



## **St Joseph's Catholic Primary School, Jarrow**

### **Science Curriculum Rationale**

#### **2022-23**



### **Intent**

At St Joseph's through opportunities to explore and understand the world we live in, children develop an enthusiasm and enjoyment of Science. Our progressive Science curriculum enables children to see the relevance of the subject in their own lives through the learning of Biology, Chemistry and Physics.

Through high quality teaching and learning experiences, we aim to develop every child's key scientific knowledge, vocabulary and understanding of a range of scientific concepts, methods and processes and skills. Pupils are encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena.

Children are encouraged to develop and explore ideas through planned investigation and further make predictions, explain happenings and analyse data whilst communicating their ideas effectively. From EYFS to Year 6, all children are immersed in scientific vocabulary, which aids children's knowledge and understanding of our progressive and balanced Science curriculum as well as the world around them.

### **Implementation**

Within EYFS, Science plays a key part within 'Understanding of the World', which is appropriate to their developmental stage and natural curiosity. The progression continues throughout the school, from Y1-Y6 where we follow the 'Trust Curriculum Continuity' units as part of our curriculum. These units develop links between the complex relationships that connect ideas, knowledge and skills, enabling high standards of teaching and learning. The progressive teaching approach focuses on the impact of prior learning and ensures coverage of key topics across the Key Stages. Furthermore, the continuity projects are a seamless transition between phases and threshold concepts, which are purposeful for preparing pupils for KS3.

In addition to this, 'Working Scientifically' is developed through the understanding of scientific methods, degrees of certainty and conducting investigations. 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. Moreover, teachers plan highly engaging investigations that capture children's interests and consequently promote a love of learning.

We develop the use of scientific language as well as creating problem solving opportunities that allow children to develop their independent skills. Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and vocabulary when collecting, presenting and analysing data. This curiosity is celebrated within the classroom. Teachers use precise questioning in class to test conceptual knowledge and skills, and assess children regularly through end of unit tasks to identify those children with gaps in learning and enable key concepts to be revisited.

### **Impact**

We believe our children will follow a progressive Science curriculum that meets the needs of all pupils, develop a broad vocabulary of Science which will enable them to articulate their understanding of taught concepts. In addition, children will develop their scientific knowledge, conceptual understanding and ability to think and act scientifically through participation in a range of investigations and practical activities. Furthermore, children will be equipped with the knowledge required to appreciate and understand Science's

contributions to all aspects of everyday life, as well as build on their curiosity and sense of awe of the natural world.