

# Science Overview – Earth and Space

## Year Five

### Autumn Term

#### Key Question: How do we know what's out there?

##### 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

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

##### **Key Vocabulary**

sun, star, moon, planet, sphere, spherical bodies, satellite, orbit, rotate, axis, geocentric model, heliocentric model, astronomer

##### **Previous year groups key vocabulary:**

Earth and Space is not taught in any other year group.

##### **Disciplinary Concepts**

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

##### **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.