

Space

Lesson 5: Rotation and Revolution pt. 2

Today's focus

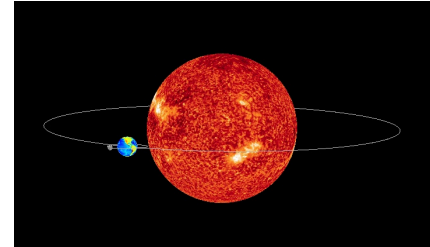
I will be able to:

- Describe how the rotation of the Earth and the apparent movement of the Sun, Moon, and/or stars are related.
- Explain that Earth rotates on its axis in a 24 hr day
- Explain that Earth revolves around the Sun in one year.
- Identify that star patterns appear to shift across the night sky as Earth rotates on its axis.
- Identify that different star patterns can be seen during different seasons as Earth revolves around the Sun.

Bellringer

The student has a friend who performs the same experiment the exact same way. Why does the friend expect the results from both tests to be the same?

- a. The friend is stealing the student's experiment.
- b. The student made a mistake during the experiment.
- c. Experiments should always have multiple trials.
- d. Experiments should be reproducible by others.



Earth's Revolution:

Earth revolves around the Sun. To revolve means to circle around another object. Earth makes one complete revolution around the Sun every 365 days. That is equal to one year. The path a revolving object follows is called its orbit.

Recall that Earth's axis, the imaginary line about which the Earth rotates, is tilted. The tilt causes sunlight to strike different parts of Earth at different angles as it revolves around the Sun during the year. The seasons result from both Earth's tilted axis and its revolution around the Sun.

How long does it take the Earth to revolve around the Sun? _____

The Earth _____ in a path called an _____ around the Sun.

To revolve means to _____ another object.

The Earth revolves around the Sun due to the Sun's _____ pull.

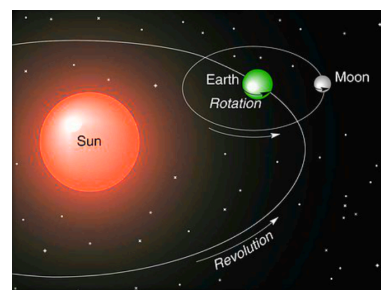
One complete trip around the Sun is a _____.

How long does it take Earth to complete one revolution? _____

Rotation and Revolution

The Earth is **always** _____ on its _____ as it _____ around the Sun.

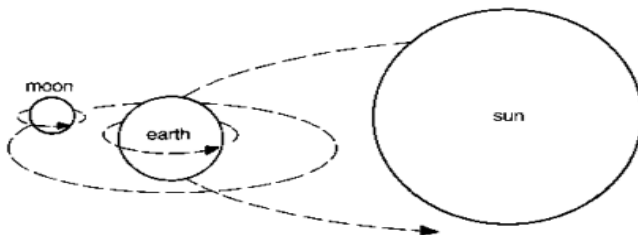
Space



Writing "What's happening to the Earth in this picture?"
Be sure to use academic vocabulary.

Exit Ticket/Check What You Know

1. What is the difference between rotation and revolution?
 - a. Rotation is the way Earth spins. Revolution is how Earth moves around the Sun.
 - b. Revolution is the way Earth spins. Rotation is how Earth moves around the Sun.
 - c. Rotation is the way Earth spins. Revolution is how Earth moves around other planets.
 - d. Rotation is the way Earth moves around the moon. Revolution is how Earth moves around the Sun.
2. Jenna observes that the Sun appears to move across the sky in the daytime. Which of the following explains why this happens?
 - a. Earth's tilt on its axis
 - b. Earth's rotation on its axis
 - c. Earth's orbit around the Moon
 - d. Earth's revolution around the Sun
3. Derrick knows that Earth rotates on its axis. Which of the following is caused by Earth's rotation?
 - a. day and night
 - b. one year on Earth
 - c. phases of the Moon
 - d. Earth's tilt on its axis
4. Kenisha has a yearly calendar on her desk. Which of the following statements might Kenisha make about what happens between January 1st and December 31st?
 - a. The Moon goes through all of its phases once.
 - b. Earth makes one complete rotation on its axis.
 - c. Earth makes one complete revolution around the Sun.
 - d. The Sun makes one complete revolution around Earth.
5. Darius drew the diagram shown below of the Moon, Earth, and the Sun.



Which of the following statements could Darius **best** use as a caption for his diagram?

- a. Earth rotates on its axis as it revolves around the Moon.
- b. Only Earth rotates on its axis, while the Moon revolves around Earth.
- c. Earth and the Moon both rotate on their axes and revolve around each other.
- d. Both Earth and the Moon rotate on their axes and revolve together around the Sun.