## Big Question: Is it rocket science?

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| **LQ1** | How do we know the Sun, Moon and Earth are spherical? |
| **LQ 2** | What are the names of the planets in our solar system? Can you describe their features? |
| **LQ 3** | How does the Earth, and other planets, move in relation to the sun, in the solar system? (Geocentric vs Heliocentric theories.) |
| **LQ 4** | Why does the Sun appear to move? |
| **LQ 5** | Why is night time and day time different across the world? |
| **LQ 6** | What are the different phases of the moon? |
| **End Product** | Model solar system focusing on the correct distance between planets and their relation to the Sun. |
| **Links to being previously taught.** | Not taught previously. |
| **Cross-curricular links. English/Art** | **Art and DT – Create a model solar system. English – Explanation text about a planet, newspaper report Apollo 13 mission.** |
| **Vocabulary** | Sun, star, moon, planet, sphere, spherical |

## Exciting Books


## Sticky Knowledge.

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

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

**The Moon orbits the Sun in an oval shaped path while spinning on its axis.**

**At various times in the month, the Moon appears to the different shapes. This is because as the Moon rotates around the Earth, the sun lights up different parts of it. The different phases of the moon are: new moon, waxing crescent, first quarter, waxing gibbous, full moon, waning gibbous, third quarter and waxing crescent.**

**Earth rotates on its axis, it does a full rotation once every 24hours. At the same time that the Earth is rotating, it is also orbiting around the Sun. It takes 365 days and a quarter. This additional quarter every 4 years is where the extra day (leap year) comes from.**

**Daytime occurs when the side of the Earth is facing towards the sun. Night time occurs when the side of the Earth is facing away from the sun.**

**The planets in the solar system are: Mercury, Venus,**

## Key Skills

**Science Objectives**

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

**Working Scientifically**

**Plan and carry out a scientific enquiry to answer questions, including recognising and controlling variables where necessary.**
**Make a prediction with reasons**
**Present a report of their findings through writing, display and presentations**