YEAR 5 HEP SCIENCE CURRICULUM MAP RATIONALE

- The Year 5 HEP Science curriculum allows pupils to increase their depth of understanding in science. They explore more complex ideas that build on their previous knowledge.
- The curriculum is designed to help them understand the materials around us, how living things grow and interact, the invisible forces that affect our world, and the vastness of space.

Properties and changes of materials

Animals Including Humans

Forces

Living Things and Their Habitats

Earth and Space

The Scientific Method

AUTUMN 1 - PROPERTIES AND CHANGES OF MATERIALS

- Year 5 begins by drawing together and revisiting the properties of different materials. This includes their physical state, conductivity, and reactions to magnets, which were introduced in Year 4.
- The unit expands their understanding to include dissolving, separating mixtures, and irreversible changes, thereby deepening their knowledge of physical and chemical processes.

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AUTUMN 2 - ANIMALS INCLUDING HUMANS

- This unit focuses on the growth and development of humans from birth to old age. Children learn about the various stages of human life and the biological changes that occur during these stages, such as puberty.

- This prepares them for the study of a wider range of animals and their life cycles in Living Things and Their Habitats later on. This progression ensures that by learning about their own species first, pupils are better equipped to compare and comprehend the broader biological concepts that apply to all living things.

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SPRING 1 - FORCES

- In this unit, the focus is on forces like gravity which makes things fall, and how friction, air and water resistance can slow things down.
- Pupils will see how machines like levers can make lifting things easier.
- Learning about forces such as gravity and friction gives children the tools to understand their application in the wider context of Earth and space later on.

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SPRING 2 - LIVING THINGS AND THEIR HABITATS

- Children will look at the life cycles of different animals and plants. They'll learn how living things are born, grow, and reproduce.
- They build on their previous knowledge of the stages of the human life cycle. This time, they include other mammals and living things.and extend to interactions with the wider environment.

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SUMMER 1 - EARTH AND SPACE

- With a grasp of forces, children are ready to zoom out and apply these concepts to Earth's place in the solar system, exploring the forces at play on a cosmic level.
- Exploring science on such a grand scale provides a sense of awe and a broader context for their learning.

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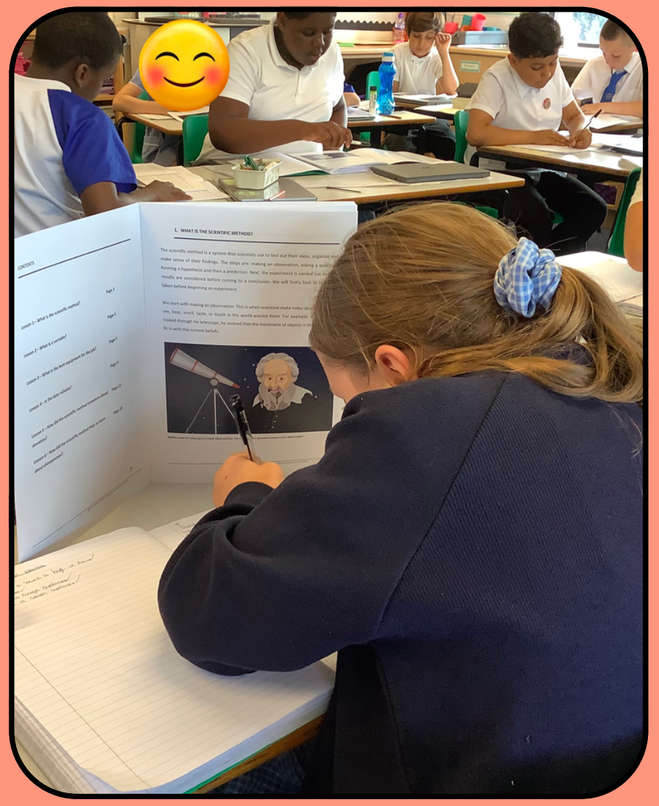
SUMMER 2 - THE SCIENTIFIC METHOD



- The key difference between the Lower Key Stage 2 and Upper Key Stage 2 working scientifically expectations is the progression toward greater autonomy and complexity in how students formulate, conduct, analyse, and evaluate scientific investigations.

- Placing the focused Scientific Method unit at the end of Year 5 nicely scaffolds this increasing autonomy expected in Year 6. Students culminate Year 5 by formalising terms, standards and analytical practices they have progressively acquired over Lower Key Stage 2.

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