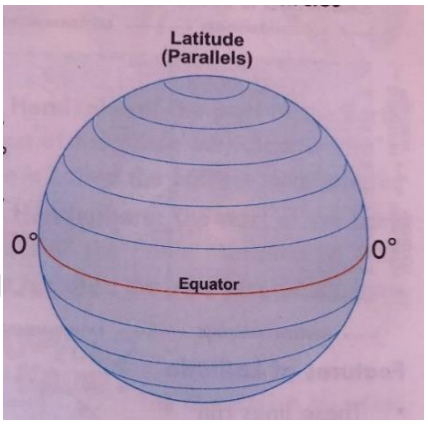
LATITUDES

Latitudes

Lines of Latitude are east-west circles around the globe. Equator is the 0˚ latitude. It runs throughthe centre of the globe, halfway between the north pole and the south pole which are at 90˚.



Equator 0˚

North pole 90˚N

South pole 90˚S

The Equator divides the Earth into two equal halves called hemispheres

Northern Hemisphere: The upper half of the Earth to the north of the equator is calledNorthern Hemisphere.

1. Southern Hemisphere: The lower half of the earth to the south of the equator is calledSouthern Hemisphere.

Features of Latitude

- These lines run parallel to each other. They are located at an equal distance from eachother. They are also called Parallels.
- All Parallels form a complete circle around the globe. North Pole and South Pole arehowever shown as points.
  Equator is the biggest circle. The circles gradually become shorter as we move away fromthe equator towards the poles.

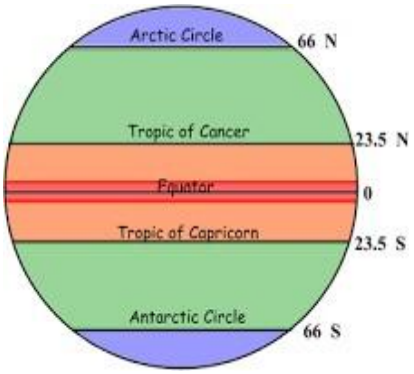
Numbering of the Parallels

- The numbering of the parallels starts from the equator which is located at 0˚.
- Parallels are marked from 0˚ to 90˚ degrees.
- Parallels are drawn at the interval of 1˚.
- There are 90 parallels in the Northern Hemisphere, and 90 in the Southern Hemisphere. Thus there are 181 parallels in all including the Equator.
- The parallels in the Northern Hemisphere are marked ‘N’ and the parallels in theSouthern Hemisphere are marked ‘S’.

Important Parallels

There are some other special parallels which have been given special names. They are:

23½˚	N latitude	Tropic of Cancer
23½˚	S latitude	Tropic of Capricorn
66½˚	N latitude	Arctic Circle
66½˚	S latitude	Antarctic Circle

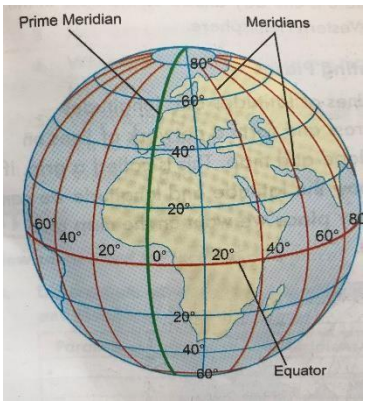


Latitudes tell us how far north or south from theequator a place is.

Longitudes

Longitudes

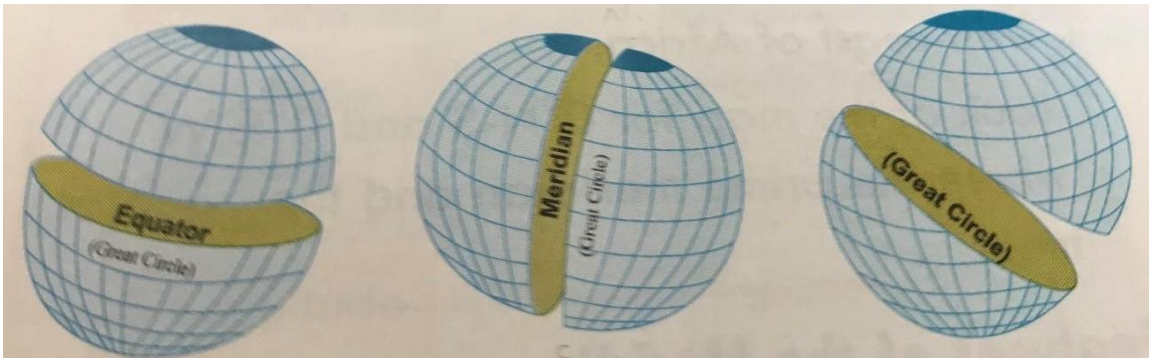
The semicircles running from North to South on a globe or map are called Lines of Longitudes ormeridians.



The Prime Meridian is the most important line of longitude. It islocated at zero degrees longitude (0˚). The Prime Meridian runs
through Greenwich, a place near London. It is the starting point fornumbering meridians.

Greenwich Meridian

It divides the Earth in two halves from top to bottom:



Eastern Hemisphere The part of the Earth to the east of the Prime Meridian to 180˚ longitude iscalled the Eastern Hemisphere.

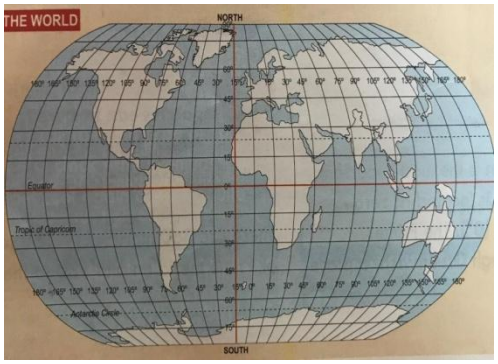
Western Hemisphere The part of the Earth to the west of the Prime Meridian to 180˚ longitude iscalled the Western Hemisphere.

There are 360 meridians- 180 to the east and 180 to the west of the Prime Meridian. The meridians in the Eastern Hemisphere are marked as 'E' and meridians in the Western Hemisphere are markedas 'W'.

The meridian of 180˚ E and meridian of 180˚ W are in the same line. Longitude describes how fareast or west a place is located from the Prime Meridian.

Features of the Meridians

- Unlike latitudes all meridians are of the same length.
- The distance between two meridians is greatest at the equator.
- As we move away from the equator towards the poles, the distance between the meridian gradually decreases.
- Meridians cut the latitudes at right angles.



Locating places

The lines of latitudes and longitudes crisscross and form a network of lines on the globe and map. This is called a grid. Ifwe know the latitude and longitude we can find any place wewant on the map or a globe. the intersection of latitude and longitude lines, i.e. the place where they meet, is called coordinates it helps in identifying the exact location of a place.

Longitude and Time

Since the earth makes one complete revolution of 360° in one day or 24 hours, it passes through **15° in one hour** or **1° in 4 minutes.**

- The earth rotates from west to east, so every 15° we go eastwards, local time is advanced by 1 hour. Conversely, if we go westwards, local time is retarded by 1 hour.

- We may thus conclude that ***places east of Greenwich see the sun earlier and gain time, whereas places west of Greenwich see the sun later and lose time***.
- If we know G.M.T., to find local time, we merely have to add or subtract the difference in the number of hours from the given longitude.