

Name: _____ Date: _____

Answer Key: Cosmic Choreography: Earth and the Stars Kindergarten Quiz

Young explorers will act as space architects to synthesize how the shadows in their own backyard reveal the massive movements of our planet.

1. If you were an astronaut looking at Earth, how would you describe how it moves to keep us warm and then cool?

Answer: B) It spins like a top while traveling in a giant circle.

Earth performs two movements at once: it rotates (spins) to create day/night and revolves (circles the sun) to create our year.

2. Imagine you are building a model of the sky. To show what happens when the Earth blocks the sun's light from hitting the moon, you are making a _____.

Answer: B) Lunar Eclipse

A lunar eclipse happens when Earth moves directly between the sun and the moon, casting its shadow on the moon.

3. True or False: If the Earth stopped spinning, one side of the world would stay in bright sunlight all the time.

Answer: A) True

Rotation is what allows every part of Earth to take turns facing the sun; without it, day and night would not cycle.

4. You notice your shadow is very long in the morning and very short at lunchtime. What does this tell you about Earth?

Answer: C) The Earth is turning us away from or toward the sun.

Shadow lengths change because Earth's rotation changes our angle relative to the sun throughout the day.

5. If you want to celebrate your birthday at the exact same spot in Earth's journey around the sun, you must wait for one full _____.

Answer: C) Revolution

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One full trip around the sun is called a revolution, which takes 365 days, or one year.

6. True or False: The North Pole and the South Pole feel the same amount of heat from the sun all year long.

Answer: B) False

Because Earth is tilted, one pole leans toward the sun (summer) while the other leans away (winter).

7. Why does the ocean water move up and down the beach in a pattern called tides?

Answer: B) The moon's gravity pulls on the water like a magnet.

Tides are primarily caused by the gravitational pull of the moon acting on Earth's oceans.

8. When the Earth leans its top half toward the sun, people living there experience the season of _____.

Answer: C) Summer

Leaning toward the sun provides more direct light and heat, which creates the summer season.

9. True or False: A solar eclipse is a special event where the moon blocks the sun's light from reaching Earth.

Answer: A) True

During a solar eclipse, the moon's position perfectly aligns to cover the sun from our perspective.

10. If you could design a planet that had no seasons at all, what would you have to change?

Answer: B) Remove the tilt so the planet stands straight up.

Seasons are caused by Earth's tilt; if Earth stood straight up, the sunlight would hit the same way all year.