Geography Study: a study of mountains

In this Unit, children find out about the major mountains of the world and the UK. They find out the different ways in which mountains have been formed, and how different features of mountain ranges have been shaped over time. Children will have the opportunity to consider what the weather is like in a mountainous environment and to evaluate the impact that tourism has on a mountainous region.

| Lesson 1 | To use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied in the context of mountain ranges.  
To locate the world’s countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities in the context of mountain ranges.  
Begin by discussing what the children’s existing geographical knowledge about mountains – flip key questions slide. Explain that their learning will provide them with all the answers to these questions.  
Complete circle map for initial assessment on knowledge.  
Revise the world and see if they can name the 7 continents. Go over difference between continent and country, equator (link to globe) and need for a compass. Do all continents have mountains? – need to clarify what we mean by a mountain?  
Go through flip using the slides taken from the Twinkl ppt. to define mountains. Look at world image and explain what the legend means and how we can use the colours to code the heights of the land. Circle key points of high land and then ask to use atlas page 30/31 to tell me what it is. Also use the index to find the atlas mountains that I have not circled in the lesson.  
Model the task to the children with particular focus on presentation: draw line to write label on first, capitals for names and neat handwriting.  
**Task:**  
MA – should complete main task (5/6 shared area) and then use the continent pages in the atlas to find the heights of the mountains labelled to add to their maps. Could also add additional less important ranges from the atlas.  
A – given blank A3 map of the world. Shade the mountain areas and label. Draw on precise locations of key mountains.  
LA – given A3 map of world with mountain areas drawn on and initial starting letters provided. Work in pairs for support.  
Plenary: Go back to the world image map with the legend. What is this mountain range called? Etc to review learning.|

| Lesson 2 | To name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers) in the context of hills and mountain ranges.  
To use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied in the context of hills and mountain ranges.  
Recap using the flip the learning from the last lesson – coloured dots for each of the ranges learnt in L1. Explain that in this lesson we will be focusing only on higher land in our country. This will include mountains but also hills and highlands. We are also going to learn more about the colour coding in the legend on maps and atlases.  
Discuss which mountains children know from the UK. Can they recall any from Scotland, Wales, England? Use google maps with mountain overlay and find where the key mountains are from the success criteria slide. Model the task as per L1 and set standards expected for the presentation of the maps. Explain that they need to be more ind. This lesson so that you can rotate and teach about contours.  
**Independent Task:** Children to have blank A3 UK map and label the key areas of high land but colouring in using brown. Label. Add individual peaks and the heights. Extension – add additional smaller ranges of hills to their maps.  
LA – Maps to have the range locations drawn on and label in pairs. Kaci B support Eva.  
**Guided Task:** BEGIN WITH MA CHILDREN and work through groups in ability order. (May not get to LA children) Contours using potatoes and Twinkl worksheet. Mark, slice and draw around slices on sheet to represent heights of the hills. Children work together in pairs on 1 potato half. Could also add a legend and colour from Green/light green/orange/brown to get ideas of colours on the map. |
Lesson 3  To describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle in the context of mountains.
Use flipchart to give L Objectives.
Follow the Twinkl ppt to introduce the material and draw mountain scene in their sketch books or on w/boards. Use the links to watch the BBC video clips. After clips – present flip page with all the key vocab to describe mountains on. In pairs discuss what they think they mean. Show the ppt slide to clarify definitions.
Model the task they need to complete (bearing in mind the features that need to be included – differentiate this expectation)
Task: Split a portrait page in half. (not LA) In top half of the page children to draw a mountain scene. (need to present the key parts so know what to draw)
LA – label the features on their pictures and spell correctly on a full page picture. Peak/summit, ridge, slope, foot, treeline, snow line
A – to try to draw an image that includes all the features and complete the hangman style word cards from the Twinkl sheets.
MA – Underneath to write their own definition of each feature labelled.

