

All children – regardless of gender, starting point or background – will have the opportunity to engage with a high-quality science education. They will be equipped with the knowledge, skills and vocabulary to understand how science can be used to explain what is occurring, predict how things will behave and analyse caused. We intend to inspire a sense of enjoyment and curiosity about science.

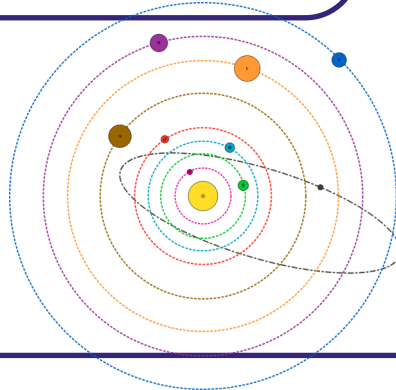
## Earth and Space



Autumn 2

### Igniting Prior Knowledge:

- In the UK, there are four seasons: spring, summer, autumn and winter.
- In the winter, daytime is shorter and it gets light later and dark earlier. In the summer, the daytime is longer, it gets light earlier and dark later (sunrise and sunset).



### Key Vocabulary:

- Planets
- Spherical
- Solar System
- Rotates
- Orbit
- Planets
- Satellite
- Axis

### New Knowledge

- The sun, earth, moon, other planets and their moons are approximately spherical.
- Ideas about our solar system have changed over time. Scientists believe it formed after the 'Big Bang'.
- The Sun is a star. It is at the centre of our solar system.
- There are 8 planets (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune).
- These travel around the Sun in fixed orbits.
- Earth takes 365  $\frac{1}{4}$  days to complete its orbit around the Sun.
- Telescopes and satellite technology allow us to study the Solar System.
- Technical innovations have allowed people to travel into space.
- The Earth has a north and south hemisphere.
- The Moon orbits the Earth. It takes about 28 days to complete its orbit.
- From Earth, the moon appears to change shape from a tiny sliver to a full moon and back again, because from our spot on Earth, we see different parts of the moon lit up by the sun as the moon travels around the Earth.
- The Earth is slightly tilted on its axis.
- The Earth rotates (spins) on its axis every 24 hours.
- As Earth rotates half faces the Sun (day) and half is facing away from the Sun (night).
- As the Earth rotates, the sun appears to move across the sky from east to west because the Earth rotates anticlockwise (if looking down over the North Pole) from west to east.