

SESSION : 5

CLASS :V

SUBJECT : (SOCIAL SCIENCE)

CHAPTER NUMBER: 1

CHAPTER NAME : The Globe - A Model of the Earth

SUBTOPIC : Marking longitudes, Features of longitudes, The Global Grid

CHANGING YOUR TOMORROW

LEARNING OBJECTIVE

Children will come to know:

1. The imaginary lines of longitudes.
2. The important lines of longitudes.
3. The features of longitudes.

RECAPITULATION:

WHAT ARE LATITUDES?

Lines of latitude are imaginary lines drawn on the globe that run parallel to the equator. They are also known as parallels.

FEATURES OF LATITUDES:

1. Latitudes run parallel to each other in east-west direction.
2. They are at an equal distance from each other.
3. All of them form complete circles, except the North and South poles, which are points.
4. The latitudes decrease in length as you move from the equator towards the pole.
5. Lines of latitude mark the distance of a place north and south from the equator.

IMPORTANT LATITUDES:

Other than Equator there are four other important latitudes. These are-

Tropic of Cancer at $23\frac{1}{2}^{\circ}\text{N}$

Arctic Circle at $66\frac{1}{2}^{\circ}\text{N}$

Tropic of Capricorn at $23\frac{1}{2}^{\circ}\text{S}$

Antarctic Circle at $66\frac{1}{2}^{\circ}\text{S}$

WHAT ARE LONGITUDES?

Lines of longitude are imaginary lines drawn on the globe that run from the North Pole to the South Pole. They are also known as meridians.

MARKING LONGITUDES:

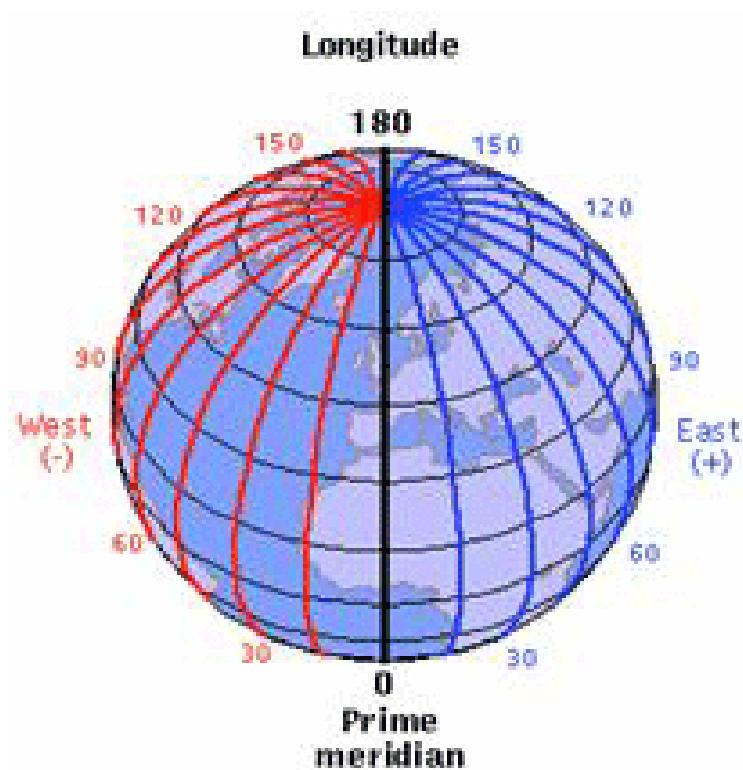
Longitudes are marked with the help of degrees.

-The Prime Meridian is the 0° line of longitude.

The longitude running through the old Royal Observatory at Greenwich near London is marked 0° . It is called the **Greenwich**

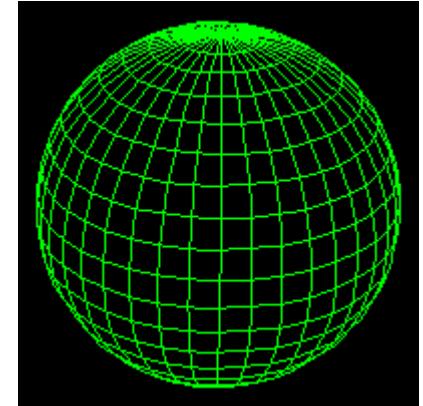
Meridian or the **Prime Meridian**.

