



## Kidmore End CE Primary School Science Curriculum 2021 -2022

### **Intent**

At Kidmore End CE Primary School, we encourage our children to be inquisitive learners throughout their time at school, helping them to recognise the importance of science in everyday life. The national curriculum sets out to increase children's knowledge and understanding of the world around them, equipping them with a range of scientific skills through different processes of enquiry. Therefore, we want our children to love science and provide them with a balanced science curriculum that gives them the opportunity to explore, discover and be independent and motivated learners.

To achieve this, we strive to provide our children with exciting and practical experiences that promote curiosity and questioning, helping to deepen their scientific understanding. Furthermore, we want to provide our children with the fundamentals of what it means to be a scientist, stimulating children's learning through different enquiry types, providing them with a strong understanding of scientific knowledge and vocabulary, as well as extending their scientific skills.

Ultimately, we want children to not only be equipped with the requirements of the science National Curriculum but to have a real enthusiasm for science and a sense of achievement within the subject in order to then seek out opportunities and responsibilities within the world of STEM later on in life.

### **Implementation**

Teachers are responsible for creating a positive attitude towards learning within their classrooms and demonstrating an expectation that all children are capable of achieving high standards in science. When planning science, teachers are responsible for checking the children's existing knowledge and ensuring their teaching is informed by the children's starting points. Lessons are planned to create an engaging environment, often involving high-quality resources to aid the understanding of conceptual knowledge. The school will be adopting units of work from the Cornerstone's Curriculum in January 2022.

We use resources that are purposeful and relevant, as well as including working scientifically objectives alongside the national curriculum content to ensure a clear and focused coverage of the enquiry types. Furthermore, our planning provides children with problem solving opportunities to enable children to apply their knowledge and find out answers for themselves, thus promoting independent and curious learners.

As children progress through the school, their knowledge and understanding should be built upon through teaching to enable them to become more proficient in selecting, using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence. Therefore, teachers demonstrate how to use scientific equipment correctly and the various working scientifically skills in order to embed children's scientific understanding.

During our lessons, children are given clear success criteria to achieve the learning intention with different elements of independence. Teachers also use a range of assessment tools and differentiation is facilitated by teachers to ensure that each child can access the Science curriculum. Moreover, the use of precise questioning is used to assess conceptual knowledge and skills and identify any gaps in a child's learning. Throughout the learning, children are exposed to scientific vocabulary in a progressive and ambitious manner, with lessons involving clear and concise modelling of vocabulary to give children the confidence to use the correct terminology within their work.

At the start of each topic children will review previous learning and will have the opportunity to share what they already know about a current topic. Children are also given a knowledge organiser at the start of each topic which details some key Science Curriculum Statement information, working scientifically skills and key vocabulary. This is used to support children with their acquisition of knowledge and is used as a reference document.

### **Impact**

The successful approach once embedded with the new Cornerstones Curriculum at Kidmore End CE Primary will result in an engaging and high-quality science curriculum that is inclusive for all children and promotes both problem solving and discovery through a practical element.

We encourage our children's understanding of the world around them, giving them the tools to be able to think as scientists as well as inspiring them to be independent learners and ask questions for themselves.

Children at Kidmore End CE Primary School can appreciate science being used in their local environment and everyday life, with the promotion of cross-curricular links helping children to relate science to their own experiences.

Moreover, through the use of various workshops, trips and interactions with experts, children have the understanding that science has changed our lives and that it holds the key to our world's future. In addition, children are provided with access to positive role models within the field of science from the immediate and wider local community and are provided with an understanding of a range of different scientists from various backgrounds, thus enabling all children to feel they are scientists who are not only capable of achieving but also have the necessary foundations to pursue a possible career in science.

More importantly, children enjoy science at Kidmore End CE Primary and are motivated to further deepen their scientific understanding.