

LUNAR ECLIPSE

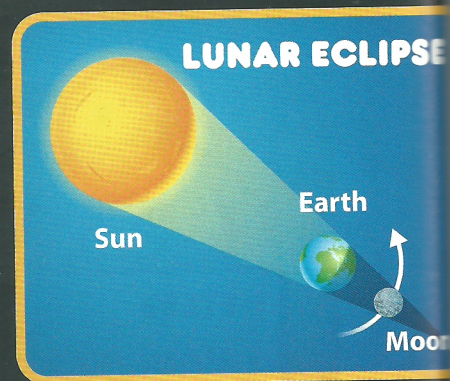
The sun is the most important object in the solar system. Earth gets all of its heat and natural light from the sun. Other nearby planets and our moon also get light from the sun.

We know that Earth **orbits** or moves around the sun. It takes a full year for Earth to travel once around the sun. The moon, on the other hand, orbits Earth. It takes one month for the moon to travel once around Earth. So, the moon is constantly orbiting Earth, and Earth is constantly orbiting the sun at the same time. This causes changes in how much sunlight is reflected onto the moon and therefore how much of the moon we can see from Earth. At different times of the month, we see a full moon or a half moon.

An **eclipse** occurs when a moon or planet temporarily blocks the sun's light from reaching another moon or planet, leaving it in shadow.

'Solar' means relating to the sun and 'lunar' means relating to the moon, so a lunar eclipse is an eclipse of the moon. During a lunar eclipse, Earth temporarily blocks the sun's light from reaching the moon. The moon is right in the shadow of Earth.

A **lunar eclipse** only happens during a full moon. During a total lunar eclipse, the sun, Earth and the moon are aligned. Earth is right in between the sun and the moon, completely blocking the sun's light. Due to the way that light passes through Earth's atmosphere during the eclipse, red light from the sun is reflected onto the moon. The term 'blood moon' is used to describe the moon during a total lunar eclipse because the moon looks bright red. ■



Blood moon during a lunar eclipse

QUICK QUESTIONS

- 1 What is the most important object in the solar system?
- 2 What orbits Earth?
- 3 How long does it take for Earth to orbit the sun?
- 4 When does an eclipse occur?
- 5 What is a blood moon?