

Weather - Deeper Unit Learning

Read each part - type or write your answers in the space provided.

Diagram Analysis - Seasons in Colorado

1. Which season in the picture is the coldest time in Colorado?

2. Which season in the picture is the hottest?

3. What are the 3 months of "Autumn?"



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Topic - Seasons in Fort Collins (original [Source](#))

In Fort Collins, we divide up the year into four seasons: spring, summer, autumn (fall), and winter. Summer is the warmest season, winter is the coldest, and spring and autumn are in between with average temperatures.

How many seasons are there in Fort Collins?

What is the coldest season in Fort Collins?

In other countries, people might only describe a rainy season and a dry season.

The seasons have a lot of impact on what happens on the earth. In the spring, animals are born and plants come back to life due to more mild temperatures. Summer is hot and is when kids are usually out of school. Crops are harvested at the end of the summer. In autumn the leaves change colors and fall off the trees as temperatures get colder with shorter days. Winter is cold and it snows in many places. Some animals, like

bears, hibernate in the winter while other animals, like birds, migrate (fly) to warmer places to find food.

What are some things that happen in the summer season?

Why do birds migrate to warm places on Earth?

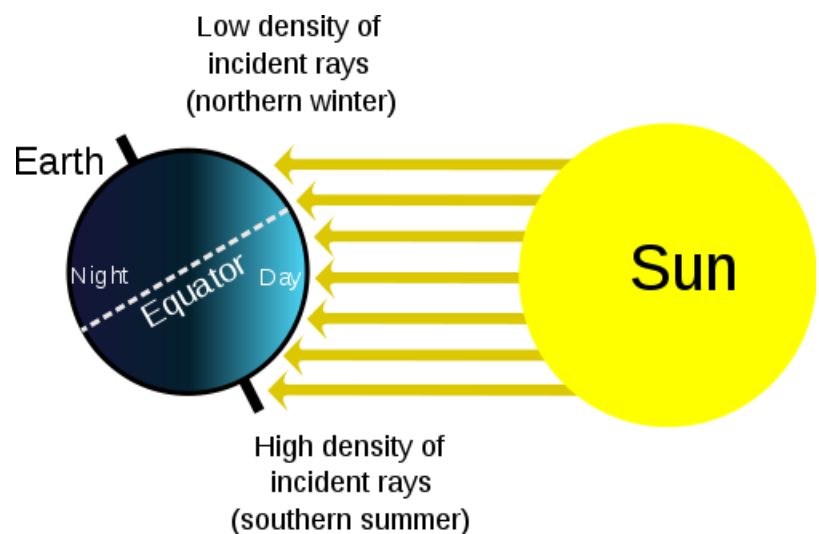
Why do seasons change?

Seasons change because of the Earth's position compared to the Sun. The Earth moves around the Sun, called an orbit, every 365 days. As the Earth orbits the Sun, the **amount of sunlight** each location on the planet gets every day changes slightly because the Earth is tilted. This change causes the seasons.

Why do seasons change?

The Earth is Tilted

Not only does the Earth revolve around the Sun every year, but the Earth rotates on its axis every 24 hours. This is what we call a day. However, the Earth doesn't rotate in a straight up and down manner relative to the Sun. It is slightly tilted. In scientific terms, the Earth is tilted at an angle of 23.5 degrees from its orbital plane with the Sun.



What is the angle of Earth's tilt on its axis?

Why does our tilt matter?

The tilt has two major effects: the angle of the Sun to the earth and length of the days. For half of the year the Earth is tilted such that the North Pole is more pointed away from the Sun and the South Pole is pointed at the Sun. When the South Pole is angled toward the Sun, the days on the southern part of the planet (south of the equator) get more sunlight and longer days. With longer days the southern hemisphere heats up and the season is called summer.

For this reason, seasons north of the Equator are the opposite of seasons south of the Equator. When it's winter in Europe and the United States, it will be summer in Brazil and [Australia](#).

If the South Pole is angled toward the sun it has _____ days and the season is called _____.