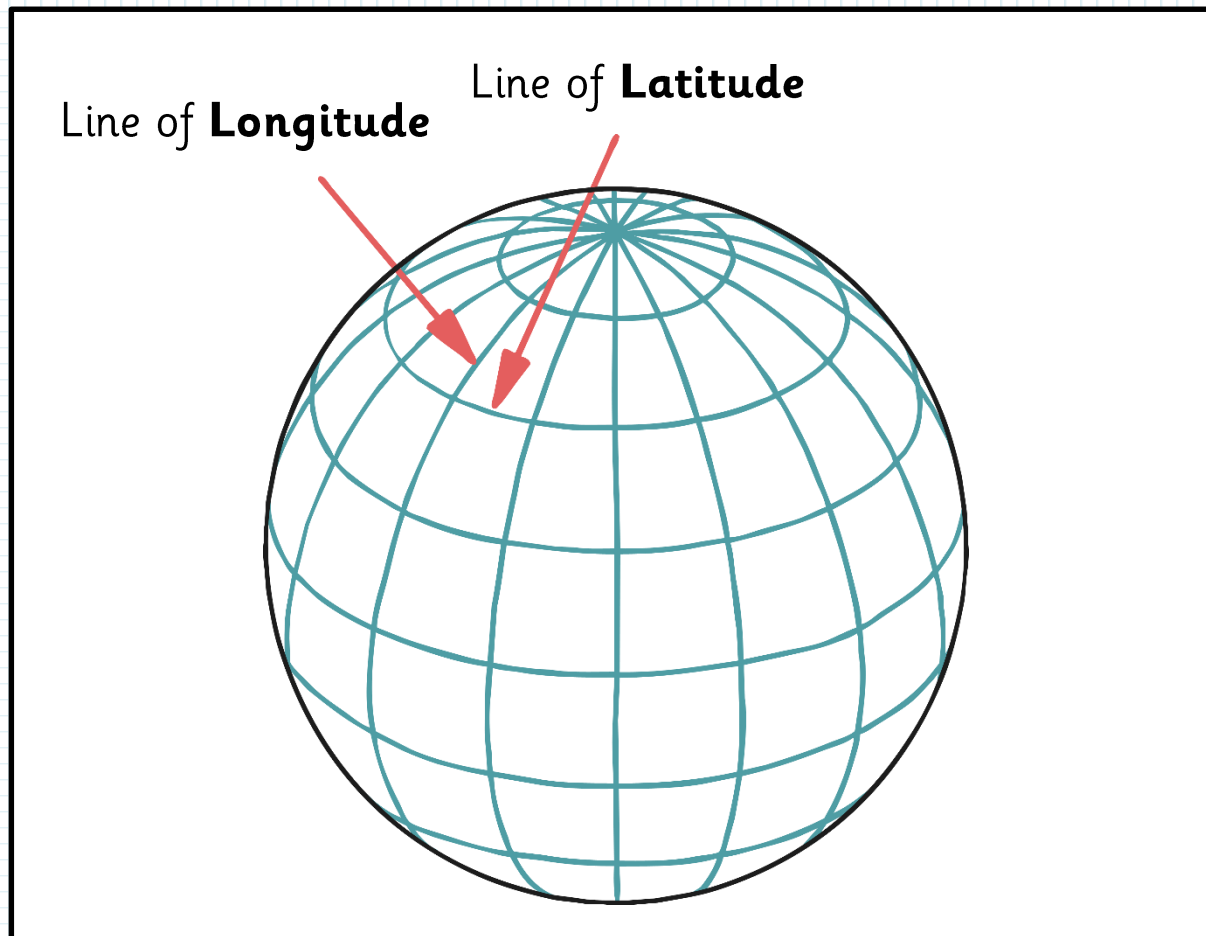


Invisible Lines of the Earth **Lines of Longitude and Latitude**

How is it possible to find the exact location of a place on Earth?

