

Science

What is the intent?

Our science curriculum aims to prepare children for the wider world. We strive to ensure that the lessons we deliver achieve the three aims of the science National Curriculum so that pupils understand the science and have the skills to engage with the knowledge and recognise where it fits in the wider world. We believe in the curious child and encourage our children to ponder, ask questions and find out answers to big questions for themselves, reflecting on that which they have discovered. The knowledge they acquire is deepened through the use of essential scientific enquiry skills. We believe that through working scientifically our children will have a greater depth of understanding of the knowledge and will be the scientifically literate adults of the future.

It is our aim that children will:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- 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
- be equipped with the scientific skills required to understand the uses and implications of science, today and for the future.
- experience **first- hand opportunities** such as visits to science fairs, places of scientific interest, science departments within the Trust and visitors

Implementation

Throughout the programmes of study, the children will acquire and develop the key knowledge that has been identified within each unit and across each year group. The key knowledge identified by each year group is informed by the national curriculum and builds towards identified phase 'end points' in accordance with NC expectations. Key skills are also mapped for each year group and are progressive throughout the school. These too ensure systematic progression to identified skills end points which are in accordance with the Working Scientifically skills expectations of the national curriculum.



Science Learning Pathway						
EYFS		Key stage 1			Key stage 2	
In EYFS children will explore the natural world describing what they see hear and feel. They will recognise some environments that are different to the one where they live and they will study the effect of changing seasons on the natural world.		In KS1, the principal focus of science is to experience and observe. Children will be encouraged to be curious and ask questions about the world around them. Most of the learning will take place through practical and first-hand experiences.			In KS2 children will develop a deeper understanding of a range of scientific concepts. This will take place through exploring, testing and developing ideas as well as analysing relationships, observing changes and noticing patterns. Children will be encouraged to select appropriate ways to answer questions and will carry out fair tests, drawing conclusions from their findings.	
Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn						
What makes me special and belong?	What does nature mean to me?	What helps living things grow and thrive?	How has electricity impacted our lives?	How did the Roman invasion change life in Britain?	Why do people invade and settle?	Why must we remember?
Managing Self ELG	Animals including Humans Seasonal Changes	Living things and their habitats Animals including humans	Electricity and Light Forces and Magnets	Sound	Properties and Change of Materials	Animals including humans
Spring						
What makes living things change and grow?	What is my village like?	What difference can a person make?	How did people start to settle?	How is the natural world unpredictable?	Why do we need to know our place in space?	Why is power important?
The Natural World ELG	Plants Seasonal Changes	Everyday Materials - States of Matter	Animals including humans	Rocks and States of Matter	Earth and Space Forces	Electricity and Light
Summer						
What do other countries look like?	What are things made from?	What will we see when we explore the world?	How did the Nile help Egyptians survive and thrive?	How do animals survive?	Why is it important to look after our world?	Why do we need to adapt and change?
The Natural World ELG	Everyday Materials - Process and Investigation Seasonal Changes	Plants Animals including humans	Plants	Animals including Humans Living things and their habitats	Animals including Humans Living things and their habitats	Evolution and inheritance Living things and their habitats

In Early Years, children explore the natural world describing what they see hear and feel. They learn to recognise some environments that are different to the one where they live and they will study the effect of changing seasons on the natural world.

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The impact of excellent teaching will mean as a scientist leaving Berrow, every child will:

- Have a sense of awe, wonder and curiosity in the science in the world around them and have the skills to investigate, experiment and discover for themselves
- Be confident to ask their own questions and use their scientific skills to try to discover the answers
- Understand, and be inspired by the fact, that science is ever-changing and science changes our lives
- Have experienced a wide range of inspiring engagement and enrichment activities including educational visits and expert visitors
- Have a firm grounding in the disciplines of biology, chemistry and physics and a secure bank of knowledge and scientific skills which they can build on in the next stage of their science education.