Y3 Science Overview 2022-2023

Science Activity	Building Skills and Disciplinary Knowledge	Approaches to Developing Skills and Disciplinary Knowledge	Building Substantive Knowledge and Understanding	Approaches to Developing Substantive Knowledge and Understanding	Curricula Materials	Assessed through (T1 T2 T3) Scientific Enquiry Planning & Presenting Critically Observing/ Classifying/ Evaluating Scientific Knowledge		
						Most children will be able to... (working at)	Some children will not yet be able to... (working towards)	Some children are confidently able to... (exceeding)
Scientific Enquiry	• Can raise questions about the world around them • Can talk about criteria for grouping, sorting and classifying; and use simple keys • Can begin to look at for naturally occurring patterns and relationships and decide what data to collect to identify them • Can suggest simple ideas and suggest how to find things out • Can make and record a prediction before testing • Can explain a fair test and explain why it was fair? • Can make up a simple fair test to make comparisons	• Create a topic Mind Map to encourage children to ask questions • Introduce and model practical activities involving skills of investigating, contrasting, analysing, recording • Make observations • Review of investigations against criteria • Out of the classroom learning experiences to support enquiry	• Pupils should develop knowledge about the world around them and how they have an impact on that • Identify that animals, including humans, need the right types and amount of nutrition and they get this nutrition from what they eat • Observe rocks , including those in buildings and gravestones, exploring how and why they might have changed • To begin to have an understanding of forces • Notice that some forces need contact between two objects , but magnetic forces can act at a distance • They should understand and use basic subject specific vocabulary related to the science topic • To understand that magnets attract or repel each other and attract some materials and not others • Be confident to ask questions and know where to research the answers • To make predictions in a safe learning environment • Confidently use simple scientific equipment to make observations • Record and classify findings in simple ways	• Teacher led presentations • Opportunities for research modelled by Teacher • Opportunities for children to act upon their own curiosity and research their own questions • Research opportunities through home/school learning projects Planned opportunities for use of and access to varied resources • School visits to places and organisations related to topic and learning	**TERM1:** Animals Including Humans and Plants **TERM2:** Rocks **TERM3:** Forces and Magnets Light and Shadow			
Planning and Presenting	• Can measure using different equipment and units of measure • Can record observations in different ways (labels, diagrams, charts) • Can describe what they have found using scientific vocabulary • Can identify differences, similarities or changes related to simple scientific ideas and processes • Can use straightforward scientific evidence • Can make accurate measurements using standard units • Can use relevant scientific language to discuss their ideas and communicate their findings in ways that are appropriate for different audiences	• Teacher led lessons demonstrating skills of investigating, recording, analysing • Modelling use of scientific vocabulary in comparisons, contrasts, investigations • To use relevant scientific language to discuss their ideas and communicate their findings in ways that are appropriate for different audiences • Planned practical activities to engage children in above activities						
Critically Observing/ Classification/ Evaluating	• Can ask relevant questions using correct scientific vocabulary • Can gather, record, classify and present data in a variety of ways to help answer questions • Can record findings using simple using drawings, labelled diagrams, charts and tables. • Can report findings from enquires, including oral and written explanations • Can, with support, identify new questions arising from data, making predictions within or beyond the data they have collected and finding ways to improve what they have already done	• Observing changes over time • Investigating habitats and environments • Learning to compare and contrast • Talking about what they have learnt and observed • Begin to record data						
Scientific Knowledge	• Can understand and use the correct scientific vocabulary related to the topic • Can observe, comment and ask questions about the world around them • Can connect ideas from previous learning and experiences • Can learn about change through observations and practical experiences and activities • Can, with support to set up an investigation • Can begin to gain an understanding of fair testing • Can know where to access information (books, internet sources)	• Planned opportunities to observe, investigate and comment using scientific vocabulary based on topics and experiences • Opportunities for children research their own line of enquiry • To understand when and how secondary sources might help them to answer questions that cannot be answered through practical investigations						
Maths links	• Can use labels, diagrams and charts to record their observations • Can compare objects, plants, animals by size, height and weight • Can take accurate measurements using standard units, using a range of equipment , including thermometers • Can accurately interpret these measurements	• Planned opportunities depending on topic such as deciding how to present findings via tally counting, graphs, and data analysis or measures						
SMSC	• Can work with others of different religious, ethnic and socioeconomic backgrounds, according to given briefs wider knowledge of Y3 science curriculum • Can resolve conflicts and differing opinions should these arise • Can reflect on choices • Can investigate and offering views on ethical issues in topics studied • Can show willingness to explore and understand scientific beliefs from a variety of cultural backgrounds • Can study science, and investigate with a team knowledge of the wider world, including interviewing with older people, archaeologists, and museum and exhibition personnel	• Plan visits, opportunities to investigate with a group or partner • Plan visits in the local environment • Visit Parks, Museums, laboratories						