



CURRICULUM STATEMENT

SCIENCE



INTENT

Science at Park View Community School aims to develop a practical and engaging, high-quality curriculum that inspires the next generation to succeed and excel in science.

We recognise and value the importance of science and scientific enquiry through fully adhering to the aims of the national curriculum and fostering a healthy curiosity and interest in the sciences. At the heart of our progressive science curriculum are the five types of scientific enquiries. These are:

- Fair and comparative testing
- Observing changes over time
- Pattern seeking
- Research using secondary resources
- Identifying and classifying.

Wherever possible we intend to deliver lessons where children learn through varied systematic investigations, leading to them being equipped to ask and answer scientific questions about the world around them.

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 are developed throughout their time at the school. This enables them to apply their knowledge of science when using equipment, conduct experiments and investigation, build arguments and explain concepts confidently, be familiar with scientific terminology and, most importantly, ask questions and be curious about their surroundings.



IMPLEMENTATION

The acquisition of key scientific knowledge is an integral part of our science lessons. Carefully designed knowledge organisers enable children to retain the important and powerful vocabulary and knowledge contained within each unit.

The progressions of skills for ‘working scientifically’ are developed through the year groups and ‘scientific enquiry’ skills are of key importance within lessons.

At Park View, 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 whole-school approach to the teaching and learning of science involves the following:

- The class teacher will teach science in planned, and arranged, topic blocks. Our strategy is to enable all children to be catered for through adapted planning suited to their abilities
- We plan for problem solving and real-life opportunities that enable children to ‘find out for themselves’. Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and research to discover the answers. This curiosity is celebrated within the classroom. Planning involves teachers creating practical, engaging lessons with opportunities for precise questioning through one of the five enquiry types in class to test conceptual knowledge and skills, and assess children regularly to identify those children with gaps in learning.



- Our curriculum is progressive. We build upon the learning and skill development of the previous years, which is tested through our ‘pre-learning quizzes’ where teachers can identify misconceptions that need addressing. At the end of each topic, the children complete an investigation from the PSTT TAPS assessment programme which supports teacher through effective assessment. By using Curriculum Maestro, this evidence can be recorded termly to reflect the level of progress each class is achieving. This also supports the subject leader to monitor those who have not met the expectations.
- ‘Working scientifically’ skills are embedded into lessons and developed throughout the children’s time at Park View, and new vocabulary and challenging concepts are 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 local surroundings by accessing outdoor learning and workshops with experts, or visits to further afield locations. Therefore, adding to their science capital.
- Through enrichment days, such as ‘science week’, we promote the profile of science and allow time for the children to freely explore scientific topics. Children are regularly introduced to key scientists either historic or modern, making sure to highlight their different religion, cultures, ethnicity, identity, and ability.



IMPACT

The successful approach to the teaching of science at Park View results in an engaging, high-quality science education, that provides children with the foundations for understanding the world around them. It promotes a science capital that they can take with them once they complete their primary education.

So much of science lends itself to outdoor learning, and so we provide children with opportunities to experience this. Children learn the possibilities for careers in science as a result of our community links and enrichment activities such as 'Science Week' and attending the 'Manchester Great Science Share' where children can be introduced to people who use science in their career. Children are made aware of iconic figures of science from throughout history and today, that include different gender, race, culture and abilities.

Pupil voice is used to further develop the science curriculum, through questioning of pupils' views and attitudes towards science, to assess the children's enjoyment of science, and to motivate learners.