



Curriculum Offer

Science

Statement of Intent

At Exhall Junior School, Science should be fully inclusive to every child. Our aims are to fulfil the requirements of the National Curriculum for Science; providing a broad, balanced and differentiated curriculum; ensuring the progressive development of knowledge, skills and vocabulary and for the children to develop a love of science. Furthermore, we aim to inspire in pupils a curiosity and fascination about the natural and man-made world and a respect for the environment that will remain with them for the rest of their lives. This includes the lessons they complete in the classroom, but also the other experiences they are offered, such as educational visits, residential and enrichment days. We aim to develop scientific skills alongside knowledge gained.

The aims of teaching Science in our school are to:

- Equip children to use themselves as starting points for learning about science; asking questions about the world around them. We encourage children to build on their enthusiasm and natural sense of wonder about the world.
- Develop, through practical work, the skills of observation, prediction, investigation, interpretation, communication, questioning and hypothesising, and increased use of precise measurement skills and ICT.
- Have experience of the 5 main types of scientific enquiry: observation over time, comparative and fair testing, identifying and classifying, pattern seeking and researching an idea
- Encourage and enable pupils to offer their own suggestions, and to be creative in their approach to science, devising their own investigations and taking lines of enquiry in a way that interests them.
- Gain enjoyment from their scientific work and use their skills in the wider curriculum through STEM project learning- linking science, technology, engineering and maths.
- Enable children to develop their skills of co-operation through working with others, and to encourage where possible, ways for children to explore science in forms which are relevant and meaningful to them
- Encourage children to collect relevant evidence and to question outcomes and to build resilience to persevere as it is likely they will need to repeat results or will encounter unexpected results that do not support their hypothesis
- Encourage children to treat the living and non-living environment with respect and sensitivity
- Stress the need for personal and group safety by the correct usage and storage of resources
- To critically question the world around them and their own beliefs.
- To enable children to appreciate that we do not always know the answers when carrying out scientific enquiry as the world around them is continually changing and developing



- Equip children with the language to be able to discuss their learning and confidently explain their scientific understanding in small groups.

Special Educational Needs (SEND) / Pupil Premium / Higher Prior Achievers

All children will have Quality First Teaching. Any children with identified SEND or in receipt of pupil premium funding may have work additional to and different from their peers in order to access the curriculum dependent upon their needs. As well as this, our school offers a demanding and varied curriculum, providing children with a range of opportunities in order for them to reach their full potential and consistently achieve highly from their starting points.

Implementation

The Science curriculum at Exhall Junior School is based upon the 2014 Primary National Curriculum in England, which provides a broad framework and outlines the knowledge and skills taught in each Key Stage. Teachers plan lessons for their class using our progression of knowledge and skills document, which incorporates Working Scientifically.

To ensure high standards of teaching and learning in Science, we implement a curriculum that is progressive throughout the whole school. Science is taught in discrete lessons for at least 1-2 hours per week. We ensure that teachers have the same expectations during Science lessons that they would have when teaching English or Mathematics and that any mathematical task (such as measuring or drawing graphs) is pitched at an age-appropriate level to ensure sufficient challenge.

At the beginning and end of each unit of work, students will assess their own learning by showing their understanding prior to teaching and after each unit and revisit pre learned knowledge with opportunities of over-learning.

Long Term Curriculum Plan

https://docs.google.com/document/d/18eUNckYRDrlndGHbvl03u2wqcbmEX_B/edit?usp=sharing&oid=110057549019415276335&rtpof=true&sd=true

Coverage of Skills

https://docs.google.com/document/d/1Cxv1MBEHSS_23o4pFJNEFeemiOdIAmgk/edit?usp=sharing&oid=110057549019415276335&rtpof=true&sd=true

Impact

- A broad and engaging curriculum that makes use of a range of resources, such as visitors and local attractions
- Children and staff who are enthusiastic about scientific learning
- Children and staff who can speak confidently about science, including uses in the real world
- Children who can use appropriate scientific vocabulary in oral and written form
- All children being successful in sharing their understanding of scientific concepts
- Children who can make links between different areas of science and other subject areas



- Children who can recall prior scientific learning when required and use this to understand new learning
- Children increasingly being able to instigate their own investigations confidently and interpreting their findings
- Staff who are able to anticipate potential misconceptions and address these confidently
- Children meeting their age-related expectations in science consistently
- Children who are able to make links between science and the other subjects while progressing their scientific skills in other areas of the curriculum.