

# **Science Curriculum Statement**

## **St. Bernard's Catholic Primary School**

### **Intent**

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 a skills-based focus, and that the knowledge can be taught through this

At St. Bernard's Catholic Primary School, we encourage children to be inquisitive throughout their time at the school and beyond. The Science curriculum fosters a healthy curiosity in children about our universe and promotes respect for the living and non-living. We believe science encompasses the acquisition of knowledge, concepts, skills and positive attitudes. Throughout the programmes of study, the children will acquire and develop the key knowledge that has been identified within each unit and across each year group, as well as the application of scientific skills. We ensure that the Working Scientifically skills outlined in the Lancashire Key Learning Areas are built-on and developed throughout children's time at the school so that they can apply their knowledge of science when using equipment, conducting experiments, building arguments and explaining concepts confidently and continue to ask questions and be curious about their surroundings.

### **Implementation**

Teachers at St. Bernard's 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 includes the following;

- Science shall be taught in planned and arranged topic blocks by the class teacher. Within each topic area we will facilitate the achievement of a greater depth of knowledge.
- Through our planning, we include relevant problem solving opportunities that allow children to find things out for themselves. Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and research from a variety of sources to discover the answers. This curiosity is celebrated

within the classroom. Planning involves teachers creating engaging lessons, using high-quality resources to aid understanding of conceptual knowledge. Teachers use precise questioning in class to test conceptual knowledge and skills, and assess children against the Lancashire Key Learning Indicators of Progress to identify those children with gaps in learning, so that all children are supported to make progress.

- We build upon the learning and skill development of previous years, with key topics covered within Key Stage 1 and Key Stage 2, expanding on children's prior learning. As the children's knowledge and understanding increases, and they 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.
- Working Scientifically skills are embedded into lessons to ensure these skills are being developed throughout the children's school career and new vocabulary is regularly introduced through direct teaching.
- 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 surroundings by accessing outdoor learning and exciting experiences as much as possible when relevant.
- Children are offered extra-curricular activities, visits, trips and visitors throughout their time in school to complement and broaden the curriculum. These are purposeful and link with the knowledge being taught in class and are monitored in each class' Cultural Experiences Trackers.
- Science Weeks/Project Days are planned periodically, which allow all pupils to come off-timetable for a portion of the week, to provide broader provision and the acquisition and application of scientific knowledge and skills.

### **Impact**

The approach to science at St. Bernard's results in a fun, engaging, high-quality science education for our children, that provides them with the foundations and knowledge for understanding the world around them. Our engagement with the local environment ensures that children learn through varied & first hand experiences with interest and purpose. Frequent, continuous and progressive learning outside the classroom is present throughout the science curriculum. Children are encouraged to see themselves truly as scientists with valid contributions to make, now and in the future. Children learn the possibilities for careers in science, ensuring that children are exposed to positive role models within the field of science who achieved great things from small beginnings. Children at St. Bernard's enjoy science. Ensuring that our science curriculum is not just successful, but enjoyed, is at the heart of what we do here.