Curriculum Statement for Science

"Science is how we try to improve our knowledge and understanding of the universe."

"Science is simply common sense at its best."

(Edward Teller)

Aims and Objectives

Science is knowledge developed through the experimental testing of ideas. Science is also the skills used to find reliable answers to questions we may ask about the world around us. Science in our school is about developing children's ideas and ways of working that enable them to make sense of the world in which they live through investigation, exploration, questioning and research and for them to learn about the three disciplines of biology, chemistry and physics. Science is at best a collaborative activity where ideas and suggestions are shared and investigated together. Through practical activities and team work, children experience and learn how to work cohesively towards a shared goal.

Visions and Values

Our Science curriculum is underpinned by Cherry Tree's values and vision. We believe that a broad and balanced science education is the entitlement of all children, regardless of ethnic origin, gender, class, aptitude or disability. Through our teaching and attitudes, we aim to help our children develop a positive view of the importance of Science, including fostering concern about and care for our environment. We strive to prepare children for an increasingly scientific and technological future and hope to inspire a long-lasting interest and motivation to study Science further. Children are encouraged to develop their resilience and perseverance through planning, carrying out and evaluating investigations where they reflect on challenges they faced and improvements that could be made.

Teaching and Learning

At Cherry Tree, we teach children the key scientific skills during each theme that they study, make links with real life examples and build on our children's natural curiosity and enable them to take a scientific approach to problems through the application of their disciplinary skills such as: questioning, observing, identifying and classifying, collecting and recording, setting up investigations, measuring, recording, concluding and planning. As a school, we use the Kapow scheme of work. When investigating, children use the cycle of Plan, Do, Record, Review. Through our curriculum, pupils revisit the key knowledge and skills repeatedly over time but with greater complexity and in different contexts. We have high expectations of the use of correct scientific terminology and vocabulary through varied opportunities of written work where children apply their knowledge from across the curriculum.

The science curriculum is planned to ensure links with maths which enables children to apply their learning across both subjects, e.g. temperature, mass or data handling.

Teachers are encouraged to provide a range of stimuli and experiences, ‘hooks’ to get children thinking about Science and it’s place in the wider world. Themes are chosen carefully to ensure that the children have opportunities to develop their scientific skills alongside gaining the knowledge required. Where a theme is covered in more than one year group, children are able to talk about how their learning has progressed over time through ‘Big’ and ‘Small’ ideas. Teachers use opportunities for linking Science to other subjects – in particular technology and maths.

Assessment and Recording

Science learning is recorded in both Science books and Science journals. The majority of practical work is recorded in the Science journals through photographs, drawings and quotes from the children. Children use their science books for recording investigation planning, research, examples of writing and many other activities that demonstrate their learning in class. Assessment grids are used which link to a quiz completed at the end of each unit. Class teachers also report each pupil as at, above or below age related expectations. Assessment is used effectively within lessons, whereby teachers assess children’s knowledge, understanding through discussions and completed tasks. This enables teachers to identify any misconceptions or gaps in the children’s learning which can be addressed accordingly.