
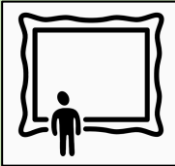
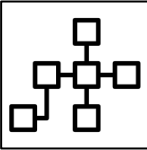
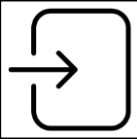


# Science Unit Structure - Implementation

Parish Church of England Primary School

## A Unit Structure Summary [7-week unit of work unless a double unit where it is 14 weeks]:

Week 1 [Part A + B] Practical Pre-learning. Pre-Learning Vocabulary. The Bigger Scientific Picture.	Week 2 QUEST Lesson.	Week 3 QUEST Lesson.	Week 4 QUEST Lesson.	Week 5 QUEST Lesson.	Week 6 QUEST Lesson.	Week 7 Exit Task Completion. Post-Learning Vocabulary
One carefully chosen high-quality core unit text will be used throughout the unit (at the teacher's discretion) to enhance delivery and build Science Capital						
Lesson(s):	Lesson Features:			Purpose of the Lesson(s) - Including Links to Our Rainbow Promises:		
<p><b>Lesson 1A (1 hour)</b> Pre-Learning: Explore, Engage, Extend.</p>  <p>Complete practical pre-learning activity and pre-learning vocabulary.</p>	<p>Across the school, the first part of lesson one will always explore key ideas, engage the learners, and extend their scientific thinking in an oracy-rich environment. A carousel of practical activities per unit of work is utilised to generate information about 'what children know...' and 'what children would like to know...'. This is an exciting, vocabulary and question rich lesson, nurturing the curiosity for further study during the unit of work. Pupil ideas and discussions will be observed, added to science working walls and informally recorded by the teacher during this lesson using a whole class feedback sheet. The pre-learning vocabulary grid will also be completed in exercise books by ranking our 'vital vocabulary' from 1 to 5 for understanding.</p>			<p><u>Teacher Purpose</u> (Though completing a whole class feedback sheet and observing pupil understanding, teachers will be able to appropriately adapt lessons relevant to the children's interests and adapt planning to address any misconceptions. Teachers also find out what the children would like to know, make explicit links between what the children already know and what is new before considering approaches to teaching relevant vocabulary). <u>Pupil Purpose</u> (Children will practise memory recall and knowledge retrieval, nurture their curiosity for further study and be able to ask more focused questions. This session truly enables children to take ownership of their own learning and provides a reason to talk while promoting the development of articulate learners).</p>		
<p><b>Lesson 1B (1 hour)</b> The Bigger Scientific Picture.</p>  <p>Understand bigger picture of the unit, linking the unit to science in the 'real world'. To be recorded in books.</p>	<p>Explore the name of the unit, considering the questions: 'why are we studying this unit?' and 'what are the big scientific ideas?' Explore the disciplines of Chemistry, Physics and Biology making extensive links to all areas of prior learning through retrieval opportunities, mind map creation, research and discussion.</p> <p>This lesson will also provide an opportunity to know people in science related roles and influence children's aspirations. The lesson could also explore scientific careers through use of STEM ambassadors, external STEM role models or older pupils as STEM role models, to provide context to this unit and our wider Science Curriculum.</p>			<p><u>Develop Science Capital</u> (This lesson will provide children with an opportunity to see how Science is relevant to their everyday life and their knowledge of science within a work-related role). <u>Opportunities to Build Upon Knowledge and Skills</u> (Develop the knowledge required to provide the foundations for understanding the world through the specific disciplines of Biology, Chemistry and Physics - painting 'The Bigger Scientific Picture'). <u>Influence Aspirations</u> (Explore the relevance of Science and wider STEM subjects for a wide range of future career paths. Actively addressing stereotypes around STEM careers, linking STEM to real-life examples in pupil's lives).</p>		

<p><u>The Learning Sequence</u> (90 minutes per Learning Quest).</p>  <p>Teach learning sequence through our bespoke QUEST approach.</p>	<p>After the 'Bigger Scientific Picture' has been created, the unit's learning sequence will provide a knowledge-enabled approach to ensure that pupils know more and remember more. Each learning sequence has been planned to systematically include both the statutory working scientifically strands from the National Curriculum and the five core areas of scientific enquiry, alongside core knowledge.</p> <p>Through use of our bespoke QUEST learning approach, knowledge is expertly delivered through different Scientific media, underpinned by one carefully chosen core unit text to purposefully drive learning forward.</p>	<p>Pupils will know more and remember more, covering the statutory content within the National Curriculum.</p> <p><u>Develop Science Capital</u> (Increase Science media consumption through opportunities to engage with science related media including television, books, magazines and internet content).  <u>Resilience and Perseverance</u> (Independent learning will be encouraged throughout where misconceptions are embraced and used as essential teaching points. Promoting scientific enquiry at the core, built into every lesson, with use of skills progression papers across year groups).</p>
<p><u>Final Lesson</u> (2 hours) Exit Task Completion.</p>  <p>Complete practical post-learning activity as an exit task alongside post-learning vocabulary.</p>	<p>Used to assess knowledge and skills acquired throughout the unit. The carefully selected exit task will assess pupil understanding. Often, this will be a practical exit task as an independent opportunity to apply the knowledge learnt within a unit and provide evidence of the 'working scientifically' statements. This could also be 'exam style' questions or an end of unit quiz if most appropriate. During this lesson, the post-learning vocabulary grid will also be completed, by again ranking our 'vital vocabulary' from 1 to 5 for understanding.</p>	<p><u>Teacher Purpose</u> (Teachers to assess knowledge and skills at the end of the unit and allow accurate assessment judgements to be made prior to internal/external moderation).  <u>Pupil Purpose</u> (A chance to showcase their developing knowledge and skills by applying it to a less familiar context).</p>