

Enquiry: Why are mountains so important?

What the pupils will know

- What a mountain is and the names and location of the main
- ranges of fold mountains in the worldHow 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 each formed
- The names and location of the main ranges of mountains in the United Kingdom
- How ranges of mountains in the United Kingdom are different from fold mountains
- 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 their local area
- 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 is an important destination for tourists
- What a reservoir is and why many reservoirs have been built in the mountains of central Wales
- How reservoirs can have a positive and negative impact on the environment and people of the locations where they are built
- What a renewable or sustainable source of energy is
- How electricity is generated from the force of falling water in hydroelectric power stations
- That there are costs and benefits associated with building more HEP stations even if they are considered sustainable

National Curriculum Coverage

Locational knowledge

 name and locate countries and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns

Human and physical geography

Describe and understand key aspects of:

- physical geography, including mountains
- human geography, including types of settlement and land use, economic activity

Geographical skills and fieldwork

- use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied
- use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world

Geographical techniques the pupils will learn and apply

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 route distances using the scale line and interpreting contour patterns and spot heights

Imagery

Terrestrial, aerial and satellite photographs (orientating with OS map locations) and GIS Google Earth Pro

Disciplinary subject skills the pupils will use to <u>understand</u> what they know

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	A knowledgeable summing up of the main points or
conclusion	issues about something.
Reasoned	A personal view or opinion about something
judgement	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.

SEND

In line with our school policy, we ensure inclusion through constructing enquiries which are graduated in 'bite size' steps allowing for the setting of personalised targets, a broad range of learning and teaching strategies including questioning, working with additional adults where appropriate and a holistic approach to assessing achievement.

Pupils making a good level of progress will:

• Explain how a mountain is defined and identify, name and locate the main ranges of fold mountains in the world

End Points of Learning

- **Explain** how ranges of fold mountains formed
- Identify and describe the different layers of the Earth and the three main types of rock
- Explain why there is so much mystery surrounding the attempt by Mallory and Irvine to climb Everest in 1924 and reach and justify a judgement as to their likely fate
- **Explain** why Edmund Hillary and Tenzing Norgay found fossils of sea creatures on the summit of Everest in 1953
- **Describe** the different types of fossils and **explain** how fossils formed
- Name and locate the main ranges of mountains in the United Kingdom
- Explain how ranges of mountains in the United Kingdom are different from fold mountains
- Identify, observe, describe and suggest reasons for the main physical and human features of the Cambrian mountains in Wales
- Describe the climate experienced in the Cambrian Mountains and how this compares with their local area
- Explain why the mountains of the UK are generally wetter and colder than most other areas
- **Explain** what a tourist is, the activities they enjoy and why the Cambrian mountains is an attractive destination for them
- Explain what a reservoir is and why many reservoirs have been built in the mountains of central Wales
- Evaluate the advantages and disadvantages of building reservoirs and reach a judgement regarding whether more should be built in Wales to meet increased demand for water
- Explain what a renewable or sustainable source of energy is
- **Explain** how electricity is generated from the force of falling water in a hydroelectric power station
- **Understand** that there are costs and benefits associated with building more HEP stations even if it is considered sustainable and **evaluate** both sides of the argument

Pupils working at greater depth will also:

- **Understand** why the Cairngorm Mountains of Scotland have become Britain's most important skiing and snowboarding centre
- **Evaluate** the costs and benefits of these developments from an economic and environmental perspective

Prior Learning

Earlier in Key Stage 1 and Lower Key Stage 2 pupils learned:

- How tectonic activity creates volcanoes and earthquakes
- That volcanoes and earthquakes often occur in mountainous areas
- How physical processes such as volcanoes and earthquakes impact on people
- The difference between physical and human processes and features
- What different land uses are and what economic activity involves
- About trade and how countries import and export goods and services
- What leisure and tourism involves for people
- About renewable and non-renewable sources of energy