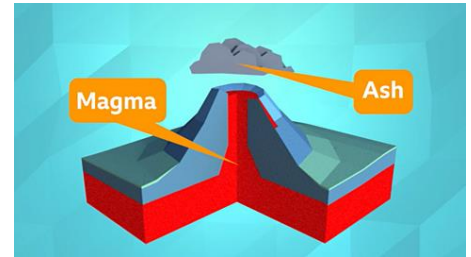


# YEAR 6 EARTHQUAKES, MOUNTAINS AND VOLCANOES



## WHAT IS AN EARTHQUAKE?

An earthquake is a sudden shaking of the ground caused by the movement of large pieces of Earth's surface, known as tectonic plates. These plates float on a layer of hot, semi-liquid rock called the mantle. When the plates move, they can cause the ground to shake, sometimes with great force. Earthquakes can happen anywhere, but they are most common in places where plates meet.

## HOW DO MOUNTAINS FORM?

Mountains are formed by the movements of tectonic plates over millions of years. When two plates push against each other, the land can fold and rise, creating mountain ranges. Sometimes, one plate is forced beneath another, a process known as subduction, which can also lead to mountain building. The Himalayas, the tallest mountains on Earth, were created by the collision of the Indian plate with the Eurasian plate.

## WHAT IS A VOLCANO

A volcano is a mountain with a hole, or crater, at the top. Inside this hole is a chamber where molten rock, called magma, is stored. When the pressure of the magma becomes too great, it pushes through the Earth's crust and erupts. This eruption can release ash, gases, and lava. Volcanoes can be found along tectonic plate boundaries, especially where plates are either moving apart or sliding under each other.

## EARTHQUAKES, MOUNTAINS AND VOLCANOES: CONNECTED FORCES

Earthquakes, mountains, and volcanoes are all connected by the movement of tectonic plates. When plates shift, they not only cause earthquakes but can also lead to the formation of mountains and volcanoes. For example, the collision of plates can create both mountains and volcanoes in the same region. The famous Ring of Fire, a zone of high volcanic and earthquake activity, is located around the Pacific Ocean and has some of the world's largest volcanoes and most powerful earthquakes.

## WHY DO THESE NATURAL EVENTS MATTER?

Although earthquakes, mountains, and volcanoes can be dangerous, they also play important roles in shaping the Earth. Volcanoes, for example, create new land by depositing layers of lava. Mountains can



affect weather patterns and the flow of rivers, and earthquakes help to recycle Earth's crust, creating space for new materials to form.

## CONCLUSION

Earthquakes, mountains, and volcanoes are powerful reminders of the dynamic and ever-changing nature of our planet. By understanding these natural forces, we can better appreciate the Earth's wonders and the importance of safety during natural events.

## FIND OUT MORE...

[BBC Bitesize Volcanoes and Earthquakes](#)

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### EXAMPLE QUESTIONS:

1. What causes an earthquake to happen?
2. How are mountains formed, and what process is involved in their creation?
3. Describe what happens during a volcanic eruption.
4. How are earthquakes, mountains, and volcanoes connected?
5. Why are volcanoes and mountains important for the Earth's environment?