

Minerals	Rocks
<u>Mineral</u> : naturally occurring object, stable at room temperature, represented by a single chemical formula, usually abiogenic (not resulting from the activity of living organisms), has ordered atoms. More than 5,300 are known.	<u>Rock</u> : a naturally occurring solid aggregate of one or more minerals.
<u>Color</u> : different sensations on the eye as a result of the way the object reflects or emits light. Look at the sample.	<u>Igneous rock</u> : formed through cooling and solidification of <i>magma</i> or <i>lava</i> from partial melting of existing rock or from Earth's <i>mantle</i> or <i>crust</i> ; rocks melt because of an increase in temperature, decrease in pressure, or change in composition. <i>Plutonic</i> or <i>intrusive</i> rocks result when magma cools and crystallizes slowly within the Earth's crust. A common example is granite. <i>Volcanic</i> or <i>extrusive</i> rocks result from magma reaching the surface as lava or fragmental <i>ejecta</i> . Examples are pumice and basalt. About 64.7% of the Earth's crust by volume consists of igneous rocks.
<u>Crystal habit</u> : geometric shape of a crystal or mineral. Large crystals will be visible. Use a magnifier to see small crystals.	
<u>Cleavage</u> : minerals break along particular planes of weakness. Look for broken minerals and observe how light reflects from them.	
<u>Fracture</u> : minerals also break in places where they aren't weak, usually from impact. The breakage can be irregular, or conchoidal, meaning the break looks like broken glass.	
<u>Tenacity</u> : refers to how resistant a mineral is to such breaking. Minerals can be described as brittle, ductile, malleable, sectile, flexible, or elastic.	
<u>Hardness</u> : resistance to scratching or abrasion. Use the Moh's Hardness Scale to determine a mineral's hardness.	<u>Metamorphic rock</u> : formed by subjecting any type of rock to different temperature or pressure conditions than when formed. The temperatures and pressures required are always higher than those found at the Earth's surface. Metamorphic rocks compose 27.4% of the <i>crust</i> by volume. An <i>intrusion</i> of magma that heats the surrounding rock causes <i>contact metamorphism</i> . <i>Pressure metamorphism</i> occurs when sediments are buried deep under the ground. Where both heat and pressure are involved, it is called <i>regional metamorphism</i> , typically found in mountain-building regions.
<u>Luster</u> : character of the light reflected by a mineral. Look at the mineral to determine if the mineral is metallic (looks like a chunk of metal), or non-metallic (doesn't look like a chunk of metal).	
<u>Streak</u> : color of the mineral when it is scratched or powdered. Scratch the mineral on a streak plate or tile.	
<u>Diaphaneity</u> : ability of light to pass through a mineral. Minerals can be opaque, allowing no light to pass through, translucent, allowing some light, and transparent allowing the most light. Use a flashlight.	
<u>Specific gravity</u> : describes the density of a mineral. For minerals, it is the ratio of the density of a mineral to the density of water.	<u>Sedimentary rock</u> : formed at Earth's surface by <i>accumulation</i> and <i>cementation</i> of rock fragments, minerals, and organisms or as <i>chemical precipitates</i> in horizontal layers in water, a process called <i>sedimentation</i> . The particles then undergo <i>compaction</i> . Before being deposited, sediments are formed by <i>weathering</i> or earlier rocks by <i>erosion</i> , and then transported to the place of <i>deposition</i> by water, wind, ice, mass movement or glaciers. Mud rocks comprise 65%, sandstones 20 to 25%, and carbonate rocks 10 to 15%. About 7.9% of the crust by volume is composed of sedimentary rocks.
<u>Fluorescence</u> : the emission of light by a substance that has absorbed light or other electromagnetic radiation. Shine an ultraviolet light on the mineral.	
<u>Magnetism</u> : the mineral may or may not be magnetic. Use a magnet.	