Barrowby Church of England Primary School

Science Policy

1. Introduction

Science is a core National Curriculum subject. This policy outlines the purpose, nature and management of the science taught in Barrowby School.

1.1 The national curriculum aims for science ensure that all children:

- 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 answer scientific questions about the world around them.
- Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.
- To work and think scientifically using the appropriate skills and vocabulary to express findings and theories.

2. The Nature of Science

2.1 We aim to provide opportunities for all our pupils to develop scientific skills. Children are taught and encouraged to use a wide repertoire of questioning skills and through firsthand experience form appropriate hypotheses and control a range of factors in scientific experiments.

2.2 Children are encouraged to develop experimental and investigative skills as well as develop their understanding of a variety of topics, detailed in Medium Term Planning.

3. Entitlement

3.1 The programmes of study, as outlined on the long-term curriculum map, for KS1 and KS2 outline the concepts, skills and knowledge which should be covered. Across both key stages pupils should develop skills of systematic enquiry and communication. When possible the programme should cover science in everyday life, the nature of scientific ideas and health and safety issues.

3.2 Science will be taught each week for two hours across the school, usually in an afternoon teaching session.

3.3 Science is about children developing a sense of enquiry and extending their knowledge and understanding. It is concerned with investigations using scientific skills of observing, predicting, hypothesising, recording and drawing conclusions.

3.4 Pupils should develop the skills required in the scientific enquiry component through experimental and investigative science namely:

- Planning and performing tests
- Reporting on and presenting findings
- Using evidence for conclusions
- Using results
- Making hypotheses

These methods should be developed within contexts derived from our termly topics.

3.5 Throughout each key stage, the children will cover each of the key areas with progressive steps built in as the children move through the school. Where possible, some foci have been linked to main topic areas, whilst others are structured separately. The long-term curriculum map details when each is visited. The knowledge-based components are sub-divided which makes them more manageable. These sub-divisions are also shown on the curriculum map.

3.6 Each term children are given opportunities for:-

(i) practical activities
(ii) science investigations
(iii) individual, group and whole class discussion and activities

Children will consider methods of recording their work and should be encouraged to record it in different ways.

3.7 Children will be grouped in a variety of ways according to the nature of the activity, including working in groups, as a class and as individuals.

4. Resources

4.1 Most science equipment is stored in one central area in the Old School Room. Commercial resources are used as a source of ideas for teacher reference and as pupil material where appropriate to the activities which have been planned. These are stored in the resource area.

5. Assessment

5.1 Teachers will make assessments in the areas of science on which they are focusing each term and record them for every child. This should provide a record of the skills used to work scientifically as well as, concepts and knowledge introduced and mastered, which should ensure progression throughout the school. Year 2 and Year 6 teachers must also match their children's attainments to the 'Interim Framework for Science' outlined in the National Curriculum. This is a "best fit" assessment, which will utilise previously recorded achievements, summative and formative assessments and work covered throughout that school year.

<u>Our Scientific Enquiry assessment foci are:</u>

- Questioning
- Identifying and Classifying
- Planning and performing tests
- Observing and measuring
- Reporting on and presenting findings
- Using evidence for conclusions
- Using results

Each year group will assess three of our seven assessment foci over the year (one each term) to ensure enquiry skills are progressing and developing.

6. Science Policy Review

This policy is reviewed by the Head teacher, staff and Governors in accordance with Barrowby School's Policy and Review Cycle for approval by the Full Governing Body, every 3 years.

Last reviewed: October 2023
Next review: October 2026