Latitude and Longitude

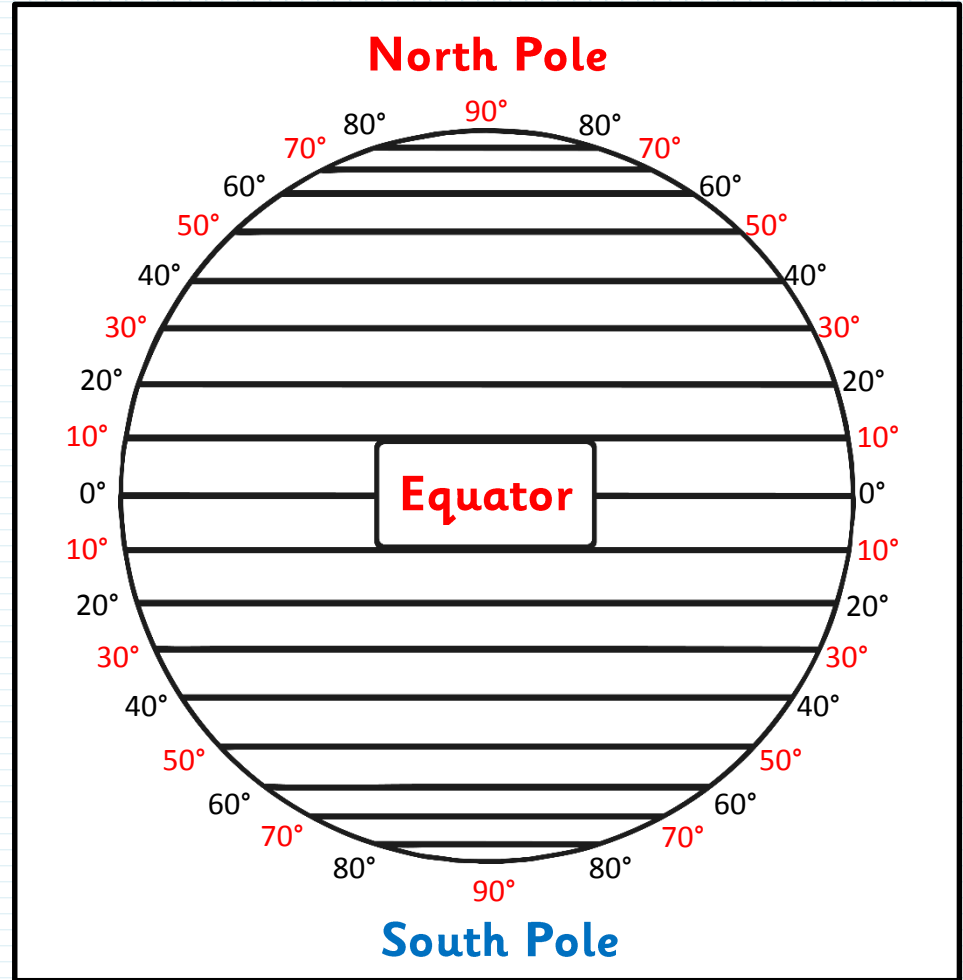
Invisible lines of latitude and longitude form a grid over the Earth. These lines help to create a co-ordinate to locate a place accurately.



Latitude

Lines of latitude (also known as **parallels**) circle the Earth from east to west. These invisible lines are all the same distance apart.

- As you can see from the diagram, the Equator lies at 0 degrees.

