

# Why Do We Have Seasons?

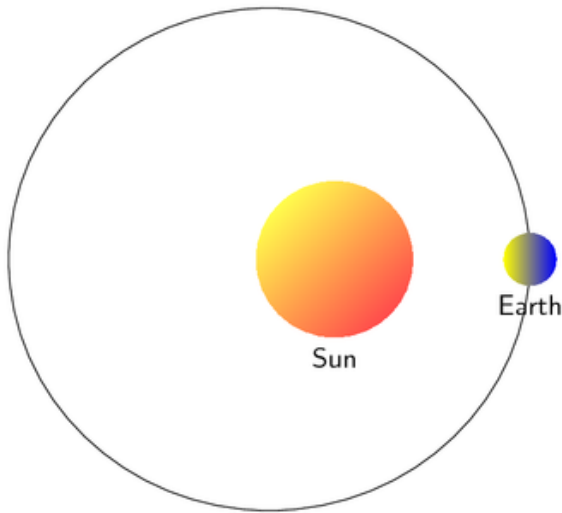
Lindsey Hurd



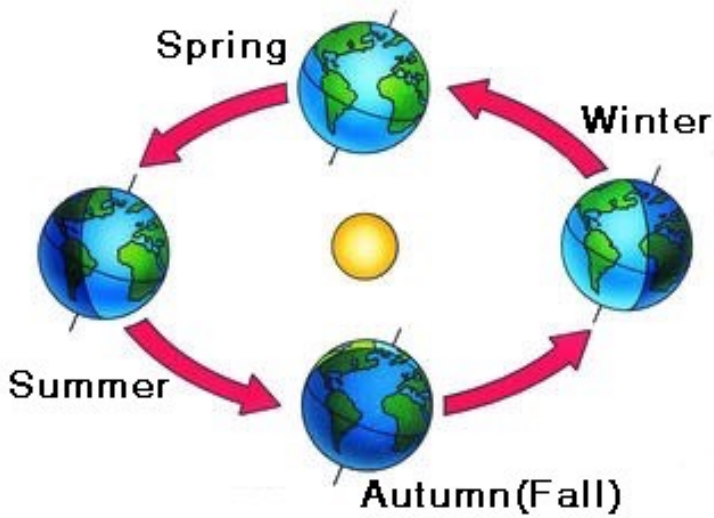
# Table of Contents

Chapter 1: The Earth and Sun	3-5
Chapter 2: The Earth's Tilt	6-8
Chapter 3: The Seasons	9-11
Glossary	12
Works Referenced	13
Standards Addressed	14
License	15

