

### Science Virtual Learning

# 7th Grade Science Seasons Review

April 20, 2020



7th Grade Science Lesson: April 20, 2020

Objective/Learning Target: I can explain Earth's seasons.



#### Warm up:

What do you remember about how storms form from last week? On a piece of paper, write your answers to the following questions.

- Thunderstorms form along a cold front.
   A. False
  - B. True
- 2. What causes MOST thunderstorms to form?
  - A. warm, rising air
  - B. electrical charges
  - C. heavy winds
  - D. the cooling of Earth's surface
- 3. Tornadoes are most common on the \_\_\_\_\_
  - A. the pampas of Argentina
  - B. Great Plains of the United States
  - C. savannas of Africa
  - D. the steppes of Mongolia

- 4, The formation of a hurricane involves the rise of \_\_\_\_ air above the ocean and the creation of strong winds.
  - A. cool, dry
  - B. cool, humid
  - C. warm, dry
  - D. warm, humid
- 5. Where do most hurricanes form?
  - A. over the ocean near the equator
  - B. in the midwestern and southern United States
  - C. along warm fronts
  - D. along cold fronts



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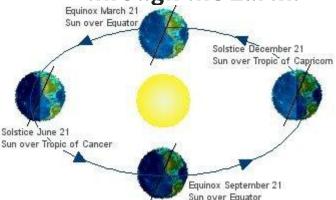
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#### Let's Get Started--Lesson

The seasons are caused by the tilt of the Earth's rotational axis away or toward the sun as it travels through its year-long path around the sun. The Earth has a tilt of 23.5 degrees, and is often represented as an imaginary line through the Earth.





#### Lesson

What do you remember learning about seasons and how the Earth experiences seasons throughout the year? Answer these questions on a piece of paper.

- 1. When it is winter in Kansas City, Missouri, what season is it in Melbourne, Australia? Why?
- 2. Does every place on Earth experience the same season at the same time? Why?
  - 3. How long does it take the Earth to orbit the Sun?



#### **Lesson--Correct Answers**

What do you remember learning about seasons and how the Earth experiences seasons throughout the year? Answer these questions on a piece of paper.

- 1. When it is winter in Kansas City, Missouri, what season is it in Melbourne, Australia? Why? Kansas City is in the Northern Hemisphere. Melbourne is in the Southern Hemisphere. They experience "opposite" seasons because when one hemisphere is leaning toward (summer) the Sun, the other is leaning away (winter) from the Sun.
- 2. Does every place on Earth experience the same season at the same time? Why? No. The earth's tilt toward or away from the Sun determines the season, combined with the location of the Earth in its' orbit around the sun.
  - 3. How long does it take the Earth to orbit the Sun? 365.25 days



#### Lesson--continued

Before watching the video, write down your understanding about the distance that the Earth is from the Sun and how distance affects seasons.

## DOES THE DISTANCE BETWEEN EARTH AND THE SUN CAUSE EARTH'S SEASONS?

**What Causes the Seasons?** 



#### Lesson--continued

Before watching the video, write down your understanding about the distance the Earth is from the Sun and how distance affects seasons.

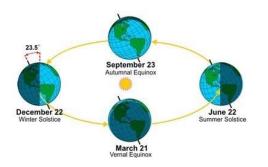
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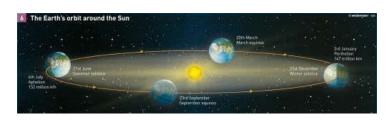
It is a common misunderstanding that seasons occur because of Earth's elliptical orbit around the Sun, with winter occurring when Earth is farthest away from the Sun, and summer when it is closest to the Sun. However, Earth's distance from the Sun has little effect on the seasons as the distance variation is only about 3%.

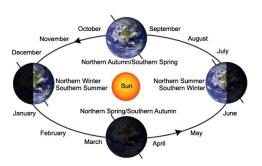


#### **Practice**

Click on the images to see a larger picture and more information.









#### Practice

Click on this link to see a presentation on <u>Seasons</u>.

- 1. Click on slideshow button, then click on the yellow arrow at the bottom right of the window to scroll through the pictures.
- 2. Read about the picture at the bottom of the picture.
- 3. When you are ready to test yourself, click the x at the top right to close the window and then click test. You can go back and review your answers to learn more about the questions you missed.



#### **More Resources**

Why Do We Have Seasons? -Interactive

The Reason for the Seasons - Read about seasons and watch Bill Nye and
National Geographic videos.

<u>Seasons of the Year- Lessons for Kids</u> <u>Season Simulator</u>