

It's Getting Hot in Here!

By Angel Ruiz

Volcano – the word alone is powerful. After all, the word comes from the Roman God Vulcan – the god of fire. But what really makes these massive forces of nature so terrifying?

Let's start off with the formation. Between the crust and the molten iron core of the Earth is an area called the **mantle**. When the melted rock in the mantle (**magma**) moves through the crust and releases gases, a volcano is erupting.

Volcanic eruptions, like earthquakes, only occur in certain areas. They are particularly common at **subduction zones**. Subduction zones are places where one plate (sections of the Earth's **crust** that are constantly moving in relation to other sections), moves beneath another plate. One plate sinks into the mantle, and the underlying rock that the plate rests on gets very hot and begins to melt.



This melted rock is called **magma**. As more **magma** is made deep inside the Earth, it begins to rise through the dense rock to the Earth's surface. When it reaches the surface it is called **lava**. Once above ground the **lava** begins to cool down and forms into a hard rock.

Volcanoes leave their marks once they erupt. Large eruptions may have short-term (one to three years) effects on the climate. They create nature hazards such as landslides and lahars (flows of debris from water, rock and mud) that destroy houses and trees. Volcanic eruptions may also release harmful gases into the air and at times can create acid rain, which hurts plants, animals, soil, and even people.