# Chapter 1: The Earth's Orbit

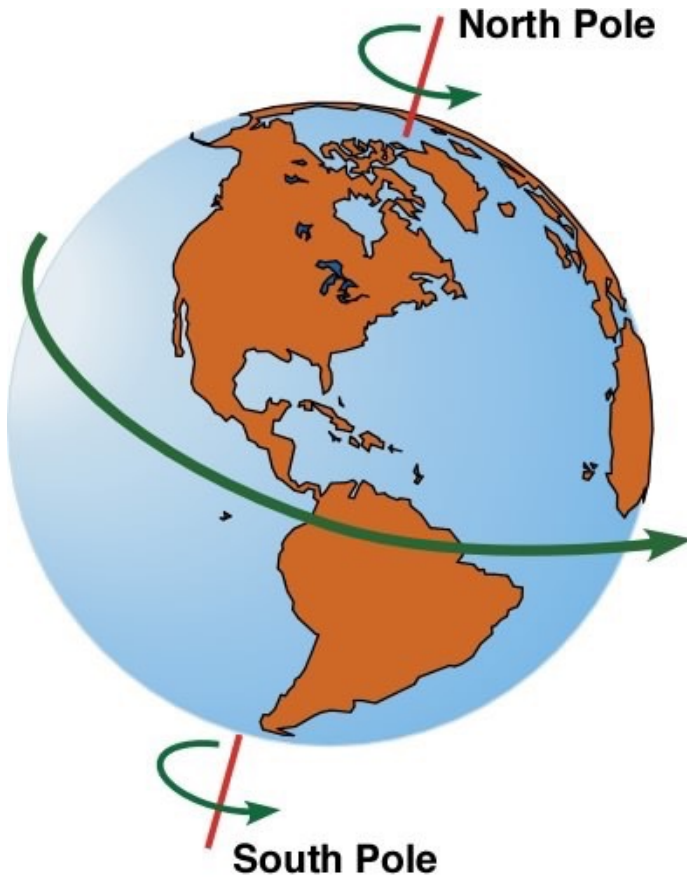


The Earth and the sun have a relationship in which the Earth travels around the sun once a year, or once every 365 days. This is called an **orbit**.



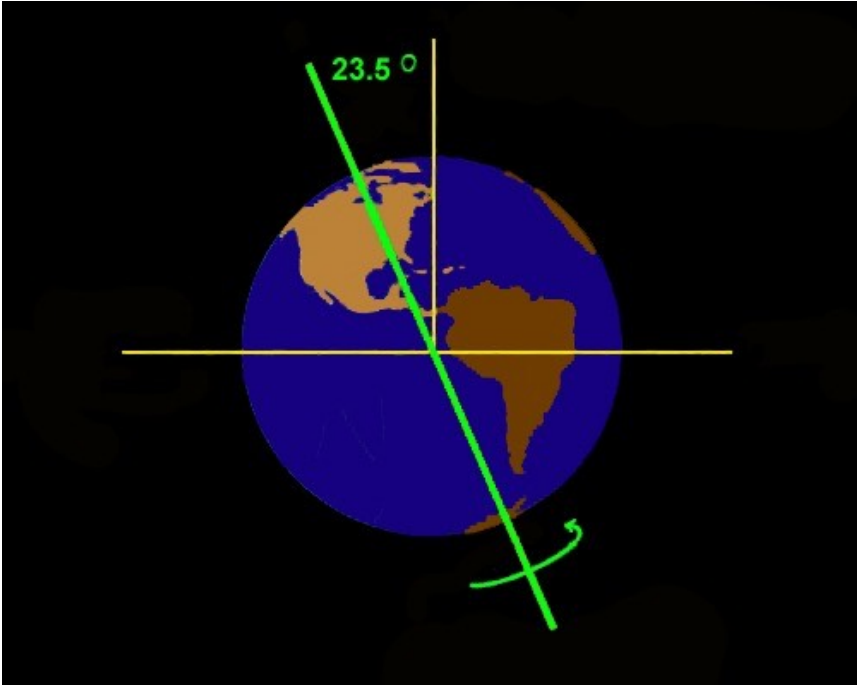
The amount of sunlight received determines which season it is.

As the Earth orbits, different parts of the planet receive different amounts of sunlight. This is why we have seasons, but we'll go more into this later.



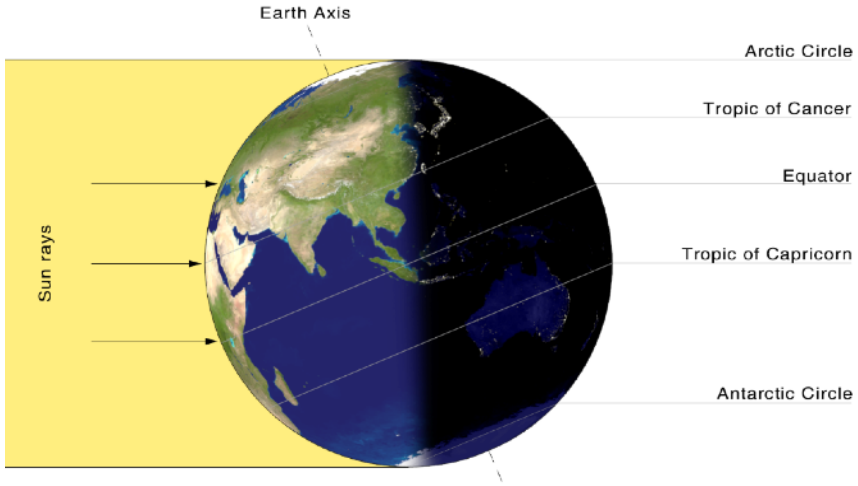
Not only does the Earth rotate around the sun every year, but it also spins in a circle every 24 hours. This is what we know as a day. However, the Earth doesn't spin straight up and down, but is tilted at an angle.

