

## Key Vocabulary:

**Gravity** – Gravity is a force that holds things to Earth's surface and prevents things from floating off into the atmosphere. It ensures that unsupported objects to fall back down to Earth. It is measured in Newtons (N)

**Solar System** – The collection of eight planets and their moons in orbit round the sun, together with smaller bodies in the form of asteroids, meteoroids and comets.

**Spherical** – Shaped like a sphere

**Waning** – Waning means the moon looks like it is getting smaller.

**Waxing** – Waxing means the moon looks like it is getting larger.

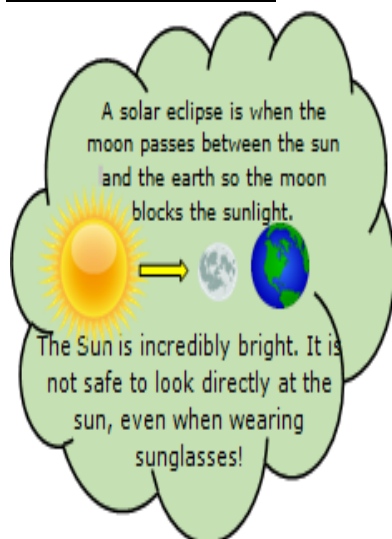
**Reflect** – To throw back. The moon *reflects* the sunlight.

**Phases** – The different ways the moon looks from the Earth over about a month. How much of the moon we see, depends on how much sunlight is hitting it.

**Rotation** – The action of rotating about an axis or centre.

**Celestial Body** – A natural body e.g. the moon, visible in space.

## The Solar Eclipse:



## Holy Family Halewood Year 5 & 6 Science Earth and Space



## Learning Objectives:

- Describe the movement of the Earth, and other planets, relative to the Sun in the solar system
- Describe the movement of the Moon relative to the Earth
- Describe the Sun, Earth and Moon as approximately spherical bodies
- Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky

## The Planets:

### The Sun

A star at the centre of our solar system.  
15 million degrees hot at its centre.  
It is 1.3 million times bigger than earth.



Mercury,  
Venus,  
Earth,  
Mars,  
Jupiter,  
Saturn,  
Uranus,  
Neptune  
(Pluto was reclassified as a dwarf planet in 2006)

## Phases of the Moon:



## Time:

**24hours** - For the Earth to spin once on its axis. (When the Earth faces the sun it is daylight and when it faces away from the sun it is night. It makes the sun appear to travel across the sky)

**28 days** - The moon to orbit the Earth (A lunar month – see Phases of the Moon)

**365 days ¼ days** - The Earth to orbit the sun  
(Every 4 years there is a leap year due to the extra quarter – an extra day in February)

The Earth's tilt on its axis is what causes the 4 seasons. Sometimes it points towards the sun and other times it points away from the sun.