



Year 5 Mountains Reading Booklet

Lesson Series:

1. Mountains
2. The Alps
3. The High Peaks of the Himalayas
4. American Mountains
5. African Mountains
6. Assessment

Name: _____

Class: _____

Lesson 1.

Mountains: what are they and how are they formed?



Mountains are large landforms that rise above their surroundings. They frequently have steep **slopes** and often are found in groups which are called **mountain ranges**. Scientists believe that the earth's crust is made up of **tectonic plates**. As these plates have moved and collided over time, the land is forced upwards creating mountains. This is how most mountain ranges have been formed.

Most **geologists** (people who study rocks and landforms) agree that a mountain is any land formation that is more than 300 meters above the surrounding land - however in the UK we define a mountain as any landform that rises 600 meters above the surrounding land. Landforms lower than this are known as hills.

The **summit** of a mountain is the highest part. The **peak**, which often in children's drawings is like the tip of a pyramid, is a pointed part. So, a mountain can have many peaks but only one summit. There are many mountains around the world including the Andes, Mount Everest (the highest mountain in the world) and the Rocky Mountains. Some popular mountain ranges in the world are the Himalayas in Asia - home to nine out of the ten of the highest mountains in the world; The Alps in Europe - very popular for tourists and in the UK, we have mountain ranges in Snowdonia in Wales, Pennines in England, and Cairngorms in Scotland.





Lesson 2

The Alps

The nearest large mountain range to us is the **Alps**, which are the youngest, highest, and most densely populated mountain range in Europe. They were formed about 65 million years ago. The Alps fill most of Switzerland and Liechtenstein and extend into France, Germany, Austria, Italy, Croatia, Bosnia and Herzegovina, Montenegro, Albania, and Slovenia. On the west, the Alps run along the border between France and Italy, you might have flown over them to go on holiday. The Alps are 750 miles (1,200 kilometres) long and more than 125 miles wide at their broadest point. The highest peak in the Alps is **Mont Blanc** in France, at 15,771 feet (4,807 meters). Several other high peaks are located on or near the Swiss-Italian border.

The Alps have been the sight of different human cultures for thousands of years, but have always been sparsely inhabited. They have been the site of famous military expeditions, as both Hannibal (3rd century BCE) and Napoleon (19th century CE) have launched attacks on their enemies by crossing over the Alps with their armies. In 1991, the 5000-year old corpse of a man was found, largely preserved, in an area of the Alps. He was named Otzi, and scientists have made many discoveries about him, such as: what he ate, how he lived, his job, his tattoos and his tools. They discovered he had been killed and an arrow had been shot into his shoulder. Scientists (**archaeobotanist**) were also able to look at mosses and spores attached to his clothing and within his digestive system to find out where, geographically, he'd been before he was killed.

The Alps are popular and because they spread over so many countries, there are endless areas to explore, ski, hike and snowboard. You can experience many different cultures, cuisines and activities within one mountain range, meaning they are a great tourist attraction.



Lesson 3

The Himalayas

The Himalayan mountain range contains the highest mountains on Earth. The mountains are formed in a huge arc for about 1,550 miles from west to east with more than 30 peaks, some rising to heights greater than 7,300 meters above sea level! These include **Mount Everest**, the world's highest peak at 8,850 meters, Kanchenjunga at 8,598 meters, Makalu at 8,463 meters, and Dhaulagiri at 8,172 meters. Several Indian states and the kingdoms of Nepal and Bhutan are along the southern slopes of the Himalayas, and the Tibetan Highlands border them in the north.



The width of the mountain range varies from 125 to 250 miles from south to north, and the average height of the mountains is 6,100 meters, meaning they are all very high. The Himalayas extend over about 229,500 square miles. The Himalayan mountain range formed as a result of the collision between the Indian Plate and Eurasian Plate which began 50 million years ago and continues today.

At an altitude of 8,848 metres above sea-level, Everest is far too high for humans to climb without specialized equipment, but in 1953, an expedition by Tenzing Norgay of Nepal, and **Sir Edmund Hillary** of New Zealand reached the top. After this gruelling challenge, he proceeded to climb another ten peaks in the Himalayas, as well as reaching both the North and South poles.



