



Name: _____

Date: _____

Objects in the Sky Study Guide

1. Choose the BEST answer that describes why the sun appears to move across the sky.
 - a. The sun rises in the east and sets in the west.
 - b. The sun moves around the Earth.
 - c. The Earth rotates on its axis.**
 - d. The moon orbits around the sun.
2. Explain the difference between rotation and revolution.

Rotation is when the Earth spins around on its axis.
One full rotation can equal about 24 hours or 1 day.

Revolution is when the Earth goes around the sun in a circle. One full revolution around the sun can take about 1 year.

3. Give two reasons as to why we have seasons on Earth.

1. Because of the tilt of the Earth's axis
2. Because of the angle of the sunlight from the sun hitting different parts of the Earth

4. True or False? Summer in Australia is at the same time as summer in the United States.
- a. True
 - b. False**
5. Explain why you think we have longer **hours of daylight** in the summer and shorter days in the winter.

This happens because of the position of the Earth compared to the Sun during its revolution and rotation.

6. James caught the bus to school every morning at 7:15 a.m. He wondered why it was dark at the bus stop in December at 7:15 a.m. and light at the bus stop in May at 7:15 a.m. Choose the BEST answer that explains the difference in the amount of daylight at the bus stop.
- a. Because of daylight savings time
 - b. Because of the tilt of the Earth and the angle of the sun at different positions in the revolution around the sun.**
 - c. Because the Earth's rotation is faster in summer and slower in winter
 - d. Because we move our clocks forward in spring and fall back

7. Explain why the light of the flashlight was brighter at a 90-degree angle.

The light was brighter at a 90-degree angle because the light was more direct and focused on the paper. When it was moved to different angles, the light became more spread out and less bright.

8. How long does it take for the Earth to complete one full rotation?
- a. 7 days
 - b. 1 year
 - c. About 24 hours**
 - d. 30 days
9. Explain what you think would happen to the Earth if we didn't have sunlight.

1. It would be very cold
2. We wouldn't have seasons
3. We wouldn't have any vegetation
4. Humans and animals could become extinct

10. Using scientific evidence, explain how the Earth has days and nights.

When one side of the Earth is facing the sun and receiving sunlight, it is daytime. When the other side of the Earth isn't facing the sun and isn't receiving sunlight, it is nighttime.