





Equinoxes

VICTER

- March 21 & September 23 the apparent position of sun will be over the Equator.
- Hence length of day and night will be equal during these days on both hemispheres. These days are called Equinoxes.

Summer Solstice.

- On June 21 the sun will be vertically above the tropic of cancer. This day known as Summer Solstice.
 - Hence the longest day in northern hemisphere and the longest night in Southern hemisphere are experienced.

Winter Solstice

- On December 22 the sun will be vertically above the tropic of Capricorn. This day is known as Winter Solstice.
 - Hence the longest day in the southern hemisphere and the longest night in northern hemisphere are experienced.
- During the period from September to March it will be winter in the northern hemisphere and summer in the southern hemisphere.

| Spring | Autumn | |
|--|---|--|
| Transition from Winter to Summer Day by day temperature increasing Plants sprouting Mango trees blooming & Jack fruit tree bearing buds etc March and April months in northern hemisphere | Transition from Summer to Winter Day by day temperature decreasing Tress shed their leave October and November months in northern hemisphere | |

TRANSITION SEASONS

Seasons are cyclic phenomenon

| | The apparent | Seasons | |
|-------------------|----------------------------|------------------------|------------------------|
| Months | movement of the sun | Northern hemisphere | Southern hemisphere |
| From March 21 to | From the Equator to Tropic | Spring | Autumn |
| June 21 | of Cancer | | |
| From June 21 to | From Tropic of Cancer | Summer | Winter |
| September 23 | to the Equator | | |
| From September 23 | From the Equator to | Autumn | Spring |
| to December 22 | Tropic of Capricon | | |
| From December 22 | From Tropic of Capricon | Winter | Summer |
| to March 21 | to the Equator | | |

Utharayanam

- Northward apparent movement of the sun from Tropic of Capricorn to Tropic of cancer is known as Utharayanam.
 - During this period duration of day gradually increases in northern hemisphere.

Dakshinayanam

Southward apparent movement of the sun from Tropic of cancer to Tropic of Capricorn is known as Dakshinayanam.

Length difference between night and day at North and south poles

- Sun is in the Northern Hemisphere, the north polar regions experience continuous daylight for six months.
 - Sun is in the Southern Hemisphere north polar regions experience continuous night for six months.