Science Overview – Earth and Space

Year 5

Autumn 2

Key Question: How has exploration shaped what we know?

National Curriculum

- 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.

SUBSTANTIVE KNOWLEDGE

- Know the names of the planets in our solar system and their defining features.
- Know the order of the planets in relation to the sun.
- Know the movements of Earth and the other planets in relation to the sun.
- Know that the moon orbits Earth and the nature of this orbit.
- Know that the sun, Earth and moon are spherical bodies.
- Know that the Earth rotates on its axis and how that impacts on day and night.
- Know about the work of astronomers such as Copernicus and Kepler.
- Know about the Geocentric and Helio-centric models.

Key words:	**Sun** **Moon** **Planet**
Vocabulary:	star, sphere, spherical bodies, satellite, orbit, rotate, axis, geocentric model, heliocentric model, astronomer, solar system
Working Scientifically	• Use scientific knowledge and understanding to explain findings • Report and present findings from enquiries, including conclusions, causal relationships, and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations
Enquiry type to cover and enquiry suggestion	**Pattern seeking (enquiry type)** Is there a pattern between the size of a planet and the time it takes to travel around the sun?
Learning Milestones /Assessment	I can… • Name the planets in the correct order. • Describe the spherical nature of the Earth, Sun and Moon. • Explain why the sun appears to move across the sky throughout the day. • Describe the differences between the helio-centric and Geocentric models. • Explain the movement of the planets in relation to the sun.