Minerals

Minerals must be...
Solid
Naturally occurring
Inorganic
Definite chemical composition
Crystalline structure

Minerals can be identified by...
Color (not reliable)
Hardness (1-10)
Luster (metallic or nonmetallic)
Streak (color in powdered form)
Cleavage/Fracture (how it breaks)
Other (taste, magnetism, fluorescence)

All of the characteristics of a mineral are the result of that mineral's internal arrangement of atoms

Minerals are the building blocks of rocks

Rocks

Rocks are classified based on the way in which they form...
Igneous
Metamorphic
Sedimentary

Igneous Rocks

Form as a result of the cooling and solidification of magma or lava

Intrusive	Extrusive
Magma inside the Earth cools and solidifies slowly	Lava on the surface of the Earth cools and solidifies rapidly
Mineral crystals have the opportunity to grow large	Mineral crystals are either small or do not form at all
	Air bubbles may be trapped forming a vesicular texture

Metamorphic Rocks

Form as a result of exposure to heat and/or pressure beneath the surface

Contact	Regional
Existing rocks are exposed directly to and physically changed as a result of contact with the intense heat of magma or lava	Existing rocks are exposed to prolonged periods of intense pressure and heat, often associated with the movement of tectonic plates over a large geographic area

Sedimentary Rocks

Form mainly as a result of the compaction and cementation of sediments

Clastic	Organic/Crystalline
Compacted and cemented together sediments, or fragments of other rocks	May form from the minerals that settle out of water or are left behind when water evaporates
Classified according to the size of the sediments making it up	May form from compacted organic materials such as plant remains or shells