Lesson 4

American mountains

Read this

The Americas contain three main mountain ranges: **The Andes in South America, and the Rockies and Appalachians in North America.**

The **Andes** are the world's longest mountain chain. They stretch for

7000km, from the Caribbean to the Antarctic Ocean, and the highest peak is Aconcagua. With an average height of 3,810 m, the Andes are the second highest mountain range in the world. The Inca formed a powerful empire that stretched across the Andes and built their magnificent palace of Machu Picchu in their peaks.



The Rocky Mountains extend for more than 3,000 miles (4,828 km) from Alaska to New Mexico. The Rockies in North America are a large mountain range that has been dramatically sculpted over the years by wind and ice. They are about 80 million years old. The highest point in North America is Mount McKinley in Alaska. The range offers dramatic wilderness, diverse wildlife and alpine lakes. Colorado's Rocky Mountain National Park has numerous hiking trails and the famously scenic Trail Ridge Road, a 48-mile road that reaches a high point of 12,183ft.

The Appalachian Mountains are the oldest mountain range in North America (450 million years) and stretch from Newfoundland to central Alabama. The Appalachians have been worn down by erosion to the point that they are more like hills now. They are about 1,800 miles long and range from 120 to 375 miles wide. The highest peak is Mount Mitchell in North Carolina, named after Maria Mitchell, a 19th-century astronomer.

Lesson 5

African Mountains



There are two important mountains in Africa: **Kilimanjaro** in Tanzania and the **Ethiopian Highlands**, an extremely active and diverse region in East Africa.

Kilimanjaro is the tallest mountain in Africa, it reaches a peak of 5,895 meters. It is an unusual mountain because it stands alone, rather than being part of a chain or range. It is a volcano that has not erupted for hundreds of years. It is likely, however, to erupt again. It is part of Kilimanjaro National Park and is a major climbing destination. Because of its shrinking glaciers and icefields, which are projected to disappear between 2025 and 2035, it has been the subject of many scientific studies.

In East Africa, the Ethiopian Highlands are full of unique features. The Ethiopian Highlands are a high, rough but fairly level region of East Africa, covering about two thirds of Ethiopia. The Ethiopian Plateau, which slopes away from either side of the Great Rift Valley, is composed of a series of mountains and valleys. It contains Ras Dashen (15,158 ft/4,620 m), Ethiopia's highest peak. The mountains and valleys are around 75 million years old, and were formed from powerful volcanic activity. One famous location is Erte Ale, the world's oldest lava lake. The region is volcanic because the African plate is breaking away from the Arabian plate.

The entire raised region of the highlands is known as 'the Roof of Africa'. They are full of incredible wildlife, much of it unique to the region, such as: the Ethiopian wolf, the lammergeyer (bald eagle) and the gelada monkey. At the feet of the highlands, lies the Great Rift Valley, where scientists believe humans first evolved! Ethiopia is close to the equator, but due to its elevation, it has an unexpectedly **temperate climate** (not too warm, or too cold, or too wet - a bit like the UK's climate). The mountains receive rainfall from the monsoon winds from the Indian Ocean, creating a rainy season from June to September. These heavy rains cause the Nile to flood during the summer, what is otherwise a very dry season.





Peak

The highest point of a mountain

Range

A group of mountains connected by high ground

Erosion

The process of something being worn down or destroyed over time

Topography

The study of the surface of the earth; topography can look at the shape of the land, hills, mountains, valleys, rivers etc

Plate Boundary

Scientists believe the earth's crust is split into plates, where these plates meet, at a plate boundary, there can be mountain ranges formed

Machu Picchu

A famous Inca city built on top of a mountain in the Andes

Mount Kilimanjaro

The tallest mountain in Africa



Mountains formed at a plate boundary



Alps
(Europe)



Rocky Mountains
(North America)



Himalayas
(Asia)



Andes
(South America)



Edmund Hillary



A well-known mountaineer from New Zealand who was one of the first to climb Mount Everest in 1953

Tenzing Norgay



Edmund Hillary's mountaineer guide who also climbed Mount Everest in 1953