## Earth and Space

- Learning Objective:

To describe the movements of

- the Sun, Earth.and Moon.

What do you already know about Earth and space? Do you know the scientific meaning of any of these words and how they might relate to this science topic?

## seasons

## Sun <br> Moon

## spherical

axis

## orbit planet

star

## Moon

## Earth

This lesson we will be focusing on these three celestial bodies. Can you tell your partner what they are? What scientific language can you use?
celestial: adj. relating to the sky or outer space

The Sun is at the centre of our solar system. It is a star made of burning gases. It burns at over $5000^{\circ} \mathrm{C}$ which provides the solar system with light and warmth.

The light from the Sun only takes eight minutes to travel the 149.6 million km to Earth!

## Sun

The Sun is the biggest object in our solär system. It makes up $98 \%$ of the total mass!

The Sun has a roughly spherical shape which is about $1,400,000 \mathrm{~km}$ in diameter.

- Earth has a diameter of just over 13,500 km. This means the Sun could fit 1,300,000 Earths inside it!
roughly spherical: adj. roughly shaped like a ball


## Earth .

Earth is a planet. It is the third planet from the Sun and is the only one which has the correct conditions to sustain human life (us!).

Earth is also roughly spherical in shape. We say 'roughly' because we know that no planets, moons or stars are perfect spheres.

## . Moon

The Moon is a special celestial object called a natural satellite. This means it is à naturally occurring object (not manmade) which orbits a planet. The Moon orbits Earth but dọesn't have anything orbiting it.

The Moon is also, you guessed it, roughly spherical in shape. It is about a quarter of the size of Earth.

We've used the word orbit a lot to help us describe these celestial bodies.
What do you think orbit means? Can you use it in a sentence to describe how the Sun, Moon and Earth are linked?

An orbit is a repeating path that - an object in space takes around another, larger object. The path of an örbit is normally elliptical or oval shaped, rather than a perfect circlé.

Earth and the Moon, as well as the other planets in the solar system, orbit in an anticlockwise direction.

How long does it take the Moon to orbit Earth? it take Earth to orbit the Sun?

Let's make a human model of the Sun, Moon and Earth! As we create it, think about these questions.



