

Chapter 3 Study Guide

Know all vocabulary words.

Scientists monitor volcanoes in order to predict when future eruptions may occur.

Volcanic mudflows are especially likely in wet regions.

Mountains that form as blocks of rock move up or down along normal faults are called fault block mountains.

Ash clouds can be dangerous to people who live far from a volcano.

Volcanoes can affect the Earth's atmosphere by increasing worldwide temperatures.

Tilted blocks of rock are commonly found along ocean spreading centers.

Volcanoes in folded mountain belts form when an oceanic plate partly melts as it goes under into the mantle.

A folded mountain belt can form when two continental plates push together.

Most volcanoes occur along plate boundaries.

Lava flows destroy everything in their path making them very dangerous.

Shield volcanoes are low in silica and lava flows easily.

Though volcanoes are a source of acid –forming gasses, most acid precipitation forms as the result of human activity.

Steam explosions occur when magma comes into contact with water.

Pyroclastic flows are the most dangerous types of eruptions.

Most volcanoes happen along plate boundaries.

Underground water heated by magma can be used to provide energy at the Earth's surface.

Deep sea vents are hot springs that form on the Earth's ocean floor.

Volcanoes that are silica rich have explosive eruptions because the gasses get trapped in the magma until the pressure builds up and it eventually explodes.

One effect of volcanic activity is that it adds dangerous gasses to the Earth's atmosphere.

Even though volcanoes are dangerous, over time they can have positive effects, like nutrient rich soil.

The three types of rock fragments that erupt from volcanoes are ash, cinders and block or bombs.

A caldera is a huge crater that is formed by the collapse of a volcano when magma rapidly erupts from under it.

A cinder cone volcano is a steep cone shaped hill formed by the eruption of cinders and other rock fragments that pile up around a single crater. Cinders are formed as gas rich magma erupts. Escaping gasses throw small chunks of lava into the air, where they harden before landing.

A shield volcano is shaped like a broad, flat dome. It is built up by many eruptions of lava that is relatively low in silica and flows easily.

A composite volcano is a cone-shaped volcano built up of layers of lava and layers of rock fragments. Its magma is high in silica and pasty. It is steep near the top and flattens out toward the bottom . The hardened lava adds strength to a composite volcano, so it can grow to be very large. These volcanoes have violent eruptions due to the trapped and expanding gasses in the silica rich magma.