



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 $365 \frac{1}{4}$ 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 $365 \frac{1}{4}$ times as it revolves around the Sun. This is also the number of days in one Earth year.

- 3. If it takes $365 \frac{1}{4}$ days for the Earth to go around the Sun, but each year only has 365 days, what happens to the $\frac{1}{4}$ 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).