

## Geography Medium Term Planning: Year 3 – Weather and Climate

Overarching Enquiry Question:		Unit Overview:	
What are the different climate zones and how do they affect the way people live?		In this unit, the children are introduced to different ways of communicating geographical data, particularly through different styles of maps. They will learn to read weather and climate maps and learn how weather and climate are generalised into world climate zones. The concept of biomes will be explored, each with distinctive climate, soil, flora, fauna, and human activity.	
This unit builds on:		This unit builds towards:	
<ul style="list-style-type: none"> <li>• Y1 – Animals and Their Habitats This unit gave a geographical context to children's interests in, and prior knowledge of, animals through a study of five continents. Children developed an understanding how landscapes can differ (hot/cold) from continent to continent.</li> <li>• Y2 – Seasons In this unit, the children learnt about weather and seasons. This unit focused on the local area, as well as looking at the wider perspective of the UK.</li> </ul>		<ul style="list-style-type: none"> <li>• Y4 – The Americas Children will build on their knowledge of biomes and climate by looking at the different environmental regions of North and South America.</li> <li>• In-depth studies of specific climates and biomes:                             <ul style="list-style-type: none"> <li>○ Y5 - A Study of an Alpine Region</li> <li>○ Y6 - South America: The Amazon</li> </ul> </li> <li>• Y6 – Protecting the Environment Children will examine how human activity is causing environmental change and stress, and how these are contributing to climate change.</li> </ul>	
Fieldwork		Map Work	
A visit to Delamere Forest (a deciduous forest) or local woodland (Helsby Hill) and find out about the native trees of our temperate forest biome. Arrange a talk from a park or countryside ranger to discover more about the issues affecting the flora, fauna and countryside of, or near/nearest to, your local area. In the school environment, extend any work the children have done previously in collecting, analysing and communicating weather data.		Throughout this unit, children will use a variety of styles of maps of the world (accessible on the internet) and interpret them. They will also learn to extract information from geographical photographs. You could use printed copies of the maps and images or display them on the interactive whiteboard. Where it is suggested that children use atlases to locate places, you may choose to use Google Earth instead.	
Possibly Fieldwork Enquiries		Educational Visits	
<ul style="list-style-type: none"> <li>- What species of trees grow in the school grounds/on Helsby Hill?</li> <li>- Which species of deciduous trees grow in Delamere Forest?</li> </ul>		<ul style="list-style-type: none"> <li>- Visit to Delamere Forest</li> <li>- Helsby hill</li> </ul>	

Step	Enquiry Question	Learning Objective	Key Geographical Knowledge	Vocabulary
1	What are weather, climate and biomes?	To recap weather, and start to learn about climate, climate zones and biomes.	<ul style="list-style-type: none"> <li>Understand that there is a pattern to weather and seasons in my own and other environments.</li> <li>Understand that these climate patterns are different in different regions of the world.</li> <li>Use a map of world, annual average air temperatures and/or a globe to describe the world climate zones from the Poles to the equator.</li> </ul>	weather, weather forecast, season, climate, climate zone – polar, temperate and equatorial/tropical/rain forest; biome, flora, fauna, vegetation
2	How does the equator effect how hot a place is?	To learn how the average air temperature of a location is affected by how close it is to the equator.	<ul style="list-style-type: none"> <li>Locate the Equator, and know the names of continents and oceans.</li> <li>Locate and name the Tropic and Cancer and Tropic of Capricorn.</li> <li>Use a map of world, annual average air temperatures and/or a globe to describe the world climate zones from the Poles to the equator.</li> </ul>	equator, Tropic of Cancer, Tropic of Capricorn, climate, climate zone – polar, temperate and equatorial/tropical/rain forest; biome, flora, fauna, vegetation
3	What are the polar regions like?	To find out about the polar climate zone, and to learn about the tundra biome.	<ul style="list-style-type: none"> <li>Know where the coldest places on Earth are in relation to the equator and Poles.</li> <li>Describe the polar climate, and characteristics of the polar climate zone.</li> <li>Talk about the animals of the tundra biome.</li> </ul>	temperature, frozen/freeze/freezing, glacier, iceberg, ice flow, ice cap, Arctic, Antarctic, continent, flora, fauna – polar tundra and alpine tundra, caribou, reindeer, polar bear, penguin, seal, Northern and Southern Hemisphere, tundra – polar, permafrost, taiga
4	Where are the hottest, driest places in the world?	To find out about the hottest, driest places on Earth and the tropical desert climate zone.	<ul style="list-style-type: none"> <li>Know where (some of) the hottest, driest places on Earth are, in relation to the Equator and the North and South Poles.</li> <li>Know what the 'tropical desert climate' and 'tropical desert biome' are.</li> <li>Say what climate zones and biomes are.</li> </ul>	desert, sub-tropical, Sahara (Arabic for 'The Great Desert'), Namibian Desert, Mojave Desert (pronounced 'mo-harvey'), dry, arid, rain shadow

