Fairfields
PRIMARY SCHOOL

My learning journey through:

Misty Mountain Sierra

Mighty mountains peak above the morning mists, imposing and eternal, rocky outcrops at their feet.

Discover how these giants are formed, follow the water cycle's course from peak to valley and meet the exceptional tribes of the hostile Himalayas.

But beware, look out! What's that by that tree? Its footprints are huge! Have we found the… Yeti!

Year 4 - Autumn Term 2

Key Vocabulary

adaptation	A change in an organism that allows it to better suit its environment.
altitude	The height of an object or point above sea level.
climate	The usual weather patterns of a place.
collection	The process of water gathering in oceans, rivers, lakes and streams.
condensation	The process of a gas cooling and changing into a liquid.
crust	The rocky outer layer of the Earth.
evaporation	The process of a liquid heating up and changing into a gas.
lowland area	An area of land that is usually flat and is not very high above sea level.
magma	Hot molten rock found in the Earth's mantle.
tectonic plate	A large, moving piece of rock that makes up the Earth's crust.
precipitation	Rain, snow, sleet or hail that falls to the ground from clouds.
upland area	Land that is high above sea level.

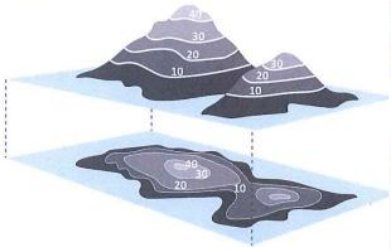
Knowledge that will help me on my journey:

Mountains

A mountain is a large, rocky raised part of the Earth's surface that is much higher than a hill. A mountain's highest point is called its peak, or summit. Mountains are 610m in height or taller. They are usually found in groups called ranges.

Contour lines

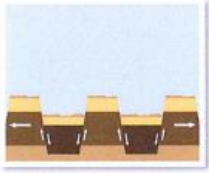
Contour lines are drawn on a map to show the shape of the land. Contour lines join together points at the same height above sea level. The height is shown in metres, at 5 or 10m intervals. If contour lines are close together it means the ground is steep. If they are far apart, the ground is flat.



Mountain formation

Mountains form over millions of years. They are made when the Earth's tectonic plates push together or move apart. Mountains are also formed when magma underneath the Earth's crust pushes large areas of land upwards. There are six types of mountain.

fold mountain



fault-block mountain

volcanic mountain

dome mountain

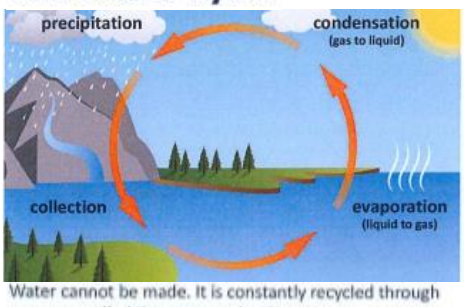
plateau mountain

erosional mountain

Mountains around the world

Name	Range	Continent	Height
Mount Everest	Himalayas	Asia	8848m
K2	Karakoram	Asia	8611m
Aconcagua	Andes	South America	6962m
Mount Kilimanjaro	Eastern Rift	Africa	5895m
Mount Kenya	Eastern Rift	Africa	5199m
Mount Ararat	Armenian Highlands	Europe	5137m
Mount Olympus	Olympus	Europe	2917m
Mount Kosciuszko	Snowy Mountains	Australia	2228m
Ben Nevis	Grampian Mountains	Europe	1345m

The water cycle



Water cannot be made. It is constantly recycled through a process called the water cycle. Water in seas, oceans, rivers and lakes is heated by the Sun and evaporates to form water vapour that rises into the air. The water vapour condenses as it cools and changes back into tiny drops of water, forming clouds. The clouds get blown over high ground, where the water falls back to Earth as rain, snow, sleet or hail, called precipitation. The rainwater runs off the land into rivers and streams and travels back to the sea. The cycle then starts again.

Climate

At the bottom of a mountain, in the lowland area, the temperature can be mild. Many different plants and trees grow, providing food for a variety of animals. Higher up the mountain, in the upland area, it can be very cold and windy. There are fewer plants and animals and those that live there are adapted to survive in the harsh conditions. Mountain weather can change very quickly, from clear skies to intense thunderstorms and blizzards.

The Adi tribe

The Adi tribe live in a beautiful and remote area of the Himalayas. Their way of life and culture has been unchanged for hundreds of years. The Adi hunt for food and grow crops. They are well known for making items from cane and bamboo. The Adi believe living things have spirits and give offerings, perform rituals and dance to avoid misfortune. However, the introduction of electricity, machinery and television is changing the way the Adi tribe live, work and spend their time.

