

Mill Hill Science intent, impact and implementation statement

Intent	At Mill Hill, we believe Science is a core part of any child’s learning journey. Science holds the key to unlocking a lifelong curiosity and wonderment about the world around us. We aim to provide children with an enquiry-based curriculum that covers a wide range of topics. A pupil’s science journey begins in Nursery whereby children have the opportunity to explore a range of topics through a play-based approach. This ignites children’s scientific discovery and allows them to begin to question and investigate their ideas. This inquisitiveness continues within Reception and Year 1 as children begin to apply theoretical knowledge to their discoveries. The practical nature of Science runs as a continuous theme throughout both Key Stages and encourages children to form, investigate and draw conclusions for their own scientific questions.			
	Science capital	Topic specific vocabulary	Scientific knowledge and content	Working scientifically and enquiry types
	Pupils at Mill Hill will develop a strong understanding of ‘Science Capital’. This allows them to understand how Science links to the real world and begin to form an understanding of the range of different careers that involve Science. This corresponds with our aspirational Science curriculum, whereby we encourage children to believe that with hard work and determination they can become anything that they wish.	During science lessons, pupils will be exposed to and encouraged to use a wide range of scientific vocabulary that relates to their scientific topics.	In line with the national curriculum, pupils at Millhill complete a range of science topics covering aspects of Biology, Chemistry and Physics. These allow children to develop and embed their knowledge.	Alongside curriculum content, pupils at Mill Hill are also exposed to a range of enquiry types and working scientifically skills. These allow children to gain a well-rounded understanding of science and the skills and enquiry types involved within the subject. These are taught alongside subject content objectives.
Implementation	Subject specific resources	External Stimuli	Enquiry based elements to every lesson	Floor Books
	Science lessons at Mill Hill are supported by a range of practical resources which allow children to complete hands on investigations within their learning and support the ethos of science being a practical, enquiry based subject.	Children’s science learning is further developed through external learning experiences such as trips, experience days and visitors to school. This allows pupils to apply their learning in a wider context.	Enquiry based elements in all science lessons ensure that pupils are engaged and motivated to discover more about scientific topics. These can include a range of things from peer discussions, practical sorting, close observation and practical investigation and recordings. This is also supported by the overarching key question and lesson focus questions.	Floor books are used consistently across the school and allow for a creative and flexible approach to the recording of science. This allows pupils to take a greater ownership of their learning during the lesson and ensures that the focus remains on science.

	Regular and purposeful assessment	Themed days	Thinking and discussion time 'Bright ideas time'	Show casing
	Pre and post assessment tasks are used to support planning across the unit as well as continued formative assessment opportunities within sessions. RAG rated sheets assess children against enquiry types and working scientifically skills within each session and cumulative questions are built in to sessions to ensure understanding and retention.	We celebrate a range of different scientific events across the school year and organise whole school events for British Science Week. These are also planned for and included within our weekly assemblies.	These aspects are built in to all science lessons and allow pupils the time needed to develop these vital skills. This allows pupils to further apply their learning and understanding in wider contexts.	Key pieces of work are included in showcase books to demonstrate the pupils' learning throughout different subjects. This showcase book travels with the child throughout their time at Mill Hill and demonstrates their learning journey.
Impact	The science curriculum at Mill Hill is based on an enquiry based approach. At the end of their science learning journey pupils will be able to use a range of scientific and topic related vocabulary to describe their understanding as well as discuss their findings to a range of investigations. Pupils will have a sound understanding of the different enquiry types and how these can be used to investigate and test their own scientific questions. Children will develop their skills in analytical thinking and questioning and be able to use these in discussions about their learning. Throughout the science curriculum at Mill Hill, pupils will be exposed to a wide range of topics which will provide them with a wide breadth and depth of knowledge to support them in their future learning.			
	Pupil voice	Scientific knowledge	Scientific skills	Wider application
	Pupils speak positively about their science learning and are able to discuss their learning through the aid of floor books. Children show a natural curiosity and enjoy researching and investigating their own questions.	Through careful planning, pupils are able to build upon their scientific knowledge and demonstrate this through discussion and evidence in floor books.	Pupils are given multiple opportunities to demonstrate their scientific skills by completing a range of different investigations and experiments. These will address all of the different enquiry types and working scientifically skills.	At Mill Hill we work hard to plan and deliver a curriculum whereby links between subjects are established and celebrated. This allows pupils the opportunity to apply their science learning to a wide range of different subjects.