



Science Knowledge Organiser

This is physics.
Physics is the study
of matter.

Earth and Space

Scientist



Mae Jemison

Key Vocabulary

- gravity
- sun
- star
- planet
- hemisphere
- Moon
- orbit
- axis
- equator
- solar system
- sphere
- revolve

Key Knowledge

The sun is a star: a huge ball of hot gas that gives off light and heat. The Earth and all of the planets in the Solar System orbit the Sun. It takes the Earth just over 365 days to make one complete orbit around the sun - this is one year. The Earth and the other planets are held in place around the Sun by gravity - the same force that keeps you on the Earth! The Earth is always spinning around. When a point on Earth is facing the Sun, it is daytime. When facing away, it is night time. It takes 24 hours for the Earth to complete a spin. As it rotates, the Sun appears to move across the sky. Some objects orbit around the planets. These are called moons. The Earth has one moon. The Moon is much smaller than the Earth. It takes 28 days to complete its orbit. The Sun, Earth and Moon are all roughly spherical.

Prior Knowledge

- I can explain the changes that occur across the four seasons.
- I can describe the weather associated with the seasons and how day length varies.

Planet Facts							
The Solar System includes the Sun at its centre and 8 planets that orbit around it. There are also 5 dwarf planets.							
Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune
Area: 0.147 Earths 8th Largest	Area: 0.902 Earths 6th Largest	Area: 1 Earth! 5th Largest	Area: 0.284 Earths 7th Largest	Area: 121.9 Earths 1st Largest	Area: 83.7 Earths 2nd Largest	Area: 15.91 Earths 3rd Largest	Area: 14.98 Earths 4th Largest
Moons: None	Moons: None	Moons: 1 Moon	Moons: 2 Moons	Moons: Around 80	Moons: Around 65	Moons: Around 30	Moons: None
Length of Day: 1,408 hours	Length of Day: 5,832 hours	Length of Day: 24 hours	Length of Day: 25 hours	Length of Day: 10 hours	Length of Day: 11 hours	Length of Day: 17 hours	Length of Day: 16 hours
Length of Year: 88 days	Length of Year: 225 days	Length of Year: 365 days	Length of Year: 687 days	Length of Year: 12 years	Length of Year: 29 years	Length of Year: 84 years	Length of Year: 165 years

The Planets

Mercury Venus Earth Mars Jupiter Saturn Uranus Neptune