Why is climate important? Geography Knowledge Organiser: Owl Class Spring Term 1 2023

A **climate zone** is an area that has its own distinct climate. They also have their own type of vegetation and wildlife.
Some of these zones found around the world include:

- **Temperate** - Mild temperatures and moderate rainfall.
- **Tropical** -Warm temperatures and lots of rain.
- **Arid** - Hot temperatures and little rain.
- **Mountainous** - Cold temperatures and precipitation often falling as snow.
- **Polar** - Very cold temperatures and precipitation falls as snow.
- **Mediterranean** - Dry summers and mild, wet winters.

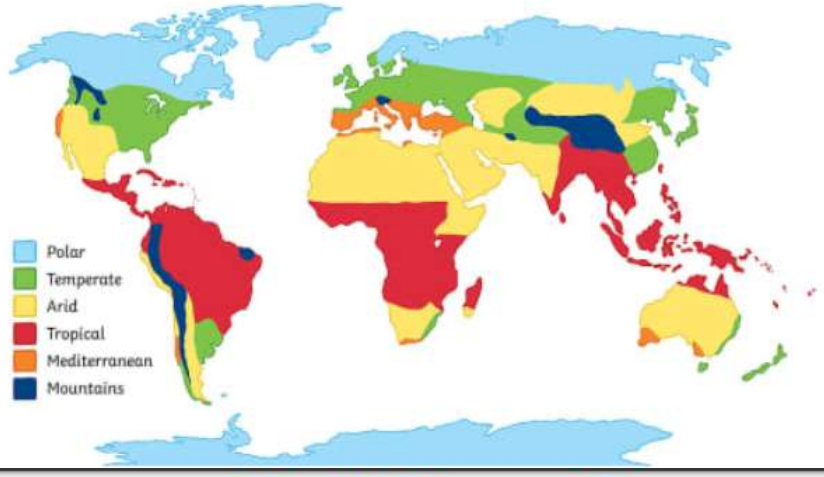
There is often confusion about the difference between weather and climate.

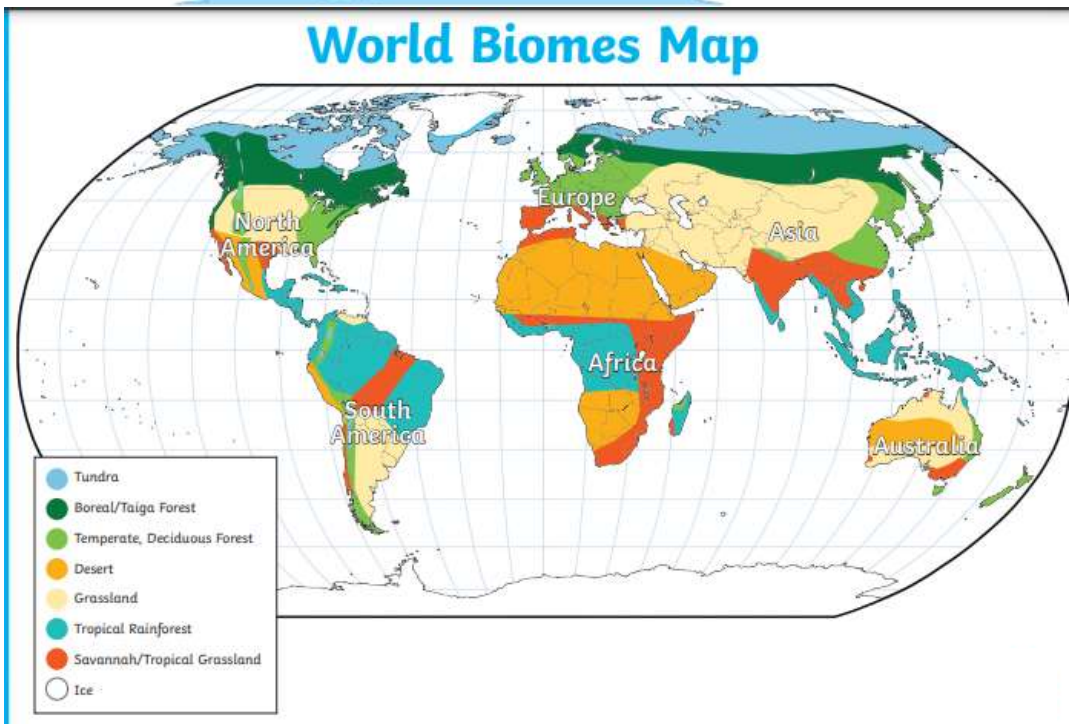
Weather is short term. It is what happens in our atmosphere from day to day. It includes precipitation, temperature, wind and humidity. Weather varies from place to place, from day to day and from season to season. The range of weather in a place is a characteristic of its climate.

