

# My Knowledge Journal



# Earth and Space

Name: \_\_\_\_\_

## Pre Knowledge Quiz

Q1. The Sun is a...

planet		moon	
black hole		constellation	
star		satellite	

Q2. When the moon rotates around the Earth, it is called...

Q3. When the Earth rotates on its axis, we experience...

A new season		Day and night	
Gravity		An eclipse	

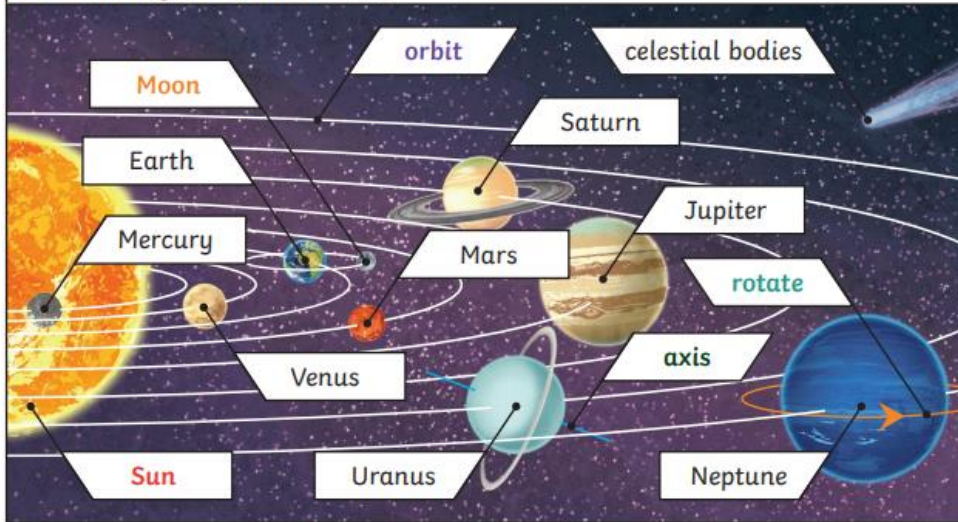
Q4. A celestial body that orbits around a planet is called a...

# Earth and Space Knowledge Organiser

## What should I already know?

- Darkness is the absence of light
- Natural daylight comes from the sun
- Shadows are formed when light from a light source is blocked by a solid object

Our Solar System (not to scale)



## The Moon

The Moon orbits the Earth in an oval-shaped path while spinning on its axis. At various times in a month, the Moon appears to be different shapes. This is because as the Moon rotates round the Earth, the Sun lights up different parts of it.

