



EARTH SCIENCE E PLORED

LAB & ACTIVITY GUIDE

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with Onalee Sturgeon

LESSON 10

OBSERVING ROCK FEATURES

In today's lab, we'll spend time observing various characteristics of rocks. These are the very same characteristics that allow scientists to classify and name rocks.

Supplies

🔧 Rock & mineral kit

🔧 Distilled white vinegar

🔧 Penny

🔧 Steel nail

1. Read through the directions completely before beginning and gather your supplies. Be sure to cover your work surface with something to protect the surface from rocks damaging it.
2. Look at each of your rocks. Indicate each one's color on your rock observation chart.
3. Next, determine the hardness of each rock. Starting with your fingernail, then a penny, then the steel nail. Look at the Mohs' hardness scale provided below to determine the hardness of your rock by comparing the objects that scratched the rock to the objects on the scale. Rate the hardness of your rock on a scale from 1 to 10 and write this on your rock observation chart under hardness.
4. Complete an acid test on each of your rocks using distilled vinegar. Place a drop of vinegar on each sample. If any of them fizz, indicate on your observation chart that the rock reacts with acid.
5. Inspect each of your rocks. Note the characteristics of your rock that make it unique from the others or something about the rock that might make it stand out to you in nature. Write these characteristics under "Identifying Features" in your observation chart.
6. Look carefully at your data. At this time, you will decide if your sample is a sedimentary rock or not. Note your conclusions in the data table under the Type of Rock column.

Mohs' Hardness Scale

Mineral Name	Scale Number	Common Object
Diamond	10	
Corundum	9	Masonry Drill Bit (8.5)
Topaz	8	Steel Nail (6.5)
Quartz	7	Knife/Glass Plate (5.5)
Orthoclase	6	Copper Penny (3.5)
Apatite	5	Fingernail (2.5)
Fluorite	4	
Calcite	3	
Gypsum	2	
Talc	1	

Increasing Hardness

NOTES

Rock Observation Chart

SAMPLE NUMBER	COLOR (S)	HARDNESS	REACTS WITH ACID	IDENTIFYING FEATURES (LARGE CRYSTAL GRAIN, HOLES, FOLIATION, LUSTER, ETC)	SEDIMENTARY ROCK (YES/NO)
1					
2					
3					
4					
5					
6					
7					

8							
9							
10							
11							
12							
13							
14							
15							