

Mill Hill Science Intent, Impact and Implementation statement 2020/2021

Intent	<p>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.</p>			
	Underpinned by			
	Science capital	Topic specific vocabulary	Scientific knowledge and content	Working scientifically and enquiry types
	<p>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.</p>	<p>During science lessons, pupils will be exposed to and encouraged to use a wide range of scientific vocabulary that relates to their scientific topics.</p>	<p>In line with the national curriculum, pupils at Millhill complete a range of science topics covering aspects of Biology, Chemistry and Physics. These are often the drivers behind our class topics and allow children to embed their scientific knowledge to other areas of the curriculum.</p>	<p>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.</p>

Implementation	Hook days	External Stimuli	Practical elements to every lesson	Floor Books
	At Mill Hill each of our topics starts with a hook day designed to ignite the children's learning and inspire them to discover more about their upcoming science topic.	Children's science learning is developed further through external learning experiences such as trips, experience days and visitors to school. This allows pupils to apply their learning in a wider context.	Practical elements in all science lessons ensure that pupils are engaged and motivated to discover more about scientific topics.	Floor books are used consistently across the school and allow for a creative and flexible approach to the recording of science. This allows pupils 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	Show casing
Pupils are given numerous ways to demonstrate their understanding of science topics by completing a range of different assessment tasks.	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.	Each topic is completed with a piece of showcase work that demonstrates the pupils' learning throughout the topic. This showcase book travels with the child throughout their time at Mill Hill and demonstrates their learning journey.	

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.

Impact

Pupil voice

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.

Scientific knowledge

Through careful planning, pupils are able to build upon their scientific knowledge and demonstrate this through discussion and evidence in floor books.

Scientific skills

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.

Wider application

At Mill Hill we work hard to plan and deliver a holistic curriculum whereby topics are linked and taught with a central context. This allows pupils the opportunity to apply their science learning to a wide range of different subjects.