

## Science Curriculum Intent, Implementation and Impact at HSM

### Intent

At Haddenham St Mary's we aim to equip children with foundations of scientific knowledge, skills and exploration to foster a life-long love of scientific discovery. Through our core values of challenge, collaboration, diversity, enquiry, independence and resilience, we aim to create an environment to achieve this.

Our curriculum will teach children the core scientific knowledge and enable children to become enquiry based by asking questions where pupils will be encouraged to ask questions about the world around them and work scientifically to further their conceptual understanding and scientific knowledge.

Teachers will ensure that all children are exposed to high quality teaching and learning experiences. These will hook the children's interest, enabling them to develop a sense of excitement for science. Children will be immersed in key scientific vocabulary, which supports in the acquisition of scientific knowledge and understanding while being taught the framework of scientific investigation and experimentation.

### Implementation

The teaching and implementation of science at HSM is based on the programmes of study set out in the 'Understanding the world' section of the Early Years Foundation Stage Curriculum and the 'Science' section in the Key Stage 1 National Curriculum.

The subject knowledge in these frameworks is delivered through the chosen topics by each year group and the 'working scientifically' skills are taught by linking them to this subject content. The units of work have been carefully mapped out and planned with the opportunity to involve our learners and allow them to pursue areas of interest to them. Scientific experiments and investigations are carried out throughout the year building up to children being able to conduct, record and evaluate their own investigations by the end of Year 2.

As a school we ensure scientific vocabulary is incorporated into science lessons and teachers know what vocabulary is relevant and necessary for their teaching topics. Similarly, questions to support the different areas of the science curriculum are presented to the children during all science lessons. These questions are based on 'What', 'Why', 'How' and 'When' and show progression throughout school by





incorporating more in depth content and vocabulary. In addition, the children are regularly given access to objects or quick experiments that ignite their natural curiosity and encourage the use of questions and scientific vocabulary. There are science weeks planned and trips to enhance children's culture capital around science.

All classes are encouraged to go out into the school grounds to take advantage of the natural space, observe the natural world and talk about what they notice around them. Nature is also brought into the classroom by observing changes in tadpoles and butterflies.

HSM is a member of Science Oxford and CLEAPSS where we benefit from taking part in science events, experiments and professional development. This gives teachers access to professional development and ideas for the classroom.

## **Impact**

The successful approach to the teaching of science at HSM will result in a fun, engaging, high quality science education, which provides children with the foundations for scientific discovery and one that they can continue to journey on in their schooling.

We measure the impact of science at HSM by talking with the children and listening to their conversations with each other about the subject. Work sampling and learning walks are conducted to see science in the school. Photographs of scientific investigations are taken of the class and recorded in class journals and there is a science board in each classroom.

Assessments throughout Key Stage 1 are ongoing and recorded on the assessment grid. This helps identify the children who are working towards the expected level, at the expected level and exceeding the expected level in science. Teachers also use assessment information from individual lessons to inform future lessons, ensuring children are supported and challenged appropriately, highlighting strengths and achievements as well as any improvements, knowledge and skills that still need to be embedded.

