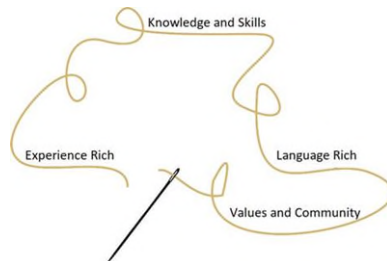




Science Intent, Implementation & Impact Statement

At Gorse Hill School, we believe in the unlimited potential of every child – that *Every Child Can*. As a result of this, we have carefully designed a curriculum which is underpinned by 4 Golden Threads.



We have carefully chosen our Golden Threads because they are unique to our school context and setting:

- Language rich: Over 60% of our pupils have English as an additional language so it is our intent that our pupils will develop a wide range of subject specific vocabulary and apply this within their learning.
- Knowledge and skills: It is our intent that our pupils will develop mastery across the curriculum as a result of a carefully sequenced curriculum which builds progressively on knowledge and skills.
- Experience rich: Our intent is for every child to be motivated, curious and excited in their learning and across all curriculum areas. Our intent is for our curriculum to provide all children with an invitation to learn and a breadth experiences that enriches their learning and enables them to transfer their skills across all curriculum areas.
- Values and Community: Our intent is for all children to embrace and develop a shared set of values – our school's **CARE Values**. We want all children to understand the communities that they are part of and their developing personal values to prepare them for life in an ever-changing and modern world.

Our Intent for our Science Curriculum:

At Gorse Hill School, our 4 Golden Threads underpin our curriculum intent enabling our pupils to achieve the following in science:

- Be curious and develop a deeper understanding about the world which we live in.
- Develop a secure substantive knowledge within the three aspects of science: biology, physics and chemistry.
- Participate in purposeful, practical enquiries which link to the 6 different enquiry types: fair/ comparative testing, research, observation over time, pattern seeking, identifying, grouping and classifying and problem solving.
- Progressively develop their disciplinary knowledge and Working Scientifically skills.
- Make connections in their learning and to know more, remember more and do more each year leading to academic success and enjoyment in this subject.
- Converse with confidence orally and in writing in a range of contexts using subject specific vocabulary.

Our intent is to provide children with a science curriculum which enables them to confidently explore the world around them and have a deeper understanding of the ever-changing world in which they live. We aim to nurture children's curiosity and motivate children to be inquisitive learners throughout their time at Gorse Hill and beyond. We strive to enhance children's understanding of the three areas of the science curriculum through real life and hands-on experiences which foster their substantive knowledge, develop their disciplinary knowledge and immerse them in scientific language.

Implementation:

The National Curriculum is the starting point of our curriculum design. It has been used to drive our curriculum design, in order to ensure the aims of the National Curriculum are met, and it has been used to inform the choices we have made about the content that we teach at Gorse Hill School.

At Gorse Hill, we create a positive attitude towards science learning and develop and embed children's scientific knowledge, skills and understanding through our carefully sequenced planning across the school. Our whole school approach towards science involves the following:

- In EYFS, a high-quality learning environment encourages and provokes children to develop their understanding of the world. Children Year 2 to 6 take part in 2 hours of science learning per week, which focuses and builds upon the objectives which are set out in the 2014 Science National Curriculum and have been mapped out in our Gorse Hill Curriculum Maps.
- Working Scientifically skills are mapped out in our Science Progression of Skills document. A skill is modelled and taught discretely at the beginning of each science lesson and children are given the opportunity to practice and apply their skills throughout their independent learning. Sentence stems are used to ensure a gradual progression of skills in each year group.
- Children are immersed in subject-specific vocabulary and given sentence stems in order to develop their oracy within science. Knowledge organisers are used for each unit to provide consistency and progression in scientific language throughout the school. Each science lesson includes a 'Let's Talk Science' section where children have the opportunity to take part in scientific discussions.
- Children have the opportunity to participate in a wide range of purposeful, real life and hands-on experiences which are used alongside high-quality secondary sources to enable children to ask and answer scientific questions.
- Each year, children have the opportunity to take part in the 'Festival of Tomorrow' and take part in workshops with expert scientists.
- Elicitation activities are used in order to assess children's previous knowledge and skills and allow teachers to tailor learning to support and challenge all children.
- A TAPS assessment is used during each unit to support the assessment of children's skills and a knowledge quiz helps to identify areas to focus on knowledge development.
- Safe practice is highlighted and modelled in the teaching and learning of science. Children are encouraged to plan and reflect upon personal safety within their practical enquiries.

Impact

Our intended impact is that by the time our pupils leave Gorse Hill School, they will have developed:

- An interest in science and an enthusiastic approach to learning, which develops their curiosity of the world which we live in.
- A secure substantive knowledge and a clear understanding of the key scientific concepts which have been covered in the National Curriculum.
- An understanding of the different enquiry types.
- Their disciplinary knowledge and they have the confidence to apply their Working Scientifically skills to plan, carry out and evaluate scientific enquiries.
- A range of scientific vocabulary which they are able to use to clearly articulate their understanding of science.