

# The Rotation and Revolution of the Earth

If you lived near the \_\_\_\_\_, you would notice very little change in the hours of daylight you experience throughout the year. Every day, you would have approximately \_\_\_\_\_ hours of light and \_\_\_\_\_ hours of darkness.

The farther \_\_\_\_\_ or \_\_\_\_\_ of the equator a person lives, the \_\_\_\_\_ the range in daylight hours they will experience over the course of the year.

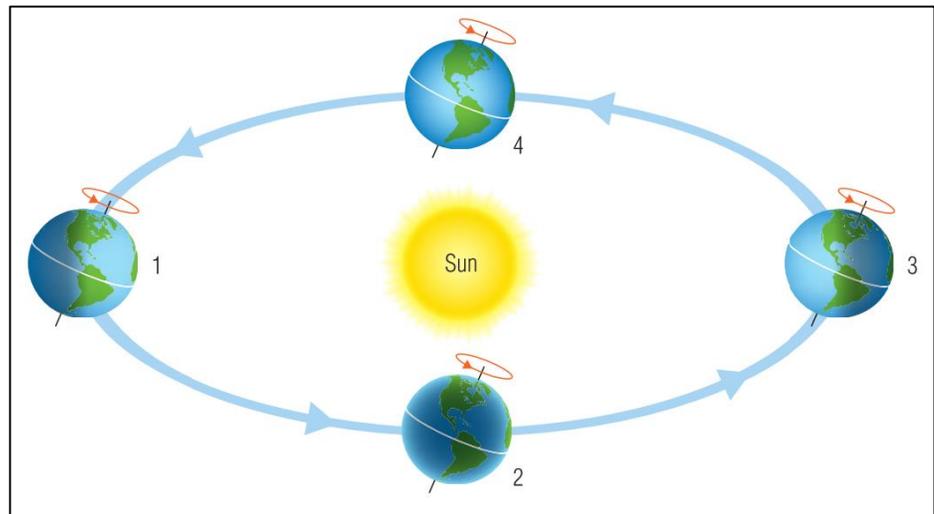
The greatest extremes in terms of hour of daylight occur at the \_\_\_\_\_. At the North Pole, the Sun does not set for \_\_\_\_\_ at the peak of \_\_\_\_\_ and does not rise for \_\_\_\_\_ at the peak of winter.

We experience this variation because Earth \_\_\_\_\_ like a top around a \_\_\_\_\_ axis. As it spins, the Earth also \_\_\_\_\_ around the \_\_\_\_\_. These two motions, together, cause \_\_\_\_\_ and \_\_\_\_\_, changes in the \_\_\_\_\_ and the apparent movement of the \_\_\_\_\_ and \_\_\_\_\_ across the sky.

## Rotation: Creating Day and Night

The North and South \_\_\_\_\_ mark the ends of Earth's \_\_\_\_\_. One complete \_\_\_\_\_ of Earth on its axis is called a \_\_\_\_\_ and takes almost \_\_\_\_\_ as Earth spins at a speed of \_\_\_\_\_ km/h to the \_\_\_\_\_.

Earth's axis is tilted at an angle of \_\_\_\_\_° relative to the plane along which Earth \_\_\_\_\_ the Sun



(See Figure). It is this

daily rotation of Earth that creates \_\_\_\_\_ and \_\_\_\_\_. As viewed from the North Pole, Earth spins in a \_\_\_\_\_ direction, which explains why the Earth always seems to rise in the \_\_\_\_\_ and set in the \_\_\_\_\_ no matter where you are in the world.

## Revolution and Tilted Axis: Creating Seasons

Depending on where you are on the surface of the Earth, you will experience the seasons differently.

Near the equator, there are typically two seasons: \_\_\_\_\_ and \_\_\_\_\_.

In the northern and southern parts of the world, we experience \_\_\_\_\_ seasons. When it is \_\_\_\_\_ in North America it is \_\_\_\_\_ in New Zealand.

Winter, no matter where you are, is marked by \_\_\_\_\_ days and \_\_\_\_\_ nights whereas summer is marked by \_\_\_\_\_ days and \_\_\_\_\_ nights.

Changing seasons are the result of Earth's \_\_\_\_\_ axis and its \_\_\_\_\_ around the Sun. A revolution is one complete \_\_\_\_\_ of Earth around the Sun and takes approximately \_\_\_\_\_ or \_\_\_\_\_ days. Earth's \_\_\_\_\_ points almost exactly toward the star \_\_\_\_\_.

For part of the year, the northern hemisphere is tilted \_\_\_\_\_ the Sun. This is when the northern hemisphere experiences \_\_\_\_\_ with \_\_\_\_\_ days, \_\_\_\_\_ sun rises and \_\_\_\_\_ sun sets. As Earth orbits to the \_\_\_\_\_ side of the Sun, the northern hemisphere tilts \_\_\_\_\_ from the Sun resulting in \_\_\_\_\_ with \_\_\_\_\_ days, \_\_\_\_\_ sun rises and \_\_\_\_\_ sun sets.

In the \_\_\_\_\_ and \_\_\_\_\_, neither the northern or southern \_\_\_\_\_ are more tilted toward the \_\_\_\_\_ than the other. This means that, for a time, the days and nights are \_\_\_\_\_ hours long everywhere on Earth. These days are called the Autumnal (Fall) and Vernal (Spring) \_\_\_\_\_.

On the other hand we have the

Summer and Winter

\_\_\_\_\_, which are the

\_\_\_\_\_ and

\_\_\_\_\_ days of the year in

the northern hemisphere,

respectively. (See Diagram)

