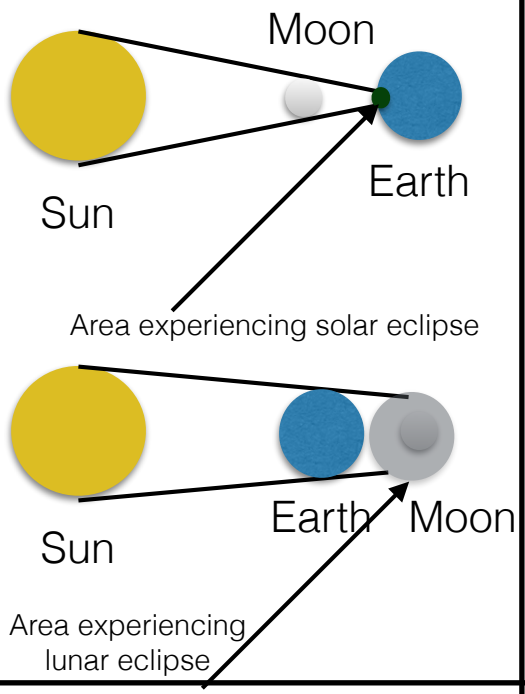
Solar System

Sun
Mercury
Venus
Earth
Mars
Jupiter
Saturn
Uranus
Neptune
Pluto & Asteroid belt

Planets orbit stars

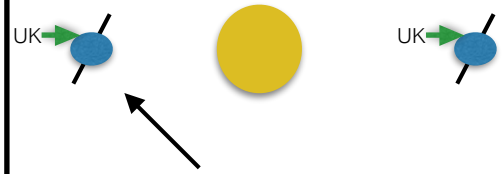
(not in line with other planets, and is much smaller)

Eclipses



Seasons

Northern hemisphere is **tilted** away from the sun so it is winter in the UK

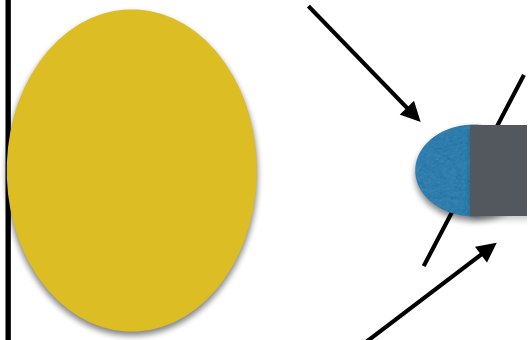


Northern hemisphere is **tilted** towards the sun so it is summer in the UK

It takes 365.25 days to orbit the sun once - this is a year

Day/Night

Side facing the sun is in light so this is day



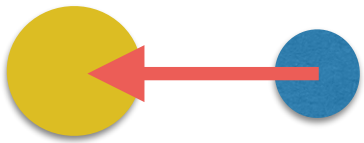
Side facing away is in shadow so is night

It takes 24 hours for the earth to rotate on it's axis once - this is a day.

Gravity

All objects have gravity on all other objects.
This is what keeps planets in orbit around the sun and satellites in orbit around the Earth.

The effect of gravity is greater if the object is bigger or if the object is closer.



The earth is pulling the sun and the sun is pulling the earth.

Water

When planets form; volcanoes release water as a gas.

If the planet is cool enough the water will condense to make seas.

If the planet is too hot the water might stay as a gas.

If the planet is too cold it will turn to ICE.

Atmosphere

Some planets have a gaseous atmosphere, but not all because they might not have the right gases or they might not have enough gravity

Satellites

Satellites are objects that orbit a planet.

Natural satellites are called moons. **Moons don't emit their own light they reflect the sunlight.**

We can tell satellites are much closer that stars because they appear to move much faster in the sky.

Weight

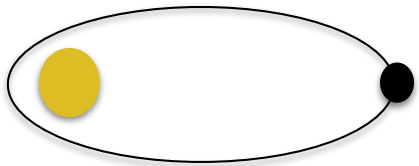
Mass is how much stuff something has in kg
Weight is mass x gravity
Gravity os different on different planets

Stars

Stars emit their own light

Stars appear to move in the sky because the Earth is rotating so it is actually us who are moving.

Comets



Comets and asteroids have eliptical orbits, and travel the fastest when closest to the sun because of the sun's gravity