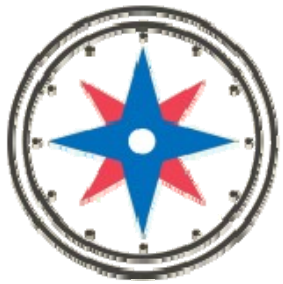


Compass points

Each blue point on the compass would be pointing to a direction. Can you name them all?



Challenge:

Can you name all of the red points? Can you come up with a mnemonic to remember them?

Daily Definition

Country (noun) : A nation with its own government, occupying a particular land or territory.

Could you make a list of the countries you know?

The Equator

The equator is an imaginary line circling the world, which separates the world into two hemispheres - The northern hemisphere and the southern hemisphere. At any point at the equator, you are exactly the same distance away from the North Pole as you are the South Pole.

The equator stretches 24,901 miles (40,075 kilometres) around the world, but only 13 countries lie on the equator. 2 of these countries don't actually have landmasses on the equator, just the oceans or seas belonging to them. Can you see which 2 countries do not have landmass touching the equator?



Your challenge:

Can you draw the flags of each of the countries which lie on the Equator?

You could also find out one fact about each of the countries.

People living on the equator experience the shortest sunrises and sunsets. Because these countries are exposed to near constant sunlight all year long, the countries intersected by the equator have much warmer temperatures year round than the rest of the world.

Even though they have fairly constant temperatures, there are dramatic differences in rainfall and humidity along the equator. Instead of the four seasons we experience, they have periods of time referred to as the wet season and dry season.

Interesting fact:

There is also another imaginary line called the magnetic equator, which doesn't follow the equator exactly, but here the magnetic attraction of the North and South poles is equal. A compass therefore will neither point north or south.

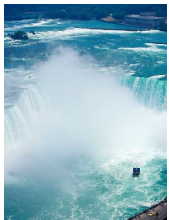


Worlds Tallest:

The world's highest uninterrupted waterfall is in Venezuela. It is named Angel Falls and is 979 metres tall, with a plunge of 807m.



Niagara Falls in Ontario is a well known waterfall that many people visit each year. The reason it is so popular is because it is the biggest waterfall in terms of volume of water. 150,000 gallons of water!



Daily Definition

Border (noun) : A boundary or a line separating countries or areas.

Could you make a list of the countries which share a border with England?

Continents

Continents are a large solid area of land. The Earth is made up of seven continents: Asia, Africa, North America, South America, Antarctica, Europe and Australia (sometimes called Oceania).

The continents were formed a very long time ago because the Earth is made up of tectonic plates - large pieces of rock which make up the surface of the Earth. Over time, these tectonic plates moved and continents were formed. The movement of the plates is also how islands, volcanoes and islets are formed.

Asia, with its 48 countries, is the largest continent: it has the biggest land area and the world's biggest population, with more than 4.4 billion people living on the continent. Asia is also home to the most highly populated cities such as Delhi, Tokyo and Beijing. Asia is also home to the third longest river in the world, the Yangtze River, in China. Mount Everest is located in the Himalayan mountain range which is in Asia.

Oceania or Australia is the smallest continent of the planet by landmass. It includes 14 countries, including Australia, Polynesia, New Zealand and other islands. More than 250 language are spoken on this continent.

Antarctica is the smallest continent by population numbers, even though it is a huge continent. There are no permanent residents who live in Antarctica at all times. Instead, there are research stations for scientists.

Challenge:



Here are the shapes of the continents. See if you can locate them on a map.

You should be able to name each continent.

Can you explain why we don't *technically* live on a continent?

Interesting fact:

Although there are seven continents, there is actually a five continent model.

The five continent model groups North and South America together to make 'The Americas' and also groups Asia and Europe to make 'Eurasia'



Worlds Tallest:

The world's tallest mountain is Mount Everest which is a mountain in the Himalayan mountain region, Asia. It is actually located in two countries: Nepal and Tibet, China.



