



Farnborough Road Infant School

Science Policy

“Learning, Caring and Achieving Together”

Our vision

At Farnborough Road Infant School, we are Super Scientists!

We want all our children to love science. We want them to have no limits to what their ambitions are and grow up wanting to be teachers, doctors, dentists, forensic scientists, chemical engineers, medical researchers, toxicologists, microbiologists, zoologists, environmental scientists and astronauts – careers that are out of this world!

Science helps us gain an understanding of the world around us. We want to stimulate our children’s curiosity and creative thoughts. We want to give them the confidence and skills to ask questions and investigate the wonders of our world and beyond. We will help our children learn the importance of how to care for, and respect, ourselves and our planet.

Intent

At Farnborough Road Infant School our Science curriculum aims to give all children a strong understanding of the world around them whilst acquiring specific skills and knowledge to help them to think scientifically, to gain an understanding of scientific processes and also an understanding of the uses and implications of science today, and in the future. We believe a broad and balanced science education is the entitlement of all our children. We believe in fostering a ‘can do’ attitude amongst the children where every child can see themselves as a scientist.

Implementation

The Science curriculum has been carefully built on learning opportunities, technical vocabulary, progression of skills and assessment for each year group which will ensure progression and repetition in terms of embedding key learning, knowledge and skills.

We deliver a curriculum which:

- Engages all children and entitles them to the same quality teaching and learning opportunities.
- Embeds scientific enquiry skills in all topics
- Revisits topics to allow children to build on prior learning and secure knowledge to long term memory
- Uses ambitious scientific vocabulary
- Allows children to develop their own lines of enquiry and follow own interests
- Sequences learning so that all children gain confidence, develop within themselves a security to adventure further and strive to reach their potential.
- Equips the children with strategies to enable them to apply science to real and unfamiliar situations within and beyond the classroom
- Enables children to communicate and receive ideas and information through their understanding of scientific concepts.
- Enables children to use scientific knowledge to think creatively and imaginatively.
- Encourages co-operation with others as well as the ability to work independently.

Organisation and Planning

EYFS

We teach Science in Caterpillars, Nursery and Reception developing their knowledge and skills in their Understanding of the World. Science occurs daily within EYFS and our skilled practitioners support children’s

learning and encourage scientific enquiry. Staff enhance learning by introducing stories, resources, nature tables, curiosity cubes, investigation stations and visitors linked to topics and season, e.g. hedgehog visit in Nursery.

Key Stage 1

Key Stage 1 follows the subject content from the National Curriculum (2016) which has supplemented with our own FRIS curriculum building upon our children's prior learning and develop their skills and knowledge.

The topics covered are:

- Seasonal Changes
- Animals (Including humans)
- Plants
- Materials
- Living things and their habitats

The Science units are taught in specific Science lessons and planning is overseen by the Subject Leader. The Curriculum overview gives the details of the main teaching objectives for each term and defines what we teach. Activities are planned in a sequence of learning, building on the children's prior learning. We also ensure that a range of incidental, cross-curricular scientific learning opportunities take place across the curriculum, pertinent to the topics studied.

Our aim is to develop children's interest, intrigue and questioning. We encourage children to ask, as well as answer questions and explain their thinking. At the start of each new topic we assess the children's prior knowledge and introduce key vocabulary which is revisited regularly. Children conduct simple experiments, have opportunities to work scientifically, study a range of scientists and answers quizzes at the end of each unit.

Each unit is evaluated in year group meetings and any feedback passed to the Science Leader to inform future planning and ordering of resources.

Progression of Skills

Progression lies in the acquisition of new concepts and the deepening understanding of those already encountered. These include:

- An increase in knowledge, skills and understanding of the given topic.
- Understanding and moving from familiar to unfamiliar contexts.
- Tackling problems, which demand more complex or difficult solutions.
- Using more technical language

The rate of progression will vary from child to child and has to be considered when planning the teaching and learning situations.

Our principal aim is to develop children's knowledge, skills, understanding, curiosity and enjoyment of science. Sometimes, we do this through whole-class teaching, but our aim is to make science as practically based as possible for our young learners. We encourage the children to ask, as well as answer, scientific questions. They have the opportunity to use a variety of data, such as statistics, graphs, pictures and photographs. They use ICT in science lessons to enhance their learning and engage in a wide variety of problem-solving activities. Wherever possible, we involve the pupils in real scientific activities, e.g. investigating a local environmental problem, or carrying out a practical experiment and analysing the results.

Children with SEND

Children with additional needs are included in whole class lessons and teachers provide scaffolding and relevant support as necessary. A toolkit has been provided to all class teachers, highlighting appropriate ways in which children with specific SEND can access the Science curriculum. Evidence for SEND pupils can be gathered in a range of different ways, including more oral based tasks.

Resources and Visits

Farnborough Road Infant School is well resourced to promote curiosity and allow our children to predict, explore and promote scientific enquiry. Resources link to specific topics and provide hands-on experiences for the children. Each class has a variety of natural resources for children to use and there is also a wide range of resources available which classes can use when exploring specific interests (e.g. magnetic/ not magnetic).

We also take advantage of visits and trips in the local area and wider surroundings. Where applicable, trips and visits aim to incorporate elements of Science in their planning. A non-exhaustive list of trips and visits:

- Creative and exploratory use of outdoor space in EYFS.
- Hedgehog visit in Nursery (Local animals)
- Knowsley Safari Park (learning about different animals and their habitats)
- Walk around the school's locality (using their senses to explore local area, observing the changes in seasons)
- Planetarium visit in Year 1 (Introduction to different planets)
- Chester Zoo trip in Year 1 (learning about different animals and their habitats)

In addition to the many visitors we invite to school we run in house 'Science Clubs' for different year groups.

Assessment, Reporting and Recording

Children and their work are continually being assessed as skills, knowledge and understanding develop. The assessment may be oral, pictorial, including photographs, a written piece of work or an observation in a class or group activity.

Work will be marked in accordance with the school's marking policy, indicating the level of support that a child has received to complete their task. At the end of each Science unit of work, pupils will complete a short summative quiz located in their Science books (KS1). Teachers will use all available data available to them to make a 'best-fit' judgment and update their Understanding the World (EYFS) / Science (KS1) assessment termly.

Parents are kept informed of children's progress in Science through parents meetings and their annual Summer term report and have the opportunity to meet the teacher to discuss the report.

The Science Leader has a clear role and overall responsibility for the progress of all children in Science throughout the school. Attainment data is analysed and regular feedback is provided to inform on progress and future actions to the Senior Leadership Team.

Impact

School standards remain consistently high in Science in both EYFS and KS1.

Learning Journey's, Science books, 'Our Voice' books, displays, Tweets, and the school website demonstrate a wide range of quality activities evidencing children with engagement and enthusiasm in Science. There is a clear progression of children's work and evidence of the curriculum coverage for all topics.

We strive for every child to achieve their full potential in Science and develop their curiosity and excitement. We want them to be ready for their next stage in learning and inspire aspirations for the future career paths.

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Review

This policy will be reviewed regularly

Updated February 2023

Signed _____ **Date** _____ **Headteacher**

Signed _____ **Date** _____ **Chair of Governor**