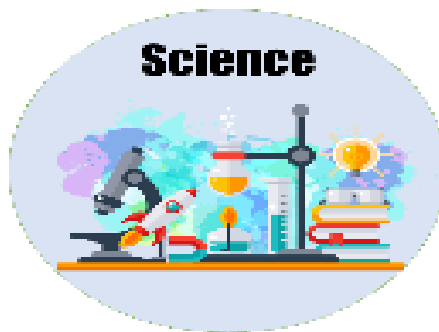




TEACHING SCIENCE

AT HOPPING HILL PRIMARY SCHOOL



“The **Scientist** is not a person who gives the right answers, he's one who asks the **right questions**”



Golden Threads

Curiosity

Wondering Like a Scientist

Enquiry

Working like a scientist

Vocabulary and Knowledge

Speaking and understanding like a scientist

Environmentalism

Caring like a scientist

INTENT

At Hopping Hill, we believe that science should inspire and excite children. Our school community is one where a significant number of children have limited experience beyond their local area of Northampton. This will likely limit the children's interest in, and curiosity in the world around them. It might also make them less aware of the big issues faced in the world currently and thus care for the planet and nature.

Our curriculum aims to foster **curiosity** and encourage children to ask questions about the world around them. Children are provided with the necessary **knowledge and vocabulary** to talk about and understand about science. They learn the **skills needed to scientifically investigate** their own questions and those asked of them. Our curriculum also develops the children's commitment to **caring** about and improving the environment and planet Earth

IMPLEMENTATION

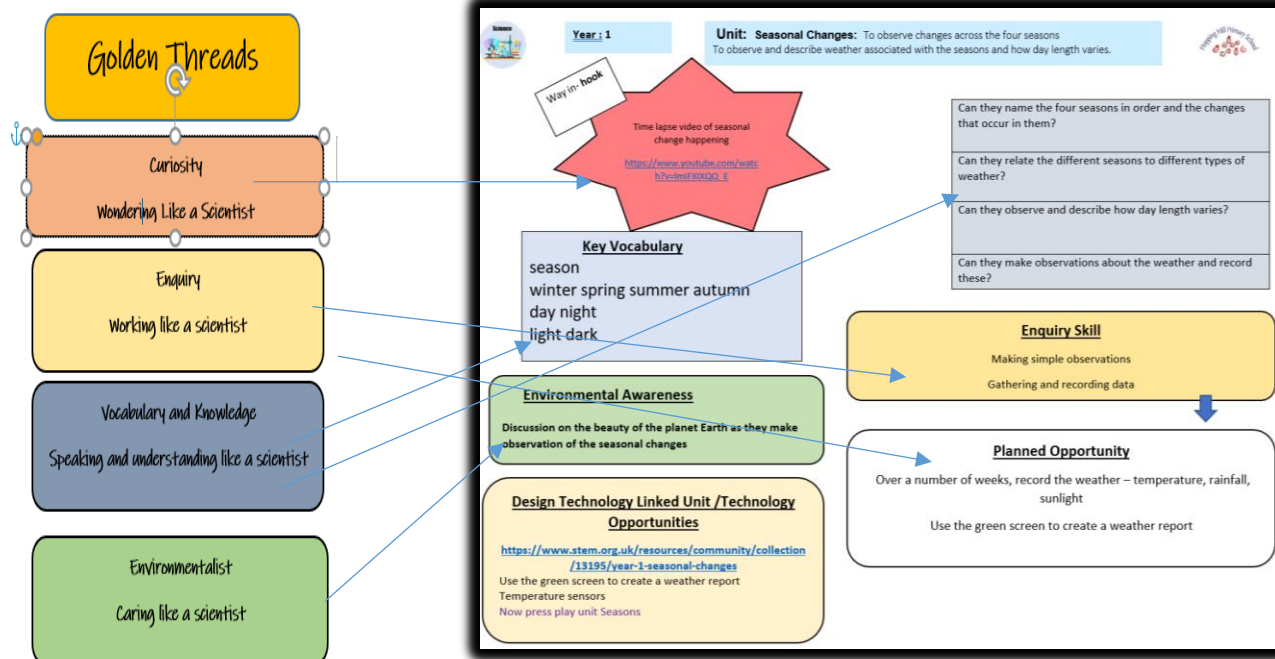
Science is taught throughout the school year in all year groups. The programme of study is laid out in the National Curriculum (2014) for years 1-6 where it is taught as a discrete subject although links with other curriculum areas are made whenever possible, especially with regard to design technology and forest school.

