



Roby Park Primary School Year 5
Physics
Earth & Space



What we already know:

- ✓ We have four seasons (autumn, winter, spring and summer).
- ✓ The Sun is a source of light but the moon is not.
- ✓ Know that a shadow is caused when an object blocks light from passing through it.
- ✓ To know the history of space travel.
- ✓ The properties of a sphere.

We are learning to:

- Describe the Sun, Earth and Moon as approximately spherical bodies
- Describe the movement of the Earth, and other planets, relative to the Sun in the solar system
- Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.
- Describe the movement of the Moon relative to the Earth.





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Key Vocabulary

Axis – An imaginary line about which a body rotates.

Celestial – Positioned in or relating to the sky, or outer space as observed in the astronomy.

Geocentric – Where people believed the earth was at the centre of the solar system.

Heliocentric – Representing the sun as the centre of the solar system, the modern view of the solar system.

Orbit – The regularly repeated oval course of a celestial object around a star or planet.

Planet – A celestial body moving in orbit round a star.

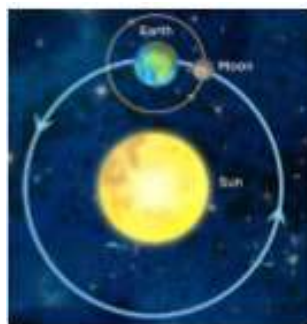
Rotation – The action of rotating about an axis or centre.

Solar system – The collection of eight planets and their moons in orbit round the sun.

Star – A fixed luminous point in the night sky which is a large, remote body like the sun.

Sun – The star round which planets orbit.

The Sun, Earth and Moon are approximately spherical. The Earth orbits the Sun. The Moon orbits Earth.



The Power of Five

Key facts

- 1) The nine planets orbit the sun. We orbit the sun which takes 1 year/ 365 days.
- 2) Because we orbit the sun, we have different seasons. The further away we are – the colder our country is.
- 3) The moon orbits the Earth and affects the tides – this takes approximately 30 days.
- 4) The Earth spins on its axis in an anti-clockwise direction as it orbits the sun.
- 5) The rotation of the Earth causes day and night. The earth takes 24 hours to complete one rotation.
- 6) The moon can appear to change shape in the sky due to its position in relation to the sun. As the moon rotates around the earth – this takes approximately one month.

The Solar System

There are 8 planets in our Solar System (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune). Pluto is a dwarf planet.

Investigate!

Select objects to represent Earth, the Sun and the Moon.

Create your own mnemonics for remembering the order of the planets. Go outside and model planets orbiting the Sun.

Create a short film explaining how we get day and night.

Model the phases of the Moon.





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5Ws

- What does the Moon Orbit?
- Where does the Earth rotate?
- Why does it seem like the sun moves?
- What do the Sun, Earth and Moon all have in common?
- Which planet is nearest to the sun?

3 2 1

List 3 facts about the sun

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List 2 beliefs of how planets move.

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Recall 1 fact about a planet

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List 5 planets



VOCABULARY UNSCRAMBLE

b r o t i

The path of an object around a star

s a t n o r o r e m

Someone who studies space science.

o m o n

The natural satellite if the earth visible by reflected light from the sun.

x a s i

The imaginary line about which a body rotates.

Speedy Pencil. Write as much as you can remember in 5 minutes



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