



# St Paul's Church of England Primary School

## Science Policy

**Adopted by: Curriculum Committee**

**On: 27<sup>th</sup> February 2019**

**Review: Spring 2022**

### 1. 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.

### 2. Topic Covered in Science – Foundation Stage to Year 6

Term	Foundation Stage	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1	To know about similarities and differences in relation to places, objects, materials and living things. Talk about the features of their own immediate environment and how environments might vary from one another. Make observations of animals and plants and explain why some things occur, and talk about changes.	Everyday Materials	Uses of everyday materials	Animals including humans	States of Matter	Earth and Space	Animals including humans
Autumn 2		Sound and Hearing	Forces and Movement	Characteristics of materials	Electricity	Properties and changes of materials	Evolution and Inheritance
Spring 1		Animals including humans	Animals including humans	Forces and movement	Friction	Forces	Electricity
Spring 2		Light and Dark	Electricity	Rocks	Sound	Changing Sounds	Light
Summer 1		Plants	Living things and their habitats	Light and Shadow	Living things and their habitats	Animals including humans	Living things and their habitats
Summer 2		Pushes and Pulls	Plants	Plants	Animals including humans	Living things and their habitats	Sex and Relationships (see separate policy)

### **3. Planning Science**

We operate a planning procedure agreed by the whole teaching staff, based upon the Learning Objectives set out in the Science National Curriculum 2014. Each Year group has a Long Term Grid which clearly sets out the topics for each half term and the learning objectives (Statutory requirements) for that topic. There are non-statutory elements that teachers are free to follow if they wish, however 'Schools are not required by law to teach the content indicated as being non-statutory'. (National Curriculum 2014)

We do not follow a scheme for science; however we do have access to the old QCA schemes for support and guidance in some of the topic areas. Teachers are expected to look at the learning objectives for each of the lessons and plan fun, challenging and thought-provoking lessons.

Teachers are expected to produce weekly plans for the lessons that they teach, these need to be annotated at the end of each lesson recording the achievements / misconceptions of the children.

### **4. Teaching Styles and Strategies**

A range of styles of teaching are necessary for the teaching of Science. Approaches need to be related to the topic itself and to the abilities and experience of both teachers and pupils.

Our teaching at all levels shall include opportunities for

- Teacher exposition;
- Discussion techniques (pupil/pupil and pupil/teacher) appropriate to practical work;
- Consolidation and practice of fundamental skills and routines;
- Learning scientific vocabulary and being encouraged to use it
- Problem solving;
- First hand experience;
- The use of ICT;
- The committing to memory and recall of a range of scientific facts;
- Investigation and experimental work using questions, predictions, hypothesis and measurement and to interpret results into meaningful conclusions;
- Recording through a range of methods e.g. diagrams, graphs, charts and models;
- Class work, group work, individual work;
- Out of school trips to support learning
- Visitors coming in to school

### **5. Resources**

In school we have a variety of resources which teachers are encouraged to implement in to their planning. These are kept on both sites (St. Paul's and Alexandra House). The resources on Alexandra House site are stored in the DT room and on St. Paul's site they are in the hut on the junior playground.

It is the responsibility of the person using the resources to return them to the place they got them. The Science subject leader is responsible for ordering replacement resources.

## **6. Assessment**

Children's work will be marked according to the agreed school policy and their performance continually assessed in accordance with the National Curriculum learning objectives by the class teacher.

From Spring Term 2019 teachers will be asked to make a judgement on the children's work (a tick on an assessment sheet) – are they working at Emerging, Expected or an Exceeding level?

At the end of the year, teachers will be able to see the 'line of best fit' – this will give the teachers an overall judgement of the pupil's achievements. A written report on the children's achievements / progress is sent to the parents at the end of the year, along with Key Stage Formal Assessment results when the children reach the end of Key Stage 1 and Key Stage 2. These are also reported to the LA and DFE as required by law.

Staff hold parents evening twice a year where they discuss the children's progress with their parent / carer.

## **7. The Role of the Science Subject Leader is to**

- Purchase, organise and maintain teaching resources;
- Assist with diagnosis and remediation of learning difficulties;
- Manage a delegated budget and keep spending within it;
- Encourage and assist in-service training;
- Keep up-to-date by attending co-ordinators meetings, courses and feedback sessions organised by LA.
- Provide guidance and support in implementing NC and schemes of work;
- Offer specialist advice and knowledge for special needs and gifted pupils;
- Co-ordinate recording and presentation throughout the school in consultation with colleagues;
- Advise the Head teacher of action required (e.g. resources, standards etc.)
- Encourage ways of involving parents in their children's learning;
- Promote liaison throughout the school (moderation etc.)
- Provide support for all who teach Science and so improve the quality and continuity of Science teaching and learning throughout the school.

## **1. Monitoring and Review**

The science subject leader is responsible for monitoring the standard of the children's work and the quality of teaching in science. The science subject leader is also responsible for supporting colleagues in the teaching of science, for being informed about current developments in the subject, and for providing a strategic lead and direction for the subject in the school.

The science subject leader has a link governor with whom s/he meets to share attainment and progress information, monitoring outcomes and planned actions and outcomes with in order to support effective subject development.

The science subject leader gives the headteacher an annual action plan in which s/he evaluates the strengths and weaknesses in the subject and indicates areas for further improvement. We allocate special time for the vital task of reviewing samples of children's work and for visiting classes to observe teaching in the subject.

The science subject leader writes an annual report on standards and progress in the subject for the senior leadership team and school governors.