- The **International Date Line** is the 180° line of longitude.



FEATURES OF LONGITUDES:

1. Longitudes mark the distance of a place east or west of Prime Meridian.
2. Longitudes are numbered from the Prime Meridian (0 degree). They increase in value eastwards and westwards till they meet 180° longitude, which lies opposite of the Prime Meridian .
3. Longitudes or Meridians to the east of Prime meridian are numbered E and numbered W to the west of Prime meridian.
4. The meridians are equal in length and form semi-circles.
5. The distance between two meridians is not equal. They are farthest apart at the equator, and come closer towards the poles.
6. There are 360 meridians. 180 lines to the east of Prime meridians ,and 180 to the west of it.
7. The prime meridian and the 180°longitude together divide the Earth into two hemispheres – the Eastern Hemisphere and the Western Hemisphere.



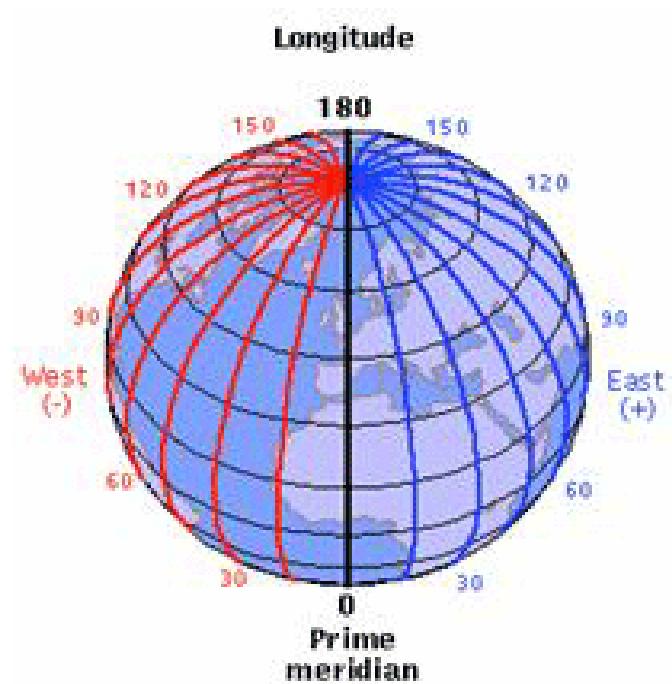
IMPORTANT LONGITUDES:

GMT

GMT is Greenwich Mean Time through which the 0° degree longitude i.e Prime Meridian has passed .The GMT is used to calculate the time at all other places on the Earth .It is also used to calculate the longitude of a place.

IDL

IDL is the International Date Line roughly follows the 180° longitude.This line marks the place where the calendar date changes from one date to the next date.

