



## Science Policy

**Date Agreed by Governors:**

**Review Date: November 2022**

**Signed: \_\_\_\_\_ (Chair of Governors)**

**Signed: \_\_\_\_\_ (Headteacher)**

**Subject Leader:** Miss Essex

**Link Governor:** Kirsty Farrelly, Kevin Harker, Cathey Briars, Karen Tilley

**Date of review:** July 2022

### **Implementation Statement**

Science will be taught as a discrete subject but will be linked to other areas of the curriculum where appropriate. We will encourage our pupils to be curious about natural phenomena and to be excited by the process of understanding the world around them. Key scientific terminology will be introduced and reinforced during sessions and knowledge will be built upon throughout the school. Pupils will be encouraged to work scientifically and will be able to carry out simple tests and investigations using equipment to gather and record data. Whilst at Sherdley Primary School, children will learn about plants, animals including humans, materials, seasonal changes, habitats, rocks, light, forces, states of matter, sound, electricity, earth & space and evolution & inheritance. We will have dedicated science days throughout the year.

### **Definition**

What is Science at Sherdley Primary School? We believe that Science is a way of working that allows children, through practical first-hand experiences and secondary sources, to develop their knowledge and understanding of the world in which they live. These experiences should enable children to observe, question, investigate, make sense of, communicate and evaluate their findings.

### **Our Aims**

To encourage children to:

- To develop a questioning and reflective mind by providing a range of exciting and enjoyable activities.
- To build on children' curiosity and sense of awe of the natural world.
- To develop the ability to record results in an appropriate manner including the use of diagrams, graphs, tables and charts.
- To apply their skills and knowledge to investigative work.
- To develop to a deepening understanding of scientific concepts.
- To work safely and carefully.

### **Teaching and Learning**

All children have access to the Early Years Foundation Stage Curriculum and Science National Curriculum. Our long term and individual session plans show the breadth of study as well as how 'Working Scientifically' is embedded within each unit of work. Knowledge Organisers also include the scientific vocabulary to be taught with each unit of work to enable children to articulate scientific concepts clearly and precisely.

### **Working Scientifically**

Working scientifically must always be taught through and clearly related to the programme of study. Children at Sherdley Primary learn to use a variety of approaches to answer relevant scientific questions by collecting, analysing and presenting their findings. Children will:

- Explore
- Observe over time
- Notice patterns
- Identify, group and classify.
- Carry out a range of investigations

Through this approach we aim to develop the following skills:

observing, raising questions, predicting, hypothesising, planning, controlling factors (fair testing), measuring, collecting and interpreting data, constructing tables and graphs, explaining, communicating and evaluating findings, researching information.

## **Attitudes**

Through Science we endeavour to foster the following qualities:

excitement, curiosity, perseverance, open-mindedness, self-discipline, sensitivity to others, independence, adaptability, co-operation, and care for living things.

## **Equal Opportunities**

The study of science will be planned to give children a suitable range of differentiated activities appropriate to their age and abilities. Tasks will be set which challenge all children, including the more able. For children with SEND, the task will be adjusted or children may be given extra support. The grouping of children for practical activities will take account of their strengths and weaknesses and ensure that all take an active part in the task and gain in confidence.

## **Role of the Subject Leader**

The Subject Leader will provide professional leadership and management for science and will ensure that it is managed and organised so that it meets the aims of the school. The Subject Leader will manage the resources for science and will maintain them to meet the needs of the curriculum. The Subject Leader will monitor teaching and learning within the subject and will initiate reviews of the work and meet with children to give them a voice. This evaluation will form the basis for an action plan, which will then inform the School Development Plan. An annual staff meeting will be held to review the needs of science. Personal development of staff and training needs will be discussed. The Science Subject Leader will organise and lead these meetings.

## **Records and Assessments**

Assessment opportunities are identified within the Developing Expert schemes of work and summative assessment quizzes are provided at the end of each sessions Teachers will use their own discretion to use theses when they feel it is appropriate.

At the end of each Key Stage the only statutory assessment for science is teacher assessment and therefore assessments will be recorded appropriately using the AREs and some examples of work held by the Science Subject Leader. At the end of each Key Stage 1, teachers will share information about the ARE's with the Year 3 class teachers. At the end of Key Stage 2, parents will be informed in their child's Year 6 SATs report whether they have met the expected standards in Science.

## **Health and Safety**

Children will be taught to use scientific equipment safely when using it during practical activities. Class Teachers, Learning Support Assistants and the Subject Leader will check equipment regularly and report any damage, taking defective equipment out of action. A simple risk assessment will be carried out for all practical activities. The school has adopted the ASE book 'Be Safe' as its model risk assessment and therefore this should be consulted when necessary (held in the staffroom). If an activity is not covered by 'Be Safe' then we will contact CLEAPSS (School Science Service Helpline 01895251496) for further advice.

## **Progression**

Using the Mapping progression across KS1 to KS2 National Curriculum Framework 2013 document as guidance, the statements in the new curriculum have been mapped out across the key stages to show progression (both working scientifically and content) within the long-term plans and each year groups AREs.

## **Computing**

To develop children' use of information and communication technology in their Science Studies, they will be given opportunities to use resources (including digital microscopes, video, digital cameras, data loggers) to record their work and to store results for future retrieval throughout their science studies. Children will also have the chance to obtain information using recommended websites and data bases.

**This policy is available in alternative formats upon request.**