5	Where are the hottest, wettest places in the world?	To find out about the hottest, wettest places on Earth, and something of the tropical rainforest biome.	<ul style="list-style-type: none"> <li>• Know where (some of) the hottest, wettest places on Earth are, in relation to the equator, and North and South Poles.</li> <li>• Know what 'tropical rainforest climate' and 'rainforest biome' mean.</li> <li>• Say what climate zones and biomes are.</li> </ul>	monsoon, tropical rain forest climate and biome, rainfall map, Cherrapunjee, Mawsynram, India
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### Assessment Opportunities

Pupils will answer the question: Why is climate important?

This unit culminates with children producing their special report on 'Why is climate important?' The report could be an oral/ live presentation, poster, video or PowerPoint. There is a choice of three scenarios: the report can be for a specified animal or specified people – these could be the children's relatives living overseas – or you could revisit the Nenets who are introduced in week two.

The report should include information about:

- Where the specified animal or group of people live – continent, country/ countries
- A weather summary over seasons or a year (temperature and rainfall)
- The climate zone and biome (approximate vegetation zone)
- How the climate and biome affect their way of life.

By the end of the unit, children should be able to say how climate affects the life of, and why climate is important to, the people or animals researched.

Unit End Points (meeting age-related expectations)

Geographical knowledge

- Identify the position of the Prime/Greenwich Meridian, and understands the significance of latitude and longitude (e.g. understands how climate varies with latitude and in relation to equator, Tropics and Poles).

Geographical understanding

- Indicate tropical, temperate and polar climate zones on a globe or map, and describes the characteristics of these zones using appropriate vocabulary (e.g. prepares a report, using maps and photographs, about an animal or people they have chosen, which should contain details of the animal or people, where they live in terms of climate and biome, and what they eat).
- Understand how physical processes can cause hazards to people.
- Describe some advantages and disadvantages of living in hazard-prone areas (e.g. understands the dangers of floods, drought and climate change).

Geographical skills and enquiry

- Uses the zoom function of a digital map to locate places and gather information (e.g. uses Google™ Earth to locate places within different climate zones, to zoom in on the Poles, equator and Tropics).

