



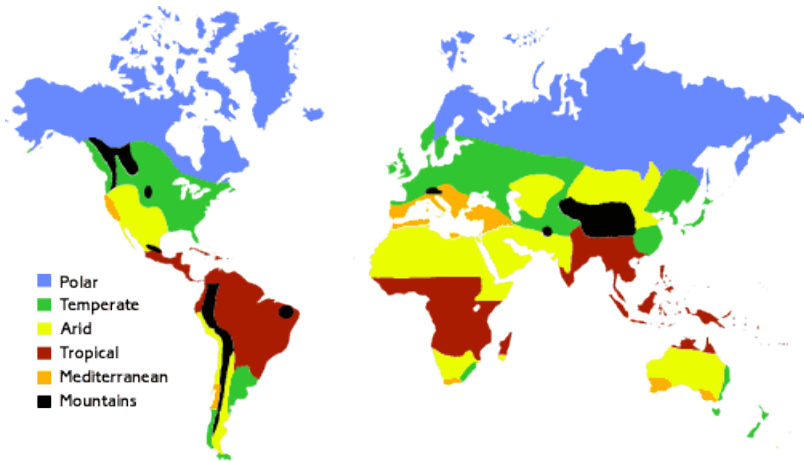
Respect, Believe, Achieve

Year 4 Climate

*Understanding climate zones, biomes and vegetation belts.

*Describing the characteristics of these and locating them on maps.

Climate Zones



As a Geographer, what do I already know?

- ◆ In Year 2, we described some differences between places near the Equator and at the poles.
- ◆ In Year 3, we explored the differences in climate in the north of France compared to the South. We also compared the climate in France with that in England.

Key Words	
Climate Zone	Climate zones are areas around the world with specific patterns of weather. In a certain place, if there is a pattern of weather that occurs over a long period of time, this can be described as its climate.
Biome	A biome is a large community of vegetation and wildlife adapted to a specific climate. The five major types of biomes are aquatic, grassland, forest, desert, and tundra.
Vegetation Belt	Vegetation belts are regions of the world that are home to certain plant species determined by the climate.
Northern and Southern Hemisphere	The Northern Hemisphere refers to the half of the planet that is north of the equator, while the Southern Hemisphere is all of the planet south of the equator.
Flora	Flora is all the plant life present in a particular region or time, generally the naturally occurring (indigenous) native plants.
Fauna	Fauna is all of the animal life present in a particular region or time.

Key Skills

Knowledge Location



I know the eight compass points.

I know and can identify the position of the equator, the poles, the northern hemisphere and the southern hemisphere.

Understanding Place



I can describe and understand key aspects of physical geography including climate zones, biomes and vegetation belts.

I can indicate tropical, temperate and polar climate zones on a globe or map and describe the characteristics of these zones using appropriate vocabulary (e.g. precipitation, temperature, humidity).

Enquiry and Skills



I can use a map (scaled 1:2,500 – 1:10,000) or atlas to locate some countries and cities within these various climate zones.

I can use four-figure grid references.

I can give direction instructions up to eight compass points.

Key information—What do I need to know?

- ◆ How to read a compass up to 8 cardinal points and give direction.
- ◆ How to identify the position of the poles, the northern hemisphere and the southern hemisphere on a globe or atlas.
- ◆ Why we have climate zones: The Earth's climate is driven by energy from the sun which arrives in the form of heat. Half of this energy travels through our atmosphere and reaches the Earth's surface.
- ◆ The other half is either absorbed by the atmosphere or reflected back into space. Because the Earth is a sphere, the sun's rays reach the earth's surface in polar regions at a much more slanted angle than at equator. So straight away, we know that the Poles are colder than the Equator.
- ◆ When things aren't in balance, nature likes to even things out. So the extra energy at the Equator needs to be spread across the planet and it's this that creates different climate zones across the world.
- ◆ Warm air rises at the equator and moves toward the poles. Where warm, wet air rises, we get thunderstorms and tropical rainforests. Where air sinks, it stops clouds from forming – so it rains less, even making deserts.



The Sahara Desert

How many climate zones are there and how do they differ?

1. Tropical

Around the Equator we have **tropical** climates which are hot and humid, this is where you'll find the world's rainforests.

2. Arid

Then there are **arid** or dry climates – like you'd find in deserts.

3. Mediterranean

Next is **Mediterranean** with hot dry summers, and cooler wetter winters.

4. Temperate

Then there are **temperate** climates. That's what we have in the UK, where summers are mild and winters aren't too cold.

5. Continental

In areas that are a very long way from the sea, the climate is **continental** with long, cold winters and short, hot summers.

6. Polar

Finally, there's **polar** climates which experience long periods of extreme cold.

As a Geographer, here's the knowledge, skills and understanding I will have by the end of the unit:

1. I will know the 8 compass points and be able to give direction using these.
2. I will be able to identify the position of the poles, the northern hemisphere and the southern hemisphere on a globe or atlas.
3. I understand and can explain climate zones, biomes and vegetation belts.
4. I can indicate tropical, temperate and polar climate zones on a globe or map and describe the characteristics of these zones using appropriate vocabulary.
5. I will be able to use a atlas to locate some countries and cities within these various climate zones.
6. Using maps and photographs, I will prepare a report about an animal I have chosen; this will contain details of the animal, where it lives in terms of climate and biome, and what it eats.