



BACKGROUND INFORMATION

Geology Lesson 1: Volcanic Landscapes

VOCABULARY

PUMICE:

A very light and porous volcanic rock.

PYROCLASTIC FLOW:

Huge, glowing clouds of scorching hot gas and volcanic fragments, ranging in size from dust, ash, and pumice to large rocks which are expelled at great speed in a turbulent mass.

RHYOLITE:

A volcanic igneous rock with a very high silica content. It is usually pink or gray in color with grains so small that they are difficult to observe without a hand lens. Rhyolite is made up of quartz, plagioclase, and sanidine, with minor amounts of hornblende and biotite.

ANDESITE:

A volcanic rock intermediate in composition between rhyolite and basalt. Andesite lava is of moderate viscosity and forms thick lava flows and domes. The word andesite is derived from the Andes Mountains in South America, where andesite is common.

BASALT:

A mafic volcanic rock, is the most widespread of all igneous rocks, and comprises more than 90% of all volcanic rocks. Because of its relatively low silica content, basalt lava has a comparatively low viscosity, and forms thin flows that can travel long distances. It is also found as intrusive dikes and sills. Many moon rocks brought back by Apollo astronauts are of basaltic composition.

VOLCANO:

A mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are being or have been erupted from the Earth's crust. Burning mountain, comes from the name of the Roman god, Vulcan, god of fire and the blacksmith of the gods.

MAFIC:

Relating to, denoting, or containing a group of dark-colored, mainly iron and magnesian minerals such as pyroxene and olivine.

FELSIC:

Relating to or denoting a group of light-colored minerals including feldspar, feldspathoids, quartz, and muscovite.

LAVA:

1. Molten rock that reaches the earth's surface through a volcano or fissure.
2. The rock formed by the cooling and solidifying of molten rock.

MAGMA:

Molten rock usually located deep within the mantle of the Earth that occasionally comes to the surface through cracks in the mantle or through the eruption of volcanoes.