

Identifying Minerals

- There are 6 specific properties examined to identify a mineral.....



1. Color

- Many minerals have a distinct color, but the color alone is not enough to identify the mineral.



2. Luster

- The way a mineral reflects light.
 1. Metallic – Reflects light and looks metallic.
 2. Nonmetallic – Minerals that look earthy, waxy, or glasslike.



3. Streak

- The powdered form of the mineral.
- The streak of a mineral is obtained by rubbing it on a streak plate.
- Often the color of the powder will be different than the whole mineral.



4. Hardness

- How hard the mineral is.
- Measured on the Moh's scale.
- 10 is the hardest mineral – a diamond.
- 1 is the softest mineral – talc.

The Moh's Scale

Mineral	Hardness	
Diamond	10	
Corundum	9	
Topaz	8	← streak plate
Quartz	7	← knife and steel probe
Orthoclase Feldspar	6	← glass slide
Apatite	5	
Fluorite	4	← copper coin
Calcite	3	← finger nail
Gypsum (Selenite)	2	
Talc	1	

5. Breakage

- The way a mineral breaks.
- Cleavage – smooth, flat breaks.
- Fracture – Rough, jagged breaks.



6. Shape

- Minerals have 6 general crystal shapes.
 1. Cubic
 2. Hexagonal
 3. Tetragonal
 4. Orthorhombic
 5. Monoclinic
 6. Triclinic

