

Geology 12 Mineral Identification Activity

Purpose: To develop a systematic procedure for identifying minerals by observation and testing.

- A. **Create a flow chart** that can be used to determine which mineral a sample might be. It should be based on properties you can observe in the lab (i.e., not based on mineral type of common uses).
- B. On the back of the flow chart, **answer the following questions:**
- 1) Give two ways to differentiate between:
 - a. Calcite and halite
 - b. Magnetite and hematite
 - c. Talc and gypsum
 - 2) Biotite and muscovite have the same crystalline structure but have different mineral names. Why?
 - 3) If a mineral has a metallic lustre, will it always have a bright, shiny surface? Why?
 - 4) Which physical property is more reliable in mineral identification – colour or streak? Explain.
 - 5) Can a non-metallic mineral have a streak? Explain.
 - 6) Will quartz scratch glass? Diamond? Your fingernail?