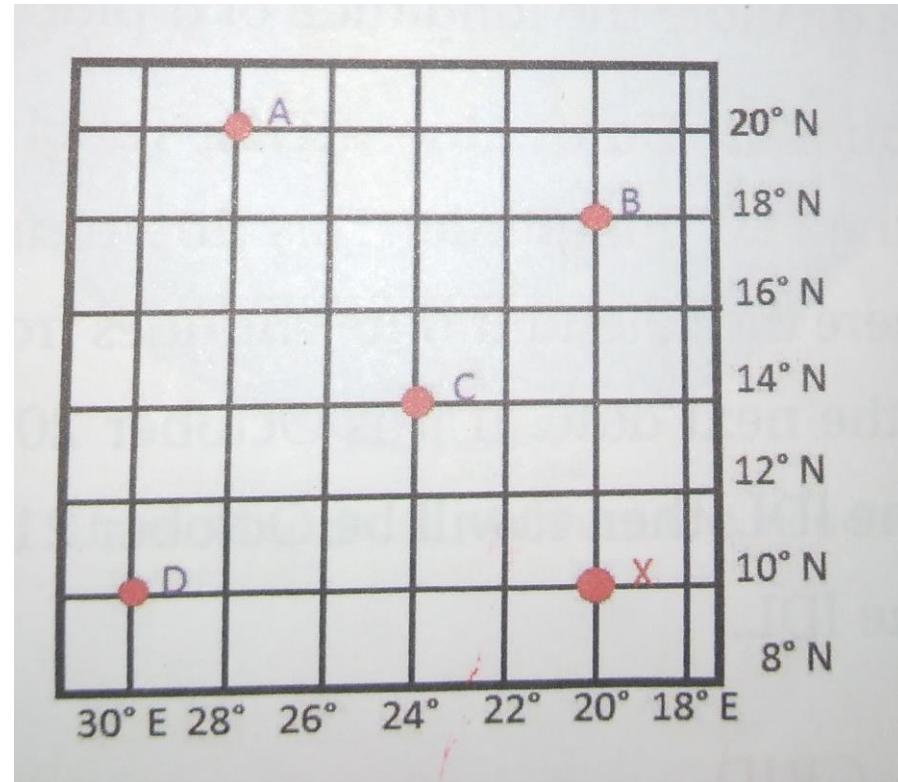


GRID:

A network of lines that cross each other to form a series of squares or rectangles is called grid.

Study the grid and write down the location of the cities **A, B, C, D**.

Always write the latitude first and then the longitude. For example, the city X is located at 10°N and 20°E .



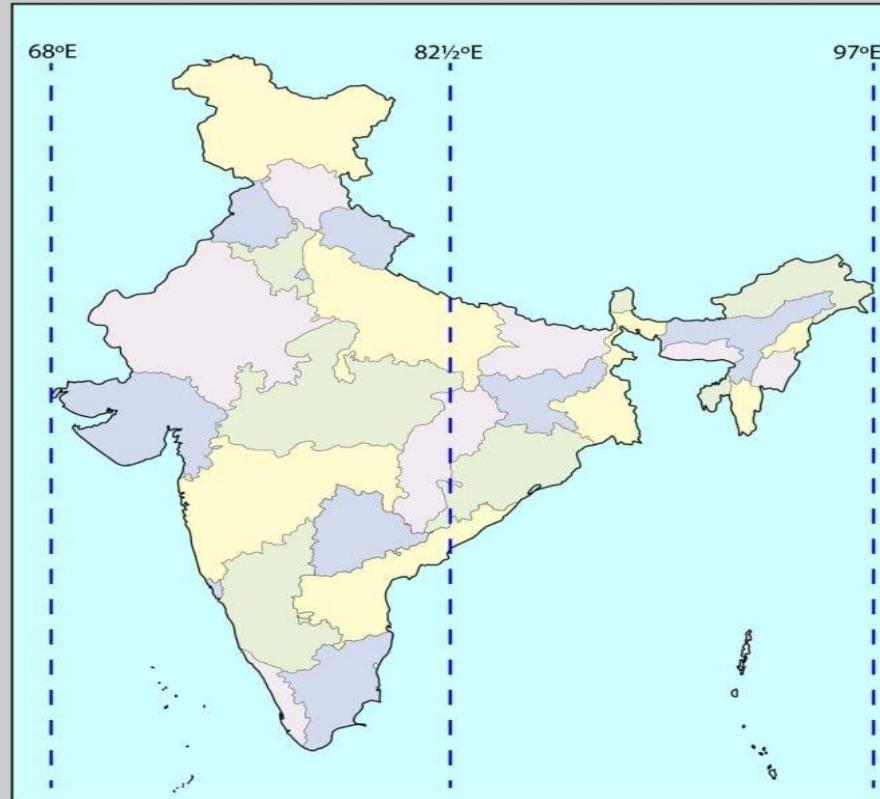
Global Grid:

The latitudes and longitudes together form a network of lines, or a grid, on the globe. This is known as the global grid. If we know the longitude and latitude of a place we can locate it accurately on the global grid.



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Longitudinal extent of India

SUMMING UP:

WHAT ARE LONGITUDES?

