



***Working and learning together for success***

**Sarisbury Church of England Junior School**

**Science Policy Statement  
*September 2020***

**Science education provides the foundations for “understanding the world.” “Science has changed our lives and is vital to the world’s future prosperity.”**

The National Curriculum, 2014

**“Science knows no country, because knowledge belongs to humanity, and is the torch which illuminates the world.”**

Louis Pasteur

# Sarisbury Church of England Junior School

## Science Policy Statement

Science learning at Sarisbury aims to stimulate an active curiosity in order to help the children find out why things happen and begin to make sense of the world around them. In particular, science teaches methods of enquiry and investigation in order to draw inferences, form hypotheses and reach conclusions. By learning about a wide range of living things, materials, phenomena, the significance of discoveries by real scientists and through asking questions about the real world, children will acquire scientific skills and knowledge. They will begin to appreciate the way science will affect their future on a personal, national and global level. Children are encouraged to investigate, explore and discover through careful and safe experimentation; working on their own and with others. Children talk about their work and its significance, and communicate ideas using scientific language, diagrams, charts and graphs.

*Science at Sarisbury is about developing children's ideas and ways of working that enable them to make sense of the world in which they live through investigation, discussion and using and applying process skills.*

### **Our Aims**

#### **At Sarisbury CE Junior School we aim to:**

- nurture an interest and enthusiasm for science
- deliver the National Curriculum Science objectives in ways that are imaginative, purposeful, well controlled and enjoyable
- help develop and extend children's scientific concept of their world and encourage them to ask meaningful questions to discover more about the world around them
- provide opportunities for children to explore the work of real scientists and the significance of their work
- make strong, purposeful links between science and other subjects  
e.g. using ICT in a meaningful way to extend their learning (video clips/recording, photography, netbooks, learn pads)
- provide enjoyment and build self-esteem by fostering children's natural curiosity
- develop children's skills of working scientifically including the use of scientific language, communicating ideas, hypothesising, experimenting and interpreting results to form conclusions
- develop a responsibility for their own health and safety and that of others when undertaking scientific activities
- develop respect for living things and the environment
- provide opportunities to engage in activities that are challenging, creative, relevant and motivating

### **Equal Opportunity**

We are committed to providing a teaching environment conducive to learning. Where each child is valued, respected and challenged regardless of ability, race, gender, religion, social background, culture or disability.

## **Our Strategies**

***Science is a body of knowledge essential to our understanding of the world around us. The process of scientific investigation forms the basis of the most intellectual enquiry and so have a wide application in everyday life.***

***The knowledge, skills and understanding will be taught through:***

- tasks which are open ended to encourage working scientifically
- a scheme of work and medium term plans in each year group based on the National Curriculum programmes of study that ensures a range of progression and skills as set out by the CAHMS consortium and the Hampshire 'Key Ideas' document
- a variety of teaching methods including whole class, group and individual work
- time to explore what children already know and understand from their own experiences, what they have learnt so far as well as questions that they would like to investigate
- activities, including trips and exploration of the school grounds, to develop understanding of the environment and the impact this has on their lives
- access to well-resourced and maintained specialist science equipment suited to the ability and needs of the children

## **Our Resources**

***At Sarisbury CE Junior School we have:***

- a well-maintained central resource area
- labelled boxes with equipment specific to units of work studied in each year group
- a wide selection of general resources relevant to many topics
- suitable video links and resources for use in science lessons
- books for staff to provide support in the delivery of science
- pupil books in the resources boxes and library relevant to topics studied

## **Our Science Leader**

***The member of staff responsible for the management and development of Science throughout the school is Rebecca Wigginton. She will:***

- seek to enthuse pupils and staff about science and promote high standards of achievement and high quality provision
- advise and support staff in the planning, delivery and assessment of science
- manage and develop all resources for science
- monitor and evaluate science throughout the school
- keep up to date with current developments by attending courses, liaising with colleagues from other schools, and use this as a basis for staff development activities
- provide opportunities for our gifted and talented pupils to participate in appropriate activities
- continue to promote and raise the profile of science throughout the school

## **Assessment, Record Keeping and Reporting**

***In order to ensure continuity, progression and high standards of achievement in science, assessment for every child will include:***

