Year 3 Geography

Climate and Weather

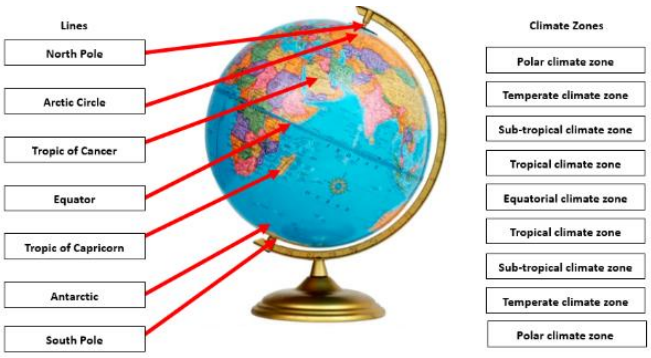
Why is climate important?

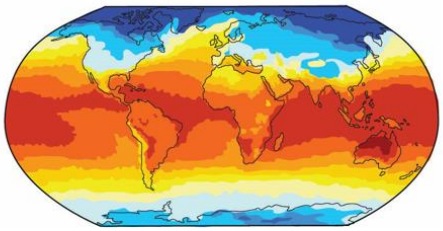
What I should already know:
That there are different types of seasons and weather patterns in the UK.

Lesson 1: What are weather, climate and biomes? (Activity: identify and describe different climate zones)

- There are five main types of biomes: aquatic, desert, forest, grassland and tundra.
- The climate across the world has changed naturally over thousands and millions of years. In the past, the UK has experienced both freezing ice ages and warm tropical climates.
- Today however, because people have been burning fossil fuels to power homes, factories and vehicles, more carbon dioxide has entered the Earth's atmosphere.

Climate zones of the World



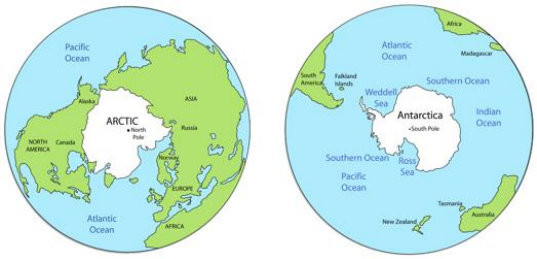


weather	*short term weather*
climate	*long term weather*
climate zone	*area defined by the long-term weather there*
season	*time of the year when weather changes*
biome	*large area defined by climate and what lives there*
flora	*plant life*
fauna	*animal life*
vegetation	*Plant life in one particular area*

Lesson 2: What are the polar regions like? (Activity: identify coldest places on Earth and Arctic / Antarctic differences)

- The Artic is sea surrounded by land while the Antarctic is land surrounded by sea!
- Winter temperatures can drop below **−50°C** over large parts of the Arctic.
- Summer temperatures in the Arctic can occasionally exceed **30°C** in some land areas.
- The coldest temperature recorded in Antarctica was **-89.6°C** at Vostok station in 1983.
- The average winter temperature at the South Pole is about **-49°C.**

