

Mineral Lab

Question: How do scientists identify minerals?

Hypothesis:

Test:

Materials:

- Mystery minerals
- Fingernail
- Penny
- Porcelain tile
- Glass slide
- Triple beam balance
- Graduated cylinder
- Paper clip
- UV light

Procedure:

1. Identify the number of the mystery mineral and write it in the data table.
2. Perform each of the 8 tests on the mineral and record the results in the data table.
3. When done, use the Mineral ID sheet to identify the mineral.

Results:

Properties	Mineral # _____
<i>Color</i>	<i>Paste picture here</i>
<i>Luster</i>	<input type="checkbox"/> Metallic <input type="checkbox"/> Glassy <input type="checkbox"/> Pearly <input type="checkbox"/> None
<i>Streak</i>	<i>Paste picture here</i>
<i>Hardness</i>	<input type="checkbox"/> 1-2 = Scratchable by fingernail <input type="checkbox"/> 3 = Scratchable by Penny <input type="checkbox"/> 4-5 = Scratchable by porcelain <input type="checkbox"/> 6+ = Can scratch Glass
<i>Density</i>	Mass / Volume = Density _____ / _____ = _____
<i>Crystal Systems</i>	<input type="checkbox"/> I can see the crystal shape <input type="checkbox"/> I can't see the crystal shape
<i>Cleavage and Fracture</i>	<input type="checkbox"/> 1 – directional <input type="checkbox"/> Cubic <input type="checkbox"/> Can't tell
<i>Other</i>	<input type="checkbox"/> Magnetic <input type="checkbox"/> Fluorescent
<i>...our mystery mineral is _____ !</i>	

Mineral I. D. Sheet

Luster	Streak	Hardness	Density	Cleavage/ Fracture	...Mineral Name!!
Metallic	Gray/black	2.5	7.5	Cubic	Galena
Metallic	Black	3.5 - 4	4.2	None	Chalcopyrite
Metallic	Black	6 - 6.5	5	None	Pyrite
Non-Metallic	White	2 - 2.5	2.8 - 3	1 direction	Muscovite Mica
Non-Metallic	Pale Yellow	1.5 - 2.5	2.1	None	Sulfur
Non-Metallic	White	2	2.3	None	Gypsum
Non-Metallic	Colorless	4	3.2	Cubic	Flourite
Non-Metallic	None	6.5 - 7	3.32	None	Olivine
Pearly	None to White	6-6.5	2.5-2.7	None	Feldspar
Metallic	Black	5.5-6	5.3	None	Magnetite