Moorlands C of E Primary Academy

Science Policy

September 2023

Review Date: June 2024

Moorlands C of E Primary Academy,
Moorland Way, Belton, Great Yarmouth,
Norfolk, NR31 9PA

Science Policy

Intention:

We live in an increasingly scientific and technological age where children need to acquire the knowledge, skills and attitudes to prepare them for life in the 21st Century. We, at Moorlands CE Primary Academy, believe that the teaching of science develops in children an interest and curiosity about the world in which they live and gives them a respect for the environment. We aim to build upon the children's Understanding of the World fostered in the Early Years and build on this through the Science National Curriculum Science framework (2014). They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes. We aim to:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to devise their own scientific questions about the world around them and the skills to answer them.
- equip pupils with the scientific knowledge required to understand the uses and implications of science, today and for the future.

Implementation:

Science at Moorlands aims to foster a healthy curiosity in children about our universe and promotes respect for the living and non-living by offering a broad science curriculum based on a clear progression of scientific knowledge, vocabulary and skills. Children develop a respect for our world allowing them to develop original ideas and a questioning attitude.

Moorlands teaches science with a key focus on "working scientifically." In order to do this, the school focuses on the five key areas of working scientifically: observation over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing; research using secondary sources. These are weaved throughout the science curriculum and medium-term planning ensures that children are able to access all five areas consistently throughout the year through a variety of hands-on investigations and experiments (see appendix).

Inclusion

We recognise that in all classes, children have a wide range of scientific abilities, and we ensure that we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this in a variety of ways:

setting tasks which are open-ended and can have a variety of responses.

setting tasks of increasing difficulty (we do not expect all children to complete all tasks).

differentiating tasks for each ability group.

providing resources of different complexity, matched to the ability of the child.

where possible using classroom assistants to support the work of individual children or groups of children.

Cross Curricular Links:

Children are expected to use their English skills; reading, writing and speaking and listening during science lessons. Children record their work in Topic books and activities such as writing holds the same expectations across the curriculum.

Maths skills should be applied in science lessons wherever possible. This can take place in a number of ways such as: When the children use measures; using and applying number; through working on investigations they learn to estimate and predict, record and analyse results.

Personal, social and health education (PSHE) and citizenship. Science contributes to the teaching of PSHE. For example, teaching the children about keeping healthy and staying safe.

The schools' half-term core values of Respect, Responsibility, Resilience, Honesty, Compassion & Belief can be fulfilled through teaching science in a way that creates curious and excited children who can apply their knowledge when answering scientific questions.

Where possible links to science should be made in other areas of the curriculum.

Health and Safety:

Where appropriate reminders are given to children about potential hazards and care of the equipment they are using. If required, individual Risk assessments can be completed for specific lessons or experiments.

Resources & Evidence:

The Science resources are kept in the Science cupboard (next to the Rainbow Room). These resources will be organised by subject and regularly replenished to ensure we have a good selection of quality resources.

There is an expectation that science is taught formally at least weekly and any related work is completed in Science Books. These books will be monitored at least termly by the SLT.

Impact

The subject leader is responsible for monitoring the standard of the children's work and the quality of teaching in line with the school's monitoring cycle. A variety of assessment methods are used, these include:

- Observing children at work (individually, in pairs, in a group and in classes).
- Questioning, talking and listening to children.
- Monitoring of pupils' work through regular book looks, where children are an opportunity to discuss and reflect upon their own work.
- Children's work is continually monitored and tracked.

The subject leader is also responsible for supporting colleagues in the teaching of science, for being informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school.

Time will be allocated for the vital task of visiting classes to observe teaching in the subject and to discuss science with children and staff.

Signed Head Teacher _____

Signed Science Coordinator _____

This science policy will be reviewed June 2024

Appendix – Year A/B Topic Overviews

Year A Overview

Year Group	Autumn Term		Spring Term		Summer Term	
	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6
Year 1/2	Everyday Materials	Human Senses	Seasonal Changes		Plant Parts	Animal Parts
Year 3/4	Animal Nutrition and the Skeletal System		Forces and Magnets		Plant Nutrition and Reproduction	Light and Shadows
Year 5/6	Forces and Mechanisms	Earth and Space	Human Reproduction and Ageing		Properties and Changes of Materials	

Year B Overview

Year Group	Autumn Term		Spring Term		Summer Term	
	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6
Year 1/2	Human Survival	Habitats	Uses of Materials	Plant Survival	Animal Survival	
Year 3/4	Food and the Digestive System	Sound	States of Matter	Grouping and Classifying	Electrical Circuits and Conductors	
Year 5/6	Circulatory Systems		Electrical Circuits and Components		Light Theory	Evolution and Inheritance