

# Landforms: Mountains

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The peak and southern face of Mount Everest, the tallest mountain on the planet. Photo: Wikimedia Commons.

A mountain is a kind of landform that rises high above its surroundings. It is taller than a hill, with steep slopes that end in a peak. The peak of a mountain may be pointy or rounded.

Mountains are rarely found alone. Groups of mountains are called ranges. Lines of ranges form mountain belts.

Mountains have played a major role in human history. They tend to form boundaries between countries, and serve as natural barriers to migration and transportation. Unique mountain cultures, such as those of the Himalayan countries of Tibet and Nepal, have formed in places that are naturally hidden or guarded by mountains. Natural resources such as mineral deposits are often found in mountains, but they tend to be very expensive to get at.



## How Mountains Were Formed

Some mountains were formed by the eruptions of volcanoes. Scientists believe that most of these volcanic mountains are made up of rock that melted deep within Earth. The rock bubbled up through the top layer of Earth's surface. This layer is called the crust. It then flowed out into the open as lava. The lava, along with volcanic dust, built up over time to form mountains.

Volcanic mountains are usually steep and cone-shaped. Mount Fuji in Japan and Mount Kilimanjaro in Africa are volcanic mountains. Mount Rainier in the United States is another example.



Other mountains were formed by movements within the Earth's crust. The scientific theory called plate tectonics explains this type of mountain-building. A scientific theory is an explanation. It explains how some part of the world works or came to be. A theory is not just a guess by scientists, but is supported by facts and evidence.

Plate tectonics says that Earth's surface is divided into huge pieces called plates. These plates move very slowly. Earth's continents sit on top of the plates and move with them. Sometimes, two plates will collide. When this happens, the two plates force the rock between them upward. That can form long chains of mountains. The Himalayas of Asia are one major example. They were formed when the plate carrying India collided with the one carrying Asia.

## **Mountain Climate**

Mountains can affect climate and plant growth in different ways. Mountain areas tend to have heavier rainfall than the surrounding lowlands. The windward, or wind-facing, sides of mountains tend to be cloudier. These sides have more rainfall. They also have smaller temperature ranges. The leeward, or non-windy, sides of mountains are drier and sunnier. They tend to change temperature more frequently.

## **Living In Mountain Lands**

Mountain ranges are natural barriers to travel. Roads are difficult to build across them. Railroads need expensive tunnels to cross even low mountains. Mountain ranges tend to split the people on either side of them. That is why they often form borders between countries.

For those who live in mountain lands, life can be hard. The high places of the world are cold and have little soil, making farming difficult. However, mountain areas can be very beautiful. Many people choose to visit mountains on vacation, where they might ski or go climbing.



**Quiz**

- 1 Which detail from the article BEST reflects a central idea?
- (A) It is taller than a hill, with steep slopes that end in a peak.
  - (B) Earth's continents sit on top of the plates and move with them.
  - (C) Other mountains were formed by movements within the Earth's crust.
  - (D) Railroads need expensive tunnels to cross even low mountains.
- 2 One MAIN idea of the article is that mountains are formed in two ways.  
What is another MAIN idea of the article?
- (A) Mountains can affect the weather and plants.
  - (B) Some mountains have roads through them.
  - (C) Mountain life is hard, especially for farmers.
  - (D) Mountains are found in groups called ranges.
- 3 If this article were organized chronologically, which section would come FIRST?
- (A) the introduction [paragraphs 1-3]
  - (B) "How Mountains Were Formed"
  - (C) "Mountain Climate"
  - (D) "Living In Mountain Lands"
- 4 Read the article's introduction [paragraphs 1-3] and the final section.  
What is the connection between these two sections?
- (A) Both mention how people enjoy mountains.
  - (B) Both describe how some mountains were formed.
  - (C) Both explain the various features of mountains.
  - (D) Both identify how mountains affect people.