# Exemplification of Work

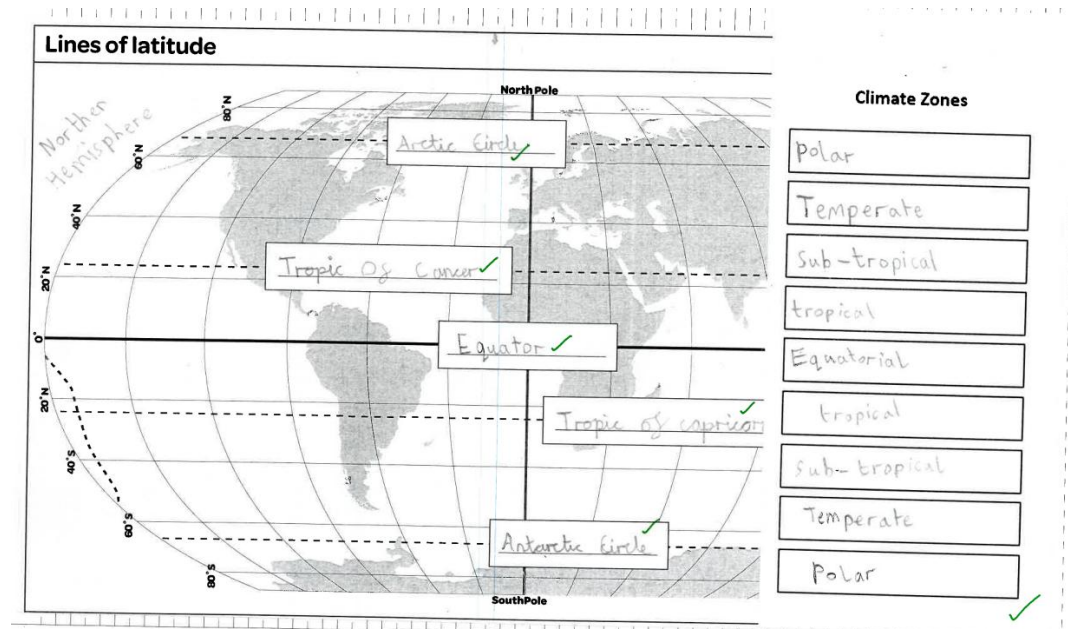
Week 1 - What are weather, climate and biomes?

Term: Autumn 2 Date: 14/11/23	Enquiry Question: What are weather, climate and biomes?
Learning Outcomes	
<ul style="list-style-type: none"><li>I understand that there is a pattern to weather and seasons in my own and other environments.</li><li>I understand that these climate patterns are different in different regions of the world.</li><li>I can use a map of world, annual average air temperatures and/or a globe to describe the world climate zones from the Poles to the equator.</li></ul>	

**Weather** The weather is what conditions are like in a particular place. Weather can change suddenly. ✓

**Climate** Climate means what the weather is mostly like. Like in Australia it's mostly hot and dry. ✓

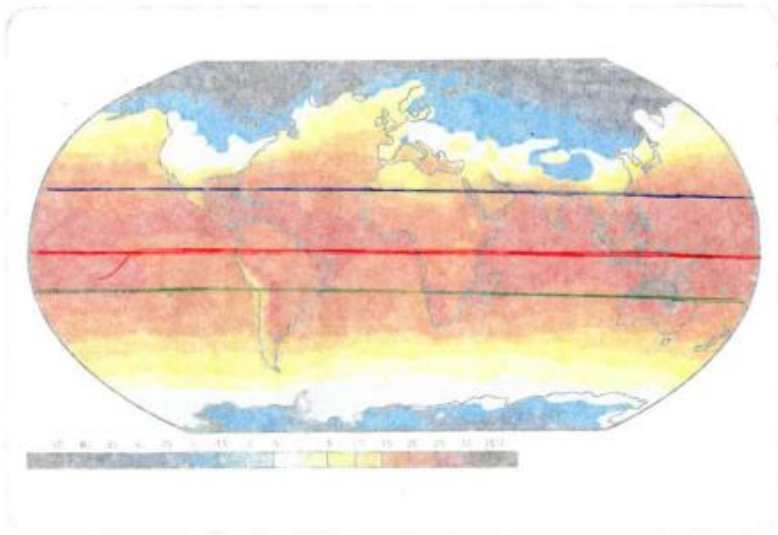
**Biomes** Biomes are places that have a similar climate, animals, plants and landscape. ✓



Week 2 - How does the equator effect how hot a place is?