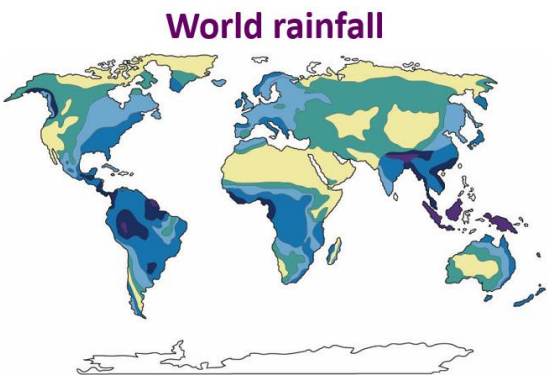
North and South Poles



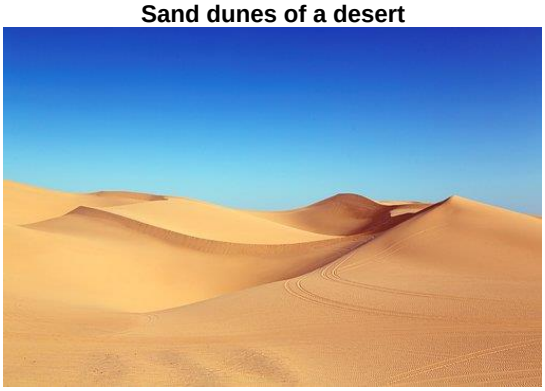
polar	*from the North or South Pole*
tundra	*treeless polar desert*
desert	*area with very little rainfall or plant life*
Northern hemisphere	*top half of the world*
Southern hemisphere	*bottom half of the world*
equator	*Invisible horizontal line in the exact middle of the world*

Lesson 3: Where are the hottest, driest places in the world?
(Activity: identify and locate the hottest driest places. What is the climate like? What kind of flora and fauna is there?)

- The five hottest places on Earth are:
  - Death Valley, USA
  - Al'Aziziyah, Libya
  - Ghudamis, Libya
  - Kebili, Tunisia
  - Timbuktu, Mali
- The highest recorded temperature was 57.8C in Libya.
- The Asian deserts (e.g. Gobi, in China) are *cold* deserts.



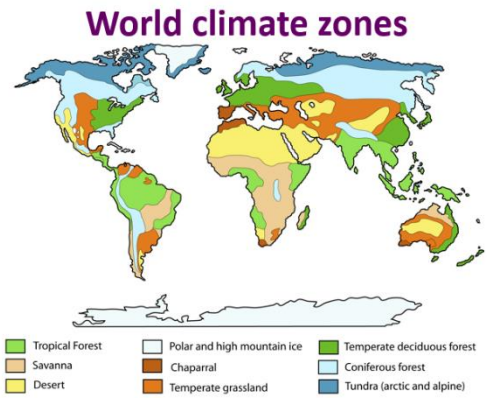
Sand dunes of a desert



sub-tropical	*in between tropical (very hot) and temperate (very mild) zones*
Sahara	*African desert, largest in the world*
arid	*extremely dry*
precipitation	*rainfall*
oasis	

Lesson 4: Where are the wettest places on Earth?
(Activity: identify and locate the wettest places on Earth)

- 80% of India's rain falls during monsoons.
- From late May to October the Indian monsoon winds blow from the southwest, over the Indian Ocean and Arabian Sea, bringing with them a huge volume of rain.
- For the rest of the year the wind blows in the opposite direction, so it is a little drier.
- The wettest place on Earth is Mawsynram in India.
- It gets over 11,000mm of rain each year.



Torrential rainfall

monsoon	*seasonal heavy rainfall in Asia*
torrential	*very heavy rainfall*
subcontinent	*large part of a continent*
Indian subcontinent	*India, Pakistan and Bangladesh*

Lesson 5: What climate zone and biome do we live in?
(Activity: define the UK climate zone and biome and identify key flora and fauna)

- The UK has warm summers and cool winters. Summers are cooler than others in Europe but winters are milder.
- July and August are the warmest months in the UK.
- January and February are the coldest months.
- The west of the UK is the wettest.
- It rains throughout the year.
- The average temperature is 9.3°C

Native flora and fauna

temperate	*neither very cold nor very hot*
deciduous	*trees that lose leaves in winter*
native	*belonging to that country*
climate change	*changes in the climate that have been caused by environmental issues*

Lesson 6: BIG FINISH – Why is climate important?
(Activity: produce a report based on how climate and biome affect lives)

- Climatic conditions help to shape various ecosystems and habitats around the globe.
- A particular climate can be important to one species and a devastating to another.
- As the climate changes, species and ecosystems respond by adapting, migrating, or reducing their population.

migration	*moving from one climate to another*
tourism	*visiting countries for holidays*

Unit Quiz