



THE  
ACORN FEDERATION  
LONG LANE CHURCH OF ENGLAND SCHOOL  
MARSTON MONTGOMERY SCHOOL

## **Science Policy**

Policy written – June 2023

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## Science Policy

### **Introduction**

This document is a statement of the aims, principles and strategies for the teaching and learning of Science at The Acorn Federation. It was developed through a process of consultation and in consideration of the requirements the New Primary Curriculum 2014.

### **Broad Aims of Science**

The National Curriculum dictates the programmes of study year-by-year for Key stages 1 and 2. Schools can introduce additional content within the relevant key stage. The National Curriculum for science aims to equip young people with:

- (i) scientific knowledge and conceptual understanding;
- (ii) an understanding of the nature, processes and methods of science; and
- (iii) the scientific knowledge required to understand the issues and implications of science.

All pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Pupils should be encouraged to recognise the power of questioning and rational explanation and develop a sense of excitement and curiosity about the world around them. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

### **Principles of the Teaching and Learning of Science**

A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. The State of the Nation Science Report (September 2017) sets out the vision that all pupils will experience an exciting, inspiring and relevant science education at primary school that leaves them well-prepared to progress further in science and well-informed about science in their everyday lives.

### **Science Curriculum Planning**

We use the New Primary Curriculum as the basis for all our planning. The infant class follows a three year cycle of topics and the junior class follows a four year cycle so that each topic area is covered at least once in each key stage. Many topics are covered twice in Key Stage 2. We ensure that there are opportunities for children of all abilities to develop their skills and knowledge in each unit. Progression and differentiation is planned, to ensure that children are supported or challenged appropriately.

Teachers create a Medium Term Plan each half-term, which breaks down the Long Term Plan above into differentiated Learning Objectives. Short-term plans give activities and resources for individual lessons. Where possible, cross curricular links to the theme for the term are identified.

### **The Foundation Stage**

The Early Years Goals (ELGs), which underpin the curriculum planning for children aged three to five outline the requirements for Reception pupils with science being delivered through the Understanding the World programme on a cross-curricular basis, linked to the topic work covered during the year.

### **Teaching Methods**

Teaching approaches are decided by individual teachers to reflect what a particular class or group of pupils need. Pupils will work within a class group, in small groups or individually. Activities may include:

- Teaching of subject knowledge.

- Investigative work focused on a key scientific question, either teacher-led or independent.
- Individual and group discussion and debate.
- Scientific research and exploration from topic books or the internet.
- ICT opportunities, e.g. presentations, Word documents, digital camera work, sound recording on ipads, etc.
- Expert visitors in the classroom.

### **Special Educational Needs**

Pupils with special needs have the same entitlement as any other pupils. As part of the planning process above, teachers ensure that the Science curriculum meets the needs of all pupils, through differentiation of teaching methods and strategies, e.g. adapting tasks, changing outcomes, adapting resources or providing adult support. We believe that SEN children should be given the opportunity to demonstrate what they know and can do.

### **Equal Opportunities**

All children will be given access to all learning in school irrespective of race, gender, creed and level of ability or nationality. Mutual respect and tolerance for all cultures will be promoted through the study of Science.

### **Assessment and Recording**

Learning Objectives for all areas of Science are specified in the National Curriculum. These are designed to ensure continuity and progression. To assess whether a pupil is working at these standards in science, teachers will use their professional judgement, using evidence from a variety of sources. In Science, they will need to have evidence which demonstrates that the pupil meets all of the 'Working Scientifically' statements and all of the Science knowledge taught in that unit of work. The school's Knowledge Grids will be used to record achievement and to determine whether the child has met the "Expected" standard for that unit. A Statutory Assessment is made for Science at the end of each Key Stage.

Teachers may use this information to inform future planning and also to inform parents of children's progress. Examples of sources of assessment may include written work, discussions, responses to questions, photographs and observations of pupils.

### **Resources**

Resources are kept in the Resource area at each school, which might be in the classroom, or other storage areas. Resources include electrical circuit equipment, newton meters, topic books and other equipment such as filter papers, sieves, etc.

### **Subject Coordinators role**

- To take the lead in policy development.
- To take the lead in implementing the New Primary Curriculum topic areas to ensure progression and continuity across the school.
- To support colleagues, where necessary, in the development of lesson plans and the implementation of units of work.
- To support colleagues in assessment and record keeping.
- To monitor progress in Science and advise the Head Teacher on any action needed.
- To take responsibility for the purchase and organisation of resources for Science.
- To keep up to date with developments in Science Education and keep colleagues up to date as appropriate.

## **Health and Safety**

Fieldwork and visits are important in Science. When planning a visit, teachers must complete a risk assessment and be aware of the school emergency procedures for visits. They should also be aware of the Local Authority's policies on visits and excursions within and outside the local area. Objectives for the trip must be related directly to the objectives of the appropriate unit. Local authority guidelines must be observed.

The Coordinator will review this policy on a 3 yearly basis.