

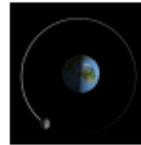


# Earth and Space - Science Knowledge Organiser

## Key Vocabulary

<b>Sun</b>	A huge star that Earth and the other <b>planets</b> in our solar system <b>orbit</b> around.
<b>star</b>	A giant ball of gas held together by its own gravity.
<b>moon</b>	A natural <b>satellite</b> which <b>orbits</b> Earth or other <b>planets</b> .
<b>planet</b>	A large object, round or nearly round, that <b>orbits</b> a <b>star</b> .
<b>sphere</b>	A round 3D shape in the shape of a ball.
<b>spherical bodies</b>	Astronomical objects shapes like <b>spheres</b> .
<b>satellite</b>	Any object or body in space that <b>orbits</b> something else, for example: the <b>Moon</b> is a <b>satellite</b> of Earth.
<b>orbit</b>	To move in a regular, repeating curved path around another object.
<b>rotate</b>	To spin. E.g. Earth <b>rotates</b> on its own <b>axis</b> .
<b>axis</b>	An imaginary line that a body <b>rotates</b> around. E.g. Earth's <b>axis</b> (imaginary line) runs from the North Pole to the South Pole.

## Phases of the moon

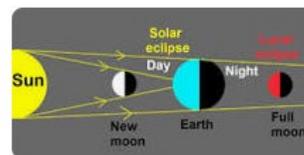


The moon orbits the Earth. It takes about 28 days to complete its orbit.



The phases of the moon are caused by its orbit around the Earth. As the moon orbits the Earth, we can see a different amount of the moon is lit by the sun from Earth.

A **moon** is a **celestial** object that orbits a **planet**. Earth has one moon whereas the planet Jupiter has four and many small ones. The Moon's **gravity** is one sixth of the Earth's gravity, which means that objects weigh less on the Moon than they do on Earth.



A Lunar eclipse happens when the moon **passes** through the shadow of the Earth. This can only occur during a full moon. ... A partial eclipse occurs when only part of the moon passes through Earth's shadow and so only part of the moon appears reddish-brown. Lunar eclipses are safe to view with just your eyes and also with telescopes

- I can describe the life process of reproduction in some plants and animals.
- I can describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals
- I can give reasons for classifying plants and animals based on specific characteristics.
- I can explain that Earth's qualities as a planet mean it is able to support living organism.
- I can describe celestial relationships and define basic components.
- I can use terms such as planets, solar system, sun, moon, rotate, orbit, spherical bodies appropriately when describing the Earth, Sun, Moon and other Solar System bodies.
- I can explain why shadows have the same shape as their objects and what happens to the shadows during the course of the day e.g. it gets shorter and then longer again and predict e.g. by drawing what the shadow will be like at an intermediate time
- I can explain what causes a lunar eclipse
- I know the phases of the Moon.
- I know the appearance of the size and position of the Moon relates to its elliptical orbit.
- I know the relative movement speed of different planets around the Sun.
- I can discuss the effects of gravitational pull on the earth such as tides.
- I know how the Moon influences the tide.