

Why Do We Have Seasons?



The Changing Seasons

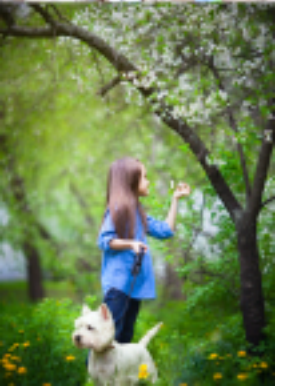
Most parts of the world experience four seasons. They each last approximately three months.

Summer is the warmest season. The days are long and it can be very hot in some parts of the world.

In Autumn (Fall) it gradually starts to cool down and some trees will lose their leaves.

Winter is the coldest season. The days become shorter and it snows in some parts of the world.

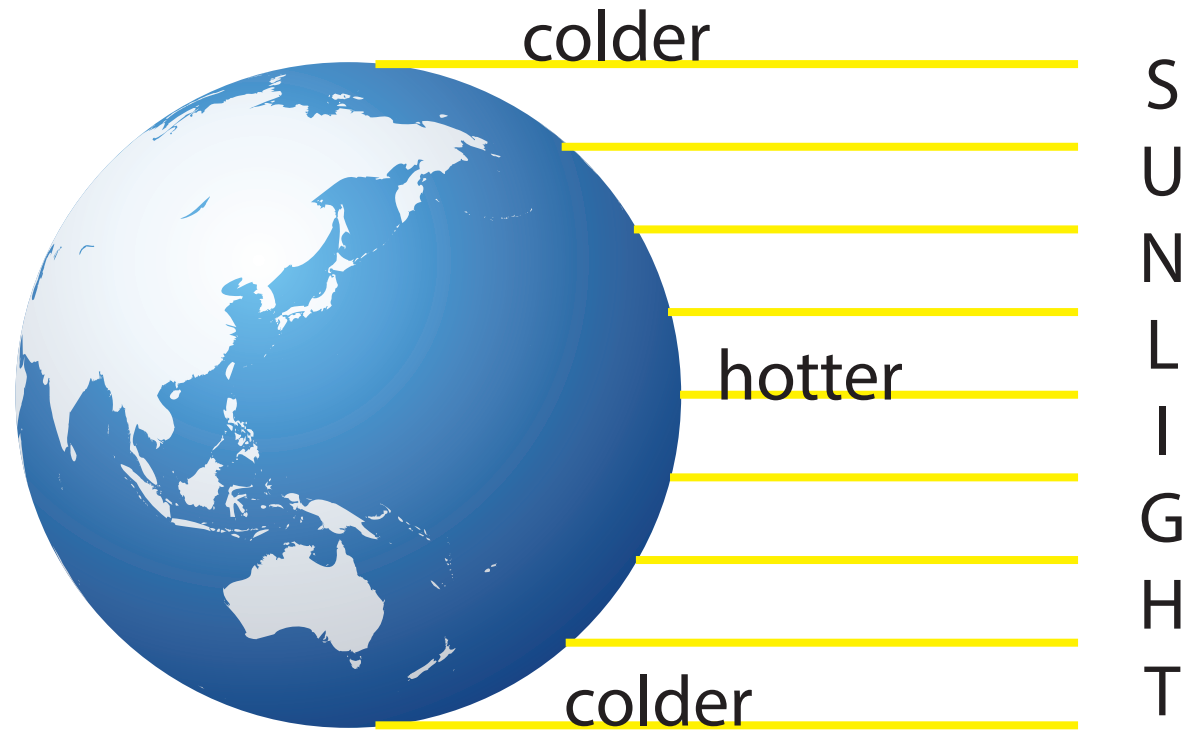
Finally the season changes again and it starts to warm up once more. Spring brings new growth.



Some places on the Earth are warmer or colder than others. It is really cold at the North and South Poles and it is warmer around the middle at the equator.

The curvature of the Earth means that the rays of light from the Sun are more intense at the equator.

But this is NOT why we have seasons!



Study***ladder***



What causes the seasons?

