



# OUR LIVING PLANET



## WHY IS EARTH A UNIQUE PLANET IN OUR SOLAR SYSTEM?

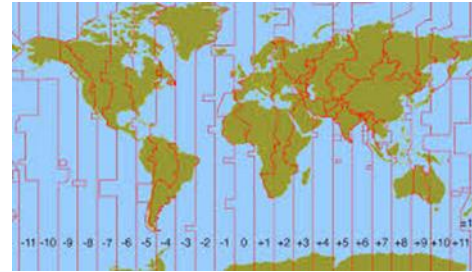
### What are Time Zones?

As the Earth rotates on its axis, the Sun only shines on the side of the Earth that it is facing. This means it is daytime for the parts of the Earth that have the Sun shining on them and is night-time for places that are on the opposite side of the Earth and are in the shade.



As it is night in some parts of the world while it is day in other parts, different places in the world have different times. This is why the world is divided into **24 different time zones**.

Time zones are divided by imaginary lines called **meridians** (the red lines on this map) which run from the North Pole to the South Pole. The lines are more or less straight, but sometimes they have to wiggle about so that whole countries can be in the same time zone.



Very large countries that are spread out across many time zones, such as Russia or the USA, are divided into separate time zones.

### What is Greenwich Mean Time?

When people started to travel more, they decided to choose one standard time that everyone could use – the time at the Royal Observatory in Greenwich, London. This was called **Greenwich Mean Time** but is now known as **Coordinated Universal Time (UTC)**.

There is an imaginary line running through the UK called the **Prime Meridian**. It runs through Greenwich.



The Prime Meridian splits the world into eastern and western hemispheres. 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.

### What is the International Date Line?

The International Date Line is an imaginary line on the opposite side of the world from the Prime Meridian. When it is noon along the Prime Meridian, it is midnight along the International Date Line.



The date becomes one day later as one travels across it in western direction, and one day earlier as one travels across it in eastern direction.

It is possible to travel backwards and forwards in time!

### What is a Biome?

A biome is a large area of land with a particular climate, types of plants (flora) and animals (fauna).

The six major land biomes are:

Name of biome	Key Features	Flora	Fauna
<b>Tropical Rainforest</b>	<ul style="list-style-type: none"> <li>Very steady temperature between 20°C and 25°C</li> <li>Rains all year round</li> <li>Trees are very tall and varied</li> <li>Most plants are evergreen, not deciduous</li> </ul>	<ul style="list-style-type: none"> <li>Bamboo</li> <li>Banana Trees</li> <li>Rubber Trees</li> <li>Cassava</li> <li>Cacao Tree</li> </ul>	<ul style="list-style-type: none"> <li>Jaguars</li> <li>Parrots</li> <li>Frogs</li> <li>Orangutan</li> <li>Sloth</li> <li>Snakes</li> </ul>
<b>Temperate Deciduous (Broadleaf) Forest</b>	<ul style="list-style-type: none"> <li>Temperature ranges from -30°C and 30°C</li> <li>Goes through all four seasons</li> <li>Range of trees: most lose their leaves in the autumn</li> <li>Even rainfall throughout most of the year</li> </ul>	<ul style="list-style-type: none"> <li>Broad-leaved trees that lose their leaves in winter such as beech and oak</li> </ul>	<ul style="list-style-type: none"> <li>Deer</li> <li>Foxes</li> <li>Porcupines</li> <li>Squirrels</li> <li>Mice</li> <li>Owls</li> <li>Doves</li> </ul>
<b>Coniferous Forest (Taiga)</b>	<ul style="list-style-type: none"> <li>Temperature ranges from -54°C and 30°C</li> <li>Low average temperature</li> <li>Most of the trees are evergreen</li> <li>Largest land biome</li> </ul>	<ul style="list-style-type: none"> <li>Evergreen trees with needles (rather than leaves) such as pines and spruces</li> </ul>	<ul style="list-style-type: none"> <li>Brown bears</li> <li>Squirrels</li> <li>Owls</li> <li>Wood ants</li> </ul>
<b>Tundra</b>	<ul style="list-style-type: none"> <li>Temperature ranges from -34°C and 6°C</li> <li>Coldest of all the biomes</li> <li>Little rain, lots of frost and permafrost</li> <li>No trees grow and only a few small plants</li> </ul>	<ul style="list-style-type: none"> <li>When the surface melts, small plants can grow for a little while before it freezes again.</li> </ul>	<ul style="list-style-type: none"> <li>Polar bears</li> <li>Seals</li> <li>Reindeer</li> <li>Arctic foxes</li> </ul>
<b>Grasslands (Savannah)</b>	<ul style="list-style-type: none"> <li>Dry season and a rainy season</li> <li>Temperature ranges from -40°C and 40°C</li> <li>Mostly grass grows and the occasional, individual tree</li> </ul>	<ul style="list-style-type: none"> <li>Clumps of grasses and a few trees</li> </ul>	<ul style="list-style-type: none"> <li>Eagles</li> <li>Cheetahs</li> <li>Elephants</li> <li>Giraffes</li> <li>Antelopes</li> <li>Zebras</li> <li>Bison</li> </ul>
<b>Desert</b>	<ul style="list-style-type: none"> <li>Temperatures over 50°C in the day and below freezing (0°C) at night</li> <li>Very few clouds and very little rain</li> <li>Very few plants (flora) or animals (fauna)</li> </ul>	<ul style="list-style-type: none"> <li>Tough plants like cacti and shrubs</li> </ul>	<ul style="list-style-type: none"> <li>Fennec foxes</li> <li>Meerkats</li> <li>Lizards</li> <li>Camels</li> <li>Snakes</li> <li>Spiders</li> <li>Geckos</li> </ul>