Although Everest is the world's highest mountain, it is technically not the world's tallest mountain. Mauna Kea is actually taller when you measure it from base to summit. However, most of Mauna Kea is below sea level so it doesn't count.

Daily Definition

Continent (noun): a large solid and continuous area of land.

Could you make a list of the continents you know and a country within each of them?

Tropic of Cancer and Tropic of Capricorn

Like the equator, the Tropics of Cancer and Capricorn are imaginary lines which run around the whole of the Earth.

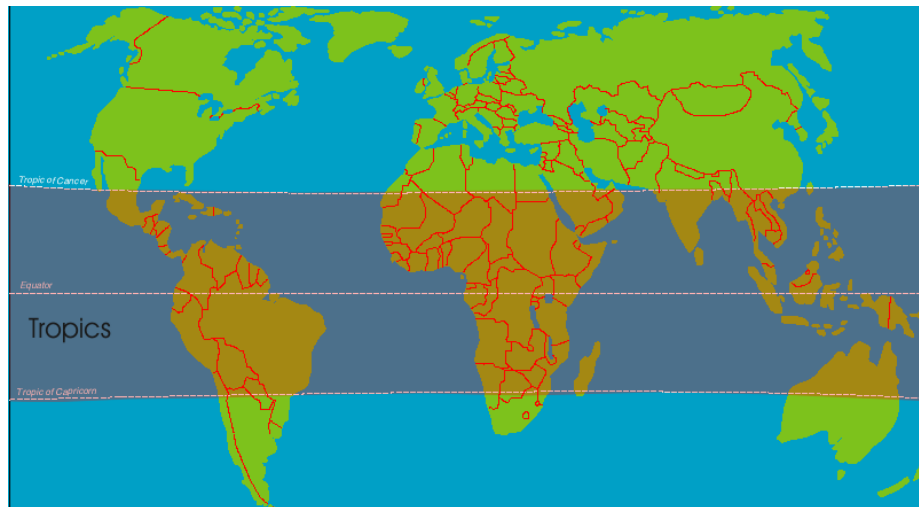
The Tropics of Cancer and Capricorn are to do with the position of the sun at different times of year.

You may have heard of the Summer and Winter Solstice. The Summer Solstice is June 21st and the Winter Solstice is December 21st. In the Northern Hemisphere, June 21st is the longest day, in terms of hours of daylight, and December 21st is the shortest day.

During each Solstice, the sun hits the imaginary line at a 90° angle, meaning if you were standing on the line of the Tropic of Cancer on the summer solstice (21st June) the sun would be directly above your head.

There are 16 countries, 3 continents and 6 bodies of water that the Tropic of Cancer passes through. Can you name any of them?

There are 10 countries, 3 continents and 3 bodies of water that pass through the Tropic of Capricorn. Can you name any of them?



Most of the world's rainforests are located within the Tropic of Cancer and the Tropic of Capricorn.

The countries located within the two bands do not see greatly changing temperatures. Instead, their seasons are dependant on rainfall. They have the wet season and the dry season.



The Seven Wonders of the Ancient World

- The Great Pyramid of Giza, Egypt
- The Hanging Gardens of Babylon
- The Statue of Zeus at Olympia, Greece
- The Temple of Artemis at Ephesus
- The Mausoleum at Halicarnassus
- The Colossus of Rhodes
- The Lighthouse of Alexandria, Egypt

Only one of the ancient wonders of the world remains relatively intact. Do you know which one it is?

Daily Definition

Climate (noun) : The weather conditions of a certain area which are constant over a period of time.

Could you find information about England's climate and create a bar or line graph to show this?

Rainforests

A rainforest is a dense area of mostly evergreen trees, which are subject to a high amount of rainfall. Rainforests are typically found in tropical areas, but there are also temperate rainforests found in Europe and North America. In fact, rainforests have thrived on all continents, except Antarctica. Rainforests are extremely diverse, and are home to more than half of the world's plant and animal species.

