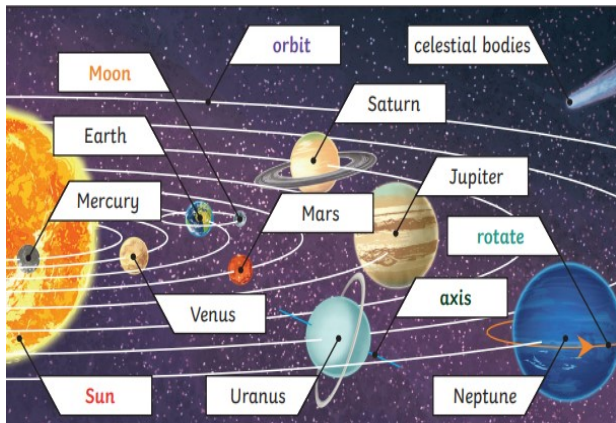


St Luke's Knowledge Organiser

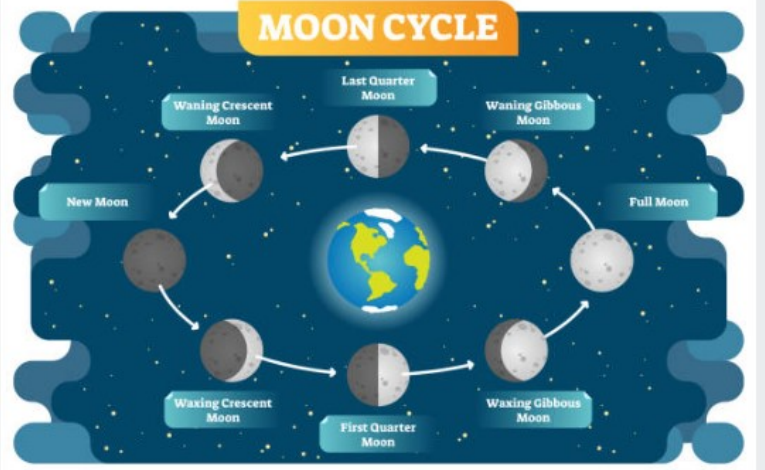


Year 5 - Earth and Space - Physics



Sticky Knowledge

- ◆ The Earth, Moon and Sun are all spherical. Objects disappear over the horizon, if the world was flat this would not happen.
- ◆ The Sun is the larger than both the Earth and the Moon. However the Moon and the Sun look the same size in the sky because the Sun is much further away from the Earth than the Moon.
- ◆ The Earth rotates on its axis 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 is also the reason why we have time zones.
- ◆ It takes Earth 365 days to orbit the Sun. This means a year is 365 days with one leap year every 4 years. All planets in the solar system orbit the sun, however none of them take the same amount of time as Earth.
- ◆ The Moon is a natural satellite of the Earth. It orbits the Earth once every 28 days.
- ◆ The Moon is brightly lit in the night sky however does not emit its own light. Instead it reflects the light of the Sun. The Moon changes shape because of the direction of the Sun.



What I should already know

- Knowledge of seasonal changes
- Light and shadow
- Forces and magnets
- Forces in action

Working Scientifically

- Compare the time of day at different places on Earth.
- Construct shadow clocks and sundials.
- Keep a Moon diary over the course of a month - what do you notice?
- Finding out why some people think that structures such as Stonehenge might have been used as astronomical clocks. (Cross curricular links)

Vocabulary

axis	An imaginary line through the middle of something.
time zones	The world is divided into areas and the time is calculated as being a particular number of hours behind or ahead of GMT (Greenwich Mean Time).
leap year	A year which has 366 days. The extra day is the 29th February. There is a leap year every four years.
solar system	The Sun and all the planets that go round it.
orbit	The curved path in space that is followed by an object going round and round a planet, moon, or star.
meteorite	A rock from outer space that has landed on Earth.
star	A large ball of burning gas in space.
planet	A large, round object in space, part of the solar system.
universe	The whole of space and all the stars, planets, and other forms of matter and energy in it.