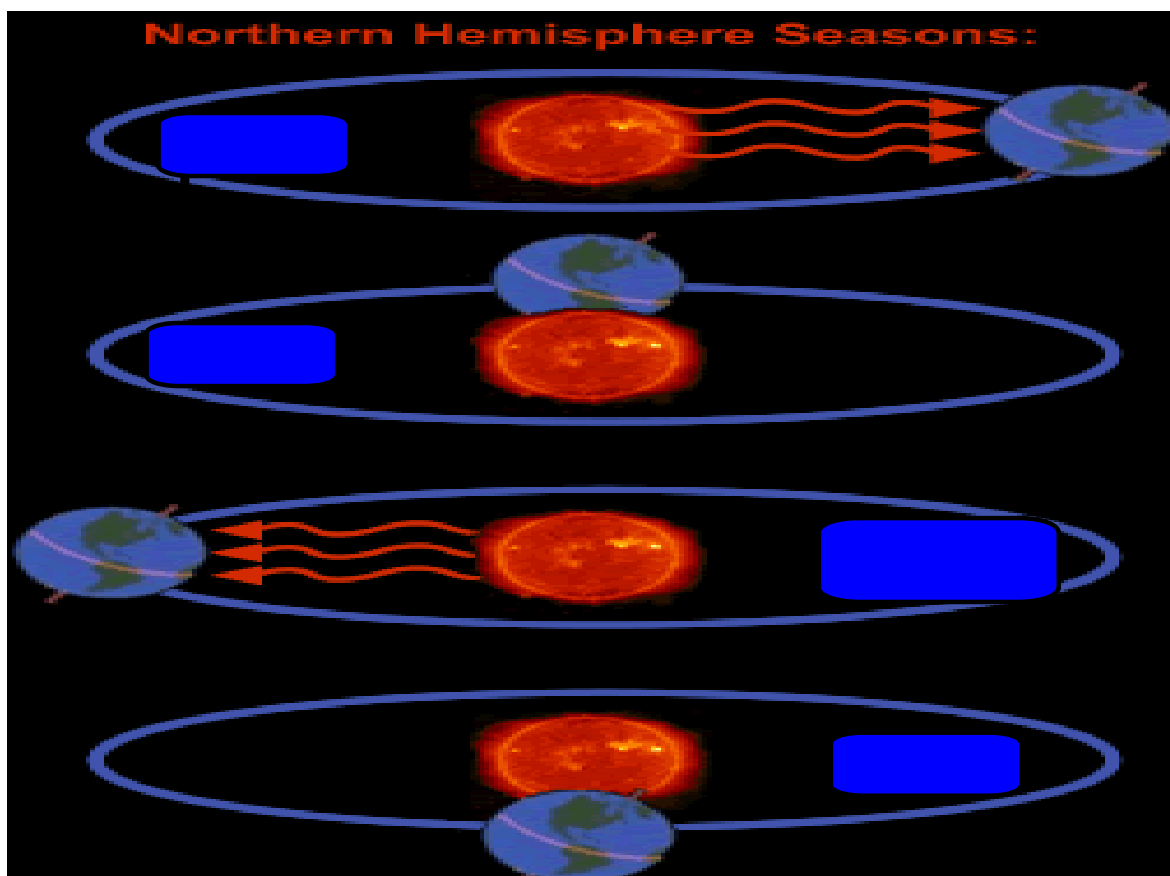


Seasons

The Earth travels **around** the sun **one** full time per year. During the year, the **seasons** change depending on the amount of **sunlight** reaching parts of the earth.

The seasons are caused because the Earth is **tilted 23.5** degrees on its axis. Summer happens to the hemisphere tilted **towards** the Sun, and winter happens to the hemisphere tilted **away** from the Sun.

That means that when it is summer in the **Northern** Hemisphere, it is winter in the **Southern** Hemisphere. The hemisphere experiencing summer, tilted towards the Sun has **longer** days and **shorter** nights than the hemisphere tilted away from the Sun.



- On **June 21st**, the Northern Hemisphere is having its **summer solstice** because it is tilted **towards** the Sun. This is the "**longest** day" meaning most hours of daylight. The **Northern** Hemisphere starts its summer. The sun is over The Tropic of **Cancer**. The Southern Hemisphere is having its winter solstice, because it is tilted **away** from the Sun. The **Southern** Hemisphere starts its winter.
- On **Sept 23** (the autumnal equinox) the sun is over the equator and there are **equal** hours of daylight and darkness. Sun hits the earth at the **equator**. Northern hemisphere starts **autumn** and southern hemisphere starts **spring**.
- On **December 21st**, The Northern Hemisphere is having its **winter solstice**, the **shortest** day of the year. The earth is tilted **away** from the sun. The sun is over the Tropic of **Capricorn**. Northern hemisphere starts **winter**, southern hemisphere starts **summer**.
- **March 21st**, (vernal equinox) the sun is again over the **equator**. Northern hemisphere starts **spring** and this day has **equal** hours of daylight and darkness. Southern hemisphere starts its **autumn**.

In general, summer and winter temperatures get **lower** the further you travel from the equator.

At the equator, there are **no** seasons because each day the Sun strikes at about the **same** angle. Every day of the year the equator receives about **12** hours of sunlight.

The poles remain **cool** because they are never tilted in the direct path of the sunlight.

Light must travel through so much atmosphere that much of it is scattered before reaching the Earth surface. During midwinter, when a pole is tilted away from the Sun, there is **no** daylight at all at the pole. The Sun never **rises**. However, during the summer, a pole receives **sunlight** all the time and there is no **night!**

Northern Hemisphere Seasons

