

Weather and Climate



Year: Four
Term: Autumn

Background information for teachers

Children will be building on their knowledge of weather from the KS1 Geography and Science curriculum. The children have previously studied the UK seasons and the weather that is seen in each season. They will have identified the hot and cold areas of the world in relation to the Equator and the North and South Poles. In year 2, the children will have completed fieldwork and recorded the weather patterns in the location of the school over a short period of time and have compared the weather to other locations in the UK.

In this topic Year 4 will be able to compare the UK's weather to places across the world. They will be able to identify and locate the world's climate zones and discuss the biomes found in these areas. They will then move onto extreme flooding and compare places in the UK and Europe.

Key vocabulary

- **Biome** - A major type of environment. The five major types of biomes are aquatic, grassland, forest, desert, and tundra.
- **Coast** – The part of the land adjoining or near the sea.
- **Continent** - A continent is a large solid area of land, of which there are seven on Earth. These are Africa, Antarctica, Asia, Australasia, Europe, North America and South America
- **Climate** - The overall weather conditions of a place or region throughout the year.
- **Climate zones** - A climate zone is **an area that has its own distinct climate**. They also have their own type of vegetation and wildlife.
- **Desert** – An area with a dry climate, which is defined as having a total annual rainfall of 250mm or less. Some cold regions are also regarded as deserts as they have less than this rainfall.
- **Equator** - An imaginary line around the middle of the earth which is at equal distance from both poles. It divides the earth into northern and southern hemispheres.
- **Humidity** – The amount of water vapour in the air.
- **Latitude** – Lines running parallel to the equator.
- **Lichen** - a simple slow-growing plant that typically forms a low crusty, leaflike, or branching growth on rocks, walls, and trees.
- **Longitude** - Lines which join the North and South Poles.
- **North Pole** – The northernmost point of the Earth.
- **Precipitation** - rain, snow, sleet, or hail that falls to or condenses on the ground.
- **South Pole** – The southernmost point on the Earth.
- **Temperate** – Moderate climate found in the middle latitude. Extremes of weather are unusual.
- **Precipitation** - rain, snow, sleet, or hail that falls to or condenses on the ground.
- **Weather** – a condition of the atmosphere at any given time.

