

Clifton with Rawcliffe Primary School



Science Policy

Date of policy: March / April 2021

Date of review: March / April 2022

Person Responsible: D Mitchell

### **Description of school / background information in provision of science**

Clifton with Rawcliffe Primary School is an above average size school. Nearly all pupils are from a White British background. The proportion of pupils entitled to free school meals is well below the national average. The number of pupils with learning difficulties and/or disabilities is well below the national average and the proportion of pupils with a statement of special educational needs is half the national average. All pupils take part in regular curriculum based science activities which develop a wide range of scientific and social skills.

### **Roles and responsibilities**

#### *Governors*

The Governing Body (Policies Committee) has been involved in the development of the school's science policy. It will continue to review and evaluate it regularly. The link Governor for this subject area will liaise with the Subject Leader on a regular basis.

#### *Identified member of staff*

An identified member of staff takes overall responsibility for this policy and its implementation and for liaison with the governing body, parents, other staff members, Pathfinder MAT, Local Authority (LA) and relevant outside agencies.

#### *Parents and guardians*

Parents and guardians are encouraged to support the provision of science within the school programme and have access to this policy. The school plays its part in ensuring that parents and guardians are kept up to date and are notified about after-school and other science-related activities, such as Science Week, via the regular school newsletter and letters sent home with pupils.

#### *Pupils*

All pupils have an entitlement to science.

### *Staff*

All staff, both teaching and non-teaching, should be aware of the policy and how it relates to them. Any staff involved in science activities should have opportunities for relevant training.

Senior Leadership Team (SLT) and the Science Subject Leader will also ensure regular in-school training through lesson support and whole school "School Improvement Sessions".

### *Adults Other Than Teachers (AOTT)*

The school actively seeks to include AOTTs to assist and supplement the science provision, both in the curriculum and after-school. These are overseen and timetabled by the Phase Leaders to ensure quality and suitability. DBS information is collected, where appropriate, and stored in the school office.

### *Aims and objectives of the policy*

In studying science, pupils gain an understanding about how ideas contribute to scientific change - impacting on industry, business and medicine and improving the quality of life. They learn to question and discuss issues that may affect their own lives, and the future of the world.

The aims of science are:

- To develop the scientific knowledge of all learners through engaging them with practical experiences
- To develop the enquiry skills of all learners, allowing them to work "like a scientist" at their appropriate level
- To stimulate pupils' curiosity about changes and events in the world and for them to satisfy this curiosity through investigation
- To develop in pupils a greater understanding of the world in which we live and their responsibility to ensure its sustainability
- To provide an opportunity for children to face challenges where they can be "stretched" to apply their learning

The objectives of science are:

- To help pupils plan, run and review experiments using critical and creative thought
- To develop pupils' enquiry and questioning skills; deepening their ability to ask scientific questions and allowing them to solve scientific problems in a variety of ways

- To develop pupils' understanding of how major scientific ideas contribute to technological change and how this impacts on improving the quality of our everyday lives,
- To ensure teaching styles and methods in science vary to suit the type of learning and the pupils' differing learning styles and abilities.

### Teaching programme and strategies

Varied teaching strategies and specific learning objectives provide stimulating, enjoyable and challenging learning experiences for all pupils. Through the selection of differentiated tasks, it is intended that pupils, irrespective of their ability, will enjoy success and be motivated to develop their potential in science.

Children have further opportunities to explore science themes and ideas through outdoor learning, provided through areas such as the Forest School and the outdoor science and maths area.

The teaching of science offers opportunities for children to work independently and collaboratively. Lessons are planned to support the social and moral development of children. Science lessons provide a vehicle through which pupils are able to develop values, behaviour and skills which will serve them both in the topic itself, and also in the wider school context. Groupings allow children to work collaboratively and give them the chance to discuss their ideas and reflect on their own work and the work of others. In addition, science provides many "coaching" opportunities where children can share their knowledge with those less confident than themselves.

The work covered at Key Stages 1 & 2 is based on the National Curriculum Programme of Study. Under the new EYFS Framework, science is covered by the objectives in the specific area of learning 'Understanding the World'. It is in three parts: People and Communities; The World; and Technology.

### Curriculum Planning

This is organised in three stages:

#### *Long term planning*

This is based on the National Curriculum for Science: it is monitored regularly and evaluated annually. Long term plans detail what is to be taught over the Key Stages and provide the basis for planning science activities throughout the

year. These are linked to the whole school topics and are undertaken by year group teams, being monitored by the Science Subject Leader.

#### *Medium term planning*

This takes the long term plan and organises the teaching of science into termly or half-termly sections. The planning is more detailed and the objectives are more specific in nature. This planning is developed by the class teachers, who respond to the needs of their pupils. It also ensures a balanced distribution of work is undertaken across each term. Found on the science MTPs are the key tools to support staff in planning topics effectively. They include: scientific knowledge not to be forgotten; key vocabulary; and prior learning.

#### *Short term planning*

Short term planning details the activities that take place over two weeks. Lessons are planned in detail and specific class objectives are set, in accordance with the needs of the pupils. Individual learning goals might also be set for pupils in some lessons.

When creating short term and medium term plans, staff are encouraged to use the CwR Science Knowledge progression and the CwR Science Skills progression. These documents contain a clear progression of skills and knowledge which build on the previous year. The knowledge or skills detailed in the documents must be covered over the course of a topic. Teachers collaborate on the planning of science to ensure parity in provision and to share expertise.

#### *Safety*

In their planning of activities, teachers will anticipate likely safety issues. They will also explain the reasons for safety measures and discuss any implications with the children. Children are always encouraged to consider safety for themselves, others, the environment and the resources they use, when undertaking science activities.

#### *Monitoring and assessment*

The science curriculum is monitored on a regular basis by the Subject Leader, who examines pupils' work, monitors classroom practice and planning, conducts pupil-voice surveys and ensures parity of entitlement for all pupils across the school.

S/he identifies the training needs of the staff and plans the training programmes. S/he also attends training for Science Subject Leaders run by the local authority and other providers.

Staff assess children's work in science using objectives from the National Curriculum. These judgements are uploaded onto the Science Subject Tracker. More important to the school, however, are formative assessments, which are continuous and ongoing, and identify the needs of the individual pupils. These form part of science activities and are used to determine the pupils' future developmental areas.

The monitoring of the standards of children's work and of the quality of teaching in science is the responsibility of the SLT and the Science Subject Leader. The work of the Subject Leader also involves supporting colleagues in the teaching of science, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school.

#### Additional educational needs

All classes consist of pupils of varying abilities and with varying needs, and our classroom practice ensures that, when possible, these needs can be met within the class.

However, when a child has very specific additional needs, support is provided firstly by the school's internal organisational structure and is administered by support assistants within the school during the lessons. Details of this can be found in the SEND Policy.

#### Implementation of the policy

A copy of this policy is available for any member of staff, Governing Body, parents and relevant outside agencies.

Date of Implementation: March/ April 2021

#### Monitoring and evaluating the policy

This policy will be reviewed every year by the Head teacher, Governing Body Policies Committee, Subject Leaders and relevant staff members.

Next review date: March/ April 2022