



# **Stoke Holy Cross Primary School**

## **Science Policy**

Date reviewed by staff: April 2019

Reviewed: April 2019

Next Review Date: April 2022

## Science Policy

### Statement of Intent

Our Science Curriculum at Stoke Holy Cross aims to ensure that all pupils develop scientific knowledge and conceptual understanding through enquiry-based learning. We intend to develop our children's natural curiosity and excitement about the world around them through varied scientific lines of enquiry. Our goal is to equip them with the scientific knowledge and skills required to understand the uses and implications of science today and in the future.

### National Curriculum 2014 in England

#### Purpose of study

A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

#### Aims

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
- ♣ 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

### Planning

Our teachers plan their lessons using as many internal and external resources as they choose. Year 1 and Year 4 are trialling Collins Snap Science and this will be reviewed after 12 months. Foundation Stage follows its own schemes of work. Science is taught, where possible, from topics which enhance cross curricular links.

### The Foundation Stage

Science is taught in Early Years within one of the seven areas of Learning; Understanding the World. It is an integral part of themed work covered during the year. As the Foundation class is part of the Early Years Foundation Stage Curriculum,

we relate the scientific aspects of the children's work to the objectives set out in the 'Development Matters' and Early Learning Goals (ELGs), which underpin the curriculum planning for children from birth to age five. Science makes a significant contribution to developing a child's knowledge and understanding of the world, for example through exploration and investigation of what floats and what sinks when placed in water. The Early Years children also take part in the forest schools programme which includes environmental science.

### **5 types of enquiry**

We will ensure that in each unit of planning, we have in mind the five types of enquiries in the curriculum.

These are:

- Observing change over time.
- Keeping records and finding patterns.
- Identifying and classifying.
- Researching.
- Fair testing.

Teachers are aware of safety needs and have read the Primary Curriculum Code of Practice and related risk assessment document. Additional safety guidance can be found in the A.S.E. "Be Safe" book held in the professional library in the staff room.

School maintains a subscription to the CLEAPSS School Science Service (Brunel University, Uxbridge, UB8 3PH, Tel:01895 251496). This organisation produces a termly newsletter, Primary Science and Technology, and a wide range of guides about primary science, especially resources.

### **Teaching and Learning**

Our philosophy on teaching and learning is encapsulated in our **Teaching and Learning Policy** to which reference should be made.

Additionally, the practical nature of science should be recognised and opportunities for learning through play and first hand experience should be provided, especially in the early years.

Science plays an important role in the development of investigative skills and draws upon strong mathematical links, for example measurement, pattern recognition, graphical skills and data handling. Curricular links to other areas, for example, language, are recognised and developed.

Pupils are given opportunities, where appropriate, to develop their Information Technology capability in the study of science.

### **Equal Opportunities - Learning Together**

Children of all abilities can benefit from the study of science. Where children have special educational needs it may be necessary to seek further guidance from the subject leader, SENCO and other agencies. Teachers will be aware of any physical disability that may affect a child's performance and make appropriate provision.

Provision will also be made for those children whose abilities go beyond the curriculum. This could take the form of tailored projects to extend the pupils knowledge, whilst ensuring the relevant curriculum areas and expected outcomes are covered.

Adults in our school are entitled to support from:

- whole school planning;
- SLT
- Science Subject Leader
- Colleagues;
- INSET within school and from outside agencies,
- Through the provision of support materials and resources.

### **Resources**

There is a communal science storage area in the upper school resource cupboard, where resources and equipment are stored in the relevant topic boxes. Individual teachers are responsible for collection and return. Older children may be involved where appropriate, as part of developing responsibility. Shortages and breakages should be reported to the subject leader.

Children, teachers, support staff and voluntary helpers are all recognised as important resources.

### **The practicalities of science at Stoke Holy Cross**

- Science is taught for the equivalent of an hour a week by the class teacher or cover teacher;
- Cross curricular links are made where possible (for example in literacy work on explanation or in links to history and geography topics);
- Science is recorded in science books, learning journals, floor books and topic books;
- Science books are monitored yearly by the Science Subject Leader;
- Science is displayed and celebrated;
- Science is linked to practical experiences and enquiry whenever possible;
- Teachers use a variety of teaching methods: modelling, demonstration, use of internet links and video, experiments (both immediate and over time), research, discussion and debate;
- Topics are re-visited but expanded and developed as children move up the school;
- Relevant discussion is encouraged;
- Groups are encouraged to communicate their findings in a variety of ways such as diagrams, posters, concept cartoons, mind maps, talking partners and group scribing

- Homework may be science related at times over the year.

### **SMSC**

Science should make a contribution to pupils' SMSC development through: Enabling pupils to reflect on the wonder of the natural world Ensuring pupils develop an awareness of the ways that science and technology can affect society and the environment Giving pupils the opportunity look after living things Ensuring children show respect for differing opinions, on creation for example Giving children the opportunity to explore moral dilemmas related to Science Raising awareness that scientific developments are the product of many different cultures. Ensuring children consider their impact on the environment

### **Feedback, Assessment and Tracking**

There is an agreed whole school policy to which reference should be made. All areas of Science are assessed across each year group and recorded on a whole class tracking sheet.

### **Review**

This policy will be reviewed as part of the general curriculum review programme listed in the School Development and Improvement Plan.

