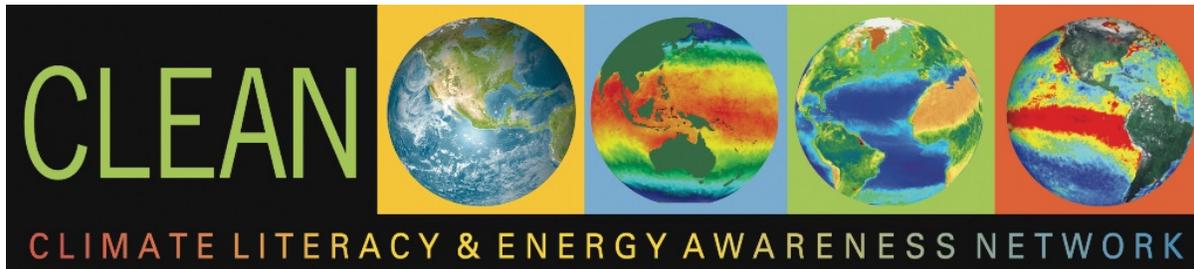
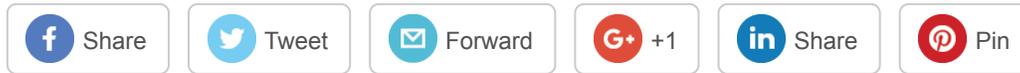


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## ***CLEAN STEM Flash***

A Timely Climate and Energy E-Learning Series to Use and Share

September 23, 2019

### **Topic: What Do You Know About Seasons?**

Seasons mark four divisions throughout a year. Each season is defined by the differences in daylight, weather, and general ecology of a location due to the rotation of the earth around the sun. The equinoxes and solstices fall on the first day of each season. In the spring and fall we have an equal amount of daylight and darkness, known as an equinox, while the solstice represents the longest and shortest amounts of daylight.

#### **CLEAN Resource Feature**

##### **Simulation: [Earth's Seasons](#)**

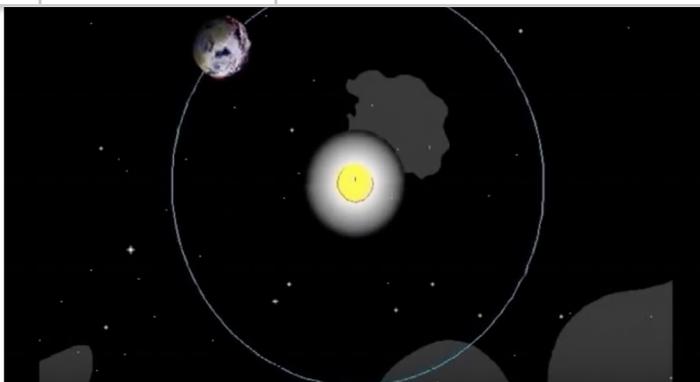
Just as the title suggests, this video describes the reasons the Earth has seasons through a voice over and animations. Students learn about how the axial tilt in relationship to the sun's light causes seasonality.

*Video length: 2:23 minutes*

*Audience: Middle School, High School*

**Browse CLEAN for more videos related to [Seasons](#).**

This simulation produced  
by the Strassenburgh  
Planetarium teaches

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seasons. The video outlines the different phases of seasonality, highlighting the differences between the winter and summer solstices, as well as the spring and fall equinoxes.

### **CLEAN Resource Feature**

#### **Activity:** [Seasons and Ecliptic Simulator](#)

This interactive simulator is a great add-on to any lesson involving seasons. The simulator provides an overview of how sunlight impacts different regions of the planet and influences different weather and temperature vents to take place.

*Audience: Middle School, High School, College*

**Take a look at some more CLEAN resources focused on [Earth's Tilt](#).**

The simulator offers a great hands on learning experience for students to understand seasonality and its causes. There is also a lab that accompanies the simulator which can be found by clicking "Basic Coordinates and Seasons" in the left corner. This interactive helps students understand how the amount of sunlight at various coordinates on Earth relates to seasons.



#### **In the News:** [Watch Leaves Change in a Matter of Seconds](#)

As Fall approaches due to the change in the relationship of the axial tilt and the amount of sunlight we receive, the leaves begin to change color in preparation for the colder weather.



### Professional Development Survey

Tamara Ledley, the former CLEAN chair, has developed a survey about professional development we hope will help us improve climate professional development opportunities. Please consider participating - you can find more information about the survey here: <https://tinyurl.com/PDFundingSurvey>

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## Explore the CLEAN collection of climate & energy learning resources

CLEAN supports teaching and learning about climate and energy with 700+ free peer-reviewed, scientifically accurate, and classroom-ready resources.

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