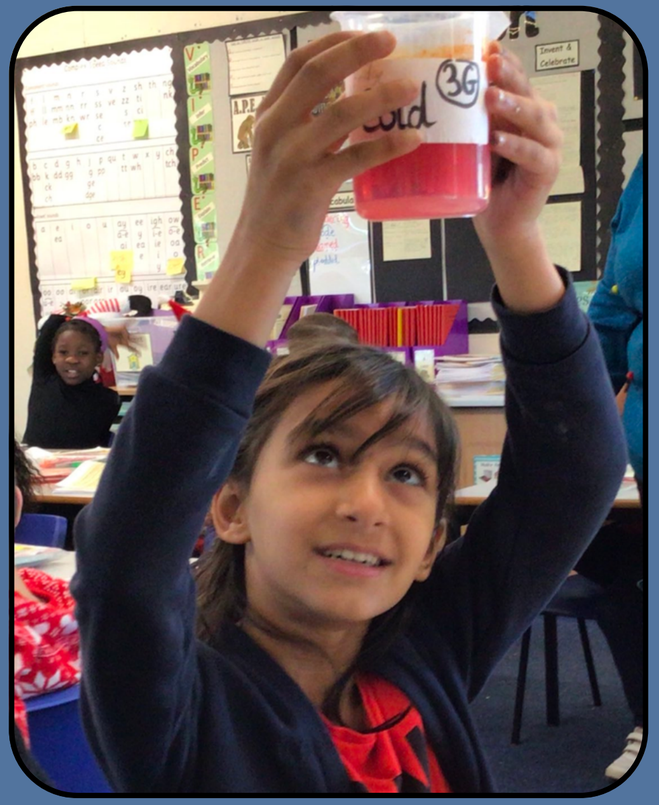
YEAR 3 HEP SCIENCE CURRICULUM MAP RATIONALE



- The Year 3 HEP Science curriculum is designed as a scaffolded journey, starting from what's immediately observable and progressively moving on to the hidden forces that help shape our world.
- By the end of Year 3, pupils are equipped with the essential knowledge and curiosity to tackle the more advanced concepts in subsequent years.

Plants

Rocks

Light

Animals Including Humans

Forces and Magnets

The Bee Project

AUTUMN 1 - PLANTS

- Pupils begin the year in September with the familiar topic of **plants**.
- This eases them into a new academic year, facilitating transition and leveraging their prior knowledge from Key Stage 1.
- It's also an opportune time to observe the seasonal transformations in plants.
- Their study of plants connects to the wider environment, laying a solid foundation for the interdependence of living things and their habitats in Year 4.

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AUTUMN 2 - ROCKS

- Plants grow using the minerals in soil and we get these minerals from rocks. Pupils study the physical properties of rocks and are introduced to some processes that form them.
- Pupils go deeper than the surface of rocks and study the physical process that make them. This area is sometimes omitted at key stage 3 (See Ofsted Finding The Optimum report) but fits well here.
- Use of hands-on experiments, such as those with chocolate, cookies and playdough are used to make abstract underground processes tangible and relatable.

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SPRING 1 - LIGHT

- Next, we move on to Light, highlighting its important role for plants.
- Pupils learn about Light before moving on to Sound and Electricity in Year 4. It is the first time they focus on a type of energy.
- Pupils learn about the properites of light and then its interactions with everyday materials. Sensory-rich, hands on investigations are used, helping pupils to transition from KS1 to KS2.

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SPRING 2 - ANIMALS INCLUDING HUMANS

- The Key Stage 2 science curriculum is biology-heavy. This initial unit follows the main ideas in Animals Including Humans, of structure, function and process.
- Pupils learn about nutrients and how they are used to help the body systems function properly. We look at the musculoskeletal system as an example of this.
- They will move on to the interdependence of animals with the world around them in Year 4 (Living Things and their Habitats).

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SUMMER 1 - FORCES AND MAGNETS

- Unlike many other scientific concepts, forces cannot be directly seen. We only perceive these forces through their effects on objects.
- This topic contains lots of abstract concepts, so is introduced after building foundational knowledge on tangible aspects of the world.
- Children learn how forces interact with the objects from the topics they have learned earlier in year 3, such as Plants, Rocks and the Musculo-Skeletal system.
- The forces unit in Year 3 lays the groundwork for a more intricate exploration in Year 5.

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SUMMER 2 - THE BEE PROJECT

- This summer unit reinforces earlier year 3 concepts through real-world context and application.
- This not only enhances pupils' scientific understanding but also fosters critical thinking about contemporary environmental issues.
- Bees are a familiar sight during the summer term and learning about them can enhance pupil engagement and curiosity.
- This real-world relevance boosts their motivation to learn and helps in retaining knowledge.

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