
Chapter – 2 Geography

Globe: Latitudes and Longitudes

- A globe is a true model of the earth.
 - The globes are of varying sizes and types.
 - Globe can be rotated in the same way as a top spin or potter's wheel is rotated.
 - **Axis**-The imaginary line passing through the centre of the earth and joining the two points.
 - A needle is fixed through the globe in a titled manner, which is called its axis.
 - Another imaginary circular line running on the globe divides it the earth into two equal parts. This line is called as **Equator**.
 - The northern half of the earth is known as the Northern Hemisphere and the southern half is called the Southern Hemisphere.
 - All parallel circles from the equator up to the poles are called parallels of latitudes.
 - The equator represents the zero degree latitude.
 - Besides the equator (0 degree celcius), the North Pole 90 degree North), the South Pole (90 degree South), there are four important parallels of latitude - Tropic of Cancer $\left(23\frac{1}{3}^{\circ} \text{ N}\right)$ in the Northern Hemisphere, Arctic Circle at $66\frac{2}{3}^{\circ} \text{ N}$ north of the Equator and Antarctic Circle at $66\frac{2}{3}^{\circ} \text{ S}$ south of the Equator.
 - **Heat Zones of the Earth**
 - (i) The area which receives the maximum heat is called the Torrid zone.
 - (ii) The areas around Antarctic Circle in the Southern Hemisphere, have medium temperature. These are called Temperature Zones.
 - (iii) These are certain cold areas in the hemisphere. They are called Frigid Zones.
 - **What are Longitudes:**
 - (i) Unlike parallels of latitude, all meridians are of equal length.
 - (ii) Hence, all countries decided that the count should begin from the meridian which passed through Greenwich, where the British Royal Observatory is located. This meridian is called the Prime Meridian.
 - **Longitude and Time:**
 - (i) The best means of measuring time is by the movement of the earth, the moon and the planets.
 - (ii) The sun regularly rises and sets every day, and naturally. It is the best time-keeper throughout the world.
 - (iii) Local time can be reckoned by the shadow cast by the sun, which is the shortest at noon and longest at sunrise and sunset.
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- (iv) When the prime meridian of Greenwich has the sun at the highest point in the sky, all the places along this meridian will have mid-day or noon.
 - (v) As the earth rotates from west to east, those places east of Greenwich will be ahead of Greenwich time and those to the west will be behind it.
 - (vi) At any place a watch can be adjusted to read 12 O'clock when the sun is at the highest point in the sky, when it is mid-day.

- **Why do we have Standard Time?**

- (i) The local time of places which are on different meridians are bound to differ.
 - (ii) For example, in India there will be a difference of about 1 hour and 45 minutes in the local times of Dwarka in Gujarat and Dibrugarh in Assam.
 - (iii) In India, the longitude of $\left(23\frac{1}{3}^{\circ} S\right)$ is treated as the standard meridian. The local time at this meridian is taken as the standard time for the whole country. It is called Indian Standard Time.
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