



Caversham Park Primary School

Together we enjoy, create and achieve

Science Rationale

At Caversham Park Primary School, we value science. We are SCIENTISTS!

We believe that science is a means of discovering and understanding the world around us. It consists of a body of knowledge which attempts to explain phenomena and experiences. It also involves a number of skills and processes by which this knowledge is achieved and applied. Science is also concerned with the development of attitudes concerning scientific activity. Science forms an integral part of our everyday life. Therefore, we believe that it is important for all children to be scientifically literate.

Curriculum Intent:

At Caversham Park Primary School, through opportunities to explore and understand the world we live in, children develop an enthusiasm and enjoyment of science. Our science curriculum enables children to see relevance of the subject in their own lives and further imagine potential future science related careers.

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, processes and skills. Pupils are encouraged to develop a sense of excitement and curiosity about science.

At Caversham Park Primary School, 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. Within investigation, children are encouraged to ask questions about observations whilst being guided to develop their understanding of scientific ideas through their enquiry. From EYFS to year 6, all children are immersed in scientific vocabulary, which aids children's knowledge and understanding of our science curriculum as well as the world around them.

Curriculum Implementation:

Within EYFS, science plays a key part within 'Understanding the World' and plays a vital part within the exploration, learning and play of younger children. As well as the scientific knowledge, children begin to understand 'working scientifically' whereby appropriate to their developmental stage beginning to develop a curiosity about the world around them.

At Caversham Park Primary School, across all key stages and year groups, our units of work challenge prior knowledge in order to construct a secure, new understanding of knowledge and concepts. In addition to this, working scientifically is developed through the understanding of scientific methods 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.

Our curriculum is planned across the whole school to ensure progression between year groups and to ensure that topics are covered. We develop the use of scientific language as well as creating problem solving opportunities that allow children to find out for themselves. 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 use on-going teacher assessment to identify those children with gaps in learning, so that all children can achieve.

At Caversham Park Primary School, our curriculum builds upon the learning and skill development of the previous years. 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 and challenging concepts are introduced through direct teaching. Children have access to key language and meanings in order to understand and readily apply to their written, mathematical and verbal communication of their skills.

Curriculum Impact:

We assess science using formative assessment: assessing children not only within the lesson but across the unit. All units culminate in an end product where all children show the knowledge and skills that they have gained throughout the unit.

At Caversham Park Primary School, we believe that through following a progressive science curriculum that our children will:

- develop a broad vocabulary of science which will enable them to articulate their understanding of taught concepts;
- develop their scientific knowledge, conceptual understanding and ability to think and act scientifically;
- use a range of investigations and practical activities giving them a greater understanding of the concepts and knowledge of science;
- be equipped with the knowledge required to appreciate and understand science's contribution to all aspects of everyday life;
- build on their curiosity and sense of awe of the natural world.

Throughout their scientific journey, the children will have developed progressively, not only to enable them to meet and go beyond the requirements of the National Curriculum but to prepare them to become competent scientists in secondary education, by being fully prepared for the KS3 curriculum.