

Seasons


(revolution)

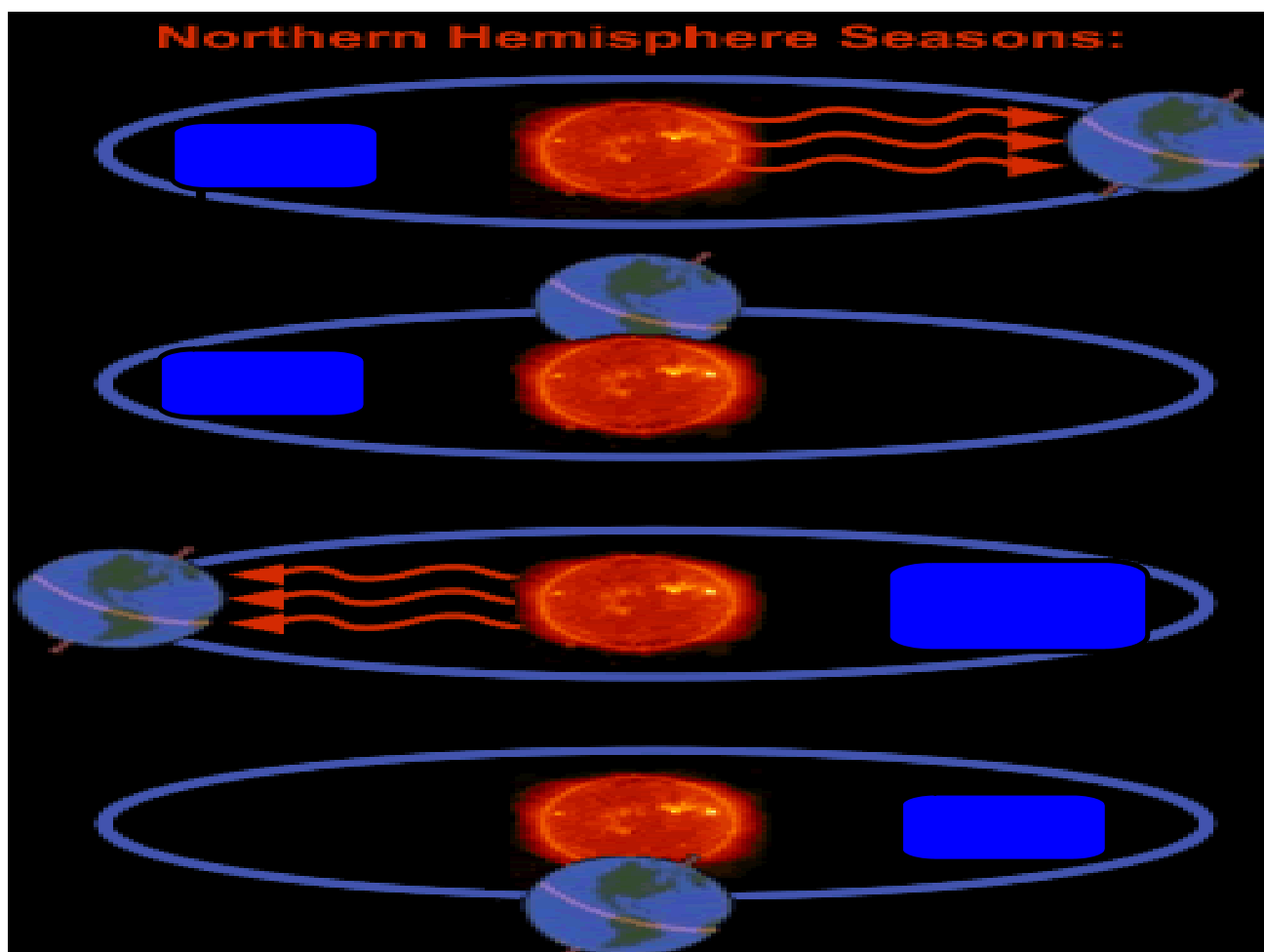
The Earth travels around the sun one full time per year. During the year, the seasons change depending on the amount of sunlight reaching parts of the earth.

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.

 http://www.youtube.com/watch?v=DuiQvPLWziQ&safety_mode=true&persist_safety_mode=1

 http://astro.unl.edu/naap/motion1/animations/seasons_ecliptic.swf



- 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 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. 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. 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

