Our Science curriculum aims to enthuse children and hep them to be curious and develop a sense of excitement about the world. Through a range of teaching, learning and extra-curricular opportunities, children will develop scientific knowledge and conceptual understanding to recognise the uses and implications of Science, today and for the future. We encourage children to ask their own questions; predict how things will behave and analyse causes, using Science to explain what is happening.

Inspiring and enabling our school community to live life to the full

YEAR 5 SCIENCE

Earth and Space

Characteristics of an Effective Learner

Courage
Commitment
Collaboration
Creativity
Curiosity

Prior Learning:	**Key Vocabulary taught in this unit:**
-Children learn about space in Reception - In Year 3 children learn about the Sun as a source of light and the moon as a reflector of light. They learn about the dangers of sun damage and what times of day the sun is at its highest in the sky. They learn about how shadows are formed.	dawn, diameter, dusk, horizon, midday, spherical, sunrise, sunset, axis, moon, orbit, planet, rotate, solar system, star, year, data, diagram, enquiry, evidence, explain, explanation, model, pattern, predict, prediction, support, dark, darkness, light, light source, opaque, shadow, sun.

Key Questions:
Q What's in space?
Q How do the planets move?
Q How does the position of the sun in the sky change?
Q What causes day and night?
Q How does the moon move?
Q What patterns can we find in data about the planets?

Intent: What do we want the children to know, be able to do by the time they complete this unit?

The main bodies that are found in our solar system are the Sun, Moon, Earth and planets. They are all spherical. The Earth orbits the Sun. The time it takes to complete one orbit is called a year. The other planets of our solar system also orbit the Sun at different distances and take different times to complete one orbit. The Sun appears to move east to west in an arc across the sky from sunrise to sunset. Changes in shadows during the day can be explained by the changes in the position of the Sun. The Earth rotates on its axis and this causes day and night, the apparent movement of the Sun across the sky and the changes in shadows observed in Lesson 3. The Moon orbits the Earth every 28 days and rotates on its axis. Check and consolidation of conceptual learning from Lessons 1–5. Children may notice, but do not need to explain, the phases of the Moon. They do not need to learn about the tilt of the Earth causing seasonal changes; this will be taught in Key Stage 3.

Working Scientifically:

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

Reporting and presenting 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]. Identifying scientific evidence that has been used to support or refute ideas or arguments.
Impact / Outcome: **What will the final product / result be?** Children will learn about the methods scientists use to build and communicate scientific knowledge**.** They will learn that scientists use evidence to develop and model explanations that change over time in response to new evidence and ideas. They will develop an understanding of the following types of enquiry: observing change over time, pattern seeking, research using secondary sources of information.
P4C Inquiry (where appropriate)