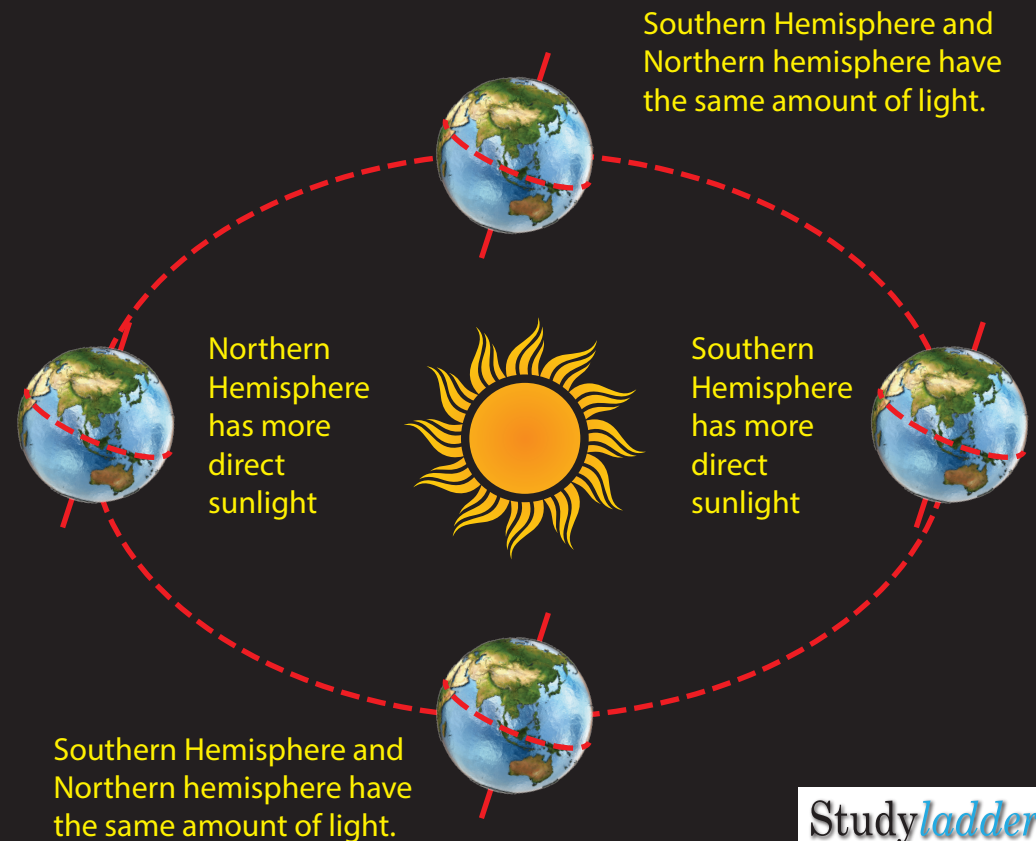
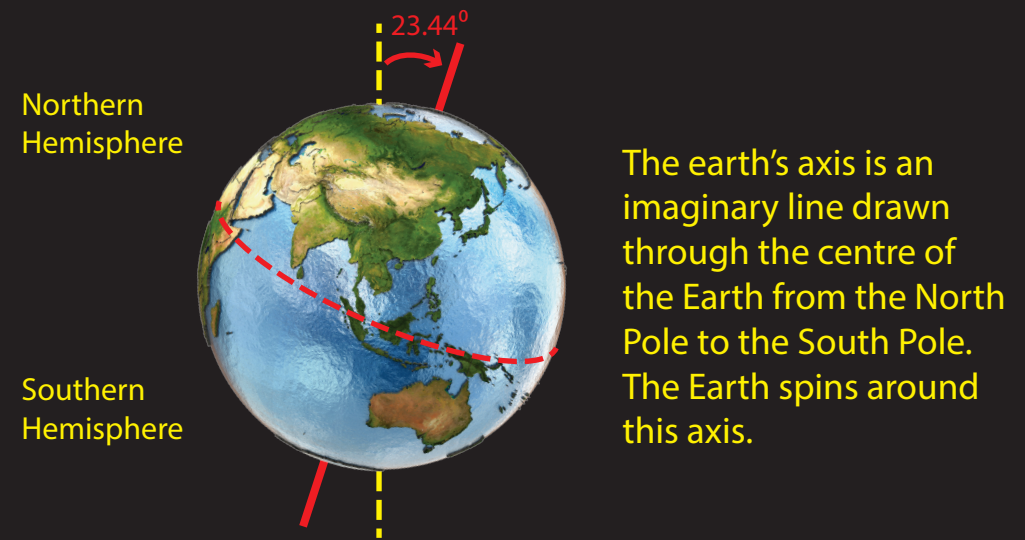
The Earth spins on its axis which is tilted at 23.44° .

