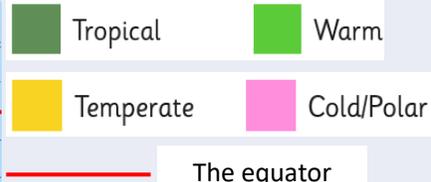
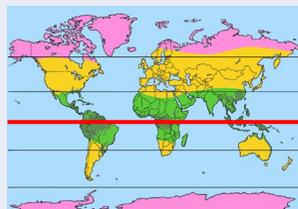


## World Climate

### Map work

Locate countries on a world map/globe. Recap the names and locations of the 7 continents and 5 oceans.

### World Climate Zones



## Cold, Cold, Cold - Polar Regions

### The Arctic



Surrounds the North Pole. It is made up of the Arctic Ocean and the treeless lands around it, called the Tundra. The Arctic isn't a country or a continent, it is actually mostly a frozen ocean.

- Animals: polar bears, Arctic fox, caribou/reindeer, Arctic hare, seals, walrus, beluga whale, narwhal, snowy owl.
- People: Many groups of people live in the lands beyond the Arctic Circle. Among these are **Inuit**, Inupiat and Yupik. They travel around using dog sleds or snowmobiles.
- Plants: Some flowering plants.

### The Antarctic



Surrounds the South Pole. The Antarctic covers the continent of Antarctica (an area of land, covered in ice) and some ice shelves and islands in the Southern Ocean. The coldest, windiest, driest place on Earth (it is actually a desert!). The lowest temperature on Earth (-89.2°C) was recorded there.

- Animals: penguins, elephant seals, albatross.
- People: no one permanently lives there, no towns or cities. Scientists take turns living in research stations for a few months at a time.
- Plants: Very few plants grow, mainly lichens/grasses.

### Both:

- Important research stations have been built.
- Constant darkness in winter and constant daylight in summer. They only have 2 seasons - summer and winter.

## Hot, Hot, Hot

### Climate change

The Earth is getting warmer because people are adding heat-trapping gases to the atmosphere, mainly by burning fossil fuels like coal and oil.

### Temperate climate

Moderate rainfall spread across the year or part of the year with irregular drought, mild to warm summers and cool to cold winters (The UK and South Africa).

### Warm/arid climate

A huge lack of available water, which prevents growth and development of plant and animal life.

### Tropical climate

Nearer the equator so hotter. But, unlike deserts, it rains in tropical **climate** zones. They only have 2 seasons - hot and wet, and hot and dry.

## Explorers

### The Arctic

Matthew Henson is believed to have been the first person to walk on the North Pole on an expedition with Robert Peary in 1909, but he wasn't recognised because of the colour of his skin (black).

### Antarctica

- Ernest Shackleton (1902 and 1908)
- Race to the South Pole (1910-1912): Robert Scott's British team vs Roald Edmunsen's Norwegian team.

## Vocabulary Introduced

### weather (linked to Science unit: Seasonal Changes)

The day to day changes that we see happen. So, it can be sunny one day and rainy the next.

### climate

The average weather usually taken over 30 years for a particular place.

### Inuit

One group of people who live in the Arctic.

### climate change

The Earth is getting warmer, causing changes such as: melting glaciers, stronger storms, droughts, changing weather patterns.

### main climate zones: cold/polar, temperate, warm/arid, tropical

See under '**Cold, Cold, Cold**' and '**Hot, Hot, Hot,**' sections.

## Teaching Sequence

11	Key learning	Activity
1	Map work	Locate countries on a world map/globe. Recap the names and locations of the 7 continents and 5 oceans. Create a poster about a continent of their choice – heading, facts (weather, animals, countries, language, famous landmarks, etc.), pictures/photos.
2	World Climate Zones	Locate Earth's Northern + Southern Hemisphere and equator. Identify 4 main climate zones of the world – tropical, warm, temperate, cold/polar. Identify some animals live in which climate zones.
3	UK Climate – Temperate	Learn the term 'temperate'. Make a passport with an accurately drawn self-portrait.
4	The Arctic location and features	Locate the Arctic and the North Pole. Learn about some Arctic animals, people who live there and scientists. Arctic research presentation on a topic of your choice (for example: Arctic animals, Arctic people, Arctic Scientists and Explorers, Arctic homes, Arctic Transport, Arctic Food, Arctic weather, Frozen features: snow, snowflakes, icebergs, seas).
5	Art - Arctic animals modelling	Using clay and modelling tools make an Arctic animal, to place in an Arctic 'small world' scene.
6	Arctic Explorers – North Pole	Develop an awareness of the lives of significant individuals in the past who have contributed to national and international achievements - Matthew Henson was a significant polar explorer who did not get recognised for his achievement at the time.
7	Antarctica's location	Using a map and compass directions, locate clues to find a penguin toy and the story 'Lost and Found'. Locate the UK and Antarctica, think about the best route from the UK to Antarctica. Emperor penguin facts.
8	Antarctica's features	Identify true and false statements about Antarctica. Locate the South Pole. Learn about getting there, weather conditions and scientists who work there for months on end (no one lives there permanently). Antarctic research presentation on a topic of your choice (for example: Antarctic Animals, Antarctic Scientists and Explorers, Antarctic Transport, Antarctic Food, Antarctic Weather, Antarctic Clothes).
9	Art - Fingerprint Penguins	Art activity.
10	Antarctic Explorers	Learn about attempts to be the first to reach the South Pole. Roald Amundsen's Norwegian team reached the South Pole a month before Robert Scott's British team. None of Scott's team survived the return journey. What did Antarctic explorers need?
11	Arctic vs Antarctica comparison	Compare the two Polar Regions using Arctic and Antarctic facts, as well as animals.
12	Climate change	To talk about climate change and think of ways to help the environment at home and school.
13	Temperate climates in the UK and South Africa	Locate two temperate climate countries. Research the people, animals and plants surviving in temperate zones.
14	Art – South African patterns	Use colour, pattern, line and shape in their work, particularly inspired by the life and art of South African artist Esther Mahlangu.
15	Warm/Arid climates - To the Deserts!	Locate warm/desert climate countries. Investigate deserts and explain their findings - vehicles, animals and people who work/live in these regions.
16	Tropical climates - It's Getting Hotter!	Locate the tropical climate countries. Research the people, animals and plants surviving in tropical zones.
17	Consolidation	Choose a country to produce a brochure, postcard or wax resist pictures for – particularly showing climate related information.