

# Learning Organiser: Why are mountains so important?

## Key objective

Understand how mountains are formed, their key physical and human features and the opportunities and constraints they offer for economic activity

## Important things I will know, understand and be able to do

What a mountain is and the names and location of the main ranges of fold mountains in the world

How ranges of fold mountains formed

The different layers of the Earth

The three main types of rock

Why there is so much mystery surrounding the attempt by Mallory and Irvine to climb Everest in 1924

Why Edmund Hillary and Tenzing Norgay found fossils of sea creatures on the summit of Everest in 1953

About the different types of fossils and how they form

The names and location of the main ranges of mountains in the United Kingdom

The physical and human features of the Cambrian mountains in Wales

The type of climate experienced in the Cambrian Mountains and how this compares with my locality

The reasons why the mountains of the UK are generally wetter and colder than most other areas

What a tourist is, the activities they enjoy and why the Cambrian mountains are popular with tourists

What a reservoir is and why many reservoirs have been built in the mountains of central Wales

What a renewable or sustainable source of energy is

How electricity is generated from the force of falling water in hydroelectric power stations

## Important geographical techniques I will use

Statistical representation	Drawing and interpreting: line graphs, multiple line graphs, bar graphs and climate graphs
Mapwork	Interpreting OS 1:25,000 Explorer maps using the key, eight points of the compass, four and six figure grid references, measuring direct and actual distances using the scale line and contour patterns and spot heights
Imagery	Terrestrial, aerial and satellite photographs (orientating with OS map locations) and GIS Google Earth Pro

## Important mountaineers I will empathise with



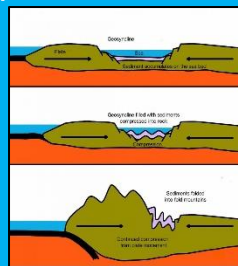
Andrew Irvine and George Mallory  
1924



Edmund Hillary and Tenzing Norgay  
1953

## Important physical processes I will understand better

Mountain building



## Important Vocabulary I will learn

Landscape	everything that can be seen when looking at a particular place
Range	a group or line of mountains with a specific name
Tectonic plate	one of the large moving sections of the Earth's crust
Crust	the thin outermost layer of the Earth made of solid rock
Mantle	the very thick layer of rock that lies between the Earth's crust and central core
Core	the very hot centre of the Earth which is solid on the inside and liquid on the outside
Strata	layers of rock
Fossil	the shape of a living thing that has been preserved in rock
Growing season	the number of months in the year when the average temperature is 6°C or more
Sanitation	having a clean water supply and safe sewage disposal
Reservoir	a large artificial lake created to supply water to towns and cities
Valley	a saucer shaped hollow of land through which a river flows
Hydroelectric	using the force of falling water to generate electricity in a power station
Renewable	energy from a source such as wind that is never used up
Conservation	the protection of environments to prevent their loss or destruction
Agriculture	growing crops and rearing animals on farms
Pasture	land used on farms to grow grass for animals such as sheep to feed on

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## Disciplinary thinking skills I will use to understand what I learn

Synthesise	Bring together a range of ideas and facts from different sources to develop an argument or explanation for something.
Explain	Demonstrate understanding and comprehension of how or why something is the way it is as a result of synthesising information.
Empathise	The capacity to place oneself impartially in another's position to better understand their motives, decisions and actions (even if they are not shared values).
Informed conclusion	A knowledgeable summing up of the main points or issues about something.
Reasoned judgement	A personal view or opinion about something supported by factual evidence.
Justify	Give reasons to show or prove what you feel to be right or reasonable.
Apply	The transfer of knowledge and/or skills learned in one context to help make sense of a different situation
Evaluate	Weigh up and judge the relative importance of something in relation to counter ideas and arguments.
Critique	Review and examine something critically particularly to gain an awareness of its limitations and reliability as evidence
Hypothesise	Come up with an idea, question or theory that can be investigated to see whether it has any validity or truth.

## Important geographical concepts I will understand

Environment	the particular physical and human features which make places distinctive
Distribution	the arrangement or pattern of where physical and human features are found
Location	the position of something on Earth
Processes	the natural events and human actions that bring about change in an environment
Interdependence	how people and their environments are connected and rely upon each other
Interaction	the links or connections within and between different natural and human processes.
Economic activity	manufacturing a good or providing a service that is bought by people.
Settlement	any place where people are living such as a village or city
Land use	how people have decided to use an area for a specific purpose such as farming or building towns and cities
Relief	the general height and shape of the land
Climate	the average weather conditions of a place over a long period of time
Tourism	visiting places that involves staying away from home for one or more nights
Energy	the power needed to make something work
Sustainability	improving the quality of life of people without having a negative impact on the environment
Region	an area of land that has common features such as a particular climate

## Ranges of mountains I will know more about



Himalayas



Cambrian

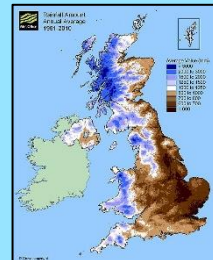
## Important maps I will refer to



Mountain ranges of the world



Relief map of the UK



Average annual precipitation map of the UK



Ordnance Survey map of the Elan Valley reservoirs