Term: Autumn 2	Enquiry Question:
Date: 21/11/23	How does the equator effect average air temperature?
Learning Outcomes	
<ul style="list-style-type: none"> <li>I can use a map of world, annual average air temperatures and/or a globe to describe the world climate zones from the Poles to the equator.</li> <li>I know that countries on or near to the equator have high air temperatures all year round.</li> <li>I can locate specific regions on an atlas and find out the climate zone/biome.</li> </ul>	

Handwriting practice lines (dashed lines).



Handwritten legend:

- Red line = equator
- Green line = tropic of capricorn
- Blue line = tropic of cancer

Ref: HW.EX.04

Location	Climate Zone
New York (Eastern U.S)	Temperate ✓
Manaus (Brazil)	Tropical forest ✓
Alice Springs (Australia)	Desert ✓
London (United Kingdom)	Temperate ✓
Cairo (Egypt)	Desert ✓
Point Hope (U.S)	Tundra ✓
Nairobi (Kenya)	savanna ✓
Madrid (Spain)	chaparral ✓

## Week 3 - What are the polar regions like?

Term: Autumn 2

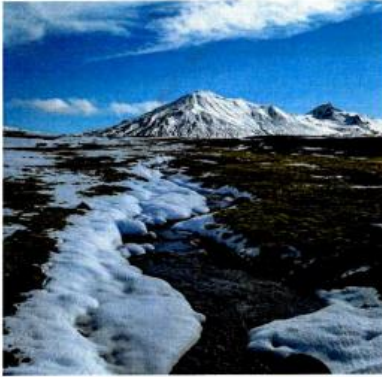
Enquiry Question:

Date: 28/11/23

What are polar regions like?

Learning Outcomes

- I know where the coldest places on Earth are in relation to the equator and Poles.
- I can describe the polar climate, and characteristics of the polar climate zone.
- I can talk about the animals of the tundra biome.



A tundra is a place far away from the equator in the polar climate. It's mostly snow, ice and cold. Some times you get very high winds and very little rain. Some are found in the Antarctic but most are found in the Arctic. In the Arctic they have long, cold winters and short summers. As the ground is frozen the trees can't grow because of permafrost.

Put the words below into the circle(s) in which they fit.



trees tigers  
Kangaroo  
reindeer  
equator

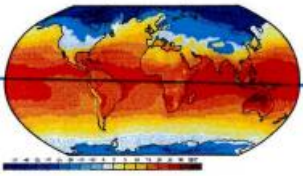
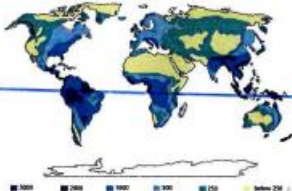
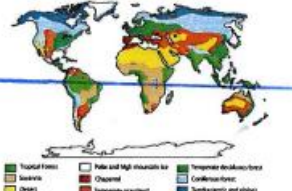
**Some useful words and ideas:**

24 hours dark in our winter; 24 hours daylight in polar summer; cold; glaciers; ice; Inuit; land under snow and ice at Pole; North Pole; penguins; polar bears; reindeer; seals; snow; South Pole; tourism; water under snow and ice at Pole

