Langley Fitzurse Church of England School

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Amaze Excite Inspire

‘Jesus offers life in all its fullness’

**Science Policy**

**March 2020**

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Chair of Governors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**INTRODUCTION**

What? Why? and How? These questions are key to developing pupil’s scientific knowledge, whilst nurturing their natural curiosity, engendering excitement and investigation of natural phenomena.

Through practical experiences pupils can link their science directly to elements of everyday life, be it the reasons flowers bloom, the light coming on or shivering when we are cold. Science develops creative ideas, tempering scientific concepts with reasoning and evaluation. The everyday relevance and practical application of science helps engage pupils across a broad spectrum of experiences allowing them to track its advances and application across the globe. These experiences can be related to how scientific advances have helped new ideas and products in medicine, business and on our lives.

**AIMS**

* To nurture and maintain natural curiosity.
* To develop a scientific knowledge and conceptual understanding of the world.
* To discover scientific links and concepts that relate to everyday experiences.
* To encourage creative problem solving using scientific skills and vocabulary for predicting, reasoning and evaluating concepts.
* To promote a wide range of safe practical skills for investigation, using a range of scientific equipment and ICT technology.
* To record and promote clear communication of discovered concepts, displaying and interpreting recorded data.
* To promote cross curricular links with key subjects for interpreting data (maths), promoting science concepts (English, Art & ICT) and construction of investigations (DT).
* To engender a respect for the natural world, understanding the relevance of species dependences.

**WORKING SCIENTIFICALLY**

Working scientifically skills are embedded into the curriculum through the following lines of enquiry:

* observing over time
* pattern seeking
* identifying
* classifying and grouping
* comparative and fair testing
* researching using secondary resources.

**METHODOLOGY AND APPROACH**

Science is planned and delivered to ensure coverage of the National Curriculum. Largely, teachers break the relevant science topics down into 6 termly units across a two-year rolling programme. No single scheme is employed. Teachers are given the opportunity to draw upon a wide range of resources, techniques and activities to stimulate and inform the children in the most suitable and effective way for their particular class. Meetings take place between teachers and the leadership team to ensure the content and coverage of science across the school meets the requirements of the curriculum.

* Whilst ensuring that the curriculum is covered, emphasis will be placed on teaching and investigative skills in Sc1. Children are encouraged to ask, as well as answer, scientific questions.
* A variety of teaching methods will be implemented to stimulate active and collaborative learning with particular emphasis on investigations.
* The specific vocabulary of Science is taught and modelled. Purposeful speaking and listening in science are encouraged.
* Resources will be available: videos/DVDs, CD ROMS, websites, library books, SMARTboard and fieldwork apparatus artefacts. We use WSLR to further enrich our children’s learning.
* Teaching groups may be whole class or small groups. Profound Learning experiences will include workshop themed weeks outside class, as well as timetabled Yr6 Booster workshops: to help with revising experiments from the previous year’s learning within our two-year cycle.
* We recognise that there are children of widely different scientific abilities in all classes and we ensure that we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this in a variety of ways by:

1. Setting tasks of increasing difficulty; grouping children by ability in the room and setting different tasks for each ability group;
2. Providing resources of different complexity, matched to the ability of the child.

**ASSESSMENT**

* Evidence of attainment is gained through observation, questioning, marking children’s books and any formal assessments.
* At the end of each unit, the class teacher makes a summary judgement of each pupil’s work and records it on our Science Assessment Grid. These assessments may take the form of a practical activity, a concept map or a written assessment. These are recorded to inform reports to parents and the next class teacher at the end of the year.
* In KS1 and Lower KS2 Science bags are used to further stimulate scientific enquiry and questioning to support Teachers’ assessment during the year. Whilst in Upper KS2 quizzes and mini activities linked to the topic assist teacher assessment in the same way.

**RESOURCES**

Science equipment is stored in the Resource Room. Maintenance and renewal of this equipment is the responsibility of the Science Subject Leader.

**HEALTH AND SAFETY**

All teachers should be aware of potential hazards when using science equipment in the classroom and discuss these risks with the children.

When using hazardous materials and equipment in the classroom, teachers should refer to the A.S.E Primary Science Safety Document and the Wiltshire Health and Safety document to check up to date procedures. These documents can be found in the office.

**MONITORING AND REVIEW**

It is the responsibility of the Science Subject Leader to monitor the standards of 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.

This policy will be reviewed in line with the current School Improvement Action Plan.

Langley Fitzurse School is committed to safeguarding and promoting the welfare of children and young people and expects all staff and volunteers to share this commitment.

This school aims to be part of the wider community through fostering Christian values, and the development of spirituality through reflection to enhance relationships.