Year 5 Out of This World.

Essential Knowledge,

Describe the movement of the Earth and other planets relative to the Sun in the Solar System.

Describe the movement of the Moon relative to the Earth.

Describe the Sun, Earth and Moon as approximately spherical bodies.

Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky.

Working Scientifically.

Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.

Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.

Use test results to make predictions to set up further comparative and fair tests.

Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.

Essential vocabulary

Daytime: the time when part of the Earth is in daylight

Geocentric: (Earth-centred) the Earth is at the centre of the Solar System

Heliocentric: (Sun-centred) the Sun is at the centre of the Solar System. The belief that the Sun is at the centre of the Solar System is heliocentrism.

Night-time: the time when part of the Earth is in darkness

Orbit: the path of a planet or moon around another celestial object

Planet: a celestial body that orbits a star, is round and has cleared smaller objects away from its orbit

Solar System: a series of planets that orbit a star.

Star: an astronomical body that produces its own energy

Sun: the star at the centre of our Solar System.

Time Zone: a geographical region where the same time is set.

Misconceptions.

- That the Earth is at the centre of our Solar System.
- That there are stars in our Solar System other than the Sun. In fact, the Sun is the only star in our Solar System.
- That all planets have rocky surfaces. Some do, but the outer planets are gas giants.
- That planets can only be seen with a telescope. In fact, you can see Mercury, Venus, Mars, Jupiter and Saturn without a telescope.
- The Sun moves around the Earth and causes day and night (the spinning Earth causes it).
- That night-time is caused because the Sun goes to the back of the Earth. In fact, it is the Earth that moves.