Living at high altitude

Living at high altitude can be difficult. The air is thinner and does not contain as much oxygen, making it harder to breathe. It is much colder and can be very windy. There are fewer plants and animals, and those that make their homes at high altitudes have special adaptations.

Plants

Some plant species have adapted to live at high altitudes, including grasses, mosses and flowering plants. They have adapted to grow in cold temperatures, dry air and have a short growing season. Trees cannot grow at high altitudes because of the cold temperatures and lack of moisture.

alpine fleabane

Animals

There are some animals, such as yaks, llamas and mountain goats, that have adapted to live high up mountains. Yaks have a thick layer of body fat and long fur to keep warm. Their lungs and heart are large to provide enough oxygen in their blood.

Himalayan yak

Humans

Some humans have adapted to living at high altitudes. To get more oxygen, some people whose families have lived at high altitudes for generations have developed a larger lung capacity and quicker breathing.

What I'd like to learn…

The end of our journey…..

Science Skills	Date
Scientists classify living things according to shared characteristics. Animals can be divided into six main groups: mammals, reptiles, amphibians, birds, fish and invertebrates. These groups can be further subdivided.	
Classification keys are a scientific tool that aid the identification of living things.	
Habitats change over time, either due to natural or human influences. Natural influences include extreme or unseasonable weather. Human influences include habitat destruction or pollution. These changes can pose a risk to animals and plants that live in that habitat.	
Humans can affect habitats in negative ways, such as litter, pollution and land development, or positive ways, such as garden ponds, bird boxes and wildflower areas.	
Art and Design Skills	**Date**
Constructive feedback highlights strengths and weaknesses and provides information and instructions aimed at improving one or two aspects of the artwork, which will improve the overall piece.	
Stitches include running stitch, cross stitch and blanket stitch.	
Warm colours include orange, yellow and red. They remind the viewer of heat, fire and sunlight. Cool colours include blue, green and magenta. Cool colours remind the viewer of water, ice, snow and the sky.	
Natural patterns from weather and water are often used as a subject matter.	
Art can display interesting or unusual perspectives and viewpoints.	
Computing Skills	**Date**
Manipulating a range of text; images, sound or video clips and animation may include changing their style, size, colour, effect, shape, location or format.	
Geography Skills	**Date**
Significant river of the UK include the Thames, Severn, Trent, Dee, Tyne, Ouse and Lagan.	
Significant mountains and mountain ranges in the UK include Ben Nevis, Snowdon, Helvellyn, Pen Y Fan, the Scottish Highlands and the Pennines.	
Significant mountain ranges include the Himalayas, Urals, Andes, Alps, Atlas, Pyrenees, Apennines, Balkans and Sierra Nevada. Significant rivers include the Mississippi, Nile, Thames, Amazon, Volga, Zambezi, Mekong, Ganges, Danube and Yangtze.	
Topography is the arrangement of the natural and artificial physical features of an area.	
The four cardinal directions are north (N), east (E), south (S) and west (W), which are at 90 degree angles on the compass rose. The four intercardinal (or ordinal) points are halfway between the cardinal directions: north-east (NE), south-east (SE), south-west (SW) and north-west (NW).	
A physical feature is one that forms naturally and can change over time due to physical processes, such as erosion and weathering. Physical features include rivers, forests, hills, mountains and cliffs. An aspect of a physical feature might be the type of mountain, such as dome or volcanic, or the type of forest, such as coniferous or broad leaved.	
Water cannot be made. It is constantly recycled through a process called the water cycle. During the water cycle, water changes state due to heating and cooling.	
Mountains form over millions of years. They are made when the earth's tectonic plates push together or move apart. Mountains are also formed when magma underneath the	

earth's crust pushes large areas of land upwards. There are five types of mountain: fold, fault-block, volcanic, dome and plateau.	
Altitudinal zonation describes the different climates and types of wildlife at different altitudes on mountains. Examples include forests that grow at low altitudes and support a wide variety of plants and animals, tundra that is found at high altitudes and supports plants and animals that are adapted to harsher environments and the summits of mountains, which are usually covered in ice and snow and don't support any life.	
Land uses include agricultural, recreational, housing and industry. Water systems are used for transport, industry, leisure and power.	
Secondary data includes information gathered by geographical reports, surveys, maps, research, books and the internet.	
PSHE/SMSC Skills	**Date**