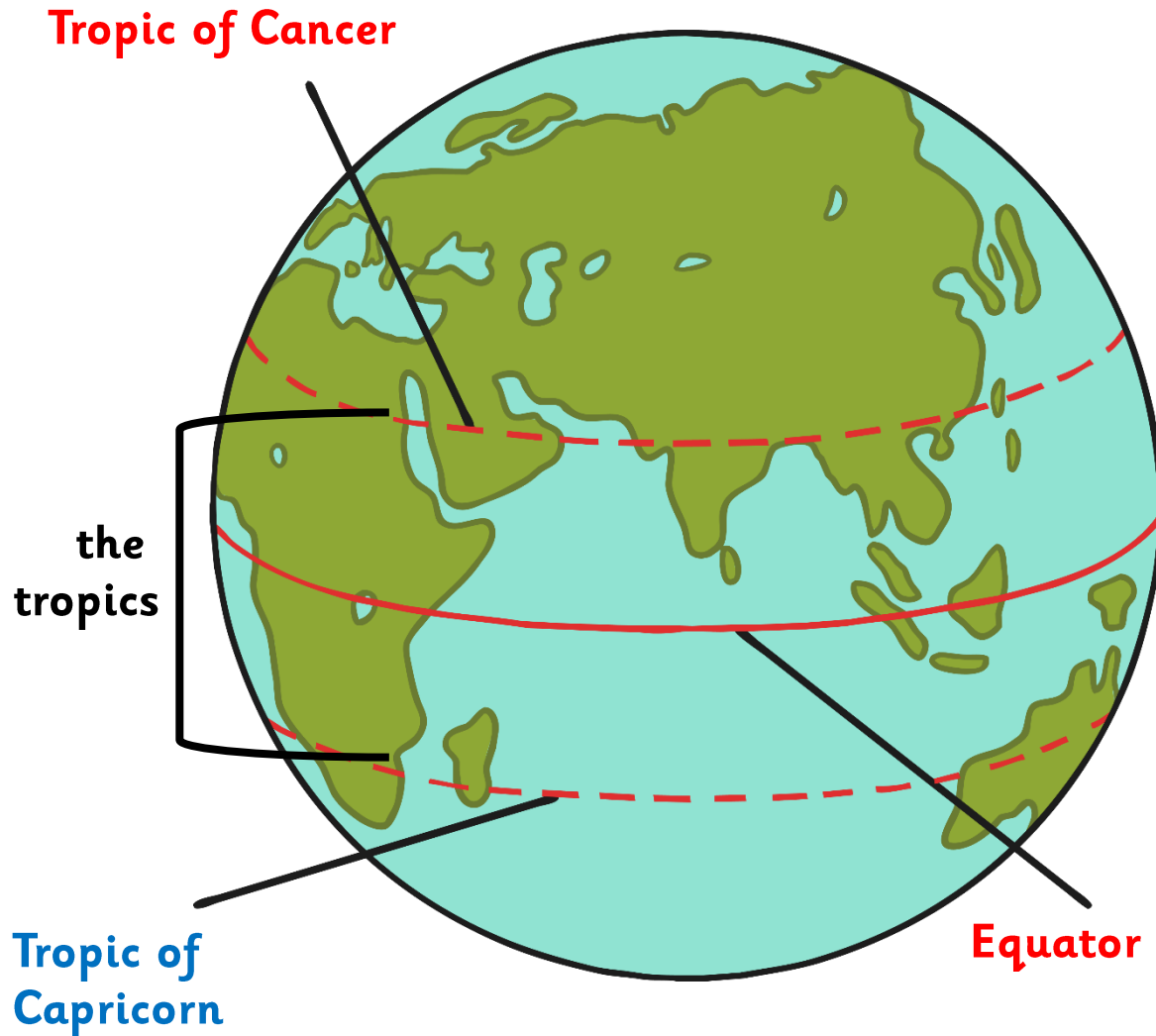


The Equator is an important line of latitude. It is an imaginary line half way between the North and South Poles. Countries near to the Equator are very hot as this is the Earth's closest point to the Sun.

