

# Exploring UK locations (Zoom In, Zoom Out)

## Weather, climate and seasons

Rhys: In the UK there's one thing we love talking about and that's the weather, we're a bit obsessed with it! This is the Armagh Observatory in Northern Ireland and they've been measuring the weather here every day for over 200 years. And today, they're letting me have a go...

We can measure the weather in lots of different ways, like using a thermometer to check the temperature.

Digital thermometer says '2.4 degrees'. It's quite chilly. Alcohol thermometer... 2.4 as well, alright!

Later, locals Kyla and Diarmuid are joining me at the Observatory to find out about the impact of climate change on our weather. But first, let's zoom out...

We're here in Armagh in Northern Ireland, where it's often windy and it rains a lot. This is partly because the island of Ireland sits beside the Atlantic Ocean and is the first land where storms can break. Whereas in Kent, in the south-east of England, it's usually drier and warmer.

The weather can be different across the UK, due to factors like how far a place is from the coast, or how high above sea level it is, which is called *altitude*.

*Weather* is the day to day conditions of a certain area - for example if it's sunny or rainy.

*Climate* is the average conditions and weather patterns of a place over a long period of time, usually 30 years.

Climates differ around the world. This red line represents the Equator. It's an imaginary line that runs around the middle of the Earth, which is always closest to the sun.

A lot of places near the Equator - like Jamaica - have a *tropical* climate which means it's very hot and wet.

At the top and bottom of the earth, where it's far away from the Equator, there's a *polar* climate, which means it's very cold.

The UK is in between these two extremes and so has what we call a *temperate* climate, where we experience four distinct seasons: spring, summer, autumn and winter.

Rhys: Kyla and Diarmuid have joined me at the observatory. We're making kites to take outside and test how windy it is.

Push it down. Nice.

Child: Finished!

Rhys: So, what do you think of the weather today, guys?

Child: It's been like snowy ... to like rain ... to sun ... now to like mild.

Rhys: Yeah, you're right, the weather's been all over the place today! Ok, so big question here, do you know what climate change is?

Child: I think climate change is referring to global warming and global warming is when the earth is getting heated up and that makes the polar ice caps melt.

Rhys: Yes, spot on. Human activities - like burning fossil fuels (like oil and gas) - this releases carbon dioxide into the atmosphere, and what this does is traps more of the sun's heat, causing what we call the greenhouse effect. As a result, the earth's temperature rises and the weather becomes more unpredictable and extreme. Do you know any types of extreme weather?

Child: Blizzard and hurricane.

Child: Heatwave and a drought.

Rhys: Yes, great examples! And these can also have disastrous effects on communities, like flooding and wildfires.

Although extreme weather is on the rise, we're also able to prepare and protect ourselves better through technology and research.

Ok, time to compare... The雨iest country in the UK is Scotland, with an average of 1574 millimetres of rainfall per year. One of the雨iest countries in the world is Columbia in South America, with an average of 2628 millimetres of rain per year!

So, what's the weather like in your area? Why not have a go at creating your own weather diary, recording the different weather each day. Zoom in and have a look for yourself!

Ok, guys, let's fly these kites!