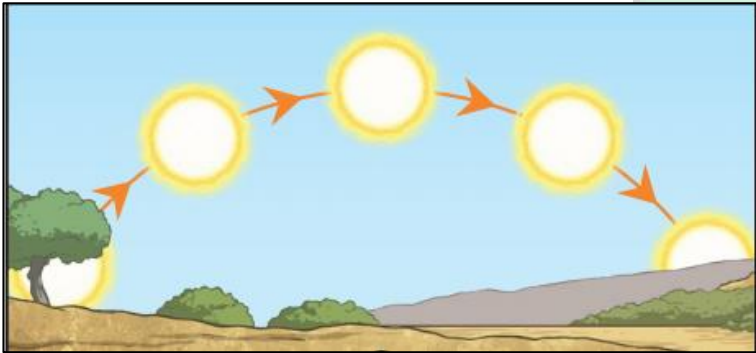
## Key Vocabulary

Sun	A huge star that Earth and the other planets in our Solar System orbit around.
star	A giant ball of gas held together by its own gravity.
moon	A natural satellite which orbits Earth or other planets.
planet	A large object, round or nearly round, that orbits a star.
sphere	A round 3D shape in the shape of a ball.
spherical bodies	Astronomical objects shaped like spheres like the Earth.
satellite	Any object or body in space that orbits something else, for example: the Moon is a satellite of Earth.
axis	An imaginary line around which a spherical body rotates, for example the Earth.
rotation	The action of spinning around an axis or a centre.
constellation	A group of stars which form a recognisable pattern.
orbit	The curved path of a celestial object (e.g. Earth) around a star, planet or moon.
celestial	An object positioned in the sky or outer space.
Milky Way	The galaxy that contains our solar system.
sunrise	The time in the morning when the sun appears.
sunset	The time in the evening when the sun disappears.
waxing moon	Any phase of the moon between a new moon and a full moon.
waning moon	Any phase of the moon between a full moon and a new moon.
geocentric model	A belief that people used to have that other planets and the Sun orbited around the Earth.
heliocentric model	The structure of the solar system where the planets orbit around the Sun.
astronomer	Someone who studies or is an expert in astronomy (space science).

## The planets

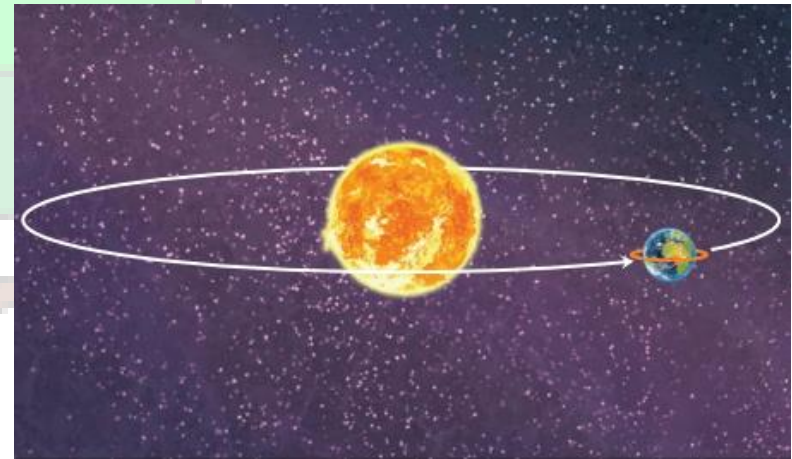
Mercury, Venus, Earth and Mars are rocky planets. They are mostly made up of metal and rock. Jupiter, Saturn, Uranus and Neptune are mostly made of gases (helium and hydrogen) although they do have cores made up of rock and metal.

Pluto used to be considered a planet but was reclassified as a dwarf planet in 2006.



## Earth's Orbit

Earth rotates (spins) on its axis. It does a full rotation once every 24 hours. At the same time that the Earth is rotating, it is also orbiting (revolving) around the Sun. It takes a little more than 365 days to orbit the Sun.



## Day and Night

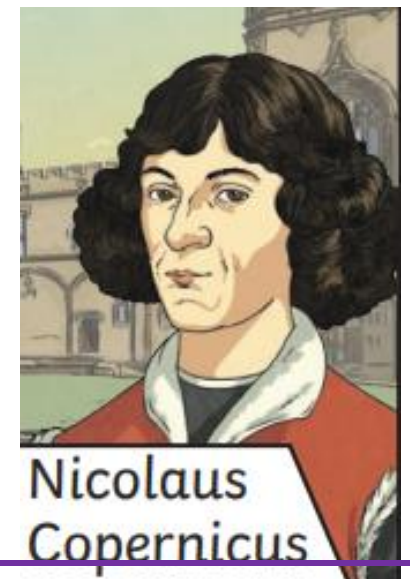
It appears to us that the Sun moves across the sky during the day but the Sun does not move at all. It seems to us that the Sun moves because of the movements of the Earth. Daytime occurs when one side of the Earth is facing towards the Sun. Night occurs when the side of the Earth is facing away from the Sun.

## Geocentric Model

Years ago people believed that planets moved around the Earth.

## Heliocentric Model

The work and ideas of many astronomers (such as Copernicus and Kepler) combined over many years before the idea of the heliocentric model was developed. Galileo's work on gravity allowed astronomers to understand how planets stayed in orbit.





# My Knowledge Builder

My Previous Knowledge...

