

Exploring UK locations (Zoom In, Zoom Out)

Mountains: how tectonic plates create mountain ranges

De-Graft: I'm in Wales, finding out about the country's tallest mountain - Snowdon. It takes a good few hours to walk up and down it. But thankfully there's a train you can catch too.

Mountains are high areas, rising more than 600 metres from the surrounding land. And often they're found in groups called mountain ranges. This is Snowdon. The summit, or top of the mountain, is over 1000m high and it's part of a mountain range called Snowdonia. Later locals Lola and Oliver are going to be helping me think about climbing mountains and how you can prepare.

But first, let's zoom out... Snowdon is here in North Wales. The highest mountain in the UK is actually in Scotland and it's called Ben Nevis. Slieve Donard is the highest in Northern Ireland. And Scafell Pike is the highest mountain in England.

Mount Everest is perhaps the most well-known mountain in the world. It has the highest peak above sea level at 8,848 meters. Mount Everest is part of the Himalayan mountain range in Asia, where many of the world's tallest mountains are found. Earth's surface is made up of different sections called *tectonic plates*. Most mountains are fold mountains, which means they're created when two tectonic plates collide, and they force the ground up where they meet. Like this..

Other mountains are created by ancient volcanoes. These are often individual peaks. Ben Nevis in Scotland and Snowdon here in Wales were once very large active volcanoes. They last erupted millions of years ago.

Another cool thing about mountains is that they can affect the weather as clouds carrying water droplets are pushed up and over the physical barrier of the peak, they move into colder air, lose their energy and then drop their load as precipitation: rain, hail, snow or sleet.

I'm meeting Oliver and Lola at the bottom, or base, of Snowdon. We're packing backpacks to prepare for a hike. What kind of things do you have in your backpack?

Child: I have an emergency survival kit. First off, we have a whistle, to make sure that people know where you are and if someone is in danger

Child: If you go up the mountain and you get really thirsty, you're going to need a drink. If you don't drink, sometimes you can get a bit tired, so it's good to always stay hydrated.

De-Graft: Nice. So, we've got a map here. Do you guys know what the numbers and lines mean?

Child: The numbers means how high up the mountain is.

Child: The more where there's loads of orange lines together, it means that it would be steeper to climb up.

De-Graft: Yeah, you guys are pretty much there. We call that *contours*. The closer the lines are to each other, the steeper the hill or the mountain is. The further away they are, the more gentle the slope is. Now we can use contours to help us prepare for a route when we're hiking, to decide whether we want to hike on a steeper route or a more gentle slope. What do you think the weather is like at the top of a mountain?

Child: I think it would be quite windy and snowy.

De-Graft: Yeah, you're right. Did you know that on tall mountains, like Mount Everest, it's so high up that people need oxygen masks to help them breathe, because the higher up you go the thinner the air gets.

OK, time to compare... Snowdon is the same height as around 240 double decker buses stacked on top of each other! Mont Blanc, one of the tallest mountains in the Alps in Europe, is 4807 metres - over a thousand double deckers tall!

So, is there a hill or mountain near you that you could explore? Why not try and find it on a map? Zoom in and have a look for yourself.

Right, off you go then guys! But, just double checking, there is a train we can get, right? No?