

Mineral Identification (p. 68 – 72)**I. Physical Properties**

1. List six physical properties used to identify minerals.

- p. 802-803
Mineral Reference
- | | |
|----------------------|------------------------------|
| 1. <u>Appearance</u> | 4. <u>Specific Gravity</u> |
| 2. <u>Hardness</u> | 5. <u>Streak</u> |
| 3. <u>Luster</u> | 6. <u>Clearance/Fracture</u> |

2. Why can't color alone be used to identify most minerals? (Gold vs. Pyrite?)

Different minerals may have the same color.

3. Define the term hardness.

Hardness – measure of how easily a mineral can be scratched4. The softest known mineral is talc and hardest known mineral is diamond.

5. What is the Moh's Hardness Scale?

-A list of common minerals that compare hardness. (Softest to Hardest)

6. A mineral can scratch any mineral harder than itself.

Circle One : True False

7. Define the term luster.

Luster – way a mineral reflects light
(Metallic vs. Non-Metallic)

8. Minerals containing metals often have a shiny luster.

Circle One : True False

9. Give examples of terms for nonmetallic luster.

Dull Pearly Silky Glassy

p. 68

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10. Define the term specific gravity.

Specific Gravity – ratio of a mineral's mass compared with the mass of an equal volume of water

11. Write the equation for determining specific gravity (density).

$$\text{Specific Gravity} = \frac{\text{Mass (grams)}}{\text{Volume (cm}^3\text{)}}$$

12. Define the term streak.

Streak – color of a mineral when it is in a powdered form

13. Determine the streak for the following minerals.

Gold = Yellow Pyrite (Fool's Gold) = Green/Black ^{or} Brown/Black

14. Define the term cleavage and give an example of mineral that exhibits cleavage.

Cleavage – breaks along smooth, flat surfaces

Example = Mica, Feldspar, Halite

15. Define the term fracture and give an example of mineral that exhibits fracture.

Fracture – breaks with uneven, rough, or jagged surfaces

Example = Quartz, Copper, Iron

16. List five other properties used to identify minerals. (Not all found in the book.)

1. Fluorescence (Willemitite, Franklinite, Sodalite, Scapolite)
2. Crystal Structure
3. Magnetism (Magnetite)
4. Translucence (Calcite)
5. Chemical Properties (Iron)