

Ch. 3 Minerals

Chapter Review

Objectives:

1. List five characteristics all minerals share.
2. Give examples of the three ways minerals form.
3. List the physical properties used to identify minerals.
4. Describe how physical properties such as hardness and streak are used to identify minerals.
5. Apply your knowledge of the Mohs Hardness Scale to identify minerals and their hardness.
6. Discuss characteristics gems have that make them different from and more valuable than other minerals.
7. List the conditions necessary for a mineral to be classified as an ore.
8. List the properties of titanium that make it so useful in biomedicine, sporting equipment, and other applications.
9. Identify the minerals that are mined for titanium.
10. Using methods such as acid tests, color, streak, hardness, and luster identify common minerals.
11. Identify common ores and gems.
12. Explain the importance of minerals, ores, and gems in our lives.

Vocabulary:

| | | |
|----------------|-----------------------|----------|
| Minerals | Saturated | Breakage |
| Inorganic | Silicates | Cleavage |
| Organic | Hardness | Fracture |
| Crystal Shapes | Mohs Hardness Scale | Gems |
| Cubic | Knoops Hardness Scale | Ores |
| Tetragonal | Luster | Titanium |
| Orthorhombic | Metallic | Ilmenite |
| Monoclinic | Non-Metallic | Rutile |
| Triclinic | Color | |
| Hexagonal | Streak | |
| Evaporation | Streak Plate | |
| Precipitation | | |

Examples (Understand each of these minerals as given in their examples in notes)

| | |
|--------------------|--------------|
| Coal | Corundum (9) |
| Rock Salt (Halite) | Pyrite |
| Talc (1) | Magnetite |
| Diamond (10) | Amethyst |
| Gypsum (2) | Ruby |
| Apatite (5) | Sapphire |
| Fluorite (4) | Aquamarine |
| Quartz (7) | Emerald |
| Calcite (3) | Beryl |
| Feldspar (6) | Titanium |
| Topaz (8) | |