

## SUBJECT OVERVIEW

# Science

At Keevil, we believe that science is a key part of a child's education. We aim to engender a curiosity about the world around us, and teach children how to find answers to their questions through a scientific process.



*Intent: We aim to...*

Children will have the scientific knowledge and a secure understanding of scientific method to be able to hypothesize and weigh up truth claims and make sense of the world around them.

Children will develop a sense of deep curiosity and love to investigate and deepen their understanding of how the physical world works.

We ensure our Science Curriculum is rooted in the vision and ethos of the school, through ensuring that as well as delivering scientific knowledge and skills lessons also develop the Keevil Characteristics:  
Children learn the knowledge that helps them understand a range of scientific processes and concepts. Problem-solving is an integral part of the scientific process, which is developed through an enquiry-based approach to learning the subject. Diligence and resilience are required to execute investigations accurately and reliably, as is team-work as experiments, tests and research need to be conducted in collaboration with others. Good communication skills are vital to present, share, discuss and explain findings and outcomes, as well as deepen understanding.

Children will learn to become critical thinkers and approach truth claims with an understanding of the different variables and biases that can influence results.

*Implementation: How do we achieve our aims?*

Science is a core subject, and as such a unit of work is delivered each term in each class, following our school's Teaching and Learning expectations and non-negotiables to ensure a high standard of provision.

### The Science Curriculum

Class teachers ensure that every pupils receives at least one hour of high quality science teaching every week.

The school has created its own 'Science Overviews' that are mapped out from Year 1 to Year 6. The purpose of the overviews is to create a progressive sequence of scientific knowledge, skills and vocabulary. These have been created to closely follow the key book for the term, so cross-curricular links are strong and clear.

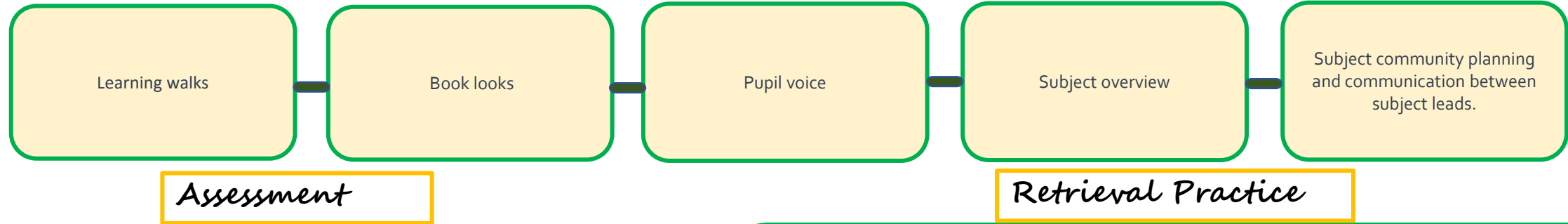
The careful design of these overviews gives the teacher a good structure from which to plan a six-week lesson block.

We teach children a skills-based curriculum that is ambitious and designed to build in knowledge content as children progress through school. Our Science units also provide rich opportunities for practical investigative science activities, encouraging children to 'be' scientists and enhance their knowledge through a variety of scientific enquiries.

To support the science overview, each unit that is delivered in science will link with 'Need to Know' documents. The key information and vocabulary is outlined in these documents which is then delivered to our children. Opportunities for returning to, and expanding on prior knowledge is built into our science lessons as this is crucial for developing schema and long term retention.

## ✓ *Impact: how will we know we have achieved our intent?*

Through the delivery of our curriculum, children are enabled to develop scientific knowledge and conceptual understanding through the disciplines of biology, chemistry and physics, that meets age-related expectations as specified in the National Curriculum. They are equipped with the skills to ask and answer questions through scientific enquiries. They understand the uses and impact of science in everyday life. They are encouraged to be excited and curious about the world around them, and see science as the means through which to explore this.



Science lessons are evidence from Science books every week. We use foundation subject assessment trackers and evaluations that track progress and curriculum objectives for each child as they make their way through the school. Teachers conduct regular end of unit retrieval quizzes that test the children on information they have retained based on the need to know documents. Teachers can then evaluate and plan extra lessons to revisit and embed understanding of misconceptions.

### *Monitoring*

Science book looks to ensure high quality teaching is taking place in every year group every week and to ensure systematic coverage of the science curriculum. Drop in sessions and lesson observations. Our most recent subject review of Science took place in January 2023.

Teachers are conducting regular retrieval practice activities into their science lessons. The school conduct 'retrieval afternoons' with the objective of revisiting previously learnt work and units that children have been taught in previous years. This helps embed learning into children's long-term memory and enables children to make links in these topics. This knowledge and understanding that has been acquired in previous year groups is then deepened and built upon in subsequent ones.

### *Curriculum Priorities and Next Steps*

- Continue to develop use of retrieval practice techniques in foundation subjects
- Further develop Assessment within Science