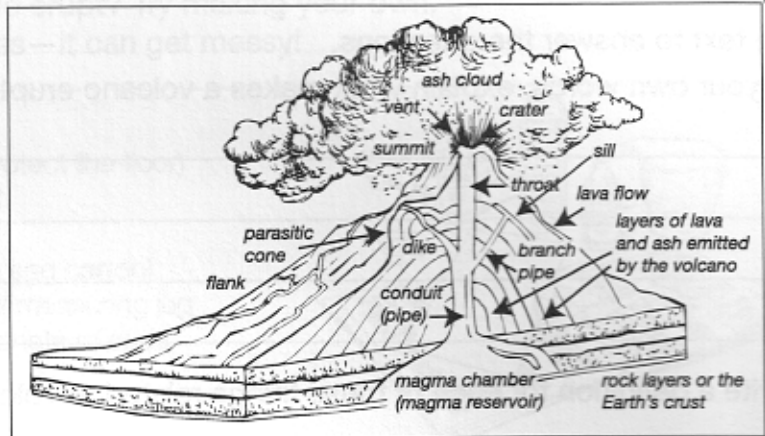


What is a volcano?

A volcano is a place in the earth's surface through which melted rock (magma) and gas erupt. Most volcanoes are found along the 'Ring of Fire', an area which circles the Pacific Ocean. Other places with volcanoes include Hawaii, southern Europe and even under the ocean! Most volcanoes are mountains. The mountain forms when the materials produced during an eruption fall back to earth and build up, creating a cone shape. This process may take thousands of years.



earthquakes (caused by rising magma), a temperature increase in the surrounding area and gaseous fumes. But it isn't always possible to tell when a volcano will erupt.

Why are volcanic eruptions so dangerous?

Volcanic eruptions can cause great devastation. It has been estimated that about one million people have been killed by volcanic eruptions over the past 2000 years. Despite this, some people still live near volcanoes. One reason for this is that volcanic ash creates fertile soil for farming. Underground steam caused by volcanoes is also used by people as a source of energy.

But no-one would want to be near a volcano when it erupts! Here are some of the things that can happen during a volcanic eruption.

- The force of the blast can kill people, plants and animals.
- Lava flows can start fires, kill people, plants and animals and bury towns, cities or islands.
- Volcanic ash can make jet aircraft engines stall, cause people and animals to suffocate, destroy plants and start fires.
- Volcanic bombs (large fragments of rock thrown out of a volcano) can kill people and destroy buildings.
- Poisonous gases can kill people and animals if they are breathed in.
- Tsunamis, floods, rock falls, mudflows and earthquakes can be triggered.

Some of the greatest volcanic disasters include the eruptions of Mount Tambora and Krakatau in Indonesia, Mount Pelée in the West Indies and Nevado del Ruiz in Colombia.

What causes a volcanic eruption?

Far below the earth's surface, it is extremely hot. If you could dig a hole 100 kilometres deep, you would find temperatures hot enough to melt rock. This melted rock is called 'magma'. When hot gases inside the earth build up, they push the magma up towards the surface and eventually it bursts out as a volcanic eruption. Once it has erupted, magma is called 'lava'.

Volcanoes which erupt constantly are called 'active', while those which have been quiet for some time are called 'dormant'. If a volcano stops erupting altogether, it is called 'extinct'. There are about 1500 active volcanoes in the world and many more dormant ones.

What is a volcanic eruption like?

Every volcanic eruption is different. Some volcanoes blast large clouds filled with ash and poisonous gases high into the air and spill hot lava, dust, cinders and rock fragments over large areas. Other volcanic eruptions are quieter, simply expelling flowing lava and gases.

How can you tell when a volcano is going to erupt?

Vulcanologists (volcano experts) use a range of monitoring equipment to help them predict when a volcano might erupt. This is so people in the area can be evacuated in plenty of time. Some of the signs vulcanologists look for include a slight bulge in the sides of a volcano (due to the collecting magma), small