

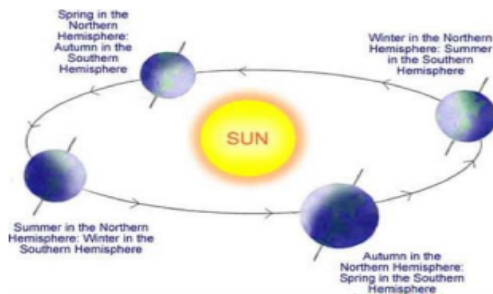
# Science Subject Knowledge Bank

## Year 5: Earth and Space

<u>Vocabulary</u>	<u>Definition</u>
<b>Solar System</b>	A group of planets and their moons that revolve around a star (the sun).
<b>Orbit</b>	A regular repeating path that one object takes around another one in space.
<b>axis</b>	An imaginary line about which an object rotates.

### What is night and day?

- The Earth rotates on its axis anti-clockwise and makes a complete rotation over 24 hours (a day).
- This makes it appear as the Sun moves through the sky but the Earth's rotation causes day and night.
- Different parts of the Earth experience daylight at different times - this means that it is morning, afternoon and night in different places. This is also the reason why we have time zones.
- Because of the Earth's tilt, the poles experience 24 hours of sunlight in the summer, and very few hours of sunlight in the winter.
- As the Earth rotates, shadows that are formed change in size and orientation.



### The sun, Earth and moon

- The Sun, Earth and Moon are approximately spherical.
- The Earth orbits the Sun.
- The Moon orbits Earth.

### Why do we have seasons?

- The Earth takes 365 and a quarter days to orbit the Sun.
- Because of the extra quarter day, it takes to orbit the Sun, every four years on Earth is a leap year.
- It is the Earth's tilt that causes the seasons.

### What is the moon's relationship with earth?

- The Moon orbits the Earth anticlockwise and takes approximately 28 days.
- The Moon spins once on its axis every time it orbits Earth. This means that we only see one side of the Moon.
- The Moon has different phases depending on where it is in its orbit.
- The Moon's gravity causes high and low tides.

### What is in our Solar System?

- There are 8 planets in our Solar System (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune). Pluto is a dwarf planet.
- They all orbit the Sun, which is a star, and they all have moons.
- The first four planets are relatively small and rocky (terrestrial or rocky), while the four outer planets are gas giants (Jupiter and Saturn) or ice giants (Uranus and Neptune).
- There are also asteroids, meteoroids and comets in the Solar System.
- The Solar System is in a galaxy called the Milky Way.
- The galaxy is in the universe.

