

Subject- S.S.T Class- 6 Topic- Motions of Earth

Learn and Write

B. Differentiate between the following.

1. spring equinox and autumnal equinox
2. perihelion and aphelion

C. Short Answers Questions

1. Define a leap year.
2. What do you understand by the 'Circle of Illumination?'
3. List two factors responsible for the phenomenon of seasons.
4. Why do the places near the Equator have equal days and nights?

B. 1. Spring Equinox and Autumnal Equinox

Spring Equinox	Autumnal Equinox
(a) It occurs on March 21 when rays of the Sun fall vertically on the Equator.	It occurs on September 23 when rays of the Sun fall vertically on the Equator.
(b) At this position, neither of the poles are tilted towards the Sun, resulting in equal days and nights at all places on the Earth.	At this position, neither of the poles is tilted towards the Sun resulting in equal days and nights at all places on the Earth.

(c) During this period the Northern Hemisphere experiences spring season, while it is the autumn season in the Southern Hemisphere.	During this period, the Northern Hemisphere experiences the autumn season, while it is the spring season in the Southern Hemisphere.
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2. Perihelion and Aphelion

Perihelion — Around January 4, when the Earth reaches a point in its orbit where the distance between the Earth and the Sun is the minimum (about 146 million km), then we say the Earth is in Perihelion.

Aphelion — Around July 4, when the Earth reaches a point in its orbit where the distance between the Earth and the Sun is maximum (about 151 million km), then we say the Earth is in Aphelion.

- C. 1. Every fourth year has 366 days when February has 29 days. Such a year is called a leap year.
2. The 'Circle of Illumination' is the imaginary line that separates the lighted part of the Earth (where it is day time) from the dark areas (where it is night time).
3. The factors which are responsible for the phenomenon of seasons are: (a) the inclination of the Earth's axis at a fixed angle and direction (b) the revolution of the Earth around the Sun.
4. On places near the Equator, the Sun shines vertically throughout the year, so they have equal days and nights.