Discussion Questions

These questions can be used for group discussion or for written answers in the students' learning logs.

1. How many days does it take for the Earth to make one revolution of the Sun?
   Answer: The Earth takes 365 ¼ days to revolve around the Sun. This is known as one Earth year. Each planet takes a different amount of time to rotate around the Sun.

2. How many times will the Earth rotate as it goes around the sun once?
   Answer: The Earth rotates 365 ¼ times as it revolves around the Sun. This is also the number of days in one Earth year.

3. If it takes 365 ¼ days for the Earth to go around the Sun, but each year only has 365 days, what happens to the ¼ day?
   Answer: Leap Year occurs every 4 years. This is because each 4 times around the Sun, there is a total of one extra day. \((\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = 1)\) This day is added on February 29th every fourth year, making that year 366 days long.

4. How many times does the Moon orbit the Earth in one Earth year?
   Answer: About 12, or 12.3 times. This is why we have about twelve full moons each year.

5. Does the Moon give off its own light? How do you know?
   Answer: No, in this model, the Moon is represented by a Styrofoam ball and does not give off light.

6. If the Moon does not give off its own light, why is it so bright in the night sky?
   Answer: The Moon reflects light from the Sun. In this model, this is represented by the Styrofoam ball (the Moon) reflecting light from the flashlight (the Sun).