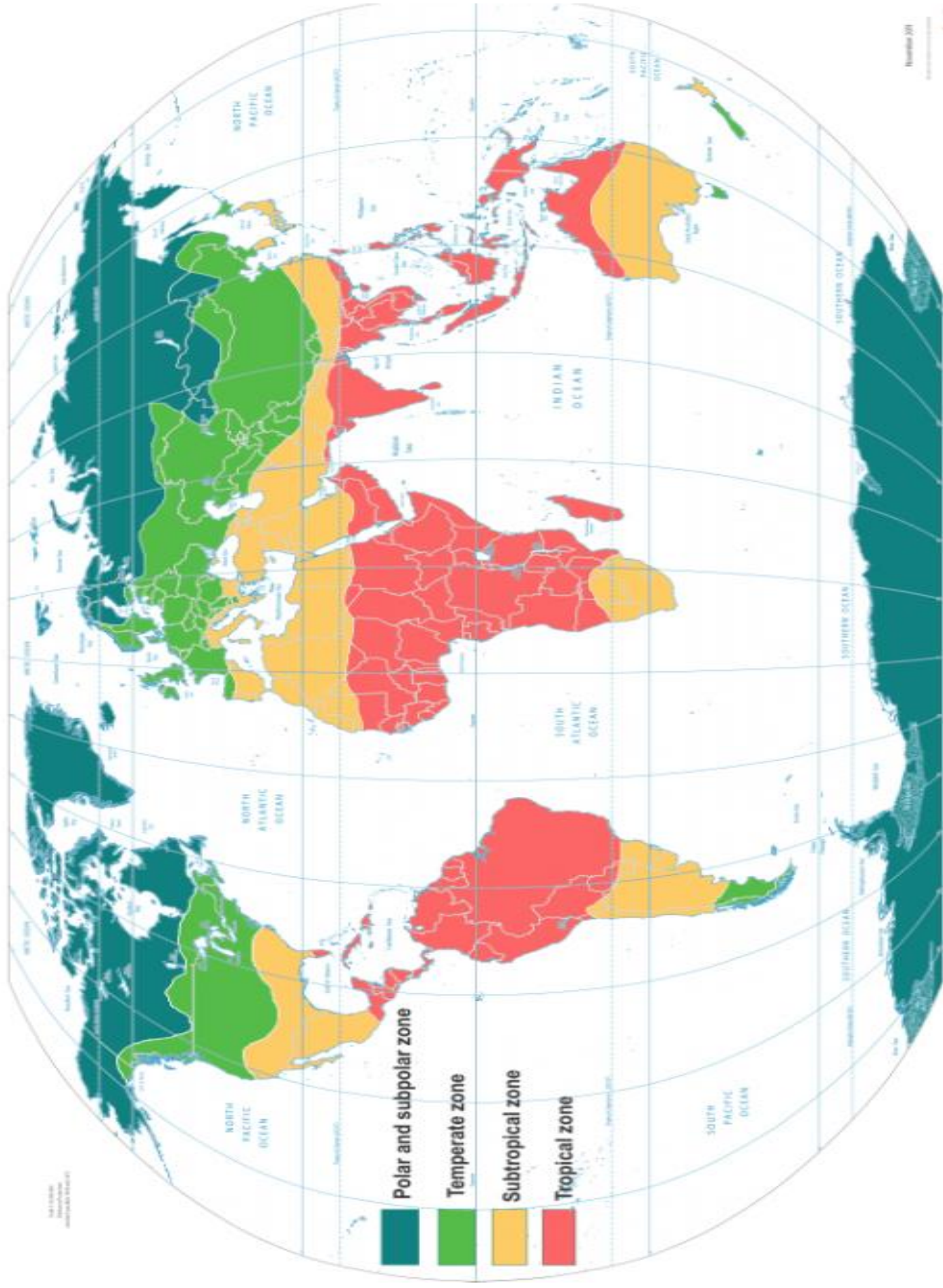
Year 4 – Weather and climate

Geography - Know that geography is the study of places and the relationships between people and their environments

Question - Why do different areas have different sorts of vegetation?

	Key geography Knowledge	Key geography skills
Week 1 (Retrieval)	<ul style="list-style-type: none"> ● Know the names of the seven continents and name on a world map and globe (as a class using a labelled map/globe): Europe, North America, South America, Africa, Asia, Australasia and Antarctica. ● Know the location of the North and South Poles and know that they are the cold parts of the Earth. ● Know the location of the equator, Northern hemisphere and southern hemisphere. ● Know that the UK <u>does not</u> usually experience extremely cold winters or hot summers, and is thus a temperate country ● Know that temperature can be measured using a thermometer ● Know that particular types of precipitation are more common in different seasons (e.g. snow and ice in winter; rain in the summer) 	<p><u>To locate places</u></p> <ul style="list-style-type: none"> ● I can identify the position and significance of the Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle. <p><u>To understand places and the geographical patterns and processes</u></p> <ul style="list-style-type: none"> ● I can describe and understand key aspects of physical geography: the vegetation and climate zones and how these might have changed over time. ● I can understand the geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom and a region in a European country.
Week 2	<ul style="list-style-type: none"> ● Understand the terms rainfall, temperature, wind and humidity, and know that weather represents the day-to-day levels of these things and that climate represents an average for a given area ● Use an understanding of rainfall, temperature, wind and humidity to compare the climates of Chile (specifically the Atacama Desert – one of the driest places in the world) and the UK ● Know that a desert is a region with extremely low precipitation; for example, the world’s largest desert is found in Antarctica – although it is not hot there, there is very little rainfall 	
Week 3/4	<ul style="list-style-type: none"> ● Understand lines of latitude and how the Earth can be divided into polar, temperate, sub-tropical and tropical zones and that each tend to have different climates and biomes; know that a biome is a community of plants and/or animals that share characteristics based on the environment in which they live (e.g. evolved to survive in hot conditions) ● Use an atlas to locate Greenland, Germany, Portugal and Peru and determine which of the four climate zones these countries are in (polar, temperate, subtropical and tropical respectively) – (Discuss the difference between Portugal climate and UK – even though the country is also in Europe). ● Know that Greenland is part of Denmark, a country in northern Europe; identify Denmark on a map 	<p><u>To organise and communicate geographically</u></p> <ul style="list-style-type: none"> ● I can use age appropriate maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.

<p>Week 5</p>	<ul style="list-style-type: none"> ● Know that the climate of an area determines the vegetation that will grow there and the animals that will thrive there ● Know that there are five different types of vegetation region in the world: forest, grassland, tundra, desert, and ice sheet; know that these regions are determined by the climate of an area (photographs and aerial images) ● Know that forest regions are covered in trees; that grasslands are dominated by thick grass; that tundra regions are areas where tree growth is hindered by low temperatures and that a mixture of grass, sedges, lichen and moss dominate; that ice sheet regions are large masses of ice where very little plant-life can survive <p>Question: Why do different areas have different sorts of vegetation?</p>	
<p>Week 6</p>	<ul style="list-style-type: none"> ● Know that when areas of land that are usually dry become covered with water, this is called a flood; floods can be caused by heavy rainfall and storms that lead to temporarily higher sea levels along a coast; floods can lead to destruction of property and even death. ● Know that areas of the UK experience floods and that some areas of the world experience annual floods. ● Compare a location in the UK and a location of Europe that flood (studying the weather) – case study – Is there anything in the news now? 	



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