

Earth and Space

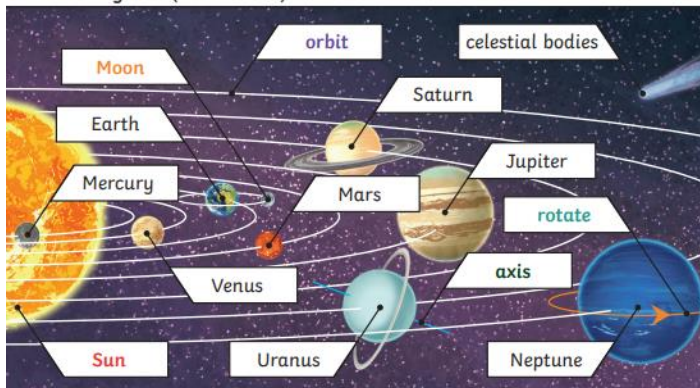
Key Knowledge

The Solar System

The Solar System is the Sun and the planets which orbit around the Sun. It also includes their moons. Asteroids and anything else which orbits the Sun. The Solar System has 8 planets.

Mercury, Venus, Earth and Mars are rocky **planets**. They are mostly made up of metal and rock. Jupiter, Saturn, Uranus and Neptune are mostly made up of gases (helium and hydrogen) although they do have cores made up of rock and metal.

Our Solar System (not to scale)



The Moon takes 28 days to orbit the Earth. This is called a lunar month.



Read more: Vanessa Emeka-Okafor.

Research more: Who were Copernicus, Galileo and Kepler and what did they do?

The Moon

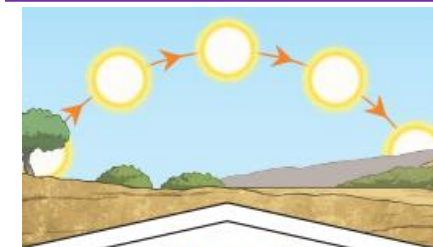
The Moon is a body which orbits a planet and is known as a natural satellite. Some planets have many moons, but Earth only has one. It is a rocky, dusty ball and we call it The Moon.

The Moon doesn't emit (give off) light itself, the 'moonlight' we see is the Sun's light reflected off the lunar surface. So, as the Moon orbits the Earth, the Sun lights up different parts of it, making it seem as if the Moon is changing shape. We call the different views of the Moon the 'phases of the Moon' and each phase has a name.

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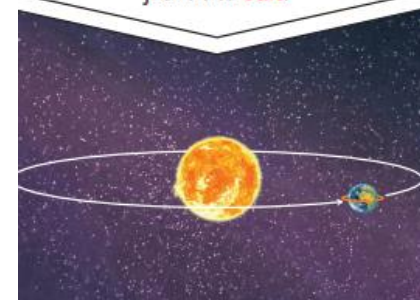


The Sun



It appears to us that the **Sun** moves across the sky during the day but the **Sun** does not move at all. It seems to us that the **Sun** moves because of the movements of Earth.

Earth **rotates** (spins) on its **axis**. It does a full **rotation** once in every 24 hours. At the same time that Earth is **rotating**, it is also **orbiting** (revolving) around the **Sun**. It takes a little more than 365 days to **orbit** the **Sun**. Daytime occurs when the side of Earth is facing towards the **Sun**. Night occurs when the side of Earth is facing away from the **Sun**.



Vanessa is an astrophysicist. She studies exoplanets (planets outside our solar system).