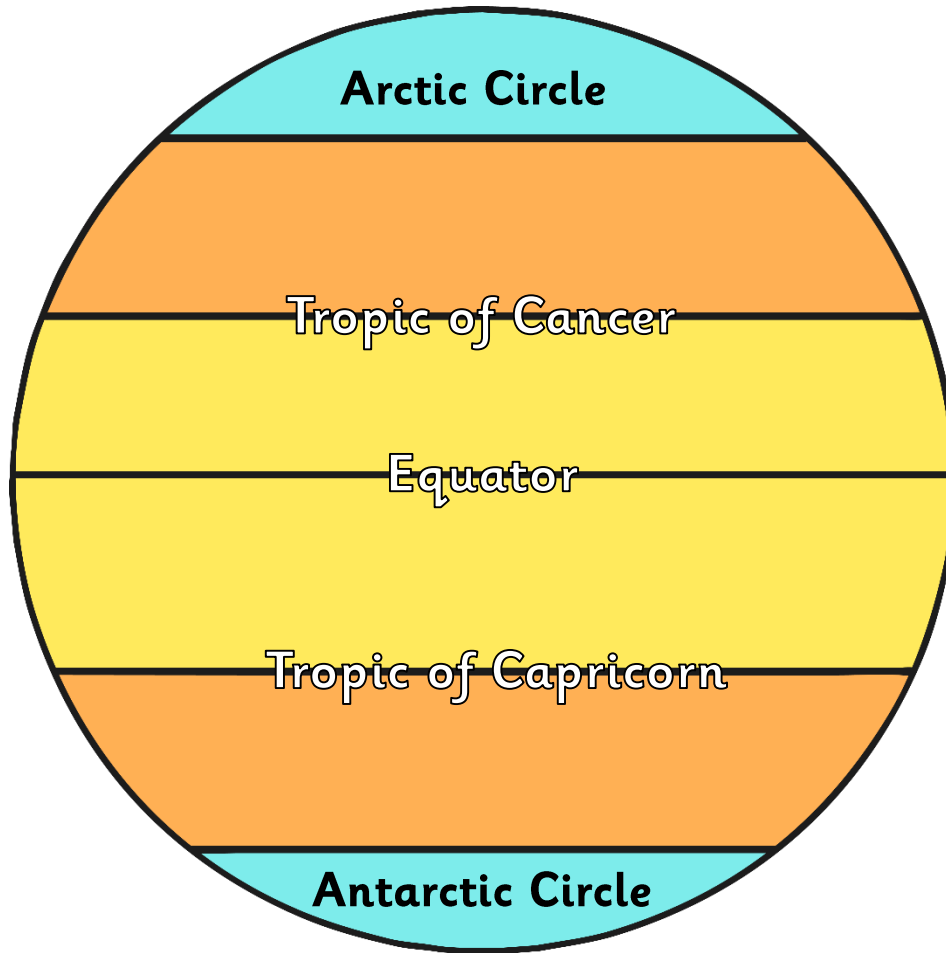
Other Important Lines of Latitude

The **Tropic of Cancer** lies at **23.5 degrees north** and the **Tropic of Capricorn** lies at **23.5 degrees south** of the **Equator**.

The area of the Earth which lies between both of these lines is called **the tropics**.

