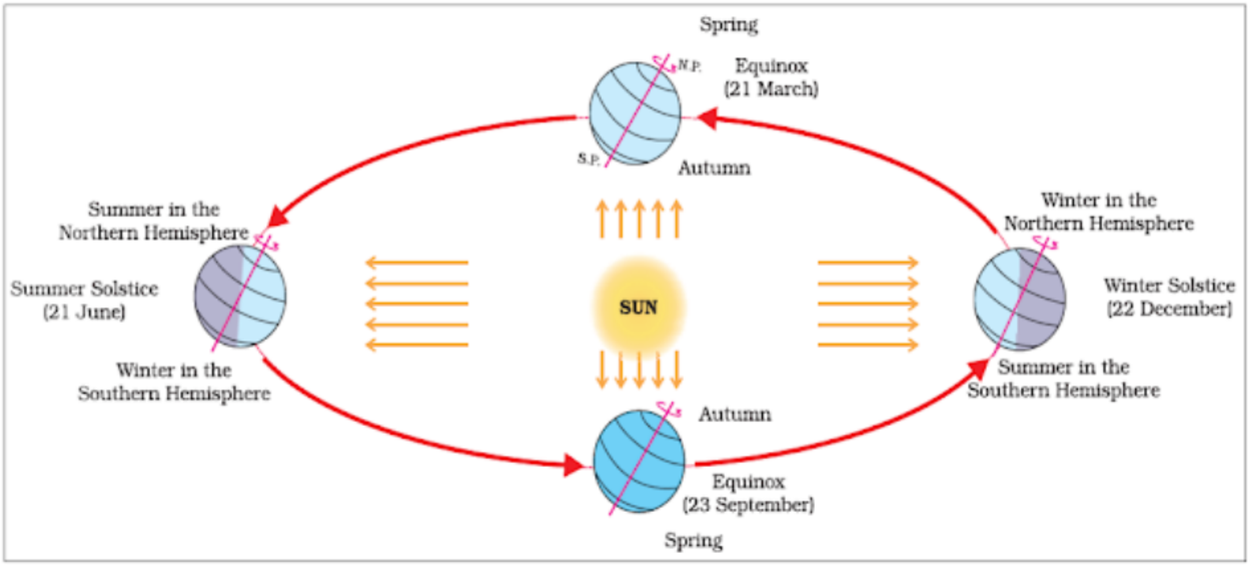
Difference between Summer and Winter Solstice

Summer Solstice and Winter Solstice are used to describe the shortest and longest days of summer and winter seasons.

The **summer solstice, also known as estival solstice or midsummer**, occurs when one of the Earth's poles (North pole) has its maximum tilt toward the Sun.

The **winter solstice, or hibernal solstice** occurs when one of the Earth's poles (North Pole) has its maximum tilt away from the Sun.

This article will further elaborate upon the differences between Summer and Winter Solstice within the context of the IAS Exam.



(Image source: Class 6 NCERT)

The following table will give highlight the differences between summer and winter solstice

Difference Between Summer Solstice and Winter Solstice	
Summer Solstice	**Winter Solstice**
Summer solstice occurs when North Pole is tilted closest to the Sun	Winter solstice occurs when North Pole is tilted farthest from the sun
It occurs on 21st June	It occurs on 22nd December

The summer solstice brings the longest day in the Northern Hemisphere, as it is tilted towards the sun.	Winter solstice brings the longest night in the Northern Hemisphere as it is tilted away from the sun
Southern Hemisphere has the shortest night	Southern Hemisphere has the longest days
Sun rays directly fall over Tropic of Cancer	Sun rays directly fall over Tropic of Capricorn
The places beyond the Arctic circle experience continuous daylight for about six months	The places beyond the Antarctic circle experience continuous daylight for about six months
As a large portion of Northern Hemisphere receives sunlight and heat during summer solstice, it is summers in Northern Hemisphere; whereas winters in Southern Hemisphere	As a large portion of Southern Hemisphere receives sunlight and heat during winter solstice, it is summer in Southern Hemisphere, whereas summers in Northern Hemisphere
Although the summer solstice is the longest day of the year for the Northern Hemisphere, the dates of the earliest sunrise and latest sunset vary by a few days. This is because the Earth orbits the Sun in an ellipse, and its orbital speed varies slightly during the year	Although the winter solstice itself lasts only a moment, the term sometimes refers to the day on which it occurs.
Although the Sun appears at its highest altitude from the viewpoint of an observer in outer space or a terrestrial observer outside tropical latitudes, the highest altitude occurs on a different day for certain locations in the tropics.	Traditionally, in many temperate regions, the winter solstice is seen as the middle of winter, but today in some countries and calendars, it is seen as the beginning of winter.

Frequently Asked Questions about Summer and Winter Solstice

What are the lengths of days in summer and winter solstice?

The two solstices happen on June 21 and December 22. In summer solstice, the length of the longest day in the Northern Hemisphere ranges from just over 12 hours in the southern portion of the Tropic of Cancer to 24 hours in the Arctic Circle. During the winter solstice, the length of the longest night ranges from 10-12 in the Northern Hemisphere. The Arctic Circle remains dark for six months in winter.

What are the vernal and autumnal equinoxes?

In between summer and winter solstice, there are two times when the tilt of the Earth is zero, meaning that the tilt is neither away from the Sun nor toward the Sun. These are the vernal equinox (21st March) — the first day of spring — and the autumnal equinox (23 September) – the first day of fall. Equinox means "equal." During these times, the hours of daylight and night are equal. Both are 12 hours long.