Science
Intent, Implementation and Impact

Finham Primary School & Nursery is a vibrant 'child-centred' learning community that is part of a family of schools in Finham Park Multi Academy Trust. We have based our school ethos on 5 key values that enable our children to be better equipped for today and their future.

Teamwork Respect Integrity Enjoyment Discipline

Intent

At Finham Primary School, our intent is to give children a broad and balanced science curriculum which enables them to explore and discover the world around them, confidently, so that they have a deeper understanding of the world we live in. Our curriculum will provide them with foundations in the specific disciplines of biology, chemistry, and physics alongside working scientifically and build memories of scientific activities in our school that go beyond the requirements of the Science National Curriculum.

We realise that young children are naturally curious and passionate about learning; we provide a stimulating science curriculum that nurtures children's natural curiosity and their on-going intellectual development. Through a practical, hands-on, inquiry-based curriculum, questioning, exploration and investigation will be encouraged - that is, the joy of finding out.

Children will be introduced to six different types of enquiry approaches that they may use to find out answers to investigable questions:

- comparative / fair testing
- research
- observation over time
- pattern seeking
- identifying, grouping and classifying
- problem solving

Our aim is that these stimulating and challenging experiences help children secure and extend their scientific knowledge, skills and vocabulary as well as promoting a love for learning and investigating. We believe that these opportunities will ensure that our children are confident, life-long learners who will explore the world around them, developing their ideas and ambitions which might lead to them following a career in a scientific area such as a forensic scientist, microbiologist or astronaut.

Implementation

At Finham, Science is taught as a core subject within each year group in accordance with the National Curriculum and then enhanced by a range of extra activities such as science week and experts visiting the school from the University of Warwick and local secondary schools. Staff deliver high quality lessons and investigations, with a focus on working scientifically.

- Science is taught regularly (either as a discreet subject weekly or as a blocked unit of work), which allows each year group to build upon the learning from previous years through a sequence of carefully planned lessons developing both knowledge and scientific skills.
- Allowing time for children to explore, question, predict, plan, carry out investigations and observations as well as conclude their findings, by using their previous knowledge and gaining new skills throughout their learning journey.
- As the children progress through the school, they will learn to confidently present their findings and learning using science specific vocabulary, observations and diagrams, and to develop their resilience when their findings aren't necessarily what they expected to find.
- In order to support children in their ability to 'know more and remember more' there are regular opportunities to review the learning taken place in previous topics as well as previous lessons.
- There are working walls in each classroom displaying key vocabulary and information to support the children with their acquisition of knowledge and these are used for pupils to refer to.
- Effective use of education visits and visitors are planned, to enrich and enhance the pupil's learning experiences within the Science curriculum.
- Teachers use highly effective assessment for learning in each lesson to ensure misconceptions are highlighted and addressed.
- Each year group has a science book/journal to record in examples of practical science learning and best practice in the science curriculum.
- Cross-curricular links are made during the planning process, with other subjects such as Maths, English, computing and P.S.H.E.
- Low stakes tests or quizzes may be used to gather information about what children know and remember to inform the summative assessment record on DCPro.

Impact

The impact of this curriculum design will lead to outstanding progress over time, across key stages, encompassing each child's starting point and learning journey.

Through various investigations, enrichment opportunities, and interactions with experts, our science curriculum will lead pupils to be enthusiastic science learners and understand the impact that science has on their day-to-day lives, and the implications it has for their futures.

Pupil Voice will show a progression of content knowledge, with appropriate vocabulary which supports and extends understanding. Children will be confident in discussing science using ambitious scientific vocabulary.

Displays around school and books will show that there is a varied and engaging curriculum which develops a range of scientific understanding and knowledge. A clear progression of knowledge is evident in line with expectations set out in the progression grids. Individuals' books and year group science journals showcase the process knowledge pupils have, over time, developed in working scientifically and the range of opportunities pupils have been given to apply their knowledge to practical experiences.

The subject leader will collate appropriate evidence over time which evidence that pupils know more and remember more.