Earth in Space: Orbits, Seasons, and Satellites

Earth is part of a vast system in space. Our planet moves around the Sun in a path called an orbit, which is almost a circle but just a little stretched—this shape is called a slight ellipse. Earth moves in an anticlockwise direction around the Sun, and one full trip takes about 365 days, or one year.

Earth spins on an imaginary line called its axis, which is tilted about 23.5 degrees. This tilt causes different parts of Earth to receive more or less sunlight over the year, creating the seasons. When the Northern Hemisphere is tilted toward the Sun, it is summer there. When it is tilted away, it is winter there.

A satellite is an object in space that moves around a larger object. Earth has one natural satellite, the Moon, which orbits around Earth. Satellites—both natural and man-made—stay in orbit because of gravity and their forward motion.

Fill in the Blank

Fill in the blank with the correct words:

1. The path that Earth takes around the Sun is called an _____.
2. Earth's orbit is not a perfect circle, but a slight _____.
3. Earth completes one full orbit around the Sun in about _____ days.
4. The Earth's axis is _____, which causes different seasons.
5. A moon is a natural _____ that orbits a planet.

Word bank: ellipse, 365, satellite, orbit, tilted

Multiple Choice Questions

Choose the correct answer from the choices for each question:

1. What shape best describes Earth's orbit around the Sun?
    - A. Perfect circle
    - B. Rectangle
    - C. Slight ellipse
    - D. Triangle

LIVEWORKSHEETS

2. What causes the different seasons on Earth?
    - A. The distance from the Sun
    - B. The tilt of Earth's axis
    - C. The shape of the Moon
    - D. The number of satellites
3. How long does it take Earth to make one orbit around the Sun?
    - A. 24 hours
    - B. 30 days
    - C. 365 days
    - D. 7 days
4. Which statement is true about satellites?
    - A. All satellites are made by humans
    - B. Only the Sun is a satellite
    - C. The Moon is a natural satellite of Earth
    - D. Satellites do not move
5. When the Northern Hemisphere is tilted toward the Sun, what season is it there?
    - A. Winter
    - B. Spring
    - C. Summer
    - D. Autumn

Open-Ended Questions

Answer the following questions in complete sentences:

1. Explain why the tilt of Earth's axis causes seasons.
2. Describe the difference between a natural satellite and a man-made satellite.
3. What keeps a satellite, like the Moon, in orbit around a planet?

LIVEWORKSHEETS

LIVEWORKSHEETS