

### Science Key Skills Progression

	EYFS		KS1		LKS2		UKS2	
	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Topics</b>	<p>What makes me special? Whose is that trail and where does it go? Exactly how big were dinosaurs? How does our garden grow? Walking through the Jungle what do you see? Why is water so important?</p>	<p>Celebrating my world Once upon a time... Mini beasts and mega beasts</p>	<p>Types of animals including humans Seasonal changes Identifying materials Comparing everyday materials Plants</p>	<p>Living things and their habitats Uses of everyday materials Nutrition and exercise Changing shape of materials Plants and growing</p>	<p>Rocks and soils Light Animals and humans Forces and magnets Plants</p>	<p>Sound States of matter, including the water cycle Living things and their habitats Electricity Animals including humans</p>	<p>All living things and their habitats Earth and space Properties and changes of materials Forces; gravity, air, resistance, friction, simple machines</p>	<p>Classifying living things and their habitats Light Evolution and inheritance Electricity and changing circuits Healthy bodies and circulatory system Science of sport</p>
<b>Working Scientifically</b>								
<b>Plan</b>	Choose the resources they need for their chosen activities and say when they do or don't need help.		Ask simple questions and recognise that they can be answered in different ways.		Ask relevant questions and use different types of scientific enquiry to answer them. Set up simple practical enquiries, comparative and fair tests.		Plan different types of scientific enquiries to answer questions to answer questions, including recognising and controlling variable where necessary.	
<b>Do</b>	Know about similarities and differences in relation to places, objects, materials and living things. Make observations of animals and plants. Explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Select and use technology for specific purposes.		Observe closely, using simple equipment. Perform simple tests. Identify and classify.		Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, use of range of equipment, including thermometers and data loggers.		Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	
<b>Record</b>	Represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.		Gather and record data to help in answering questions.		Gather, record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.		Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	
<b>Review</b>	Talk about the features of their own immediate environment and how environments might vary from one to another. Explain why some things occur and talk about changes.		Use their observations and ideas to suggest answers to questions.		Report findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Use results to draw simple conclusions make predictions for new values, suggest improvements and raise further questions. Identify differences, similarities or changes related to simple scientific ideas and processes. Use straightforward scientific evidence to answer questions or to support their findings.		Use test results to make predictions to set up further comparative and fair tests. Report and present findings from enquiries, including conclusions, casual relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. Identify scientific evidence that has been used to support or refute ideas or arguments.	

High expectations by all, for all, reflecting the example of  
Jesus

<b>Enrichment opportunities</b>	Seasonal visits to Vicarage Garden to observe change over time and living things and their habitats. Hatching ducklings: lifecycles, change, care of living things.	Visit to Lookout Discovery Centre Visits to Hounslow Urban Farm and Richmond Park.	Visit to Wisley Gardens.	Visit o Wetlands Centre.	Local walk. Visit to Richmond Park.	Residential trip to Sayers Croft. Visit to Kew Gardens.	Residential trip to Hindleap Warren. Visit to Science Museum.	Visit to Kew Gardens. River Thames walk.
<b>SEND &amp; Inclusion information</b>	<ul style="list-style-type: none"> <li>- IWB to record comments, questions, responses which can be printed and included in student's books.</li> <li>- Use of 'widgets' instead of writing.</li> <li>- Non white IWB backgrounds to accommodate dyslexic learners.</li> <li>- Photographs as evidence of learning.</li> <li>- Noting children's comments / observations on post it notes to include in students' books.</li> <li>- Visual prompts.</li> <li>- Use of video clips to facilitate learning /understanding e.g. BBC bitesize science clips.</li> </ul>							
<b>Aims</b>	<p>The National Curriculum for science aims to ensure that all pupils:</p> <ul style="list-style-type: none"> <li>➤ develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.</li> <li>➤ develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them</li> <li>➤ are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.</li> </ul>							

Key	
Orange	Chemistry
Green	Biology
Blue	Physics

Statements taken from:  
Science programmes of study: Key Stages 1 and 2, National curriculum in England (2013) DFE, Statutory framework for the Early Years Foundation Stage (2017) DFE