

## VOLCANO NOTES

- Volcanoes form from magma being forced up through the crust from extreme pressures
- The magma exits through openings in the earth called vents.
- Vents form at divergent boundaries and convergent boundaries with subduction zones
- Volcanoes also form from “hot spots.” These hot spot volcanoes normally form away from boundary areas. They form from VERY hot magma burning its way through the crust. The Hawaiian Islands are hot spot volcanoes.
- Some volcanoes erupt explosively, and some erupt quietly.
- **Quiet** eruptions have a **low silica (silica poor)** content, and **explosive** eruptions have a **high silica (silica rich)** content.
- There are three major types of volcanoes: **Shield, Cinder Cone, and Composite**
- **Shield-** hundreds of miles across, tens of thousands of feet high, low slopes, and have large craters at their summit. These have the **quietest eruptions**.
- **Cinder Cone-** consist almost entirely of loose, grainy cinders, and almost no lava. They are small volcanoes, about a mile across and up to a thousand feet high. They have very steep sides and usually have a small crater on top. These have a **medium to explosive eruption**
- **Composite-** tens of miles across and ten thousand or more feet in height. They have moderately steep sides and sometimes have small craters in their summits. Volcanologists call these “strato-” or composite volcanoes because they consist of alternating layers of solid lava flows mixed with layers of sand or gravel-like volcanic rock called tephra cinders or volcanic ash. These have **the most explosive eruptions**.
- **Volcanic Neck:** A massive pillar of rock more resistant to erosion than the lavas and pyroclastic rocks of a volcanic cone.
- **Caldera:** The Spanish word for cauldron, a basin-shaped volcanic depression (hole) or crater at the top of a volcano typically formed by the collapse of volcanoes. Many end up becoming lakes, and are usually 1 mile in diameter.
- There are **3 classifications** of Volcanoes: **Active, Extinct, and Dormant**
- **Active** is currently erupting or has very recently; **Extinct** will never erupt again; **Dormant** is like “sleeping.” It hasn’t erupted for a very long time, but scientists believe it will erupt again.