Year	5 - 1	Term	1	Science
LGUI	J -			

### What is the solar system?



#### **Curriculum Key Question: Where are** we going?

Working Scientifically Skills

planning different types of scientific enquiries to answer questions, including recognising and controlling variables accuracy and where necessary;

taking measurements, recording data and using a range of scientific equipment, with increasing precision, taking repeat readings when appropriate;

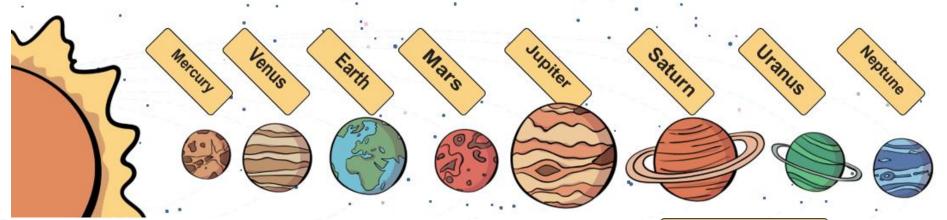
results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs. bar and line graphs;

using test results to make predictions to set up further comparative and fair tests;

reporting and presenting findings from enquiries. including conclusions, causal been used to support relationships and explanations of and a degree arguments. of trust in results, in oral and written forms such as displays and other presentations;

identifying scientific evidence that has or refute ideas or

In our solar system, there are eight planets. They all orbit the Sun, which sits in the centre. The planets closest to the Sun are the hottest, and the planets furthest away are the coldest. Our planet, Earth, is just the right temperature for life. Earth is the only planet in our solar system that has life.



### The Sun

The Sun is not a planet! It is a star. It is at the centre of our solar system and gives light and heat to all the planets in it. It also has a gravitational pull that keeps all the planets in orbit around it.

# Did you know?

There used to be **nine planets** in our **solar system**. There was a planet called Pluto that was even further away than Neptune. Pluto used to be a planet until scientists deemed it 'too small' as some other planets' moons were bigger than it. It is now categorised as a dwarf planet instead.

### Orbits

All the planets in our solar system **orbit the Sun**. The Sun is at the **centre of our solar system**. Each planet takes a different amount of time to orbit
the Sun, depending on how far away it is and how slowly it moves.

Planets orbit the Sun because of **gravity**. The Sun's gravitational pull keeps
all the planets in orbit. Planets travel on an **elliptical path** around the Sun,
which keeps them from falling into the Sun. Below is a table showing how
long each planet takes to orbit the Sun.

Mercury	87.97 Earth days		
Venus	224.70 Earth days		
Earth	365.25 Earth days		
Mars	686.98 Earth days		
Jupiter	4332.82 Earth days		
Saturn	10,755.70 Earth days		
Uranus	30,687.15 Earth days		
Neptune	60,190.03 Earth days		

### Did you know?

People used to think the Earth was flat! Around **350 BC**, a scientist named **Aristotle** proved it was a **sphere**.

### Moons

We are not the only planet with a moon.

Some planets have more moons than us!

Mercury and Venus - 0 moons

Earth - 1 moon

Mars - 2 moons

Jupiter - 79 moons

Saturn - 82 moons

Uranus - 27 moons

Neptune - 14 moons



## Key Vocabulary

dwarf planet - a small planet

**friction** - the force that acts upon one surface when it moves against another

gravity - a pull force that acts at a distance

orbit - the curved path around a star, planet or moon

planet - an object in space that orbits a star

rotate - to move in a circle around an axis

**solar system** - the name given to our Sun and eight planets and their moons

star - an object in space made of luminous plasma (bright gas) held together by its own gravity

spherical – shaped like a sphere