An imaginary line marks the spot where the Earth is at its widest point, the equator. This is the warmest part of the planet because it receives more direct sunlight.

The top half of the planet, above the equator is called the Northern Hemisphere. The bottom half, below the equator is called the Southern Hemisphere.

The Earth stays tilted as it orbits around the Sun. This means that one hemisphere will face toward the Sun and the other will face away from the Sun.

When a hemisphere faces toward the Sun it experiences summer and when it faces away from the Sun it experiences winter. The poles have only two seasons- a summer when it is always daylight followed by a bitterly cold winter spent in darkness.



The hemispheres have opposite seasons.

When the Northern Hemisphere has summer the Southern Hemisphere has winter.
When the Northern Hemisphere has spring the Southern Hemisphere has autumn.

Northern Hemisphere has Spring.

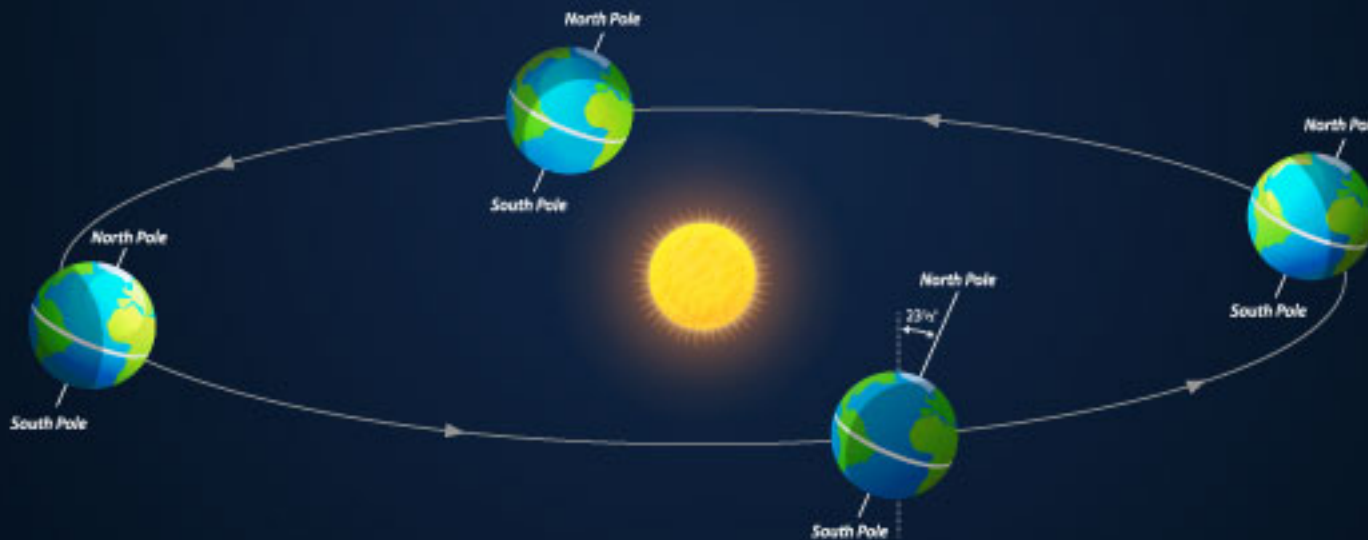
Southern Hemisphere has Autumn (Fall).

Northern Hemisphere has Summer.

Southern Hemisphere has Winter.

South Pole is in darkness.

North Pole is in daylight.



Northern Hemisphere has Winter.

Southern Hemisphere has Summer.

South Pole is in daylight.

North Pole is in darkness.

Northern Hemisphere has Autumn (Fall).

Southern Hemisphere has Spring.