

Types of Mountains

A mountain can be defined as the natural elevation on the earth's surface. It may be broad at the base and narrow at the top. The elevation of any mountain is generally more than that of its surrounding area. We also know that, with an increase in altitude, temperature decreases. Hence, most of the mountains are covered with snow. You will find different types of mountains in India. Kanchenjunga (8,586 m), Nanda Devi (7,816 m), and Kamet (7,756 m) are the most famous mountains in India.

When the mountains are arranged in a line, they are referred to as the mountain range. There are certain mountain ranges that are spread over 100 kilometers. There are four types of mountains classified on the basis of formation and nature. They are Fold Mountains, Block Mountains, Volcanic Mountains, and Dome Mountains.

Characteristics of Different Types of Mountains

Different types of mountains are formed through different methods. This is why they have different characteristics. Let's read about the formation and characteristics of different types of mountains through examples.

Fold Mountains

This type of mountain is generally formed through the process of orogeny. An event referred to as an 'orogenic event' takes place over a million years to form a fold mountain. When a tectonic plate accumulates pressure from both sides, it gets folded. Some of the portions become elevated resulting in the formation of a fold mountain.

Formation:

- When a particular area of sea separates into two plates, the sediments of it settle on the seafloor resulting in the formation of geosynclines. These sediments are then compressed forming sedimentary rock.
- When the two tectonic plates move towards each other again and again, the layers of the sedimentary rock become folded and crumpled.
- Gradually, the crumpled and folded sedimentary rock forms a range of fold mountains.

Characteristics:

- This mountain is always formed along the convergent plate boundaries.
- The force i.e compression from both sides causes the layers to fold and buckle. This process is commonly referred to as folding.

Examples of Fold Mountains: The Himalayas, the Alps, and the Andes are examples of fold mountains. They have the highest peak in the world as they are recently formed (young mountains).

Block Mountains

When gigantic areas are displaced vertically and broken, block mountains are formed. Here, the uplifted blocks are called 'horsts', and the lowered blocks are called 'graben'. According to archaeologists, most block mountains are formed due to faulting.

Formation:

- The upward movement of the middle block between any two faults results in the formation of a block mountain.
- It may be formed when the side blocks of the two faults are moving downwards. Simultaneously, the middle block remains stable in its original position.
- They can also be formed when the middle block between any two faults moves downwards.

Characteristics:

- The uplifted blocks are called 'horsts' and the lowered blocks are called 'graben'.
- A block mountain can be formed under three circumstances: upward movement, downward movement, and no movement.

Examples of Block Mountains: The Vosges Mountain in Europe and the Rhine Valley are some common examples of Block Mountains.

Volcanic Mountains

A mountain that is formed due to the activity in the volcanoes is known as 'a volcanic mountain. Andaman and Nicobar Island is the tip of a volcanic mountain in India. They rise from the floor of the ocean.

Characteristics:

- All volcanic mountains are formed due to volcanic activities.
- The soil found near the volcanic mountain is very fertile in nature. However, due to volcanic eruptions, it is not possible to yield any crop.

Examples of Volcanic Mountains: Mt. Kilimanjaro and Mt. Fujiyama are some examples of volcanic mountains found in the world.

Dome Mountain

Dome mountains are generally formed when a gigantic amount of magma or melted rock pushes the earth's crust. They are not as tall as fold mountains. This is due to the process of formation.

Formation:

- When large globs of different magma come up from the crust. They push up the surface rocks resulting in a rounded swelling in the crust.
- Gradually, the magma cools down. Hence, creating a large dome of harder beneath the surface.
- The erosion of it sometimes reveals forming of a dome mountain.

Characteristics:

- They are not as high as the fold mountains.
- They are relatively flat as compared to any other type of mountain.

Examples of Dome Mountains: The Weald in Southeast England and The Black Hills of South Dakota are typical examples of Dome Mountains.

Residual Mountains

As the name suggests, the residues of the previously existing mountains cause the formation of residual mountains. However, along with the remnants, weathering and erosion also affect the process of formation of these mountains.

Formation:

- When an existing old fold mountain gets eroded, it forms Residual mountains.
- It happens because of the slow erosion of the high-terrain mountains.
- It is a natural process of weather erosion.

Characteristics:

- These are hard rocks mountains.
- They do not grow any longer.
- They're more rounded at the top of it.

Example: The Sierras of central Spain and the Mesas of the USA are examples of residual mountains.