

# Earth and Space Knowledge Organiser

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 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

