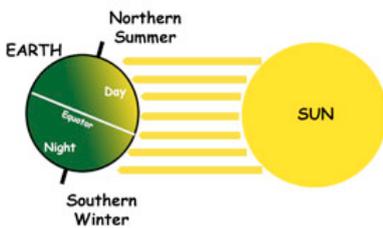


# Seasons

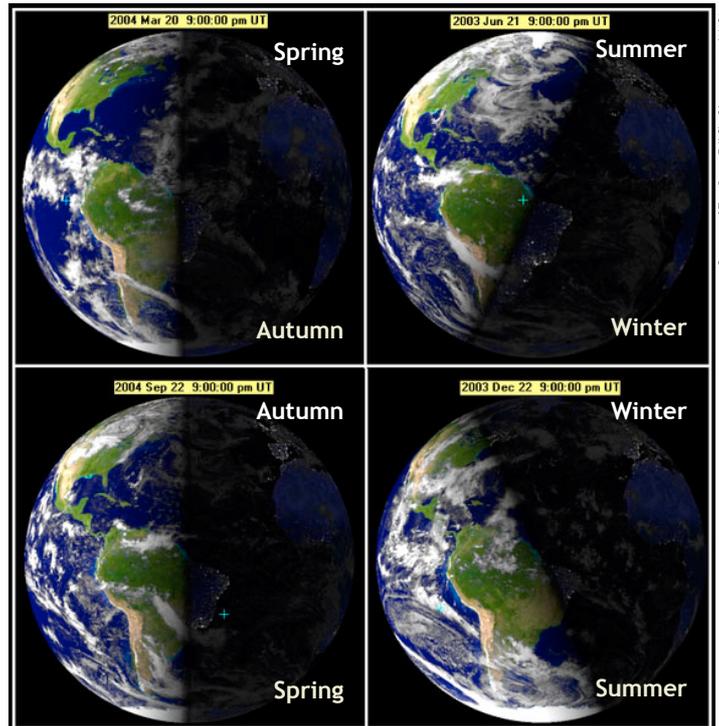
Every 24 hours the Earth rotates full circle. As sunlight hits the Earth, daylight is created on one side (day), while the opposite side is covered in darkness (night). At the same time, the Earth is also revolving around the Sun, a journey that will take one year.



In Ireland we have four seasons – spring, summer, autumn and winter. These seasons are created based on the way the Earth revolves around the Sun. Imagine an

orange as the Earth and a pencil as the Earth's axis. Stick the pencil straight through the orange, from top to bottom. Keeping the pencil on the table, tilt it slightly. Now imagine the Earth revolves around the sun in this position. Because the axis is tilted, different parts of the Earth are turned towards the Sun at different times during the year.

In summer the sun's rays are hitting the Earth at a more direct angle than in winter, giving us warm weather and more daylight. In winter, when the sun's rays are lower in the sky, the days are cooler and there is less daylight.



Courtesy of Tom Ruem, Fall Sky Observatory and NASA

The Sun's rays lighting up the Earth through the different seasons. The seasons in the Northern Hemisphere and the Southern Hemisphere are reversed. For example, when it's spring in the Northern Hemisphere, it's autumn in the Southern Hemisphere.

## The Shortest & Longest Days

When the sun reaches the most northerly and southerly positions on the Earth, these are known as the solstices. The **winter solstice** (which is the shortest day of the year) is around 21st December. The **summer solstice** (when we have the longest day) is on 21st June. Twice each year there are days when day and night are of equal length. Known as the **equinoxes**, these occur when the sun crosses the celestial equator. One equinox occurs in late March and the other in late September.



## Other 'Seasons'

In places near the Equator, light varies very little. The seasons there are not as obvious as they are here in Ireland. Many areas near the Equator have 'wet' and 'dry' seasons – periods when they either have lots of rain or hardly any at all.

In some parts of the world the word 'season' is used to describe the occurrence of special events, such as hurricanes, tornadoes and wildfires. For example, the Atlantic hurricane season is from 1st June to 30th November each year.



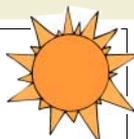
### Spring

When Spring arrives, temperatures begin to rise. The North Pole is tilting towards the Sun as the Earth spins around it. Daylight hours are increasing as the sun rises higher in the sky.



### Summer

Summer is the hottest and driest season of the year. During the summer, the sun is at its highest point in the sky, gives the most direct sunlight and also makes its longest appearance.



### Autumn

Temperatures start to cool when autumn arrives. As the Earth revolves around the Sun, the North Pole is tilting away from the Sun, so the number of daylight hours decreases.



### Winter

Winter is the coldest season. As the Sun is very low in the sky, there is less heat from its rays. The Sun also makes its shortest appearance in the sky, meaning winter has the least amount of daylight hours.

