

KEY CONCEPT#2

HOW MINERALS ARE IDENTIFIED

1. Luster: how light reflects off the mineral  
 a. Metallic Luster: looks like "Metal"  
 b. Nonmetallic Luster: Shiny but NOT "Metal"

Different types of nonmetallic luster

vitreous

- a) waxy  
 b) \_\_\_\_\_  
 c) pearly  
 d) glassy

2. Hardness: resistance to scratch 1-10 (Mohs scale)

3. Cleavage: even breakage 0°, 90°, <90° >90°

4. Fracture: random, uneven breakage

5. Color: physical appearance **NOT RELIABLE**

6. Streak: powder color of the mineral

- a. Metallic Minerals: dark brown, dark grey, black  
 b. Nonmetallic Minerals: white, clear

7. Density: how compact the atoms are.  $D = \frac{\text{Mass}}{\text{Volume}}$

8. Special Property for exclusive minerals:

specific gravity

Halite "salty"    magnetite "magnetic"    Calcite "double refraction" "bubbles"    Uranium radioactive