Rockcliffe CE School Overview for Science

Intent

At Rockcliffe CE School, it is our intention to develop the natural curiosity of the child, encourage respect for living organisms and the physical environment and provide opportunities for critical evaluation of evidence.

We aim to deliver a high-quality Science curriculum which will provide the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Children will understand the importance of science in every aspect of daily life and the implications of science today and in the future.

We aim to broaden children's Science capital so that they see the relevance of science in everyday life, understand Science in industry and are more likely to choose a career in science in the future.

Most children should achieve age related expectations in science at the end of each phase due to the full curriculum being taught over a two-year cycle. Our Science curriculum is progressive, building upon prior learning from previous year groups.

We inspire our children to believe they can achieve, and we encourage children to be inquisitive throughout their time at our school and beyond. In Science we aim to develop children's ideas and ways of working that enable them to make sense of the world in which they live in through investigation, as well as using and applying process skills (observing, measuring, inferring, classifying, predicting and communicating).

Children are encouraged to understand increasingly scientific vocabulary, using it to describe ideas, objects and phenomena in verbal and written explanations. This supports the acquisition of scientific knowledge and understanding.

Implementation

Coverage through Science curriculum:

- To ensure full coverage, science topics and objectives are carefully mapped out in our science overview ensuring continuity and progression in knowledge, skills and vocabulary throughout the whole school.
- Our science curriculum develops learning and results in the acquisition of knowledge, enabling children to become enquiry-based learners.
- Scaffolding for children requiring support and deepening activities for those requiring further challenge
- The scientific enquiry strand is embedded across all science topics
- Practical learning experiences and investigations related to real life contexts and stories.
- Links made to science in industry and science careers
- High quality modelling and direct instructions
- Misconceptions are addressed and challenged
- Scientific language displayed within classrooms
- Questioning to assess understanding
- We include as many opportunities for writing like a scientist in our lessons as possible, along with opportunities for using and applying maths
- AfL is ongoing through each lesson
- The science overview maps out progression in scientific vocabulary across the school
- Learning walks and drop-ins are scheduled by SLT during the year
- Staff CPD built in as required

Impact

The learning environment supports children in the use of scientific vocabulary and high-quality models.

The majority of pupils achieve age related expectations at the end of each phase.

Clear evidence of continuity and progression across phases in displays and books.

As scientists our children will:

- Be equipped with the skills and knowledge necessary to become enquiry-based learners
- Be prepared for the next stage in their learning at secondary school and beyond
- See science as a possible career for them in the future
- Understand the relevance of science in everyday life and the role of industry
- Have a secure understanding of the scientific method to be able to hypothesise and make sense of the world around them
- Have a deep sense of curiosity, enjoy investigating and deepening their understanding of how the physical world works

Learn how to become critical thinkers with an understanding of variables and biases that can influence results.