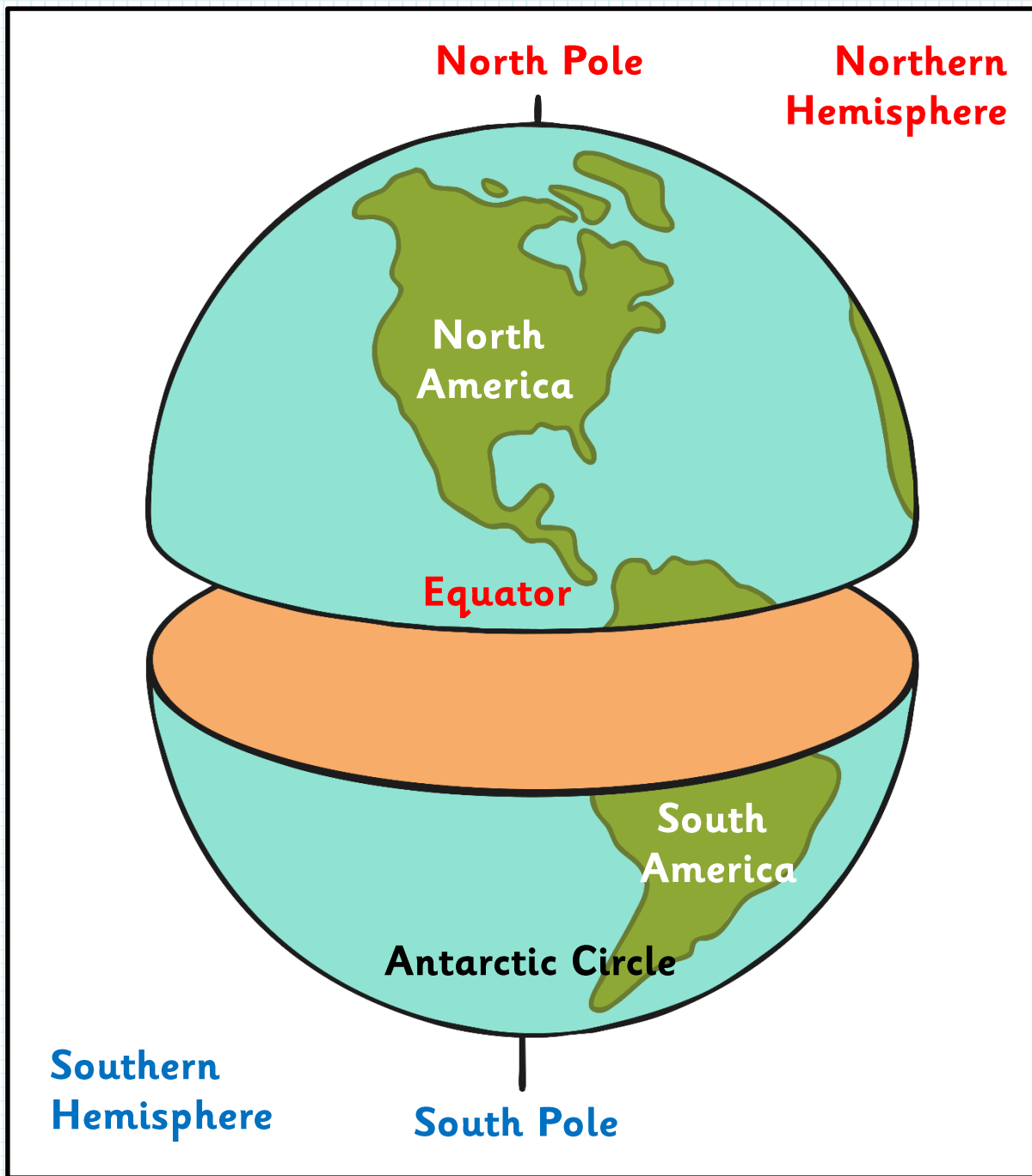


Other Important Lines of Latitude



The **Arctic Circle** lies at **66.5 degrees north** whilst the **Antarctic Circle** lies at **66.5 degrees south**.

The areas in blue and orange are those which have 4 distinct seasons.

