



*'Discovering life in all its fullness.'*  
**Hesed ● Hamdah ● Honesty ● Horizons●**

## Science

### Overview

The Science curriculum at Lindridge St Lawrence CE VA Primary aims for pupils to **Discover Life in all its Fullness** through developing a complex knowledge of biology, chemistry and physics but also adopt a broad range of skills in working scientifically and beyond. We emphasise the importance of language and using scientific vocabulary. The scheme of work is inclusive and meaningful so all pupils may experience the joy of science and make associations between their science learning and their lives outside the classroom to help them understand future aspirational **Horizons**. Studying science allows pupils to appreciate how new knowledge and skills can be fundamental to solving arising global challenges. The curriculum aims to encourage critical thinking and develop a more rigorous understanding of science and scientific thinking which will empower pupils to question the hows and whys of the world around them.

### Intent

The national curriculum, last updated 2015, for science aims to ensure that all pupils:

- 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
- are equipped with the scientific knowledge required to understand the **uses and implications** of science, today and for the future.

At Lindridge CE Primary School, we encourage children to be inquisitive throughout their time at the school and beyond. The Science curriculum is designed to foster a healthy curiosity in children about our universe and promotes respect for the living and non-living. Science encompasses the acquisition of knowledge, concepts, skills and positive attitudes. Children will acquire and develop key knowledge that has been identified within each unit and across each year group, as well as the application of scientific skills. Children will apply their knowledge of science when using equipment, conducting experiments, building arguments, explaining concepts confidently and continue to ask question, predict how things will behave, and analyse causes.

### Implementation

Teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all children are capable of achieving high standards in science. Science will be taught from the programmes of study from the national curriculum through the Kapow Scheme. This is a strategy to enable the achievement of a greater depth of knowledge.

In EYFS (Reception), pupils build a solid foundation for science before transitioning to Key stage 1. Through hands-on exploration and focused observations, lessons spark curiosity and foster an early appreciation for the natural environment, paving the way for more structured scientific learning in Key stage 1. Each year group has an optional exploratory unit called 'making connections' that delves beyond the statutory curriculum. This unit assimilates prior knowledge and skills to evoke excitement and provide an additional method of assessing scientific attainment. Lessons incorporate various teaching strategies, from independent tasks to paired and group work, including practical, creative, computer-based and collaborative tasks. This variety means that lessons are engaging and appeal to those with different learning styles. In Year 1, the transition into the Key stage is eased by providing a selection of activities: some adult-led, some independent tasks and some that can be used during continuous provision to suit your set-up. Guidance for adapting the learning is available for every lesson to ensure that all pupils can access it and opportunities to stretch their learning are available when required. Knowledge organisers for each unit help to identify key learning and vocabulary and can be useful as an adaptive teaching tool or to revise learning from the unit. Strong subject knowledge is vital for staff to deliver a highly effective and robust science curriculum. Each unit of lessons includes teacher videos and resources to develop subject knowledge, target fundamental misconceptions effectively and support ongoing CPD. Kapow has been created to build confidence amongst non-specialist primary teachers who are required to deliver and assess the full science curriculum and maximise pupil progression. Videos created by subject specialists feature troubleshooting advice for practical work that does not go to plan, suggested questioning and support for tackling misconceptions and recordings of practical tasks that can be utilised as demonstrations in the classroom or to support pupil reflection on their own observations. Working scientifically skills are embedded into all lessons to ensure these skills are being developed and new vocabulary and challenging concepts are embedded during the children's school career.

### Impact

The successful approach at Lindridge CE Primary School enables children to feel they are scientists and capable of achieving well, enjoy science and be motivated by their learning and have sound scientific understanding. They will have the necessary tools to confidently and meaningfully question and explore the world around them and critically and analytically experience and observe phenomena. Pupils will understand the significance and impact of science on society.

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