Lesson 4  To describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle in the context of mountains.
Follow TWINKL PLAN for teaching:
Can You Remember What's under Your Feet? Recap the layers that make up the Earth, and how the Earth’s crust is split into tectonic plates. How Can You Move Your Plates? Children use their pieces of coloured card to investigate ways that tectonic plates can move around together. Ask them to think about what effect the movements might have. Listen for children discussing their ideas and using vocabulary related to the layers of the Earth. Reveal the three ways plates can move, looking at each one in turn. Allow children time to act out the movement with their pieces of card. Who can suggest what might happen to the rock that slides underneath into the mantle (it will melt) or what might happen as the plates move apart (liquid rock or magma is exposed)? What about when the plates are forced together?
What Have Tectonic Plates Got to Do with Mountains? Ask children to discuss with a partner What happens when magma escapes through gaps in the Earth’s surface? We call this a volcano. Over time the layers build up and form a volcanic mountain. This is one way in which mountains are formed, but there are others... Watch the video to find out another way.
How Are Mountains Made? Talk through each type of mountain – point out the forces causing movement each time. Ensure children are aware that these processes happen over millions of years – for example, the Himalayas started forming over 45 million years ago!
Task (changed): Children given the diagrammatical images from the ppt and asked to name the type of mountain and how they are formed. In difficulty order: Volcano, fold, plateau, fault, dome. LA expected to do the first 2. MA may get all 5 done.
Plenary: Discuss real mountain images from the Twinkl ppt.

Lesson 5  To describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle in the context of mountain climates.
To conduct research using the internet.
What Is It Like in the Mountains? Look at the image of the Alps. Are all mountains like this? Is this area like this all year round? (No – some areas remain snow-covered, but not all.) Look at the image of the Andes. Is the landscape the same as the Alps? The two locations are at the same altitude (height above sea level) but are very different to look at. Why might that be? (Different seasons, different aspect – facing into or away from the prevailing weather.) You may wish to source your own selection of photographs of the Alps and Andes to highlight the differences further.
What Is the Weather like in the Mountains? Explain to children that this very much depends on where the mountains are! In mixed ability pairs, children complete one of the Mountain Weather Activity Sheets to collect data about today’s weather in a mountainous area and compare it to average climate data. What Did You Find Out? What similarities/differences did you find? Explain to children that climate means what the average weather conditions are like over a series of years. What the children have found out in this activity is the weather forecast today. Group children into sixes, so that they have data about all three mountainous areas between them. What similarities/differences can you see between the three areas? - NOTE – MATHS LESSON LINK – DRAW LINE GRAPHS or BAR CHARTS to compare 3 places.
What Are the Risks of Being in the Mountains? Why are mountain environments considered to be so dangerous? List some of the possible risks on the board. Which ones can have serious consequences? Which ones can be managed? Together, sort the main risks into the grid according to seriousness/ease of management.

Would You Like to Live in the Mountains? Given all the information they have learnt about life in the mountains so far, would children like to live in a mountainous environment or not? Ask them to explain their reasons to a partner and then take feedback from the children. End with a class vote to establish the overall consensus.

Lesson 6

**To describe and understand key aspects of human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water in the context of mountain tourism.**

Why Do People Visit Mountains? Watch this video of a walker climbing Snowdon. Why do people visit mountains? (The view, keeping fit, the challenge, to raise money for charity, skiing, wildlife spotting)

What Impact Does Tourism Have? Share with pupils the statistics relating to the population of The Alps and the number of visitors annually, and then put these into context by scaling this to additional visitors to your classroom (The statistics in the presentation are based on a class size of 30, increased by eightfold. You may wish to adjust these for your own class size). Talk to your partner about the impact this could have on our classroom (space, resources, noise, support from the teacher, more people to share ideas with). As you discuss children’s answers, ensure positive impacts are identified as well as negative impacts. Tourism has economic, social and environmental impacts. Explain these in the context of the increase in the classroom population (social – less teacher support for each child, more friends; economic – more funding for the school, more expenditure on resources; environmental – less space, increased noise, increased damage to resources, more people to tidy away at the end of the day).

**TASK:** What Impact Does Tourism Have? Children use the Tourism Impact Sorting Activity and sort the cards into positive and negative. They then stick or copy these into their books.

LA Children sort cards into positive and negative impacts and stick in books.

A - Children sort the cards into Economic, Social and Environmental groups, and then split each group into positive and negative impacts.

MA - Children sort the cards into Economic, Social and Environmental groups, and then split each group into positive and negative impacts, ranking each group in order of importance.