

## Curriculum Principles in Science

<b>We know that our children need:</b>			
To develop their understanding of the wider world.	To raise aspiration for all.	To develop their vocabulary	
<b>We know this because:</b>			
Our local community consists of mainly White British families who may not have much experience of the wider world. Therefore, we have a strong focus on diversity and inclusion throughout our curriculum.	Because parts of the local area measure lower than national average for education, skills and deprivation we want to promote ambition and aspiration to support our children and community to be the best they can be.	We understand that on entry a spoken language for a number of children is below that of the national average for their age, this is why we focus on developing pupil's vocabulary.	
<b>These are important to ensure our children:</b>			
Have an understanding, interest and respect for the diverse world which they live in and treat others how they would want to be treated. <b>Develop an understanding of and make links between the school community, local community, wider community, global community becoming aware of their place within society.</b> Are <b>SUCCESS</b> ful, well rounded, responsible young people who make a positive contribution to their community and beyond.	Continually strive to learn more, know more and be the best version of themselves. <b>Grow as confident, independent and resilient learners who embrace the challenges of today, tomorrow and beyond.</b> Work together so that all can achieve their potential with the knowledge that <b>SUCCESS</b> is in our hands.	Are confident, articulate and successful communicators. <b>Can articulate their knowledge, learning and understanding as well as thoughts and opinions with ease and fluency.</b> Can achieve <b>SUCCESS</b> throughout the curriculum and the wider world by constantly developing speech and language. Have a love and a passion for reading.	
<b>Therefore, our curriculum is based on the following principles:</b>			
<b>Memory (inc. knowledge)</b> Children need to have a rich body of knowledge in their long-term memory which forms the building blocks for making progress and acquiring higher-level skills. Our ambitious curriculum has been carefully sequenced by subject leaders with clearly identified sticky knowledge and key concepts that are revisited continuously so that pupils know, remember and understand more. With this knowledge embedded in their long-term memory our	<b>Opportunities</b> We want our children to learn about the best of what has been written, played, performed, painted, created etc. To have experiences that galvanise and support the acquisition of knowledge back in the classroom. Cultural capital is not just about trips and expensive visits. Weekly assemblies enhance pupil cultural capital ie: reading, RE, wider curriculum and Picture News assemblies.	<b>Vocabulary (inc. Reading)</b> Vocabulary and reading are at the heart of the curriculum. Our curriculum is carefully planned so that children develop their vocabulary. Early Reading is built upon and embedded over time. This develops a wide range of vocabulary and a love of reading. To access the wider curriculum and acquire the important knowledge our children are taught a wealth of vocabulary throughout all subjects.	<b>Equality and Equity</b> Equality is a key principle as we want to ensure that all pupils access an ambitious curriculum and want to achieve the best possible outcomes for all groups of children including SEND, PP, protected characteristics and sexuality. Our curriculum is designed to develop a deep understanding of the wider world so that children are respectful, knowledgeable and understand the importance of treating each other equally.

<p>children will be ready for the challenges and opportunities of the future.</p>			
<b>In Science this is evidenced through:</b>			
<p>KKPDs mapped out learning from F1 to Year 6 – more ambitious than National Curriculum.</p> <p>KKPDs have been implemented in Forest School. All the activities are planned to meet a KKPD.</p> <p>Each lesson begins with a review and reflect question to revisit their prior learning.</p> <p>Pre and Post tests are used as an assessment tool to help retain children’s learning.</p> <p>Knowledge Organisers are sent home to support the children’s learning at home.</p> <p>After the topic has been taught, the children are presented with a blank knowledge organiser for them to complete, demonstrating the knowledge they have developed.</p> <p>Key vocabulary is displayed on the Science display boards for the children to refer back to throughout the day.</p>	<p>The children have the opportunity to produce authentic outcomes in science, for example, healthy food menus for a local café.</p> <p>The children have the opportunity to carryout weekly practical investigations. Year 3 have investigated the nutrients in a variety of food labels. Year 5 have investigated how humans develop and have represented this in a table. F1, investigated which materials float and sink.</p> <p>Children are exposed to science updates around the world (News Round and Picture News)</p> <p>The children in Foundation and KS1 attend Forest School each week.</p> <p>British Science Week is celebrated across the school, the children have a launch assembly, take part in a practical science lesson then at the end of the week, an assembly to celebrate the learning of the work.</p>	<p>A vocab rich environment. Displays in the classroom evidence vocabulary in the relevant science topic.</p> <p>The vocabulary is revisited to support the children’s long-term memory and to built on the knowledge.</p> <p>Blue for new is used to highlight the new vocabulary taught.</p> <p>Review and Revisit is used to further embed knowledge and vocabulary.</p> <p>Learning for Life books demonstrate the relevant vocabulary for the specific lesson.</p>	<p>Quality first teaching of science allows all children to access the learning.</p> <p>Learning is scaffolded up, so all children aspire to know and learn more.</p> <p>Children learn about Scientists and how they have influenced our world today.</p> <p>Weekly practical science lessons are planned to develop the children’s investigation and enquiry skills.</p> <p>Support provided in lessons for children when required to allow all children to make progress.</p> <p>Key Stage one focused on people who have changed the world during the Autumn term, female scientists were covered during their curriculum lessons.</p>

<p>Science is linked to other subjects, for example, <b>Guided Reading</b> (children are reading a range of texts about their science topic) <b>Forest School</b> (children in Foundation and KS1 attend Forest School weekly) <b>Maths</b> (children are creating graphs to show their results)</p> <p>Assessment opportunities to identify gaps in learning/ knowledge.</p>	<p>At the beginning of each topic, each class starts off with a 'hook' to engage the children in the topic and to allow questions to be asked.</p> <p>The children in Year 2 will be having their residential at White Post Farm to support their knowledge and understanding of animal off springs in the summer term.</p> <p>Children in KS1 had a 'Space Day' in the Autumn term, this was carried out by a company.</p> <p>Children in Year 3 had a geologist from Nottingham Trent to come in and share his knowledge of rocks and he brought in a collection of rocks for the children to see.</p> <p>During the summer term, EYFS will be growing a sunflower to display in their outdoor area.</p>		
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