River View Primary School

Year: 5 Strand: Physics

What should I already know?

- We have four seasons (autumn, winter, spring and summer).
- The sun is a source of light but the moon is not.

Topic: Earth and Space

A shadow is caused when an object blocks light.

What will I know by the end of the unit?

What is the solar system?

- The sun is at the centre of the solar system.
- The sun is a star, providing heat and light.
- 8 planets orbit the sun: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune.
- A year on a planet is the length of time it takes it to complete one whole orbit of the sun.
- It takes 365 days for the Earth to orbit once.
- The Sun, Earth and Moon are approximately spherical bodies.



How does the moon move?

- The moon orbits the Earth.
- It takes approximately 28 days for the moon to orbit

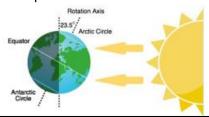
Earth anticlockwsie.

- The moon rotates on its axis. This means we only ever see one side of the moon.
- It looks different (phases) depending on where it is in its orbit.



What causes • day and night? •

- The Earth rotates anti-clockwise on its axis. It takes 24 hours (one day) to rotate once.
- Earth's rotation causes day and night.
- The sun never moves, it looks as if it is as the Earth rotates towards and away from it.
- Different parts of the Earth have day and night at different times (this also causes time zones).
- As the Earth rotates, shadows that are formed change in size and position.



Vocabulary	
asteroid	a rock that orbits the sun in a belt between Mars and Jupiter
axis	an imaginary line through the middle of the Earth
galaxy	a large group of stars, our galaxy is the Milky Way
gravity	the force that causes things to fall to the ground
meteorite	a rock from space that has landed on Earth
moon	the Earth's natural satellite
orbit	to travel around something
planet	a large object in space that travels around a star
rotate	to spin
shadow	a dark shape caused by an object blocking a light source
solar system	together, the planets and the sun make up the solar system
space	the area that contains the entire universe
sphere	a round object
star	a ball of burning gas in space
sun	the Earth orbits around the Sun
universe	All of space we have discovered so far

Data Handling

- Investigate the link between weight and mass on Earth and compare to other planets. Complete a weight chart (table).
- Use an appropriate graphical representation to investigate trends in planetary data, such as size vs distance from the sun or temperature vs distance from the sun.