

Cycle 1 Week 22 –

MINERAL IDENTIFICATION

Introduction

(*Note: Your Mineral Kit includes: Fluorite, Feldspar, Hematite, Pyrite, Milky Quartz, Calcite, Muscovite (Mica), Magnetite, Gypsum, Talc, Pyrolusite, Biotite (Mica), Graphite, Satin Spar, and Selenite.)

-*Last week we talked about minerals and the different tests we do to determine their properties.* Well this week we YOU will get to do the tests on a mineral!


-*What were our 4 tests?* (Streak, Luster, Transparency, Hardness)

-*Partner up with a buddy.* You will be performing these tests together!

-Each group will take a turn with the tile and the nail for the streak and hardness tests.

(Allow each pair to choose one mineral to test; they can then swap with a neighbor – please do not let them choose the fragile, flakier minerals like mica.)

MINERAL IDENTIFICATION

Mineral Name:			
Streak Test: By pushing a mineral on the streak plate, we can figure out what color powder the mineral leaves behind. The color of the powder may be different from the color of the mineral.	Black White Red No streak	Black White Red No streak	Black White Red No streak
Luster Test: How light is reflected. Glassy— reflect light similar to glass window Metallic—reflects light similar to a metal surface Dull— does NOT reflect light or reflects it poorly	Glassy Metallic Dull	Glassy Metallic Dull	Glassy Metallic Dull
Transparency Test: How much light is able to pass through the mineral. Opaque- NO light passes through it (like a wall) Translucent - SOME light passes through it (foggy window) Transparent - light DOES pass through it (like a window)	Opaque Translucent Transparent	Opaque Translucent Transparent	Opaque Translucent Transparent
Hardness Test: Determine the hardness of the mineral circle a number on the scale from 1-10 (1 =softest, 10=hardness)	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
Draw your mineral! 			

Here are some answers to some of the tests if the kids get stuck. ☺

MINERAL	LUSTER	TRANSPARENCY	COLOR	STREAK	HARDNESS
Graphite	nonmetallic/dull	opaque	Black-gray, black	Black	1
Feldspar	nonmetallic/ glassy, sparkly	translucent to transparent	White	none or white	6 - 6.5
Biotite	nonmetallic/ glassy	opaque	Brown-black	Gray-brown	2
Fluorite	Metallic	translucent to transparent	Green, purple	White	4
Hematite	Metallic, sparkles	opaque	Red, black, brown	Red	5
Calcite	nonmetallic/ glassy	translucent to transparent	Yellow, white, green, orange, blue, gray, brown	White	3
Quartz	nonmetallic/ glassy	translucent to transparent	Pink, white, clear, purple, yellow, black, brown, green, orange, etc.	none	7