Seasons Summary



The equator has 12 hour days all year long.

All latitudes (except the poles) have 12 hour days on the equinoxes (~March 20 ~ Sept 22)

For the **Northern Hemisphere**:

- The longest day of the year is June 21 (Summer Solstice)
- The shortest day of the year is Dec 21 (Winter Solstice)
- All latitudes have days longer than 12 hours between March 20 and Sept 22.
- All latitudes have days shorter than 12 hours between Sept 22 and Mar 20.
- The sun doesn't rise anywhere north of the Arctic Circle (66.5 ° North latitude) on Dec 21.
- The sun doesn't set anywhere north of the Arctic Circle (66.5 ° North latitude) on June 21.
- The sun shines directly above the Tropic of Cancer (23.5 ° North latitude) on June 21.

For the **Southern Hemisphere**:

- The longest day of the year is Dec 21 (SH Summer Solstice)
- The shortest day of the year is June 21 (SH Winter Solstice)
- All latitudes have days **shorter** than 12 hours between March 20 and Sept 22.
- All latitudes have days **longer** than 12 hours between Sept 22 and Mar 20.
- The sun doesn't rise anywhere south of the Antarctic circle (66.5 ° south Latitude) on June 21.
- The sun doesn't set anywhere south of the Antarctic circle (66.5 ° south Latitude) on Dec 21.
- The sun shines directly above the Tropic of Capricorn (23.5 ° south latitude) on Dec 21.

The **solar declination** is the latitude for which the noon sun is directly overhead. The sun is never directly overhead anywhere outside the tropics (latitudes pole-ward of 23.5° degrees) and it is overhead twice a year for locations within the tropics (latitudes between 23.5° north and 23.5° south). It is overhead once a year for the tropic of Cancer and the tropic of Capricorn). The red lines in the figure below show the two dates when the noon sun is directly overhead at 10° S (late February and Mid October).