- ongoing formative assessment through observations and dialogue with children in both understanding of key concepts and working scientifically will be carried out in each lesson and for each unit of work and copies given to the science leader – this is in line with schools across the cluster
- a summative assessment of each child's progress in science over the year will be provided in their end of year report
- pupil interviews and active work sampling with a selection of pupils across the year groups; copies of work to be kept by the science leader in a central file

## **Our Success Criteria**

***We expect 90% of our children to attain standards in line with or above those stated in the National Curriculum age related expectations.***

## Our Science Curriculum Map

Below is an overview of the topics covered in each term and the 'working scientifically' skills in focus:

	Year 3	Year 4	Year 5	Year 6
<b>Autumn</b>	<p>Animals including humans Food and nutrition Skeletons</p> <p>Ask relevant questions and using different scientific enquiries to answer them.</p> <p>Setting up simple practical enquiries.</p> <p>Making systematic and careful observations.</p> <p>Gathering, recording, classifying and presenting data in a variety of ways to help answer questions.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams.</p> <p>Using results to draw simple conclusions.</p>	<p>Plants – requirements for growth life cycles</p> <p>States of matter</p> <p>Ask relevant questions and using different scientific enquiries to answer them.</p> <p>Setting up simple practical enquiries.</p> <p>Making systematic and careful observations.</p> <p>Gathering, recording, classifying and presenting data in a variety of ways to help answer questions.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams.</p> <p>Using results to draw simple conclusions.</p>	<p>Earth sun and moon</p> <p>Forces - Historical study 'Isaac Newton'</p> <p>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p>Identifying scientific evidence that has been used to support or refute ideas or arguments.</p> <p>Reporting and presenting findings from enquiries, including conclusions, casual relationships and explanations of and degree of trust in test results, in oral and written forms such as displays and other presentations.</p>	<p>Living Things and Their Habitats</p> <p>Animals including humans</p> <p>Identifying scientific evidence that has been used to support or refute ideas or arguments.</p> <p>Reporting and presenting enquiries, including conclusions, in oral and written forms such as displays and other presentations</p> <p>Explanations of and degree of trust in results</p> <p>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p>
<b>Spring</b>	<p>Rocks – fossils</p> <p>Historical person 'Mary Anning'</p> <p>Light</p> <p>Ask relevant questions and using different scientific enquiries to answer them.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Use straightforward scientific evidence to answer questions or to support their findings.</p>	<p>Sound</p> <p>Set up simple practical enquiries, comparative and fair tests.</p> <p>Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Using results to draw simple conclusions, make predictions, suggest improvements and raise further questions.</p>	<p>Properties and changes of materials</p> <p>Taking measurements using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p> <p>Recording data and results of increasing accuracy and precision, taking repeat readings when necessary.</p> <p>Recording data and results of increasing complexity using scientific diagrams.</p> <p>Using test results to make predictions to set up further comparative tests</p>	<p>Light</p> <p>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p>Recording data and results of increasing accuracy and precision, taking repeat readings when necessary</p> <p>Using test results to make predictions to set up further comparative tests</p>
<b>Summer</b>	<p>Forces and Magnets</p> <p>Electricity – conductors and insulators.</p> <p>Set up simple practical enquiries, comparative and fair tests.</p> <p>Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Using results to draw simple conclusions, make predictions, suggest improvements and raise further questions.</p>	<p>Animals including humans</p> <p>Habitats – changing environments</p> <p>Ask relevant questions and using different scientific enquiries to answer them.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Use straightforward scientific evidence to answer questions or to support their findings.</p>	<p>Living things and habitats</p> <p>Animals including humans</p> <p>Planning different types of scientific enquiries to answer questions.</p> <p>Reporting and presenting findings from enquiries, including conclusions, casual relationships and explanations of and degree of trust in test results, in oral and written forms such as displays and other presentations.</p>	<p>Evolution and inheritance</p> <p>Electricity</p> <p>Taking measurements using a range of scientific equipment, with increasing accuracy and precision</p> <p>Using test results to make predictions to set up further comparative tests.</p> <p>Reporting and presenting findings from enquiries.</p>