

Where are the mountains in the world?

In this unit the children will recap their knowledge of the 7 continents and will be able to identify the world's mountainous area on a map. Children will learn about how mountains are formed and will be able to label key features of a mountain. Weather, dangers and tourism on a mountain will also be researched. Children will also use a range of maps and aerial photographs during this unit.

In this unit children will:

- Locate and name the 7 continents.
- Locate the world's main mountainous areas.
- Develop knowledge of how tectonic plates move together to create mountains.
- Identify a valley and the summit, foot, ridge, peak and slope of a mountain.
- Distinguish the different mountain types; fold, fault-block, dome, plateau and volcanic mountains.
- Explain the formation of mountains using diagrams.
- Read contour lines on a map to identify the height of mountains.
- Understand what the weather is usually like on a mountain.
- Be aware of the risks of being on a mountain.
- Recognise the positive and negative impact of tourism on a mountainous area.
- Children will use a range of maps, including OS and topographic maps and aerial photographs to identify and describe mountains.

Prior Learning

Year 1 Continents and Oceans

Year 2 Local area (map work)

Year 3 Earthquakes and Volcanoes

Cross Curricular Links

Key Vocabulary

Mountain – A large natural elevation of the earth's surface rising abruptly from the surrounding level.

Tectonic plates - Sections of the Earth's crust which move slowly over the mantle.

Friction - The resistance that one surface or object encounters when moving over another.

Crust - The hard rocky layer of the earth.

Mantle - The hot viscous layer of the earth made up of melted rock.

Range – A series of mountains or hills ranged in a line and connected by high ground.

Summit – The top of a mountain.

Contour – Contour lines join land that is the same height.

Altitude – the height of an object or point.

Tourism – people travelling for fun.

Economic - the organisation of money, industry, or trade.

Environmental - the natural world and the impact of human activity on its condition.

Climate - the weather conditions prevailing in an area in general or over a long period.

Erosion – the process of something being worn down or destroyed over time.

Topographic – the detailed mapping of a region.

Key Knowledge

- Mountains are made by movement of the tectonic plates in the Earth's crust.
- The brown lines are contour lines. Contour lines join land that is the same height above sea level. On most maps, lines are marked at 5m or 10m intervals. The closer the lines are together, the steeper the slope will be.
- Fold mountains—Fold mountains occur when tectonic plates collide. The rock of the Earth's surface is pushed up to create mountains.
- Fault-block mountains—When cracks in the Earth's surface open up, large chunks of rock can be pushed up while others are pushed down. This creates mountains with a long slope on one side, and a sharp drop on the other.
- Volcanic mountains— Volcanic mountains are formed around volcanoes. Volcanic mountains are made of layers of ash and cooled lava.
- Dome mountains—Dome mountains are smooth and round-looking. They are formed when magma is forced up between the crust and the mantle, but doesn't ever flow out. The magma makes the land bubble up like a balloon.
- Plateau mountains—Plateau mountains are different from the other mountain types. They haven't formed because of rock or magma being pushed up. They form because of materials being taken away through erosion, which has left deep valleys or gorges next to high cliffs.
- Climate—The temperature on mountains becomes colder the higher the altitude gets. Mountains tend to have much wetter climates than the surrounding flat land. Mountain weather conditions can change dramatically from one hour to the next. In just a few minutes a thunder storm can roll in when the sky was perfectly clear, and in just a few hours the temperatures can drop from extremely hot temperatures to temperatures that are below freezing.
- Mount Everest located in Asia is the highest mountain in the world.



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- Tourism— People visit mountains for a variety of reasons including: climbing; winter sports (e.g. skiing); hiking; photography and wildlife. This has both positive and negative effects on the area.

Positive	Negative
Employment opportunities	Increased pollution
Creation of nature reserves	Damage to ecosystems and habitats
Improved infrastructure and facilities	Noise and disruption
Money into the local economy	Increase in property prices

Key Questions

- Can you name the 7 continents?
- Where are the mountainous areas in the world?
- Which is the highest mountain in the world?
- Can you name the different types of mountain?
- Can you identify the features of a mountain?
- What are the positive and negative effects of tourism on a mountain?
- What is the climate of a mountain?
- What are the dangers of being on a mountain?