

## Science

### Intent

The Science curriculum at Kingfisher Primary School has been designed with the intent that all children will build a wide range of scientific skills and knowledge and have wide exposure to work scientifically. Children are taught the working scientifically skills using an ‘enquiry cycle’ and have opportunities for a range of investigations and experiments, including short enquiry opportunities that focus on particular skills. Kingfisher is committed to continually expose children to diversity and this is done through studying science in action through a range of scientists, investigating specific disciplines and understanding scientific discoveries.

We have designed a curriculum that is tailored to the needs and interests of our children and develop a sense of excitement and curiosity about natural phenomena and an understanding of how the scientific community contributes to the past, present and future. This creates an engaging and relevant learning experience for our children, fostering a strong connection between children and their education.

We will deliver a curriculum that will:

- Develop knowledge alongside scientific skills across biology, chemistry and physics
- inspire curiosity and fascination about familiar and unknown observations
- challenge misconceptions and demystify truths
- provide continuous progression to build on practical and investigative skills across all units
- develop critical thinking, with the ability to ask perceptive questions and explain and analyse evidence
- develop scientific literacy using wide-ranging, specialist vocabulary
- inspire our children to think like scientists so that they may contribute to and improve the world around them

### Implementation

Our Science curriculum revisits essential knowledge and skills, through a spiral curriculum, with increasing complexity, allowing children to revise and build on their previous knowledge.

The teaching and learning of the Science curriculum will be implemented through;

- clear progression of skills and knowledge within the following key strands: scientific knowledge and understanding (biology, chemistry, physics); working scientifically, science in action
- builds on the children’s knowledge, skills and understanding from their previous learning, allowing children to revise, consolidate and develop their learning
- curious, critical and reflective learners as children make connections between existing and new skills and knowledge
- integrated skills with conceptual understanding
- provide frequent and relevant opportunities for developing scientific enquiry skills
- utilise practical activities to aid the progression of individual skills and provide opportunities for full investigations

- speak clearly and articulately when discussing and debating topics
- use of summative assessments to provide a comprehensive overview of pupil outcomes and identify gaps in knowledge to inform and secure planning
- evaluated by the Science subject lead to ensure continuous development for all and providing tailored CPD and coaching and strong subject knowledge to promote successful Science teaching and learning and improves children's outcomes

### Impact

At Kingfisher Primary School our children feel truly inspired to question and understand more about how the world works. They are able to reflect and understand how the scientific community impacts society. The children are secure in the scientific skills and knowledge that they have acquired during their time at Kingfisher and they leave school equipped to confidently and meaningfully question and explore the world around them. They are able to critically and analytically experience and observe phenomena.

Our children understand the importance of resilience and a grow-mindset, particularly in reference to scientific enquiry and can work collaboratively and practically to investigate and experiment.