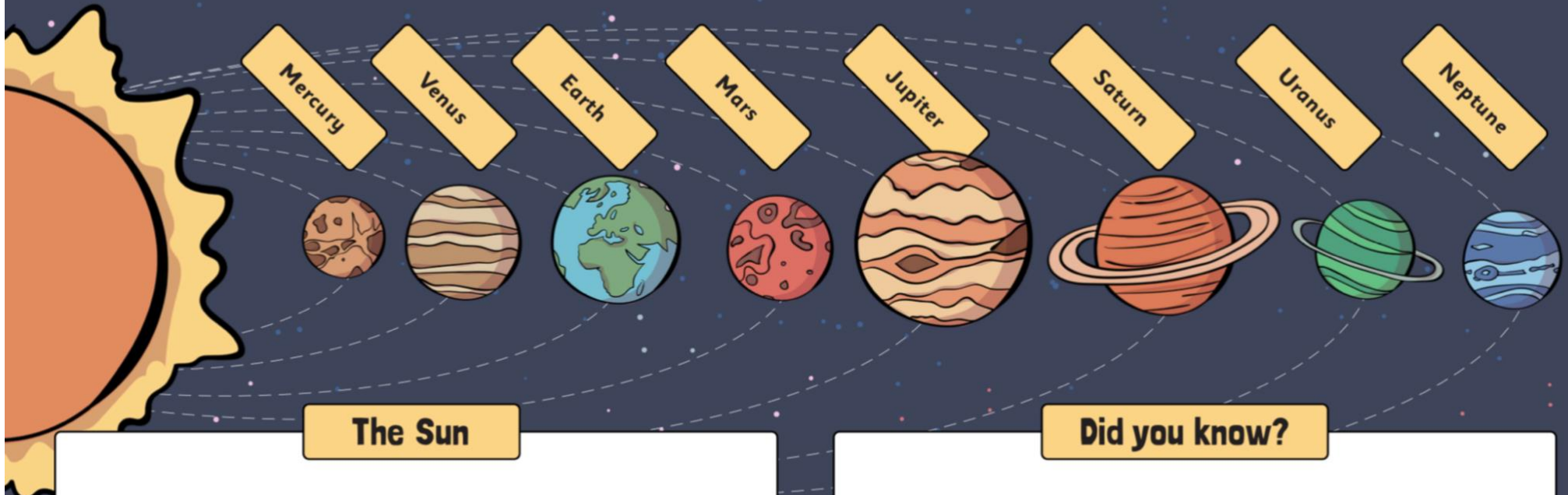




Important Information

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**.

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

pull - to move something towards

push - to move something away

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

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

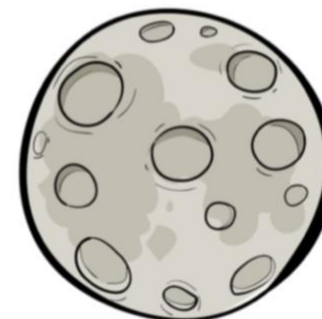
Mars - **2** moons

Jupiter - **79** moons

Saturn - **82** moons

Uranus - **27** moons

Neptune - **14** moons



Progression of skills in Science: Working Scientifically

Year 4

Throughout the year, pupils will:

- ask relevant questions and use different types of scientific enquiries to answer them
- set up simple practical enquiries, comparative and fair tests
- make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- gather, record, classify and present data in a variety of ways to help in answering questions
- identify differences, similarities or changes related to simple scientific ideas and processes
- report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- use straightforward scientific evidence to answer questions or to support their findings
- use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions

Year 5

Throughout the year, pupils will:

- plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- identify scientific evidence that has been used to support or refute ideas or arguments
- report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
- use test results to make predictions to set up further comparative and fair tests

Earth and Space (Y4/5)

Within this unit, children will be able to:

- describe the movement of the Earth, and other planets, relative to the Sun
- 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