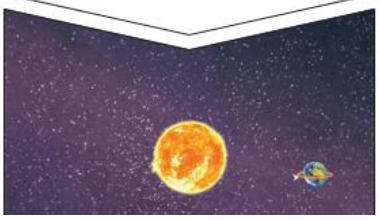
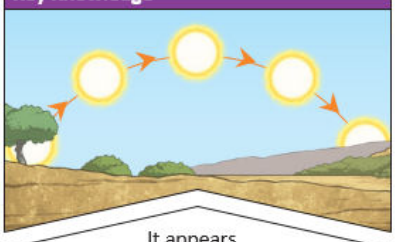
EARTH AND SPACE

Earth rotates (spins) on its axis. It does a full rotation once in every 24 hours. At the same time that Earth is rotating, it is also orbiting (revolving) around the Sun. It takes a little more than 365 days to orbit the Sun. Daytime occurs when the side of Earth is facing towards the Sun. Night occurs when the side of Earth is facing away from the Sun.



Key Knowledge



It appears to us that the Sun moves across the sky during the day but the Sun does not move at all. It seems to us that the Sun moves because of the movements of Earth.

Earth rotates on an axis. During the winter, the North Pole is tilted away from the Sun's rays. As Earth travels around the Sun, the tilt of Earth changes. By June, the North Pole is tilted towards the Sun and the days become very long. Earth takes a year to orbit the Sun and it is the tilt which creates the seasons.

Key vocabulary	Definition
Solar System	The solar system consists of the sun and everything that orbits, or travels around the Sun.
Sun	A huge star that Earth and the other planets in our solar system orbit around.
Star	A giant ball of gas held together by its own gravity.
Moon	A natural satellite which orbits Earth or other planets.
Planet	A large object, round or nearly round, that orbits a star.
Sphere	A round 3D shape in the shape of a ball.
Satellite	Any object or body in space that orbits something else, for example: the Moon is a satellite of Earth.
Orbit	To move in a regular, repeating curved path around another object.
Rotate	To spin. E.g. Earth rotates on its own axis.
Lunar	To do with a moon.
Solar	To do with a Sun.
Stellar	To do with a star.

Key Knowledge and Understanding:

Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.
Create a mnemonic to help remember the order of the planets.
Research some facts about each of the planets.
Describe the movement of the Moon relative to the Earth.
Know that the Sun/Earth/Moon are approximately spherical bodies.
Use the idea of the Earth's rotation to explain day and night using a model.
Know that the Earth spins once around its own axis in 24 hours, giving day and night and show using a model.
Know that the Earth orbits the Sun in one year.
Know that we can see the Moon because the Sun's light reflects off it and draw this on a diagram.
Know that the Moon orbits the Earth in approximately 28 days and changes to the appearance of the moon are evidence of this.
Be able to simple describe the phases of the moon.
Know that the Sun appears to move across the sky from East to West and this causes shadows to change during the day.
Investigate the length of a shadow throughout the day.
Changes to shadow length over a day or changes to sunrise and sunset times over a year are evidence supporting the movement of the Earth.