

*'...those who hope in the LORD will renew their strength.  
They will soar on wings like eagles; they will run and not grow weary,  
they will walk and not be faint.'* Isaiah 40:31

connect | nurture | aspire | learn | excel | hope

# Reculver Church of England Primary School



## SCIENCE Policy

Date adopted by Local Governing Body:

Date of next Review: September 2018

# Science Policy

We recognise that the personal development of pupils, spiritually, morally, socially and culturally, plays a significant part in their ability to learn and achieve.

We therefore aim to provide an education that provides pupils with opportunities to explore and develop their own values and beliefs, spiritual awareness, high standards of personal behaviour, a positive caring attitude towards other people, an understanding of their social and cultural traditions and an appreciation of the diversity and richness of other cultures. This is a whole school issue. Science has a contribution to make to the child's spiritual, moral, social and cultural development and opportunities for this will be planned in *each topic area of the curriculum*.

## **Policy Statement**

This policy sets out the arrangements for the leadership and delivery of the Science curriculum. At Reculver Church of England Primary School, our teaching and learning in Science should reflect the school's Christian values, be fully inclusive and promote equality for all pupils and staff regardless of their sexual orientation, race, religion or disability.

## **1 AIMS**

1.1 Science teaches an understanding of natural phenomena. It aims to stimulate a child's curiosity in finding out why things happen in the way they do. It teaches methods of enquiry and investigation to stimulate creative thought. Children learn to ask scientific questions and begin to appreciate the way in which science will affect the future on a personal, national and global level.

1.2 The objectives and aims of teaching Science are to enable children to have opportunities to:

- Develop interest and enjoyment in Science
- Develop understanding of key scientific concepts and skills
- Enable pupils to communicate scientific ideas effectively through the use of relevant scientific language
- Plan, implement, conclude and evaluate scientific investigations using equipment correctly. This also includes relevant ICT equipment.
- Develop awareness as to how science influences and affects our everyday lives.
- Develop use of Information and Communication Technology (ICT) within science

## **2 TEACHING AND LEARNING STYLES**

2.1 Science should be taught with the emphasis on the pupils engaging themselves in practical enquiry to support and/or develop their understanding of scientific concepts and skills.

2.2 Teachers use a range of strategies during science teaching, including:

- Investigative enquiry
- Questioning
- Illustrative enquiry
- Exploration

2.3 Children should be given the opportunity to investigate and answer scientific questions, using a range of data, which may be obtained through practical investigations. They should participate in practical investigations, and present their results either verbally or in written form.

### 3 SCIENCE CURRICULUM PLANNING

#### 3.1 Foundation Stage

Science is taught through the Early Years Foundation Stage Curriculum framework. Relevant development matters cover designated topics.

#### 3.2 Key Stages 1 and 2

The knowledge and skills with the New Curriculum are met through integrating the 'Kent Scheme of Work' into our 'Inspire' Curriculum. A range of 'Inspire' topics are studied within each year group during each academic year, with the five 'Kent Scheme' units being integrated into the topics, or in some cases taught as stand-alone units. All units must be covered over the course of the year. Class Teachers are responsible for adapting individual lesson plans in line with their childrens' needs.

3.3 In all classes children have a wide range of scientific abilities, and teachers must ensure that suitable learning opportunities are provided for all children by matching the challenge of the task to the ability of the child. This should be achieved in a variety of ways:

- Setting tasks which are open-ended and can have a variety of responses;
- Setting tasks of increasing difficulty (we do not expect all children to complete all tasks);
- Grouping children by ability in the room, and setting different tasks for each ability group;

<b>SCIENCE TERMLY OVERVIEW</b>	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 1	Seasonal Changes	Everyday materials	Investigation Unit	Plants		Animals including humans
Year 2	Animals including humans	Uses of Everyday materials	Living things & their habitats	Plants		Investigation unit
Year 3/4 2016-17	Animals including humans	Electricity	Sound	Investigation unit	States of matter	Living things & their habitats
Year 3/4 2017-18	Animals including humans	Forces & magnets	Plants	Rocks & soils	Investigation unit	Light
Year 5	Earth & space	Forces		Living things & their habitats	Properties & changes of everyday materials	Animals including humans
Year 6	Electricity	Evolution & inheritance	Light	Living things & their habitats	Animals including humans	Investigation unit (Alliance transition project)

- Providing resources of different complexity, matched to the ability of the child;
- Using additional adults to support the work of individual, or groups of, children.