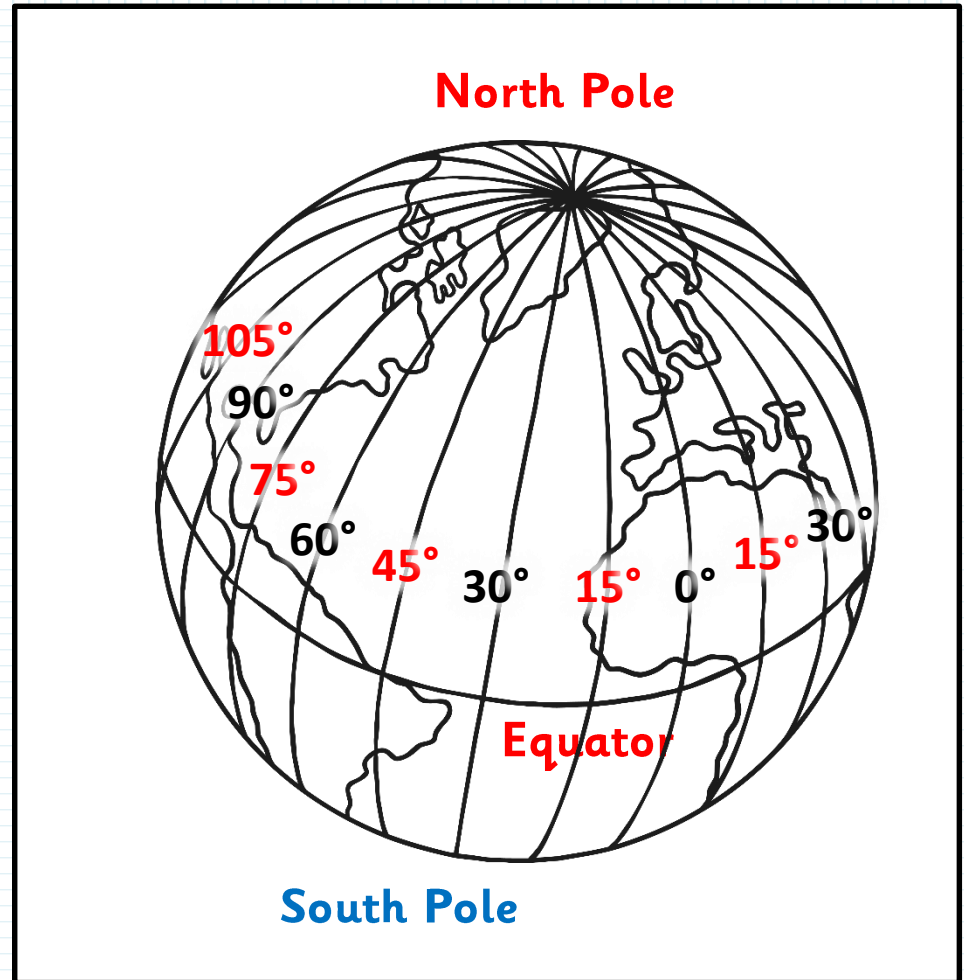


Imagine the
Earth cut
in half...

The **Northern Hemisphere** is anywhere north of the Equator whilst the **Southern Hemisphere** is anywhere south of the Equator.

Longitude

- These are the lines which run north and south and are known as lines of longitude or meridians of longitude. These lines are measured in the same way as the lines of latitude.
- Lines of longitude are not equal distances (equidistant) from each other.
- The Prime Meridian or Greenwich Meridian line is a line of longitude at 0 degrees.
- It passes right through Greenwich in London.



How do we use this information to locate a place?

- We use numbers and letters to create a co-ordinate.
- Within the co-ordinate, the $^{\circ}$ stands for degrees and the ' stands for minutes.
- The letters relate to north, south, east or west and are shown as capitals.
- The latitude is always given first.
- To locate Florida, USA using this principle we would say it has the following co-ordinates: $28^{\circ}00'N$ $82^{\circ}00'W$.

Other cities:

- Edinburgh - $55^{\circ} 57' N$ $03^{\circ} 17' W$
- Canberra - $35^{\circ} 15' S$ $149^{\circ} 8' E$
- Yamoussoukro - $6^{\circ} 49' N$ $5^{\circ} 17' W$
- Madrid - $40^{\circ}25'N$ $03^{\circ}45'W$

Look at the map on the next slide and see if you can find these places!



The World