In early years, science is part of the continuous provision that is offered throughout the year and reflects learning laid out in development matters 2021. In line with this documentation, and the ethos of in the moment planning and being led by the children's interests, specific topics and vocabulary are not prescribed. The golden threads are reflected in the EYFS science overview and this assists the teachers in planning provision to reflect their role in the beginning of the children's scientific thinking.

Each unit of study in years 1-6 starts with or includes a 'grab' moment when children's interest is stimulated. There is an emphasis on working scientifically to ensure children develop their skills in experimental science. We use 'Developing Experts' to support teaching and learning- this is not prescribed for every lesson but rather a support. The starting point for the learning is the learning indicated on the school's developed medium-term plans, not from this or any additional resources such as the 'Outstanding Science' resource.

When planning for learning using the school's medium term plans or EYFS overview, teachers will ensure they have knowledge of the learning in a particular 'topic' in the previous years and where this will progress to(being aware that a particular linked topic might not appear in the next chronological year). This includes EYFS who will be aware of the scientific vocabulary and knowledge expected in year 1 when planning provision.

The development of the curriculum in years 1-6 used the national curriculum expectations- this ensures progression in the golden threads of speaking and understanding like scientist, working like a scientist, and asking questions like a scientist. The latter thread is further developed in the school developed, I Wonder Why unit of study. The development of their caring about the world they live in, will progress alongside each science unit taught and should wherever possible be topical while always being linked to the unit of study. Progress in this care, will be evident in the children's responses to discussion of and activities about these issues.



Assessment

It is imperative that assessment is purposeful and is not time consuming. Teachers spending a large amount planning, carrying out and marking formal tests is not helpful and takes time away from teaching and learning. Assessment should be in place to support recall of vocabulary and concepts and is an opportunity for children to show their understanding through applying what they have found out to answer real life questions. Assessment should also inform teachers planning and focus for teaching and learning so that misconceptions and gaps as well as strengths are identified at the start of the unit. Therefore, assessment of science at Hopping Hill is:

At the beginning of each unit, a whole class mind map that shows the current understanding of key areas and misconceptions.

Through the unit, quick quizzes to check understanding of key vocabulary

During the unit children will write a response to a question that gives them the opportunity to apply their learning and use the knowledge and vocabulary that they have learned. This will be through scientific enquiry or through the environmental issue on the medium-term plans. accurately Children mind map of the unit again using the vocabulary learned. Key stage 1 will do this as a class activity if more appropriate. Children in key stage 2 will also complete a 'quiz' that enables them to show their learning. All of this information will be used when the teacher makes, and end of year assessment of the children's attainment compared to age expected outcomes.

Access the link below to find out more about the National Curriculum programme of study for science.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/425618/PRI_MARY_national_curriculum_-_Science.pdf

INTENDED IMPACT

- ✓ Pupils will develop a curiosity about the world around them and be able to ask scientific questions
- ✓ Pupils will develop a core of scientific vocabulary to support them as they leave Hopping Hill and continue their education career

- ✓ Pupils will be able to use their scientific knowledge of phenomena and the world around them to develop their contextual understanding of what they are reading for pleasure and for information
- ✓ Pupils will develop their investigative skills of scientific enquiry and through this apply skills such as measurement and statistics learned in mathematics
- ✓ Children will develop the knowledge and vocabulary to be able to talk about and understand how to care for the environment