

Working Scientifically					
Plan different types of enquiry to answer questions	Take measurements with increasing accuracy	Record results using diagrams and tables	Use test results to make further predictions	Report and present findings	Identify scientific evidence used to support or refute arguments

What I should already know

- There are four seasons in the year (autumn, winter, spring, summer)
- **Shadows** are formed when objects block light from passing through it
- **Earth** is the planet we live on

Key Vocabulary

asteroid	Rocks that orbit the sun
atmosphere	Layer of gas that surrounds the Earth
axis	An imaginary line through the middle of the Earth
comet	Object that orbits the sun . Usually they are made up of dust or ice
Earth	Planet on which we live
galaxy	Group of stars , planets , clouds of gas and dust particles. Our galaxy is called the Milky Way
gravity	Force that pulls objects towards Earth . On a rollercoaster, pulls the carriage faster on the downhill slopes and slows it down on the uphill parts of the ride
leap year	A year on Earth usually has 365 $\frac{1}{4}$ days however, every four years we have a leap year with 366 days. The extra day is 29 th February
meteor	Also known as shooting stars. A flash of light we see when space debris burns as it passes through Earth's atmosphere
meteorite	Rock or chunk of metal that falls to Earth from space. Most meteorites burn up passing through Earth's atmosphere

Key Vocabulary

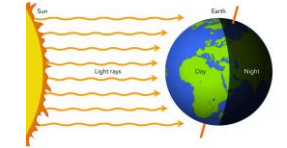
moon	Rock object which orbits the Earth . It is a natural satellite and reflects the light of the sun
orbit	Curved path that a star, moon or planet takes in space. The Earth orbits the sun .
planet	Large natural object that orbits a star . There are eight planets in our solar system which orbit the sun - Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus & Neptune
rotates	To turn on an axis
shadow	A dark shape on a surface when something stands between the light and the surface
Solar system	The sun and all the planets that orbit the sun
space	Area that contains all planets , stars and living things. Outer space goes beyond the universe
spherical	Round object shaped like a ball. The Earth is shaped like a sphere
star	Large glowing balls of burning gas. The star in our solar system and the closest one to Earth is the sun
time zone	An area on Earth with a specific time. Different areas on Earth have different time zones and are ahead of, or behind Greenwich Mean Time (GMT). Time zones exist because the Earth is round.
universe	All of space, planets , stars and living things that exist

Useful links

- <http://www.primaryhomeworkhelp.co.uk/moon/facts.htm>
- <https://www.bbc.com/bitesize/clips/zd3fb9q>
- <http://www.planetsforkids.org/planet-earth.html>
- <https://spaceplace.nasa.gov/menu/earth/>

What I will know by the end of the unit

<p>How the planets in our Solar system orbit the sun and why this causes day & night on Earth</p>	<p>The sun is a large star at the centre of our Solar system - 8 planets in our Solar system - (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus & Neptune. Pluto is a dwarf planet)</p> <p>First four planets closest to the sun are smaller and rocky. Four outer planets further from the sun are much larger and are made of gas (Jupiter & Saturn) or ice (Uranus & Neptune)</p> <p>All planets in our Solar system travel round the sun in a fixed path. Earth takes 365 $\frac{1}{4}$ days (a year) to complete its orbit of the sun</p> <p>Although the sun appears to move across the sky, it is the Earth that rotates on its axis</p> <p>Because of the rotation, different parts of Earth have daylight at different times. This is why we have time zones</p> <p>As Earth rotates, shadows that are formed change in size</p>
<p>How the moon orbits the Earth</p>	<p>The moon orbits the Earth</p> <p>It takes approximately 28 days to orbit the Earth.</p> <p>Whilst orbiting the Earth, the moon completes a cycle of phases. This is called a lunar month</p> <p>As the moon orbits Earth, it also rotates on its own axis</p> <p>The moon doesn't change shape, it just appears to because of the position of the sun</p>
<p>The sun, Earth and moon are spherical shapes</p>	<p>Ancient Greeks discovered that Earth was spherical</p> <p>Photographic & video evidence from space shows that Earth, the sun and moon are spheres</p>



Investigate at home...

How does the length of a day differ at different places on Earth?
 How does the shape of the moon change over the month?
 Make a sundial to observe how shadows change throughout the day
 Research how the views of scientists about Earth have changed over the years.

