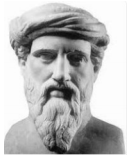
Hillcross Primary School

Third Rock from the Sun. What on Earth is going on?

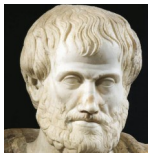
Year 5 Knowledge Organisers 2023

How do we know that the sun, Earth and moon are spherical?



Pythagoras believed that the Earth was circular. He believed the perfect shape was a circle

Galileo Galilei believed the Earth was round using evidence that ships appear smaller the further they go and then seem to disappear over the horizon



Aristotle studied the stars noticing planets move around in a spherical orbit and believed that the Earth, moon and sun would be spherical too.

Why does the moon appear to move in the sky?

The Moon doesn't move. The moon **orbits** the Earth. This takes 28 days (or one lunar month.)

As it moves, some of the light is blocked from the Sun by the Earth. This means we see different parts of the Moon as it makes its orbit around Earth.

The Moon appears to change shape as we see more or less of it. These shapes are called the phases of the Moon.

Applying Past Knowledge

This learning links with the lessons you had in year 1 and 3 about:

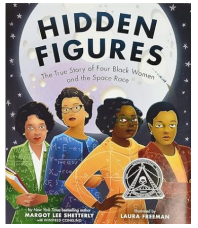
How the Earth has seasons (In Year 1)

Light (in Year 3)

What makes each planet unique?

Each planet in the solar systems experiences day and night, hot and cold and the lengths of their days and years different depending on their distance from the sun.

Who are the 'Hidden Three' from Apollo 13?



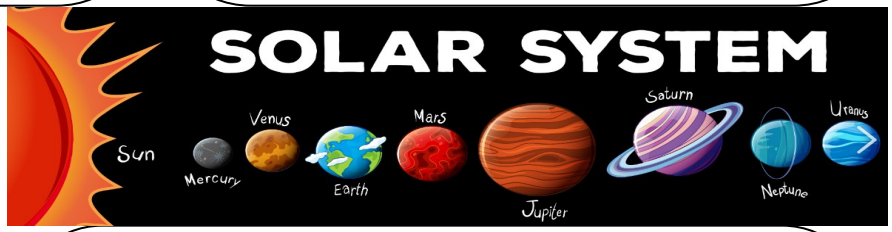
Katherine Johnson, Mary Jackson, Dorothy Vaughan.

Why was Pluto denominated as a planet?

In 2006, Pluto was denominated from a planet to a dwarf planet as it is too small.

Key Vocabulary

- **Planet** – a celestial body which orbits the sun.
- **Moon** – the Earths only natural satellite
- **Solar system —** our system of 8 planets orbiting the sun
- **Sun** – A sphere of glowing, burning gas. Our closest star.
- **Earth** – Our solar systems 3rd planet. The only planet known to have liquid water on it.
- **Orbit—** the curved path of a planet or spaceship around a star.
- **Axis**— an imaginary line about which a planet rotates.



How do we get day and night?

- As Earth orbits the Sun, it rotates on its axis . Each rotation of Earth on its axis takes 24 hours. This period of time is called a day.
- As Earth rotates on its axis, the side of Earth facing towards the Sun is lit by the Sun. People living on this side of the Earth experience day.
- The opposite side of Earth at this point is facing away from the Sun and people living on this side experience night.