

Nova's Cosmic Quest: A Space Quiz

Learning objective: To describe the movement of the Earth and other planets relative to the Sun in the solar system, and to identify the spherical nature of the Sun, Earth, and Moon.

Join Nova the owl on an adventure through the night sky! Read each question carefully and circle the best answer. Good luck, young astronomers!

Answer Key: 1. A (Sun); 2. True; 3. Rotation; 4. B (Orbit); 5. False (It takes roughly 365 days); 6. Spherical; 7. C (Eight); 8. True; 9. Gravity; 10. Axis. Greater Depth Answers: 1. Earth's rotation creates day and night. 2. A planet moves around a star, whereas a moon moves around a planet. 3. Gravity pulls objects towards the centre of the mass. 4. Without the Sun's light and heat, life could not be sustained. 5. Yes, as they are all spherical bodies. 6. Students should suggest that seasons occur due to the tilt of the Earth on its axis during its orbit.

Word bank: Orbit · Spherical · Axis · Solar System · Gravity · Rotation · Planet · Star

1. 1. What is the name of the star at the centre of our Solar System? A) The Sun* B) The Moon C) Polaris D) Mars (1 mark)

2. 2. True or False: The Earth, Moon, and Sun are all spherical in shape. (1 mark)

3. 3. What do we call the spinning movement of the Earth that causes day and night? (1 word) (1 mark)

4. 4. How does the Earth move around the Sun? A) It spins B) It orbits* C) It stays still D) It zig-zags (1 mark)

5. 5. True or False: It takes the Earth 24 hours to complete one full orbit around the Sun. (1 mark)

6. 6. Fill in the blank: The Earth is a _____ object, meaning it is shaped like a ball. (1 mark)

7. 7. How many planets are in our Solar System? A) Five B) Seven C) Eight* D) Ten (1 mark)

8. 8. True or False: The Moon is a natural satellite of the Earth. (1 mark)

9. 9. What invisible force keeps the planets in orbit around the Sun? (1 word) (1 mark)

10. 10. The Earth is tilted on an imaginary line called an _____. (1 word) (1 mark)

Draw: Draw a diagram of the Earth orbiting the Sun. Make sure you label the Sun, the Earth, and draw an arrow to show the path of the orbit.



Extension challenge: Greater Depth Challenges: 1. Explain why we have day and night on Earth. 2. Compare and contrast a planet and a moon. 3. Justify why we cannot feel the Earth spinning even though it moves very quickly. 4. What might happen to life on Earth if the Sun were to suddenly disappear? 5. Are all planets in our solar system shaped like spheres? Explain your reasoning. 6. What might happen if the Earth were not tilted on its axis?