Volcanoes

A volcano is an opening in Earth's crust. When a volcano erupts, a very hot, liquid rock called magma can escape to the surface. The magma at the surface changes into **lava**. Volcanic activity can form mountains over time.

Interesting Fact:

In the Pacific Ocean there is a place called the Pacific Ring of Fire, where over 75% of the volcanoes on Earth are found!

A volcano can be active, dormant or extinct.

- Active – a volcano that is erupting.
- Dormant - not active but could erupt again.
- Extinct - unlikely to erupt again.

Major types of volcanoes

Volcanoes come in many shapes. Most are shaped like cones, but not all. Below are the most common types.

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Lava – The molten (hot), liquid rock that is released from a volcanic eruption.

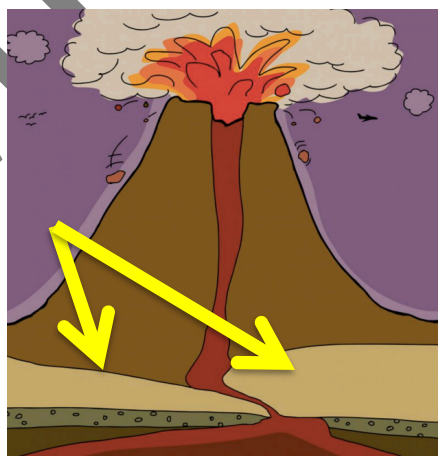
- Shield – These volcanoes have a sloping, wide, and flat top. The eruptions are not explosive. Kilauea in Hawaii is an example of this type of volcano.
- Ash-cinder/Cinder cones – This type of volcano is made up of broken rocks. When the lava is blown into the air, it breaks into small rocks. The rocks harden around the opening to form an oval cone. Paricutin in Mexico is a cinder cone volcano.

Example of a Shield Volcano

- Fissure – These are cracks at the surface from which lava erupts. Fissure vents are common in Iceland. (virtualuppermantle.info, 2014; Gates & Ritchie, 2007; Britannica.com, 2015)

How volcanoes form

The outer layer of Earth (Earth's crust) is divided into large puzzle-like pieces called tectonic plates (arrows). A volcano forms when two of these plates come together (similar to earthquakes). When the plates come together, pressure builds under them and pushes the magma upwards.



How volcanoes work

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Earth's Crust – The outer layer of Earth's surface, which is about 10 miles (16 km) thick.

Tectonic Plates – Large puzzle-like pieces of rock that come together to form the surface of Earth.

Impact of volcanoes

Volcanoes can be very dangerous. These dangers include:

- lava flows
- explosions
- toxic gas clouds
- avalanches
- tsunamis and mudflows

As well, ash clouds can form. They can affect the climate and can even lower temperatures in the area.

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Reading Comprehension Questions:

1. What is a volcano?
2. What
3. What are composite volcanoes?
4. How
5. List two dangers of volcanic eruptions.

Extension Questions

6. When
7. How could many volcanic eruptions lead to the destruction of life on Earth?
8. Explain

Reading Comprehension Questions: Answers

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