



# Science Subject Vision

<p>Our <b>Science</b> provision provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Through building a strong foundation of knowledge in understanding of the world, our children will be able to ask their own questions about the world around them. Curiosity and questioning is developed through hands-on, engaging activities.</p>	<p><u>Big Ideas</u></p> <p>Working scientifically is embedded in each lesson, so that children, sometimes with support, can ask and answer questions within the content of their learning.</p> <p>Scientific enquiry includes examples of observing over time; pattern seeking; identifying and classifying; comparative and fair testing; and research using secondary sources.</p> <p>Children develop spoken language through discussion to challenge and remedy misconceptions.</p>	<p><u>Teaching</u></p> <p>The teaching of Science</p> <p>Is clearly sequenced to build on prior knowledge</p> <p>Allows children to develop language and questioning to enable scientific enquiry</p> <p>Uses engagement tasks to encourage questioning</p> <p>Is clearly scaffolded so all children are able to access learning</p>	<p><u>Retrieval Practice</u></p> <p>Retrieval practice helps children to transfer ideas from working memory into the long-term memory.</p> <p>Retrieval is spaced over time to support children in memorising knowledge. Children have regular opportunities to retrieve through, mini quizzes, brain storming, use of technology and making explicit links to prior learning</p>
<p><u>Content and Sequencing</u></p> <p>Our Science curriculum ensures that children have the prerequisite knowledge required in order to access new learning. In order to easily access information about prior knowledge and develop a sequence of lessons, teachers use the individual topic progression documents for each subject.</p>	<p><u>Making Progress</u></p> <p>Using the topic progression documents and pupil asset to plan a sequence of lessons, progress is recorded through ticking off objectives on pupil asset.</p> <p>Red – Objective taught but not met</p> <p>Yellow – (WT) Objective understood with support</p> <p>Green – (Met) Objective understood and links made with other areas of learning</p> <p>Blue – (GD) Objective understood and can be generalised to a new area</p>	<p><u>Deepening Concepts</u></p> <p>Cross-curricular links are made across a variety of subjects. With a secure knowledge of scientific and spoken language, children are given the opportunity to consider the effects of what they learned on themselves, the school environment and the wider world. Trips and events are used to highlight the importance of scientific enquiry and continue to encourage and promote questioning.</p>	<p><u>Support for all</u></p> <p>Support for children within lessons includes:</p> <p>Additional members of staff</p> <p>Scaffolding of tasks</p> <p>Questioning to support thinking</p> <p>Practical equipment</p>