Climate is long term. It refers to the average weather pattern of a place over many years. Climates can be predominantly hot, cold, wet or dry, hot and wet, hot and dry, and so on. The climate of a place affects the soil, flora and fauna of that place, and impacts on human activity in a variety of ways.

Biomes include deserts, forests, grasslands, tundra and aquatic environments. Biomes are defined collectively by the climate, soil, organisms, flora and fauna of a large geographical area. Each biome consists of many ecosystems whose communities have adapted to the small differences in climate and the environment inside the biome.

Each zone relates to a different biome. Biomes are communities of plants and animals that have adapted common characteristics, in order to survive in a certain environment and climate.





Vocabulary:

Flora - plants of a particular region or habitat

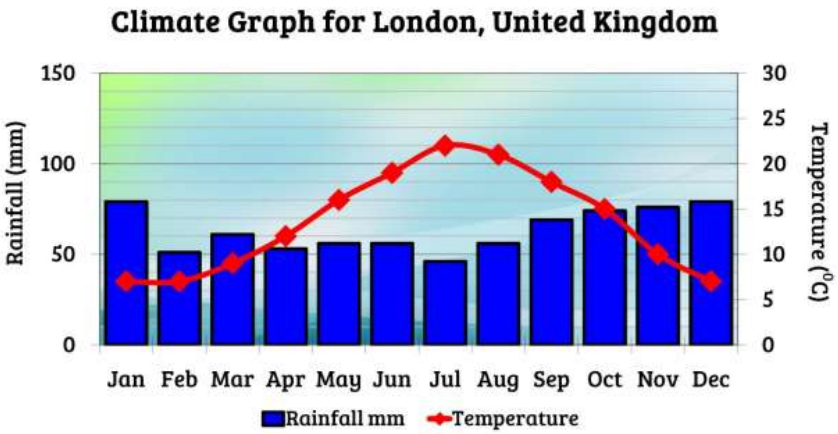
Fauna - the animals of a particular region or habitat

Equatorial - of, at, or near the equator

Northern Hemisphere - half of the Earth between the North Pole and the Equator

Southern Hemisphere - the half (hemisphere) of Earth that is south of the Equator

Taiga - the swampy and coniferous forest of high northern latitudes, especially that between the tundra and steppes of Siberia



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average high in °C	7	7	9	12	16	19	22	21	18	15	10	7
Average rain in mm	79	51	61	53	56	56	46	56	69	74	76	79

Permafrost -a permanently frozen layer on or under Earth's surface. It consists of soil, gravel, and sand, usually bound together by ice. Permafrost usually remains at or below 0°C (32ºF) for at least two years.

Climate (as shown in the graph above) is the average condition of the atmosphere taken over a period of time. It includes information on a variety of different aspects including rainfall and temperature.

Desert -an area of land that receives no more than 25 centimetres of precipitation a year. The amount of evaporation in a desert often greatly exceeds the annual rainfall. In all deserts, there is little water available for plants and other organisms.

Tropical rainforest a forest occurring in tropical areas of heavy rainfall. It is abundant with many species of wildlife and vegetation. Rainforests cover less than two percent of the Earth's surface. They are home to some 50 to 70 percent of all life forms on our planet.

Deciduous (of trees and shrubs) shedding all leaves annually at the end of the growing season and then having a dormant period without leaves

Subtropical - relating to parts of the world that are immediately south or north of the tropics (the hottest areas) and have very hot weather at some times of the year: a subtropical climate. Subtropical regions are cooler than equatorial regions.

Evergreen - any plant that retains its leaves through the year and into the following growing season. Many tropical species of broad-leaved flowering plants are evergreen, but in cold-temperate and Arctic areas the evergreens commonly are cone-bearing shrubs or trees (conifers), such as pines and firs.

Monsoon - a seasonal change in the direction of the strongest winds of a region. Monsoons cause wet and dry seasons throughout much of the tropics. Monsoons are most often associated with the Indian Ocean. Monsoons always blow from cold to warm regions.