

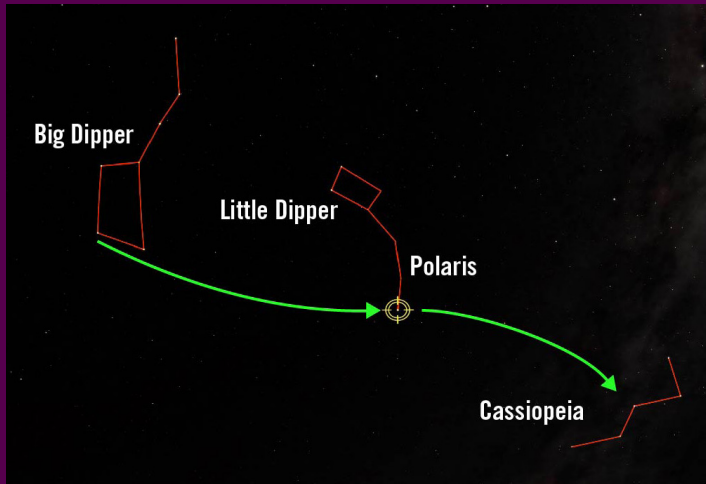
Why the Sky

Changes with the Seasons

You might have noticed that during different seasons, some constellations are visible, but others you can see all year round.

Why does this happen?

Why the Sky Changes with the Seasons

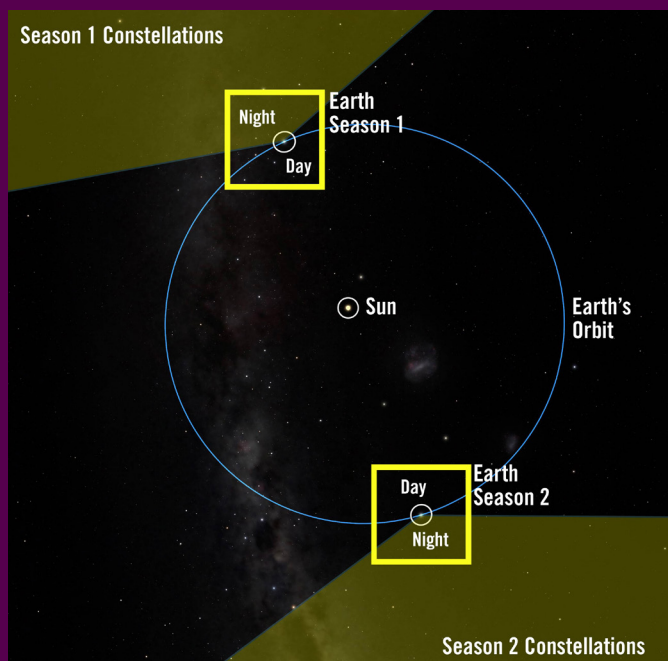
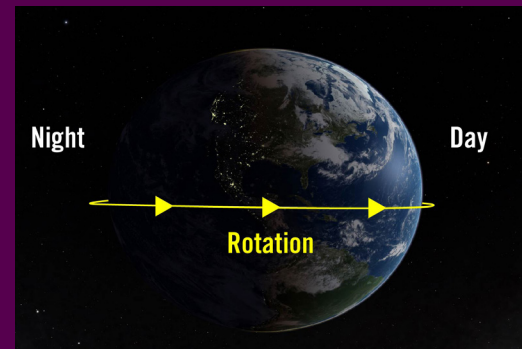


To better understand this, we'll start by talking about constellations you can see all year round.

You can see the **Big Dipper** any night, and is pretty easy to find. It looks like a giant spoon, and can be used to find the North Star. If you extend a line from the line that makes up the very end of the Big Dippers cup, it will guide to the North Star, which also named **Polaris**. Polaris is the star found on the very end of the **Little Dipper's** handle. Next, extend that same line past the North Star to find **Cassiopeia's** throne, which looks like the letter W.

These three constellations are called **circumpolar constellations** because they rotate around Polaris. They can be during any season.

The appearance of the sky rotating is actually caused by the **Rotation** of the Earth. This is what causes our **Day** and **Night** cycle. As the Earth rotates, the half without light moves to face the sun, creating daytime. Just like how the Sun rises in the East and sets in the West, so does the whole night-time sky.



Not only does the earth rotate, but it also **Orbits** around the Sun. Where the Earth is located in its yearly orbit determines its seasonal constellations, because our perspective of the sky has changed.

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During Iowa's summer months of July and August, we revolve to be on the side of the sun where we can easily see the **Summer Triangle** and **Scorpius**.

You can find the Summer Triangle in the Northern part of the sky, outlined by three bright stars. You can find Scorpio in the Eastern part of the sky, outlined by a fish hook shape.

During Iowa's winter months December and January, when we're on the other side of the sun, we can't see them as well. These constellations don't disappear, they're just in the sky at the same time as the sun. The light from the sun lights up our daytime sky, making it hard to see the stars that make up these constellations.



We can however, see **Orion** in the winter, because we have rotated to be facing it during the night. You can find Orion in the Southern half of the sky. It's easy to spot because of his bright belt, outlined by three stars.

These constellations are all called seasonal constellations, because they can only be seen during only certain seasons!

What constellations will you be able to see **tonight**?

What constellations do other parts of the world see during the same time of year?