

Volcano!

One of nature's most awesome sights, the fiery eruption of a volcano blows an enormous hole in the Earth's crust and shoots molten rock into the sky!

Force of nature

A volcanic eruption is terrifying! Rock heats up underground and rises towards the Earth's surface. If it can push through the Earth's crust easily, it flows out as a river of molten rock, called lava. But if it has a tougher time finding an escape route, the pressure builds until it erupts explosively – gas, steam and molten rock blast from under the Earth and into the sky!

Once a volcano starts to erupt, it can be active for as little as a day to over a thousand years!



A hot journey

The lava's journey starts deep inside the Earth, where temperatures are so high that rock turns into a jelly-like liquid called magma. The magma rises inside the volcano and the mountain above quakes and trembles.

After a long underground journey, the magma finally bubbles to the surface, where it becomes known as lava. Reaching temperatures of up to 1,200°C, the lava pours out with a great force.

When a volcano erupts

Some volcanoes erupt violently. As the magma moves to the surface it is under great pressure, and when it reaches the outside it expands and explodes.

Not all volcanoes are this powerful – the less violent ones ooze a thick, mud-like lava instead of blasting into the air.



The journey's end

Lava takes a long time to cool, but eventually it slows down and becomes hard. Some volcanoes are by the sea, so the lava slides straight into cold water, creating a cloud of hissing steam. The sea water 'flash-cools' the lava into a glassy rock, creating a new chunk of dry land!



Friend or foe?

Volcanoes can cause devastation, destroying buildings, trees and people. But they have an upside, too... The lands around a volcano are fertile and can be a great place to grow crops, thanks to the minerals contained in the lava. Would you live in the shadow of an active volcano? It just depends if you want to take the risk!

River of fire

The hot stream of lava makes its way slowly down the slopes of the mountain, flowing on the surface and through a system of underground lava tubes. A lava flow will destroy whatever's in its path. Along the way, it wipes out roads, buries houses and turns forests into flaming infernos.



Sea, land and space!

Volcanoes are not always high mountains with a crater at the top. They come in different forms, and can be found under the sea and on planets and moons in our solar system! Here are some other types of volcano...

- **Shield volcanoes** are wide volcanoes with gently sloping sides.
- **Cinder cones** are oval or circular cones made from fragments of lava which have cooled.
- **Composite volcanoes** are steep and made up of many layers of volcanic rock.
- **Lava domes** are made when erupting lava is too thick to flow and piles up in a steep mound.

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