## 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

## Key Vocabulary

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 $\mathbf{3 5 0}$ BC, a scientist named Aristotle proved it was a sphere.
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 - $\mathbf{0}$ moons
Earth - 1 moon
Mars-2 moons
Jupiter-79 moons
Saturn - 82 moons
Uranus - 27 moons
Neptune - 14 moons


