



## Oare CofE Primary School's Science Curriculum

### **Intent**

*Why do we teach this? Why do we teach it the way we do?*

The 2014 National Curriculum for Science aims to ensure that all children:

- 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 skills required to understand the uses and implications of science, today and for the future. We understand that it is important for lessons to have skills-based focus, and that the knowledge can be taught through this.

### **Implementation**

*What do we teach? What does this look like?*

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. Our whole school approach to the teaching and learning of science involves the following:

- Science will be taught in planned and arranged blocks across the whole school, to have a project-based approach. This is a strategy to enable the achievement of a greater depth of knowledge and to clearly link prior learning to new learning.

- Through our planning, we include problem solving opportunities that allow children to find out for themselves. Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and research to discover the answers. This curiosity is celebrated within the classroom. Planning involves teachers creating engaging lessons. Teachers use precise questioning in class to test conceptual knowledge and skills, and assess children regularly to identify gaps in learning, so that all children keep up.
- We build upon the learning and skill development of the previous years.
- ‘Working Scientifically’ skills are embedded into lessons to ensure these skills are being developed throughout the children’s school career and new vocabulary and challenging concepts are introduced through direct teaching. This is developed through the year, in keeping with the units of learning.
- Teachers demonstrate how to use scientific equipment, and the various Working Scientifically skills in order to embed scientific understanding. Teachers find opportunities to develop children’s understanding of their surrounding by accessing outdoor learning and workshops with experts.
- Children are offered a wide range of extra-curricular activities, visits, trips and visitors to complement and broaden the curriculum. These are purposeful and link with the knowledge being taught in class.
- Regular events, such as Science Week and World Ocean Day, or project days, such as Arboretum Day, allow all pupils to come off-timetable, to provide broader provision

and the acquisition and application of knowledge and skills. These events often involve families and the wider community.

## **Impact**

### *What will this look like?*

The successful approach at Oare Primary School results in a fun, engaging, high-quality science education, that provides children with the foundations and knowledge for understanding the world. Our engagement with the local environment ensures that children learn through varied and first hand experiences of the world around them.

Frequent, continuous and progressive learning outside the classroom is embedded through the science curriculum. Through various workshops, trips and interactions with experts and local businesses, children have the understanding that science has changed our lives and that it is vital to the world’s future prosperity.

Children learn the possibilities for careers in science, as a result of our community links and connection with national agencies such as the STEM association. They learn from and work with professionals, ensuring they have access to positive role models within the field of science from the immediate and wider local community. From this exposure to a range of different scientists from various backgrounds, all children feel they are scientists and capable of achieving. Children at Oare Primary School enjoy science and this results in motivated learners with sound scientific understanding.