Minerals and Mineral Identification

A mineral is a naturally occurring, inorganic, solid, with a definite chemical composition and crystal structure. All physical characteristics are a result of the mineral's internal arrangement of atoms.

Identifying Characteristics (What we look at to figure out what the identity of a sample)

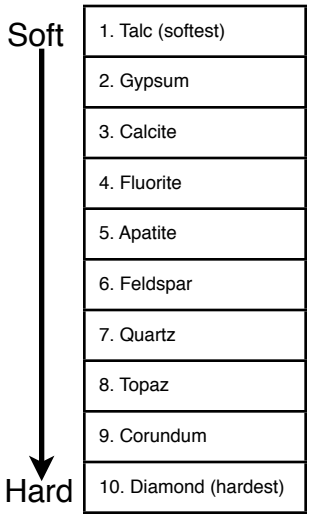
➡**COLOR**- Most visible characteristic, but unreliable because many minerals share the same color and many minerals exist in different colors.

➡**STREAK**- The color of the mineral in powdered form (use a "streak plate"). Very reliable tool for identifying samples. Note: the color of the powdered form is often different form the color of the solid form.

➡**FRACTURE/ CLEAVAGE**- **Cleavage** is the tendency of a mineral to split along one or more smooth, flat surfaces. If a mineral does not display cleavage, it is said to have **fracture**, which means it breaks unevenly.

➡**HARDNESS**- The mineral's resistance to being scratched. Minerals are compared to the ten minerals on the "Moh's Scale of Hardness".

-Minerals are often compared to glass (hardness: 5.5)



➡**LUSTER**- Either **metallic** (shiny, like a polished metal) or **nonmetallic** (dull, with no shine). Types of nonmetallic luster include glossy, pearly, greasy, earthy, etc.

➡Other characteristics that can be tested include: magnetism, reaction with chemicals, taste, specific gravity, crystal form, fluorescence, optics.