New knowledge ...

Week  
1

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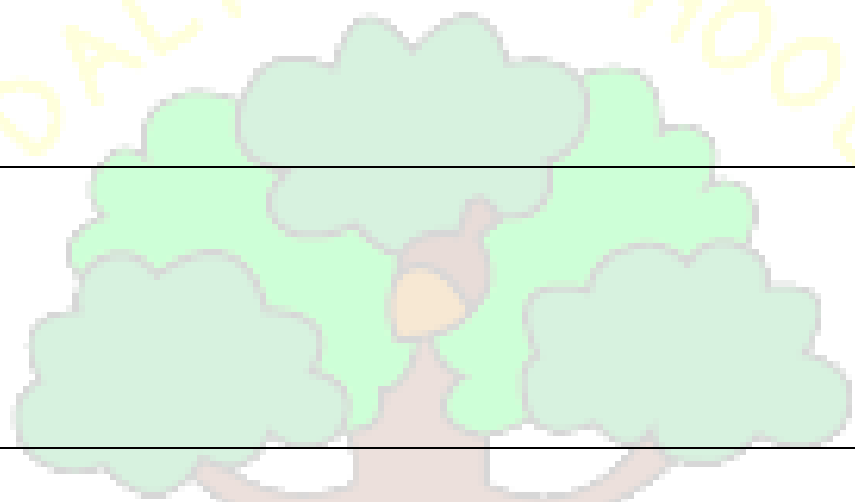
Week  
2

- 
- 
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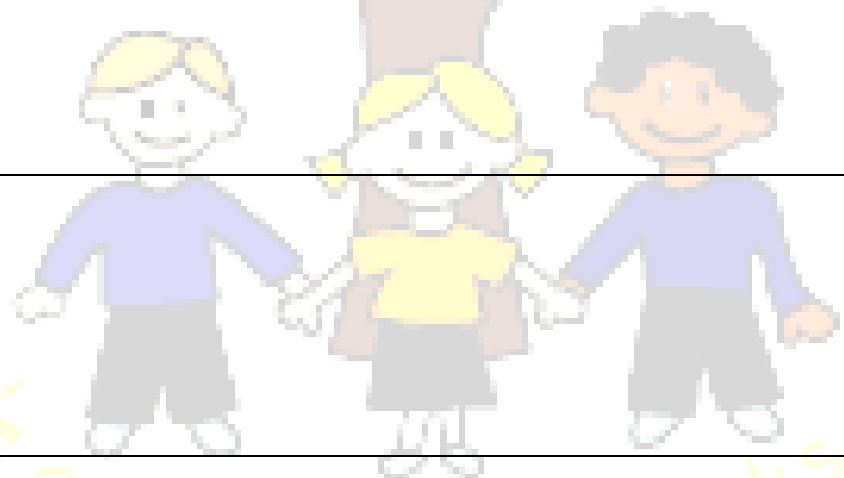


Week 3	<ul style="list-style-type: none"><li>•</li><li>•</li><li>•</li></ul>
Week 4	<ul style="list-style-type: none"><li>•</li><li>•</li><li>•</li></ul>
Week 5	<ul style="list-style-type: none"><li>•</li><li>•</li><li>•</li></ul>
Week 6	<ul style="list-style-type: none"><li>•</li><li>•</li><li>•</li></ul>

DALTON SCHOOL



From little acorns, mighty oaks will grow



# DALTON SCHOOL

planet		moon	
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Week 7	<ul style="list-style-type: none"><li>•</li><li>•</li><li>•</li></ul>
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## Post Knowledge Quiz

Q1. The Sun is a...

From little acorns, mighty oaks will grow

black hole		constellation	
star		satellite	

Q2. When the moon rotates around the Earth, it is called...

Q3. When the Earth rotates on its axis, we experience...

Q4. A celestial body that orbits around a planet is called a...

Gravity		An eclipse	
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CALTON SCHOOL

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cher corns, mighty oaks will grow

