

## Geology 12

### "Must Know" Minerals

- ❖ Use the following properties in identifying minerals:
  - simple crystal shape
  - cleavage
  - fracture
  - hardness
  - color
  - streak
  - luster
  - specific gravity (relative density)
  - special properties, such as reaction to dilute HCl and magnetism
  
- ❖ Use appropriate references and tests to describe and identify the following minerals:
  1. silicates and aluminosilicates:
    - quartz and varieties of quartz
    - potassium feldspar and plagioclase feldspar
    - muscovite, biotite, and talc
    - augite (pyroxene) and hornblende (amphibole)
    - garnet
    - asbestos
    - olivine
  
  2. oxides:
    - hematite, limonite, magnetite
  
  3. sulphides:
    - Pyrite (**FeS<sub>2</sub>**), chalcopyrite (**CuFeS<sub>2</sub>**), galena (**PbS**), sphalerite (**ZnS**), molybdenite (**MoS<sub>2</sub>**), bornite (**Cu<sub>2</sub>FeS<sub>4</sub>**)
  
  4. carbonates and sulphates:
    - calcite, malachite, azurite, gypsum
  
  5. native elements, halides and phosphates:
    - Graphite (C), gold, halite (NaCl), fluorite, apatite