

# Volcanoes



What is a volcano??



# What is a Volcano?

A volcano is a hole in the Earth's surface. The hole reaches down in to a pool of hot liquid rock below. Most of the time, a volcano is silent and still. However, it can also suddenly erupt. When it erupts, boiling rock from inside the Earth spurts out of the opening. This lava may spill out like bubbling treacle, or it may shoot into the air at high speed. Some volcanoes give off clouds of ash and gas as well.



What causes a volcano?

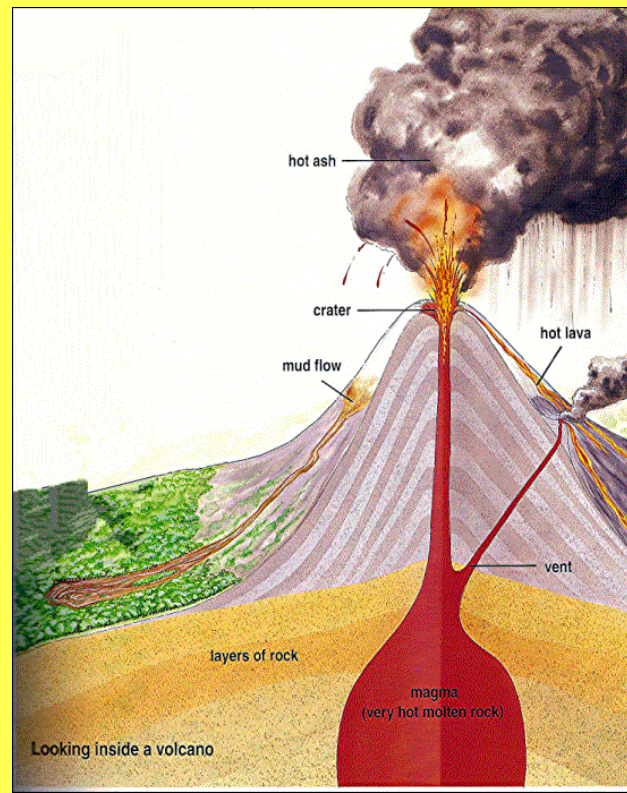


# What causes a volcano?

[http://news.bbc.co.uk/1/hi/sci/tech/7533964.st  
m](http://news.bbc.co.uk/1/hi/sci/tech/7533964.stm)

# How does a volcano form?

Hot liquid rock pushes up below the surface of the Earth to the top. The top of the volcano is called the crater. The sides are called the cone.



What happens when a volcano erupts?



# What happens when a volcano erupts?

Some volcanoes erupt gently. The lava spills out slowly. Gases and steam rise off the lava and form small clouds above the volcano.

<http://www.dailymail.co.uk/sciencetech/article-2271934/Watch-volcano-exploding-Amazing-360-degree-interactive-panorama-shows-eruption-remote-Kamchatka-peninsula.html>

Watch carefully, what can you see happening when a volcano erupts?



When a volcano erupts you can  
expect:

- Lava
- Broken rocks
- Ash

When a volcano erupts, broken rock and ash often spurt out with the lava. The huge chunks of volcanic rock can drop down to earth like heavy bombs. Hot ash, rocks and gases can also mix and when this does it can be very dangerous and cause lots of damage. This can burn everyone and everything in their path.



# Ash..

Ash is made up of bits of rock so small that they look like dust. The fine ash from volcanoes can form massive clouds. These clouds pollute the air. When the air is filled with ash it causes breathing problems for people on the ground. It also makes it hard for people to breath.



Sometimes ash falls from the sky like grey snow. It can choke and burn people. It blocks rivers and streams and kills the fish that live there.



# Lava...

When lava is very thick, it flows very slowly allowing people to move out the way. As lava flows over land it knocks down everything in its path. It can flatten trees and other plants.



Who might help after a volcano?  
How might they help?



# Who helps after a volcano?

Imagine the scene after a volcano..

- Broken rocks may have set trees and buildings on fire.
- Peoples home may be buried under ash or burnt by hot gases and rocks.
- Roads and bridges may have been cut off by lava flows and the air may be thick with smoke

Fire fighters brave the heat to put out fires and rescue people who are trapped.

Ambulance workers help to rescue burned or injured people.

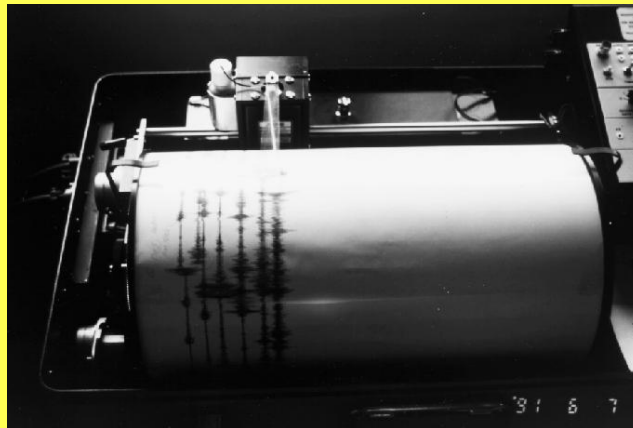




# Can volcanoes be predicted?

It is very difficult to tell exactly when a volcano might erupt. However scientists try and predict this to give people time to evacuate the houses.

Before a volcano erupts, magma rises towards the surface. As it rises, it usually makes the ground nearby vibrate slightly. Scientists measure the trembling of the ground which a special machine called a seismograph. Seismograph can pick up even tiny movements that could mean a volcanic eruption.





How can we prepare for a  
volcano?



# How to prepare for volcanoes

- Scientist can prepare maps that show where lava or ash are likely to fall. They can therefore explain to people not to build building or houses too close to those areas.
- If people have been asked to evacuate their houses they need to have a disaster kit prepared.

What do you think we should  
have in a disaster kit?



# Disaster supply kit

Families living near a volcano should have a disaster kit ready. This should include:

- Dried food and water
- A supply of clothes
- A radio, torch and batteries for both
- Goggles and breathing masks to stop people from breathing in ash
- A first aid kit.



Do you think we can stop  
volcanoes from happening?



Can we stop volcanoes from  
happening?

**NO!**

Volcanoes are forces of nature which cannot be stopped.

In the future we can hope that better prediction will help us to know exactly when they will erupt.

## Your task:

Design a poster telling people what they should include in their disaster kit and why those things are all necessary.