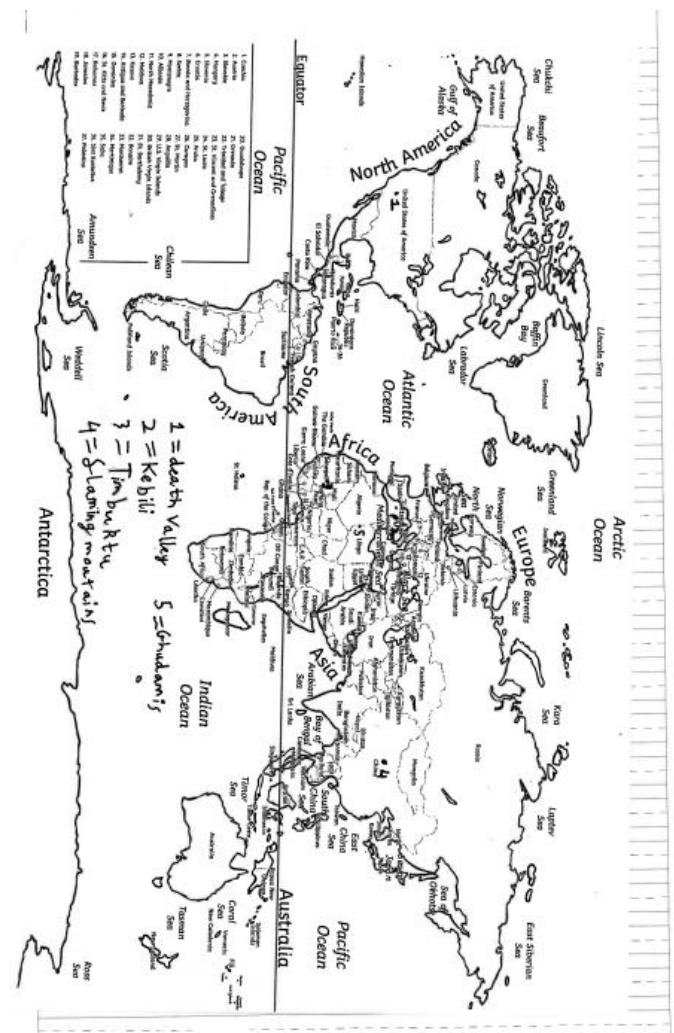
Antarctic → Arctic

Week 4 - Where are the hottest, driest places in the world?

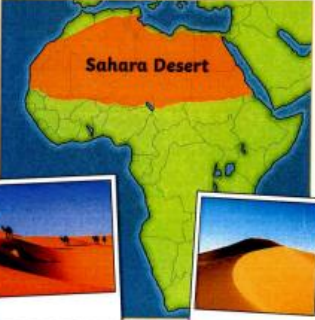

Term: Autumn 2  
 Date: 07/12/23  
 Enquiry Question: Where are the hottest, driest places?  
 Learning Outcomes:  
 • I know where (some of) the hottest, driest places on Earth are, in relation to the Equator, tropics, and the North and South Poles.  
 • I know what the 'tropical desert climate' and 'tropical desert biome' are.

<ol style="list-style-type: none"> <li>1. What do you notice about where the desert climates zones are in relation to the equator?</li> <li>2. What do you notice about the position of desert climates zones in relation to North and South Pole?</li> <li>3. What do you notice about where desert climates zones are and the amount of rainfall in these areas?</li> <li>4. What do you notice about where desert climates zones are and the average air temperature?</li> </ol>	<p>Average air temperature</p> 
<p>Rainfall</p> 	<p>Climate zones</p> 

1. Most hot deserts are near the equator but some cold deserts are abit farther away from the equator.  
 2. The warm deserts are closer to the equator than the North Pole and the South Pole.  
 3. Most of the hot deserts have below 250 cm of rain per year.

