



## Ashton St. Peter's Church of England Voluntary Aided Primary School

### Science Policy

Ratified in March 2014

Update in March 2017

Science is a core subject

#### **Rationale See Appendix A - 'Principles of Science'**

We believe that the teaching of Science stimulates and excites children's curiosity and enables them to understand their world and to explain phenomena within it. It should also encourage and develop a sense of awe and wonder, and thus of respect, regarding their world. Consequently we believe that pupils require an appropriate and effective, broad and balanced programme of scientific education, in line with the National Curriculum.

We hope to show children how the skills and knowledge of Science apply to everyday life situations.

#### **Aims**

We regard the teaching of science at Primary level to be underpinned by prior learning which is closely linked to the National Curriculum programme of study. We believe that children should learn to:

- Retain and develop their natural curiosity about the world around them increasing their knowledge and understanding of important scientific ideas, processes/skills and relate these to everyday experiences and events.
- Think, explore and communicate ideas effectively
- Explore values and attitudes through science, including the promotion of spiritual, moral, social and cultural development. (Encouraging open-mindedness, perseverance, independence, individuality and also the importance of teamwork)

#### **Teaching and Learning**

We recognise each pupil as having individual and unique potential. Children will have opportunity to:

- Apply their scientific knowledge in a wide range of contexts
- Test ideas arising from their own investigations or suggested to them by others using a fair method.
- Make observations and measurements in a precise and systematic way and draw conclusions from and form hypotheses based upon this evidence.
- Present their findings comprehensively, clearly and accurately in a variety of ways
- Use ICT and appropriate research materials
- Show progress in their understanding of, and be able to demonstrate knowledge at an appropriate level about, aspects of the following:
  - o Working Scientifically

- o Life processes and living things
- o Materials and their properties
- o Physical processes

### **Planning, Progression and Continuity**

The Science curriculum is organised on a topic basis and delivered creatively. These are based on the National Curriculum Programmes of Study and Statements of Attainment. Plans are developed to give details of appropriate progression of knowledge and understanding, skills, investigations and activities.

In Foundation Stage, Science is taught through the Early Years Framework strand of 'Understanding the World' and within this, the element of 'The World'. Learning activities are planned through a range of 'Adult Led' and 'Child Initiated' opportunities.

All teachers are involved in Science planning. All teachers meet and share ideas to ensure continuity throughout the school and full coverage of the National Curriculum. The subject leader receives copies of planning and carries out implements a range of monitoring tasks across the school. There is an expectation that the Governor Partner will meet at least once in an academic year with the subject leader and participate in a 'Science Learning Walk'.

To ensure that children make progress in science and are able to build upon their previous knowledge and experience, teachers will provide opportunities for them to move on from using everyday language to increasingly precise use of technical and scientific vocabulary, notation and symbols.

Children will be encouraged to develop scientific thinking and build on their knowledge, creating and applying links in their learning. They will describe events and phenomena to begin with and later, will be able to explain these. Children will begin by participating in practical science activities and progress to building increasingly abstract models of real situations, moving from unstructured exploration to more systematic and rigorous investigation of a question. These investigations will be recorded using simple drawings to begin with, then diagrams and charts will be used as children develop the ability to represent and communicate scientific information. Finally, children will be using more conventional diagrams and graphs.

### **Assessment, Recording and Reporting**

Assessment for learning is carried out as an ongoing process by pupils, teachers and support staff, to ensure good progression.

Children's progress is assessed in a variety of ways and is appropriate to age and ability:

1. Discussion
2. Peer Evaluation e.g. Discussion dice and post-it notes
3. Self-Evaluation e.g. learning ladders or 'Jelly Baby Tree
4. Teacher Assessment
5. Marking and Feedback- next steps and top-tips-2 stars and a wish

Pupils attainments in scientific skills are recorded regularly on agreed, levelled 'APP' sheets which have been developed and agreed by staff, to inform and measure progress. In light of the new National Curriculum, we will be reviewing assessment procedures in line with any new guidance received.

Key Stage 1 and 2 teachers give the Science subject leader an updated assessment sheet at the end of each term. The achievements illustrated by these measures will form the basis of the science section of each child's individual report to parents at the end of each year and informally in interviews.

### **Inclusion**

Activities will be planned in such a way as to encourage the full and active participation of all children, irrespective of race, gender, social and economic circumstance or ability. In line with the school's 'Equal Opportunities Policy', all children will have an entitlement to all aspects of the Science curriculum.

### **Health and Safety**

Due to the practical nature of this subject, health and safety procedures will be adhered to and risk assessments completed for hazardous activities. Children will be taught the correct and safe use of scientific equipment.

### **Resources**

The resources are stored in the resources room and there is a comprehensive range of resources available in the Science cupboard.

### **Review Procedures**

The School's policy will be reviewed when:

- Every three years March 2017
- The School wishes to review the policy.
- If amendments are required by the LA

Ratified by:

Date: March 2014

Chair of Governors

## Ashton St Peter's Lower School

### Principles of Science

Questions are asked, answered, encouraged

Underpinned by prior learning

Applies scientific knowledge in a wide range of meaningful contexts

Learning in different ways

ICT is used for research, data capture and analysis

Teamwork, thinking skills, are encouraged

You never know what might happen, children find out the unexpected!

Stimulating, surprising, creating a sense of awe and wonder

Coherently planned, challenging learning

Inspires, inclusive, innovative

Enquiry based investigations

Needs of all children are planned for and met

Connected to the world beyond the classroom-outdoor learning

Enables children to make sense of the world around them

