

Altitudinal zones

In mountainous areas, there are large differences in altitude. These differences in altitude mean that the climate, landscape and oxygen levels can be very different at the bottom of a mountain compared to the top. These differences create altitudinal zones, with each zone supporting a range of different plants and animals. The Himalayas, in Asia, has some of the highest peaks in the world, including Mount Everest and has good examples of altitudinal zones.

Glacier

The frozen top of a mountain in the Himalayas is called a glacier. The climate in the glacier region is bitterly cold and extremely windy. The rocky ground is permanently covered with snow and ice. No plants grow there because of the extreme cold and lack of soil. The harsh conditions and decreased amount of oxygen in the air mean that no animals live at the summit of the mountains.

Tundra and meadow

In the tundra and meadows, the climate is cold and windy, however the ground is not permanently covered in snow and ice like in the glacier zone. Some small plants, such as mosses and grasses, can grow. These plants are suited to their habitat and can survive under the snow. Animals, such as snow leopards, yaks and musk deer, can also live at this high altitude. They have thick fur or hair to protect them from the cold and wide feet to help them grip the steep, rocky ground.

Coniferous and deciduous forest

In the forested zone, the climate is mild and wet and the soil is rich in nutrients. Many plants and trees grow there. In the coniferous forest, pine, spruce and fir trees grow. At a slightly lower altitude are deciduous trees, such as oak and maple, as well as orchids and ferns. Many animals, including langurs and red pandas, make their homes here as the forests provide food, water and shelter.

Subtropical rainforest

The subtropical rainforest in the Himalayas has a hot, wet climate all year round. Many different plants and animals live there. Chir pine, teak and fir trees grow well because the soil is very rich in nutrients. Animals, such as elephants, tigers, crocodiles and a large variety of birds, live in the rainforest.