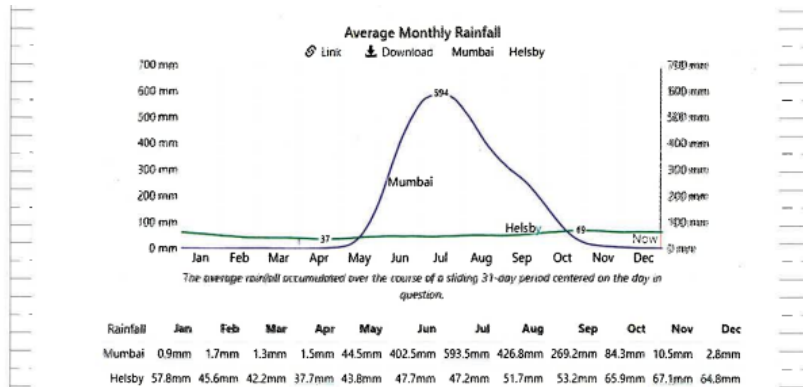


## Sahara Desert

<p>Where is the Sahara?</p> <p>The Sahara Desert is in Africa and it overlaps 11 other countries.</p>	 
<p>How big is the Sahara?</p> <p>The Sahara Desert covers 9 million km² and overlaps 11 other countries.</p>	<p>Who lives in the Sahara?</p> <p>Over 10 million people live in the Sahara Desert. These people are called Berber or Arabians.</p>
<p>What is the Sahara like?</p> <p>The Sahara is driest and hottest. It is the hottest desert in the world. It is also the biggest hot desert in the world. It has less than 25cm of rainfall a year.</p>	<p>Did you know...?</p> <p>Did you know from it is a desert it will take 1000 years to grow up again.</p>
<p>What wildlife is there in the Sahara?</p> <p>Although the climate is very high there are still alot of wildlife. Like desert haddoop, the sand fox, the common jackal and the scorpion. They also some plants like cactus.</p>	



Week 5 - Where are the hottest, wettest places in the world?



1. Which is the wettest month in Helsby? How much rain falls?
2. Which is the wettest month in Mumbai? How much rain falls?
3. In which do months the monsoon rains fall in Mumbai?
4. Which months are the dry season in Mumbai?
5. In which month is the rainfall in both places most similar?

1. The wettest month in Helsby is November. In November 67.1 mm of rain falls.

2. The wettest month in Mumbai is July. In July 593.5 mm falls.

3. The months that the monsoon rains fall is May - October.

Over 300 fruits grow in the rainforest.

Rainforests are Earth's oldest living habitat.

Over half of the world's plants and animals live in the Amazon rainforest.

They have been around for 70 million years.

Tropical



The rainforest can get upto 28°C.

Rain Forests

The Amazon rainforest is also home to the Amazon river.

The tropical rainforests are between the Tropic of Cancer and the Tropic of Capricorn.

The animals that live there are Mammals, reptiles, birds and fish.

Week 6 - Assessment Tasks

What are the different biomes, where are they, and what are they like? (Assessment)

Biome	Description What is the climate like?	Example location Where?	Fauna (animals)	Flora (plant life)
polar	cold and dry	Arctic and Antarctic	Polar bears Arctic fox Penguins Seal	none
tundra	Breezing very cold	northern hemisphere	moose caribou Walrus	moss grass
hot desert	days are hot and nights are cold	tropics regions very close to the equator	camel Desert rabbits hares Sorex	cactus
tropical rainforests	Rainforest are usually warm all year round, high annual rainfall	between the tropic of cancer and the tropic of capricorn,	monkeys Jaguar insects	tall ever green trees flowering plant
temperate forest	warm summers cold winters	between the equator and the polar climate.		

Tundra Biome

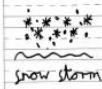
The tundra doesn't have any trees because it's too windy and the ground is frozen because of permafrost. Some animals live there like reindeer, caribou and walrus.



Arctic fox

Polar Biome

Some animals such as polar bears, arctic fox, penguins and seals live in the polar Biome. Mostly the weather is cold and dry.



snow storm



Rainforest Biome

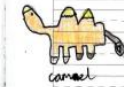
Rainforests have lots of animals because it has more than half of the world's animals live in rainforest. Rainforests are still hot when it rains. The biggest rainforest is the Amazon.



monkey

Hot desert biome

Both hot and cold deserts cover around one-third of the Earth's surface. It's very hot and sandy. It gets a bit cooler at night.



camel



Savanna biome

Usually, savannas are located close to the equator. Normally, savannas can be found in South America, Asia and Australia. The savanna is home to many large land mammals. Large herds of animals such as elephants, graze on the plentiful supply of plant life.

Temperate forest biome

Temperate forest biomes are located halfway between the equator and the poles.

