



Science focus	Physics: Earth, Sun and Moon	Year 5	Spring Term 2
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What? (Key knowledge)

Key scientists	
Yuri Gagarin	First man in space on the VOSTOK 1 spacecraft in 1951
Valentina Tereshkova	First woman in space in VOSTOK 6 in 1963
Neil Armstrong	First man on the Moon in Apollo 11 in 1969
Mae Carol Jemison	First African American woman to travel into space on ENDEAVOUR in 1992
Chris Hadfield	Studying in our pathways unit 'The Darkest Hour'; completed Canada's first spacewalk in 2001
Tim Peake	Most recent Briton to go into space in 2015

Scientific theories

Movement of the Sun, Earth and Moon	<p>The Earth takes 24 hours (1 day) to rotate once on it's axis</p> <p>The Earth takes 365 1/4 days (1 year) to orbit the Sun</p> <p>The moon takes 28 days to orbit the Earth</p> <p>The sun is a star at the centre of our solar system</p>
What causes day and night?	<p>The Earth rotates anti-clockwise on it's axis once every 24 hours</p> <p>At any one time, half of the earth is in darkness (night-time) and the other half is in light (day-time)</p> <p>As the Earth rotates, it appears that the Sun moves across the sky, rising in the East and setting in the West but it is the Earth that is moving not the Sun</p>
What is the moon?	<p>A moon is the celestial body that orbits a planet</p> <p>The Earth has one moon, Jupiter has 4 moons and numerous small ones</p> <p>The Earth's moon appears to change shape because we can only see the sunlit part of the Moon</p>

What? (Key Vocabulary)

asteroid	A rock that orbits the Sun in a belt between Mars and Jupiter
axis	an imaginary line through the middle of something
comet	a bright object with a long tail that travels around the Sun
galaxy	an extremely large group of stars and planets. Our galaxy is called the Milky Way
gravity	the force which causes things to drop to the ground
leap year	a year which has 366 days. The extra day is the 29th February. There is a leap year every four years
orbit	the curved path in space that is followed by an object going round and round a planet, moon, or star
planet	a large, round object in space that moves around a star
shadow	a dark shape on a surface that is made when something stands between a light and the surface
Solar System	the Sun and all the planets that go round it
Universe	the whole of space and all the stars, planets, and other forms of matter and energy in it

Possible experiences

- Constructing shadow clocks and sundials
- Visit to Jodrell Bank or mobile Planetarium
- Investigate NASA coding
- Make 3D solar system models

Diagrams and symbols

