Physics: Earth & Space

Sticky Knowledge

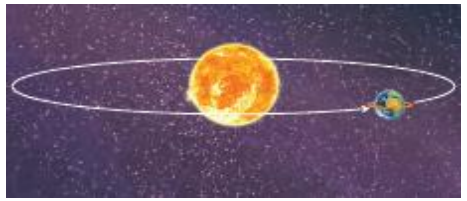
Planets:

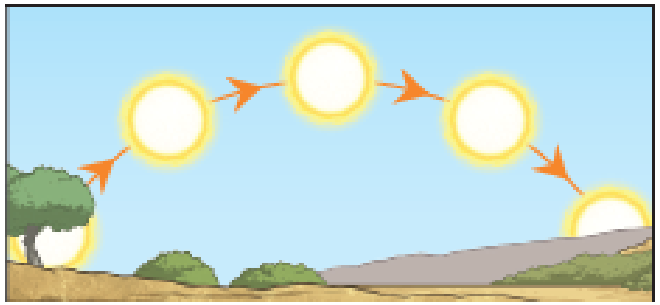
In order to be a planet, it must…

1) be a sphere (or roughly)
2) orbit the sun
3) not orbit another planet
4) must clear its own orbit. This means it must be the dominant body in the orbit i.e. bigger than all the others put together.

Pluto:

Pluto used to be considered a planet but was reclassified as a dwarf planet in 2006. This is because it crosses the orbit of Neptune so isn't the biggest spherical body in its orbit.





The Sun from Earth

It appears that the **Sun** moves across the sky during the day. The **Sun** DOES NOT move. It just seems that way because the Earth rotates every 24 hours.

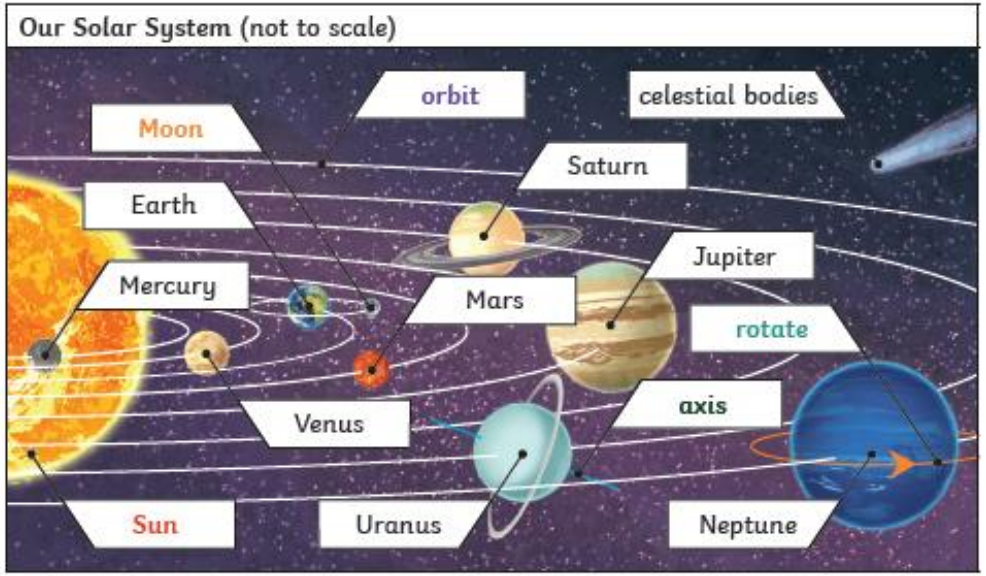
The sun appears to rise in the **East** and set in the **West**.

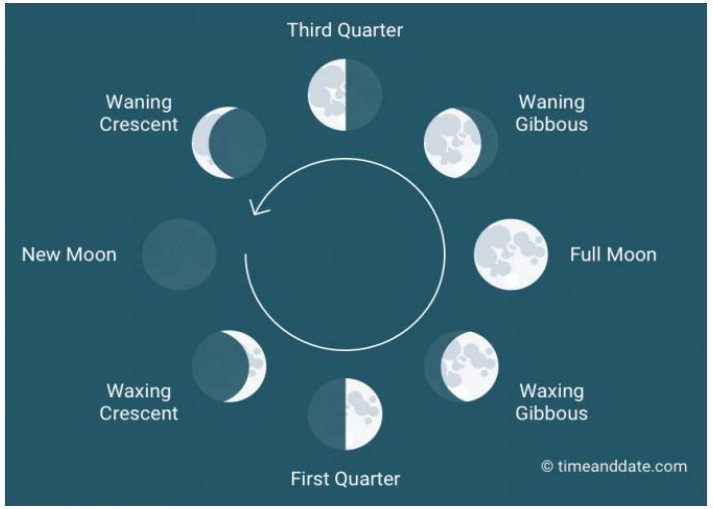
The Earth Moves in 2 ways:

1. The Earth **rotates** (spins) on its axis. It does a full **rotation** once every 24 hours. This causes day and night to happen. Daytime happens when the side of the **Earth** is facing the **Sun**. Night occurs when the side of the **Earth** is facing away from the **Sun**.
2. The **Earth** also **orbits** (revolves) around the **Sun**. It takes more than 365 days to **orbit** the **Sun**.

Geocentric Model

Years ago, people believed the planets and sun orbited Earth.





Heliocentric Model

We now know that the planets orbit the sun.

The Moon

The Moon **orbits** the Earth in an oval shaped path while sinning on its **axis**. At various times a month, the Moon appears to be different shapes. This is because as the Moon **rotates** around Earth, the **Sun** lights up different parts of it. It orbits Earth around every 27-28 days.