

Hadley Wood

Science Policy

We believe science is a practical way of finding answers to questions we ask about ourselves and the world about us.

Rationale for Science

The National Curriculum for Science aims to ensure that all pupils develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics. Our aim is for the children to develop an enthusiasm for and enjoyment of Science. We strive to develop their knowledge and understanding of important scientific ideas, processes and skills through a variety of exciting investigations and encourage them to relate these to their everyday experiences. We teach children different ways of thinking, how to find out things and how to communicate their ideas effectively, both verbally and in a written format. Teachers try, wherever possible, to follow a cross-curricular approach which allows pupils the opportunity to form meaningful connections between subjects that better reflect the real-world. We strive to make the children confident learners, to explore values and ideas through Science and to ensure that they are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.



Aims for Learning

1. To encourage enthusiasm and build on children's natural curiosity and knowledge.
2. To promote scientific attitudes and ways of thinking including open mindedness, perseverance, objectivity and recognition of the value of team work and respect for ourselves and other living organisms.
3. To develop the scientific skills of observation, measurement, making and testing hypotheses, planning and carrying out investigations and drawing inferences from evidence.
4. To develop confidence in communicating scientific ideas, facts and data and use appropriate scientific vocabulary.
5. To choose appropriate equipment and use it safely and competently.
6. To develop scientific knowledge and understanding as set out in the National Curriculum which will form the foundations for further study.
7. To understand that scientific skills and knowledge are applicable to everyday life.

Aims for Teaching

1. To provide relevant and challenging activities which include practical investigation and experiences.
2. To encourage co-operation and collaborative learning.
3. To encourage a questioning attitude.

4. To encourage independent learning.
5. To involve children in the assessment process by identifying learning intentions and helping them recognise their own achievements.
6. To ensure resources are available and accessible.
7. To ensure all children are given equal opportunities to participate in science activities irrespective of age, gender or ability.

Special Needs

Learning objectives and activities should be differentiated where necessary.

Special attention should be paid to individual needs and safety aspects should be considered where planning activities.

Equal Opportunities

All children should have equal access to science learning. Children should be encouraged to develop positive images of themselves as scientists regardless of religion, gender, race or language eg practical investigations can support bilingual learners.

Assessment

Teachers should plan clear learning intentions and use these to assess children. Teachers will assess the children's scientific knowledge half termly, based on the National Curriculum objectives and will assess their inquiry skills, referencing the skills booklet, by means of a half termly investigation. Evidence will be recorded on Scholarpack using the school's developing, expected and exceeding traffic light system and recorded cumulatively on the Science ITAF.

Skills/knowledge objective sheets at the front of their science books.

These are regularly updated in line with Scholarpack.

Health and Safety

Health and Safety issues should always be considered when children are using and handling materials and equipment. It is the individual teacher's responsibility to ensure that they have read and adhered to the "Be Safe" booklet. Copies are available in the Science cupboard in the Media Room.

Generic risk assessments for science activities can be found on the CLEAPSS website for which the school has an individual log in (ask in the office.)

Resources

Resources for Key Stage 1 and 2 are kept in the Science cupboard in the Media Room.

Priority for equipment must go to the year group which need specific equipment to fulfil teaching objectives in the long-term plan. The Science Co-ordinator should be informed of any equipment which needs to be repaired or replaced.

An allocated TA will be responsible for keeping the resources tidy and ensuring that they have been returned after use.

Consumable resources are bought by class teachers and they are reimbursed accordingly.

There is a selection of staff resource books in the science cupboard.

Collins Snap Science is the scheme that is used throughout the school. Teachers can use this as much or as little as they like – it is there to provide support and scaffolding as required.

Organisation of Teaching

National Curriculum programmes of study are divided into year groups in the Collins Scheme of work. Teachers use this scheme, which has editable plans complete with differentiated activities, in order to provide complete coverage of the science curriculum. These plans are uploaded onto Fronter so that the co-ordinator can monitor deliverance of the curriculum across the key stages, in order to ensure progression.

Attainment Target 1 Experimental and Investigative science will be taught through out the school and is relevant to all science learning.

Science will be taught in a variety of ways:

- Group, paired, individual and whole class teaching will be used as appropriate.
- Groups are usually mixed ability.
- Relevant discussion is encouraged.
- Groups are encouraged to present their findings in a variety of ways.
- Special 'Science Days' at least once annually where children are given the opportunity to carry out further practical investigations and where possible, to participate in workshops and assemblies lead by external bodies, i.e. the science museum.
- Celebrate work/ special events in the school Newsletter.

Achievement in Science

Achievement in science is celebrated by

- Displaying work
- Communicating findings in class to others.
- Presenting of achievement certificates in achievement assembly.

Review date: 2021