## **4 CROSS CURRICULAR LINKS**

### **4.1 English**

Science will contribute significantly to Reculver's teaching of English by actively promoting reading, writing, speaking and listening skills. Children develop oral skills in science lessons through discussions, with a written element being reflected through their recounts of investigations.

### **4.2 Mathematics**

Science contributes to the teaching of Mathematics in a variety of forms. For example, when children are studying weights and measures they are developing their ability to use and apply number. Investigations enhance estimating through predictions, whilst many conclusions involve discussions surrounding statistics and/or numbers.

### **4.3 Information and Communication Technology (ICT)**

Pupils are taught to use a range of ICT equipment to enhance their scientific learning. This includes:

- Date loggers
- Digital cameras
- Video cameras
- Digital microscopes

### **4.4 Personal, social and Health Education (PSHE) and Citizenship**

Science makes a significant contribution to the teaching of PSHE and Citizenship. Subject content raises matters of citizenship and social welfare, whilst giving numerous opportunities to debate and discuss. Therefore, Science promotes the concept of 'positive citizenship.'

## **5 INCLUSION**

5.1 Science is planned and differentiated to provide pupils with a suitable range of activities and support appropriate to their age, abilities and needs, including those with specific learning difficulties and the more able children.

5.2 Curriculum planning ensures that all pupils have an equal opportunity to participate in every aspect of the Science curriculum.

5.3 Teachers / Teaching Assistants are given designated planning time to ensure Science lessons are accessible for Visually Impaired (VI) children.

## **6 RESOURCES**

6.1 Class Teachers are responsible for informing the Science Leader of resources required to deliver the Science curriculum.

6.2 Shared Science resources are located in clearly labelled cupboards outside The Arc. Teachers must ensure these are returned to the correct cupboards once used. No children are allowed to remove or return resources without adult supervision.

6.3 Information books on Science topics are available in the Science cupboard, as well as individual classrooms.

6.4 In order to support the delivery of the Science curriculum, the outdoor environment at Reculver should be used to maximum potential.

## **7 MONITORING AND ASSESSMENT**

7.1 The Science Leader will ensure progress is tracked, and Class Teachers are responsible for ensuring progress in Science is recorded on the relevant tracking spreadsheet and grids after each topic. Progress is judged through Teacher Assessment.

7.2 Teachers will assess children's work in Science by making informal judgements during lessons.

7.3 Pupils are taught and encouraged to use a range of recording strategies to communicate their ideas and scientific findings. Class Teachers should then monitor and assess these accordingly. Children should be encouraged to respond to these comments.

7.4 An annual written report, detailing pupil's progress in Science is provided.

7.5 The Science Leader will undertake 3 book scrutinies per academic year, and lesson observations where appropriate. The Science Leader will also ensure that they are familiar with both the Kent Scheme and Inspire Curriculum, in terms of Science coverage within each topic.

7.6 The Science Leader will keep samples of children's work in a portfolio, and use these to demonstrate the expected level of achievement in Science for each Year group.

## **8 HEALTH AND SAFETY**

8.1 The safe use of equipment and materials is paramount at all times.

8.2 All accidents and incidents should be reported to The Welfare Officer where appropriate.

This document is a statement of the principles, aims and strategies for the teaching of Science at Reculver CE Primary School.

### **Prepared by Subject Leader:**

Miss Charlotte Case

**Date:** September 2016

### **Approved by Governing Body:**

**Date:**

### **To be reviewed:**

**Date:** September 2018