soils to create different colors in your artwork.

Circle the soil property or characteristic that would be most important to you, as an **ARTIST**, if you wanted to use these soils to create different colors in your art pieces:

texture color smell sound

Why did you choose this characteristic?



- (B) Imagine that you are a **MUSICIAN**. Which characteristic might be most important to you if you wanted to use these soils to create unique sounds for your music?

texture color smell sound

Why did you choose this characteristic?



- (C) Imagine that you are a **FARMER**. Which characteristic might be most important to you if you wanted to use these soils to grow a variety of vegetables?

texture color smell sound

Why did you choose this characteristic?



- (D) Imagine that you are a **HOUSE BUILDER**. Which characteristic might be most important to you if you wanted to make sure the house you built was on a firm foundation?

texture color smell sound

Why did you choose this characteristic?

