

## Scientist



Mai Jemison  
(Astronaut)



Dr Helen Mason  
(Solar scientist)

## Skills

I'm presenting findings and conclusions like an astrophysicist.



I'm using scientific diagrams and labels like an astronautical engineer.



## Careers

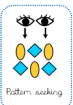
Astronaut (travels to space to carry out research)  
Astronautical engineer (develops spacecraft)  
Astrophysicist (studies the physics of space and objects in space)

## Enquiries



How does the length of daylight hours change in each season?

How does the moon change over the course of a month?

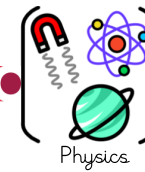


Is there a pattern between the size of a planet and the time it takes to travel around the Sun?

How could you organise all the objects in the solar system into groups?



How have our ideas about the solar system changed over time?



## Main idea

Pupils will learn to describe the movement of the Earth, and other planets, relative to the Sun in the solar system. They will use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.



## Key Learning

- Describe the movement of the Moon relative to the Earth
- Describe the Sun, Earth and Moon as approximately spherical bodies
- Use a model of the Sun and Earth that enables them to explain day and night.
- The Sun is a star at the centre of our solar system and that it has eight planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune (Pluto was reclassified as a 'dwarf planet' in 2006).
- Understand that a moon is a celestial body that orbits a planet (Earth has one moon; Jupiter has four large moons and numerous smaller ones).

## What you should already know

The difference between light sources and reflective surfaces and objects.

That shadows are an area of darkness produced by an object coming between rays of light and a surface.

That shadows change depending on the position of the light source.

## What comes next?

Year 6 - Exploring the way that light behaves, such as travelling in straight lines. Learn about light sources, reflection and shadows in more detail through investigations.

## Key vocabulary

Sun	Venus
Moon	Earth
Planets	Mars
Star	Jupiter
Solar system	Saturn
Orbit	Uranus
Mercury	Neptune

## Literacy Links



George's Secret Key to the Universe  
(Lucy & Stephen Hawking)

# Year 5: Earth & Space



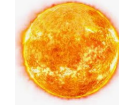
Sun: the star in the middle of our solar system. The earth and other planets rotate around it and receive heat and light from it.



Moon: the earth's natural satellite. The moon does not give off light. Instead, its shine comes from the light it reflects from the sun.



Planets: a large body in outer space that circles around the sun or another star.



Star: giant spheres of superhot gas made up mostly of hydrogen and helium.



Solar System: our Sun, its eight planets and their moons, and all other bodies that travel around the Sun.



Orbit: the curved path in which a planet, satellite, or spacecraft moves in a circle around another body.



Mercury: the planet of the solar system that is nearest to the sun.



Venus: the sixth largest planet in the solar system and second in distance from the sun.



Earth: the fifth largest planet in our solar system and the third in distance from the sun.



Mars: the seventh largest planet in the solar system and fourth in distance from the sun.



Jupiter: the largest planet in the solar system and fifth in distance from the sun.



Saturn: the second largest planet in the solar system and sixth in distance from the sun.

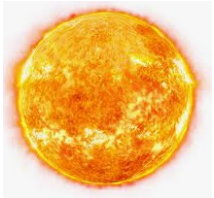


Uranus: the third largest planet in the solar system and seventh in distance from the sun.



Neptune: the fourth largest planet in the solar system and eighth in distance from the sun.

# Year 5: Earth & Space



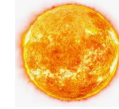
Sun



Moon



Planets



Star



Solar System



Orbit



Mercury



Venus



Earth



Mars



Jupiter



Saturn



Uranus



Neptune