



## Science Curriculum Offer

<b>Intent</b>	<p><b>Purpose:</b> Pupils will be inspired to ask meaningful questions about how things work or why things happen. They will gain awareness of some of the many applications of science beyond school. They will develop an appreciation of the role of science in solving real problems and creating a better world.</p> <p><b>Relationships:</b> Pupils will understand the interrelationship between the various areas covered in Science and between Science and other subjects. Cross-curricular links are made with Maths through taking measurements and analysing data; English when reading for research and when clearly recording and communicating their findings; Computing when using technology to collect, manipulate and share information; Geography when focusing on the environment, weather and habitats; Design and Technology when learning about materials and mechanisms; P.S.H.E. when learning about health and human development; History when learning about significant scientific developments through time and Music when learning about sound in Year 4.</p> <p><b>Impact:</b> Pupils in EYFS will be confident to ask their own questions about the world and to select resources with which to explore their interests. They will be supported with developing a wider vocabulary. Pupils in KS1 and KS2 will also be able to talk confidently about scientific concepts covered by the National Curriculum. They will be able to work scientifically, showing increasing sophistication and independence when designing and carrying out tests.</p> <p><b>Metacognition:</b> Knowledge organisers are sometimes used to set out key facts and vocabulary. Where possible, pupils are encouraged to build their scientific subject knowledge through practical experiences with the National Curriculum objectives for 'Working Scientifically' taught alongside the subject knowledge objectives. In addition, teachers use various strategies, games and activities to build pupils' understanding of key concepts. Low stakes questioning and tests are used to assess learning.</p> <p><b>Experiences:</b> Pupils are exposed to a range of high quality educational experiences including use of the outdoors including Squirrel Wood, relevant local area walks, trips such as The British Wildlife Centre and Kew Gardens, visitors, competitions such as the 3M Young Innovators Challenge and clubs including Science and Nature Club. In alternate years, the school participates in British Science Week.</p>
<b>Implementation</b>	<p>Science in EYFS is predominately delivered as part of continuous provision through high-quality learning environments including access to the outdoors. As appropriate, EYFS teachers deliver adult-led science inputs to inspire pupils; for example, as part of British Science Week.</p> <p>Within KS1 and KS2, Science planning is based on the National Curriculum content for each year group/key stage. Teachers are aware of when concepts are repeated in the National Curriculum ensure that new</p>



	<p>learning builds on prior experiences. Additionally, pupils are appropriately scaffolded to ensure they progress as scientists as they move through the school.</p> <p>Assessment is through oral questioning, partner talk and whole class discussions and low stakes quizzes as well as analysis of pupils' independent written work. Pupils are also given the opportunity to self-assess and self-mark when appropriate and identify opportunities for improvement.</p> <p>Pupils are considered to be GDS if they seek to extend their scientific understanding by asking further questions and suggesting ways in which these could be answered. Also, GDS pupils demonstrate confidence and independence with spotting patterns and relationships and with recognising ways in which science can be applied to problem solving.</p> <p>Key English skills such as reading and writing are used when recording learning and accessing new and key information. Oracy skills are practised throughout science lessons, through the requirement of pupils to ask their own questions, to work in teams and to share their findings. Pupils will also be given opportunities to explain and present their learning about key scientific concepts.</p> <p>Subject leaders have a high standard of subject knowledge, support the teaching of their subject and ensure that staff feel confident to teach this area of the curriculum.</p>
<b>Impact</b>	<p>Pupils will talk positively about Science and about themselves as scientists.</p> <p>Pupils will be able to articulate ways in which they can answer scientific questions including: research, comparative and fair testing, pattern seeking, grouping and classifying and observing changes over time.</p> <p>Pupils feel confident about learning about Science and will often take their learning out of the classroom, showing their enjoyment and passion for the subject.</p>