## Chapter 2: The Earth's Tilt



The Earth is tilted at a 23.5 degree angle

The Earth's **tilt** is important when it comes to the different seasons. For half of the year the North Pole is tilted towards the sun, and for the other half the South Pole is pointed in the direction of the sun.



The North Pole points toward the sun and receives more light.

When the North Pole is tilted towards the sun, the top half of the planet receives more sunlight. This makes the days longer. When parts of the Earth receives more sunlight, not only are the days longer, but they are also warmer.



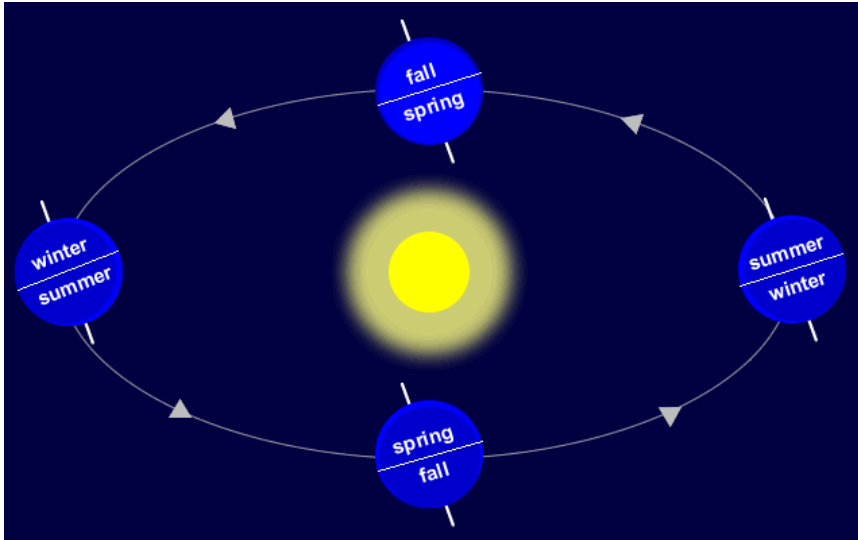
This means that the bottom half of the Earth is receiving less sunlight and has shorter days resulting in colder weather.



## Chapter 3: The Seasons



As the year goes by, the Earth's tilt changes directions. The North Pole begins to point away from the sun and the season changes from summer to fall. When the tilt is pointed away from the sun, it is winter. As the tilt begins to point back toward the sun, it is spring.



The North and South Hemispheres are always experiencing opposite seasons.

This means that as the South Pole starts to point in the direction of the sun, it is turning into summer for the bottom half of the planet. Whatever season the northern **hemisphere** is experiencing, the bottom hemisphere is experiencing the opposite.

# Glossary

**Orbit**: The path that the Earth takes to travel around the sun every 365 days, or 1 year.

**Tilt**: The Earth is tilted at a 23.5 degree angle.

**Hemisphere**: The bottom or top half of the Earth.

# Works Referenced

"Share your projects and ideas" by [Vital Signs](#) available under a [Creative Commons Attribution \(CC-BY\) 3.0 License](#)

"Comcast protest" by Flickr user [Steve Rhodes](#) used under [Creative Commons Attribution 2.0 license](#)

(Above are two examples one for content, one for photograph. Note how they include Title, Author, and License type.)

# Common Core State Standards

Goal 4.1: Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems

3.S.4.1.1 Explain the reasons for length of a day, the seasons, and the year on Earth. (594.01.a)

This e-book and any prints are released under a [CC BY 3.0 license](#) by the author.

This means that you are free to share, remix, transform, and build upon this book as long as you give appropriate credit to the original author.

Included works (e.g., images and other media) may have separate licensing requirements, and this release does not supersede or replace those requirements.

This e-book template is provided under a CC BY 3.0 license by the University of Idaho College of Education. If you use, share, remix, or transform this template, you should include this page at the end of your book.