



# St Hugh of Lincoln RC Primary School



## SCIENCE

### Intent

At St Hugh of Lincoln RC Primary School, we encourage pupils to be inquisitive and curious about the world around them. They will acquire scientific skills and knowledge, which will enable them to think scientifically; to gain an understanding of scientific processes; and to consider the uses and implications of science both today and in the future.

As one of the core subjects taught in Primary Schools, we give the teaching and learning of Science the prominence it requires.

We aim to:

- increase pupils' knowledge and understanding of our world,
- develop skills associated with Science as a process of enquiry.
- Develop and nurture the natural curiosity of our children and encourage enjoyment of and interest in Science so that they will be motivated to study Science further
- encourage respect for living organisms and the physical environment
- provide opportunities for critical evaluation of evidence.

At St. Hugh of Lincoln RC Primary School, in conjunction with the aims of the National Curriculum, our Science teaching offers opportunities for children to:

- Develop an enthusiasm and enjoyment of scientific learning and discovery.
- 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;
- be equipped with the scientific knowledge required to understand the uses and implications of Science, today and for the future.
- develop the essential scientific enquiry skills to deepen their scientific knowledge.
- Use a range of methods to communicate their scientific information and present it in a systematic, scientific manner, including I.C.T., diagrams, graphs and charts.
- Develop a respect for the materials and equipment they handle with regard to their own, and other children's safety.

# **Implementation**

Teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all pupils 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 topic blocks by the class teacher. It will have an enquiry-based approach, covering 'The National Curriculum programmes of study for Science 2014'. This is a strategy to enable the achievement of a greater depth of knowledge.
- A Big Question at the start of a topic ensures existing knowledge is evaluated at the beginning of each topic, as well as inspiring an interest in the subject matter and how it relates to the world the children live in. This question will be revisited at the end of the topic so the pupils can reflect upon it from the perspective of more expansive knowledge. Answering the Big Question at the end of each topic can also form part of the assessment of children's learning.
- Through our planning, we involve problem solving opportunities that allow children to apply their knowledge and find out answers for themselves. Children are encouraged to ask their own questions and are 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 pupils regularly to identify those children with gaps in learning, so that all pupils keep up. Tasks are selected and designed to provide appropriate challenge to all learners.
- We build upon the knowledge and skill development of the previous years. As the children's knowledge and understanding increases, 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 incorporated into lessons to ensure that skills are systematically developed throughout the children's school career and new vocabulary and challenging concepts are introduced through direct teaching. This is developed through the years, in-keeping with the topics.
- 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.

In ensuring high standards of teaching and learning in science, we implement a curriculum that is progressive throughout the whole school.