Cubic

- Pyrite



Hexagonal

- Hanksite



Tetragonal

- Cassiterite



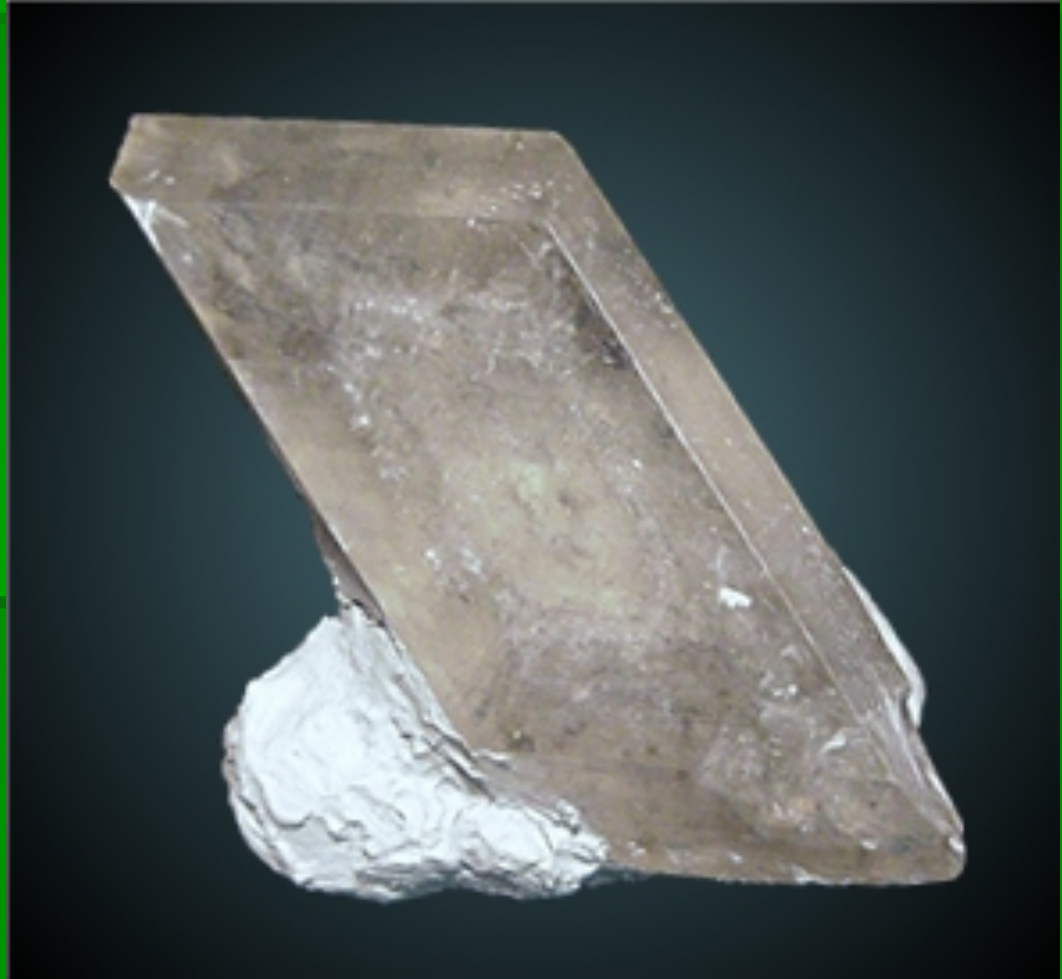
Orthorhombic

- Antlerite



Monoclinic

- Gypsum

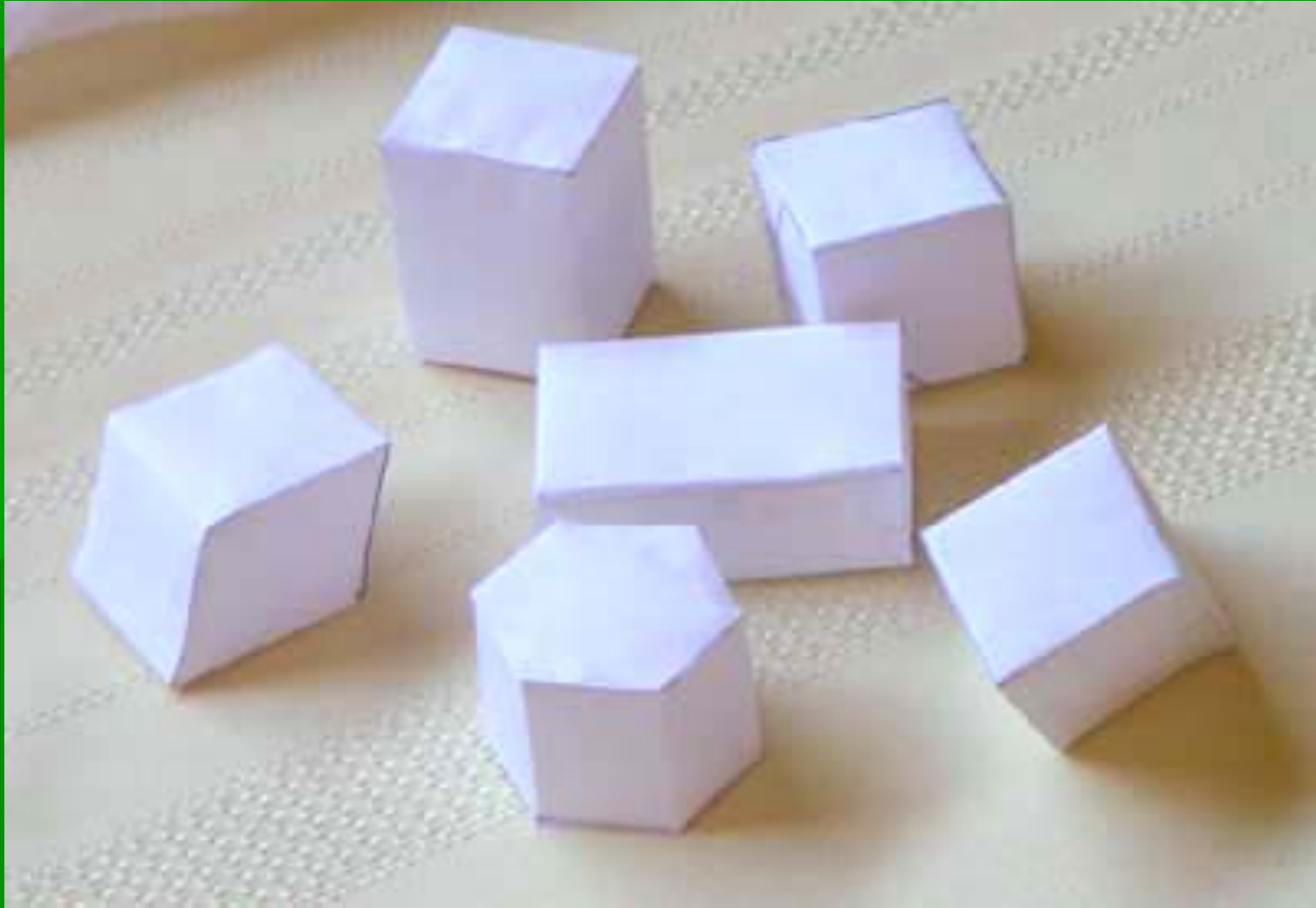


Triclinic

- Axinite



Name the Crystal Shape



A Quick Review

- All minerals share the following 4 characteristics:

Solid, Inorganic, Naturally Formed,
Crystalline Structure.

- There are 6 tests to identify a mineral.

Color, Hardness, Breakage, Streak, Shape,
Luster.