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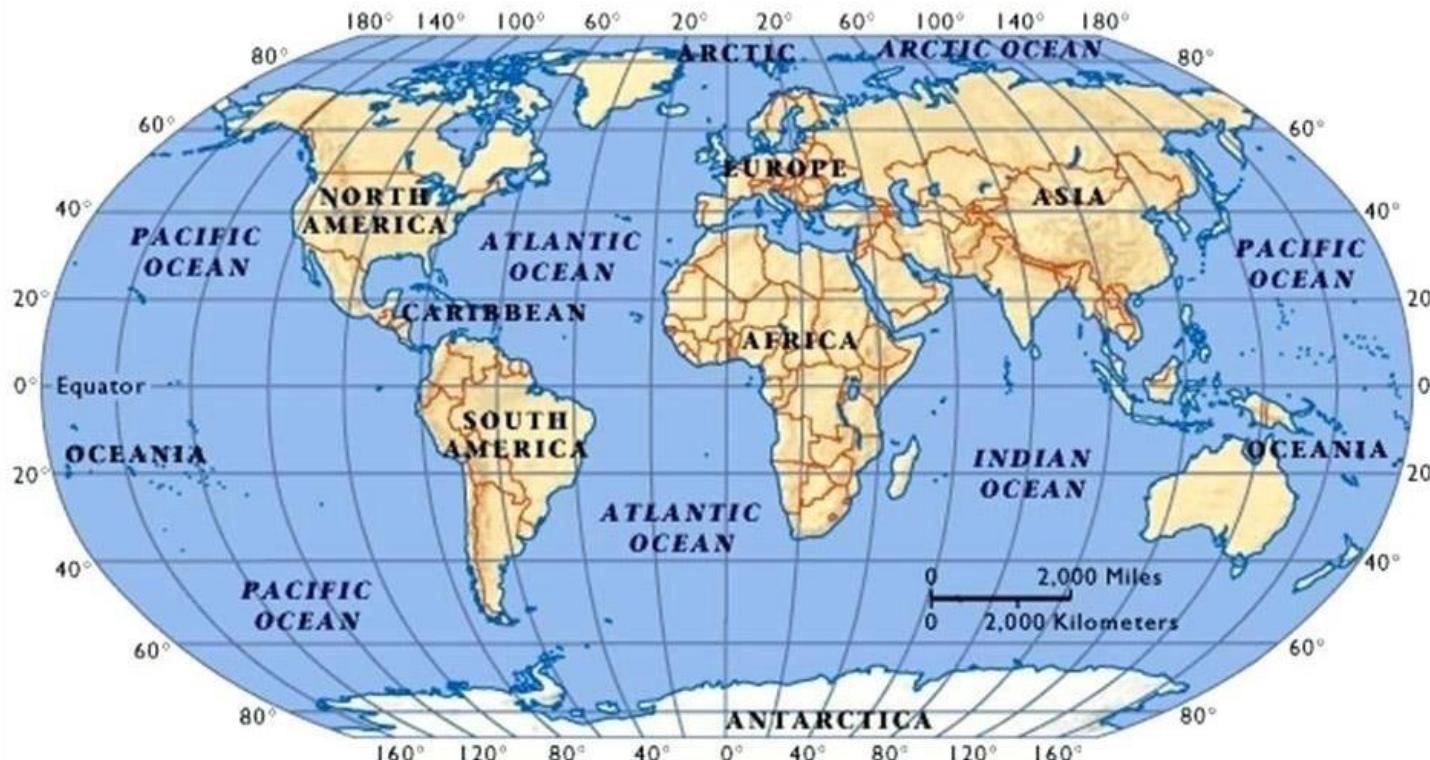
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DID YOU KNOW?

The GPS (Global Positioning System) locates the places with the help of Global Grid.

Quick Check:



LEARNING OUTCOME:

By the end of the class, children will be able to:

1. Explain what lines of latitudes are
2. Name the main lines of latitudes
3. List the main features of lines of latitudes

HOME WORK:

- 1. Draw the diagram of the Globe with latitudes and longitudes in the project record.**
- 2. Do worksheet No. 1 to 4.**

**THANKING YOU
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