Geological Terms

**Batholith** – a large body of intrusive *igneous rock* believed to have crystallized at a considerable depth below the earth’s surface.

**Dike** – an intrusion of molten rock into a fracture or weakness in bedrock of another type resulting in a planar feature of foreign composition

**Dome** – a smoothly rounded granitic formation caused when the overlying rock is eroded as the *granitic rock* is uplifted, and the pressure on the granitic rock reduced. The granitic rock expands and forms fractures or sheet joints parallel to the surface, then erodes in concentric layers (similar to how an onion peels) forming rounded masses called exfoliation domes

**Erosion** – the process of gradual removal of material from the earth’s surfaces by wind, water and other forces

**Exfoliation** – the breaking off or peeling of concentric layers of rock due to physical or chemical forces

**Fault** – a plane of weakness in rock where movement of the two sides has occurred relative to one another

**Feldspar** – one of the primary minerals found in *granitic rock*, usually lighter in color

**Geologic Time** – all of the time since the origin of the earth

**Geology** – the study of the earth, the rocks that comprise it and the changes it undergoes

**Glacial Polish** – the smooth, even surface of bedrock formed by abrasive glacial movement

**Glacial Valley** – a classically u-shaped valley shaped by thousands of years of moving ice that widen it and flatten its bottom

**Glaciations** – successive periods during which an area was covered by moving sheets of ice, usually due to cyclical periods of cooling and warming of the earth’s atmosphere

**Glacier** – a huge mass of ice slowly flowing over a land mass, formed from compacted snow in an area where snow accumulation exceeds melting and sublimation

**Granite** – a type of intrusive *igneous rock* that forms from the slow crystallization of magma below Earth’s surface. Granite is composed mainly of quartz and feldspar with minor amounts of micas, amphiboles and other minerals such as hornblende or augite. This mineral composition usually gives granite a red, pink, gray or white color with dark mineral grains visible throughout the rock

**Granitic Rock** – the more accurate term for intrusive *igneous rock* made up of varying proportions minerals, chiefly *quartz* and *feldspar*

**Hanging Valley** – a valley whose floor is notably higher than the floor of the valley into which it flows, due to deeper glacial excavation of the larger valley
Hornblende – is not a recognized mineral in its own right, however the name is used as a general term to refer to a dark amphibole and is considered one of the minerals that often comprise granitic rock.

Ice Age – a period of decreased average surface temperature of the earth lasting thousands of years and resulting in widespread ice accumulation.

Igneous Rock – formed by magma cooling and becoming solid. Igneous rock may form with or without crystallization, either below the surface as intrusive (plutonic) rocks or on the surface as extrusive (volcanic) rocks.

Joint – a naturally occurring weakness or fracture line in the rock, created by forces of compression or extension.

Magma – molten material beneath or within the earth's crust, from which igneous rock is formed.

Mantle – the mantle is a highly viscous layer between the crust and the outer core of the Earth.

Metamorphic Rock – either sedimentary rock or igneous rock that has been heated or pressurized to such an extent that it undergoes both chemical and structural change.

Mica – a group of sheet silicate minerals, one of the primary minerals found in granitic rock.

Mineral – a naturally occurring inorganic substance composed of multiple elements in a fixed ratio.

Moraine – the pile of debris left at the toe of a glacier after it recedes.

Plate Tectonics – a geologic theory that postulates the existence of seven major plates of the earth’s crust which float and move on the molten rock of the mantle and periodically reshape the land as they collide with each other.

Pluton – any body of igneous rock that solidified far below the earth's surface.

Quartz – the whitest and the hardest of the primary minerals comprising granitic rock.

Sediment – fine particles of broken up rock that are deposited on the earth’s surface by moving water, wind or ice.

Sedimentary Rock – rock formed by the layered deposition of fine, broken up particles of eroded rock.

Subduction – the process by which collision of the Earth's crustal plates results in one plate's being drawn down or overridden by another.

Talus – broken up bits of rock that pile up at the base of a rockfall zone.

Uplift – a process of mountain building in which collisions of the tectonic plates result in a displacement of the compressed land upwards.