Rainforests are structured into four layers. **Can you remember the names of all four?**

Emergent Layer

This is the first layer of the rainforest and consists of towering trees which protrude above the rest of the plants. These trees can be as tall as 70-100m from the ground. Because they reach so high, they receive direct sunlight, rain and wind, which can cause them to dry or strain. These trees, therefore, have small waxy leaves to help withstand the conditions.

Canopy Layer

During the day, the canopy layer becomes the hottest part because of the overlapping trees and leaves. The canopy blocks wind, rainfall and sunlight so creates a dark environment below.

Understory

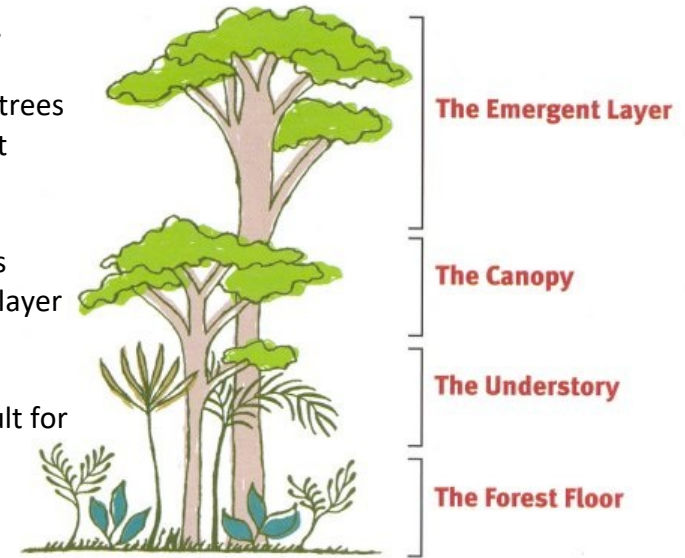
This layer of the rainforest is more humid and damp and consists of shrubs, herbaceous plants and young trees that are well adapted to low levels of sunlight. The trees in this layer come in a wide variety of shapes and sizes.

Forest Floor

This is the bottom layer of a rainforest. It is also the darkest layer which makes it difficult for plants to grow. Leaves, which fall to the floor, decay quickly in this layer.

Challenge:

Create your own diagram showing layers of the rainforest.





Time Zones

Time zones are divided by imaginary lines called **meridians** which run from the North Pole to the South Pole.

The Prime Meridian runs through an area of London called Greenwich.

Time in countries to the east of the Prime Meridian is always in front of that in the UK. Time in countries to the west of the Prime Meridian is always behind that of the UK.

Can you find the time difference between the UK and 5 other countries?

Daily Definition

Biome (noun): large naturally occurring community of flora and fauna occupying a major habitat. A biome is a community which has been formed because of their shared climate.

Could you make a list of the different types of biome?

Animals of the rainforest

Because of the diverse nature of each layer, the animals which are found differ in each layer. Each animal is adapted to their own layer of the rainforest and can survive in the challenging conditions they provide.

Emergent

The branches in the canopy are thin and cannot support heavy weights: animals which live there are usually the flying and gliding ones. You may see birds such as Harpy Eagles, Scarlet Macaws and butterflies. There are some monkeys which can be found in the canopy layer. These include capuchin and squirrel monkeys. ***Why do you think these species of monkey can be found here?***

Canopy

It is thought that 90% of all rainforest species live in this layer. Because of the overlapping leaves, the canopy layer can be extremely dark. This makes it harder for animals to see each other therefore the animals living in this layer developed loud calls and sounds to communicate. Animals such as the Bornean Orang-utan, tree frogs and lizards live here.

Understory

This layer requires animals which are adapted to low sunlight. Insects, snakes, lizards, monkeys and jaguars are just some of the animals which live in this layer.

Forest Floor

Animals residing here include elephants, jaguars, tapirs and bearded pigs. The animals here have developed various adaptations and strategies to survive, and avoid being eaten by larger predators.

Challenge:

Choose an animal from each layer of the rainforest, create a fact file or report about each one.

Draw and sketch your favourite rainforest animal.

