

Weston Turville CE School

**Mission Statement – TO PURSUE WISDOM WITHIN A
CHRISTIAN ETHOS**

SCIENCE POLICY

Co-ordinator	Mrs E Hoodless
Policy produced by	Mrs J Bridson
Policy reviewed by	Mrs E Hoodless
Reviewed policy agreed	Spring 2017
Adopted by Staff	Spring 2017
Adopted by Governors	Spring 2017
Next Review Date	Spring 2021

Aims and Objectives

Our Science Policy follows The National Curriculum 2014 Science Guidelines and 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 scientific 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 in the future.

The children will be given opportunities to work individually and co-operatively and develop a variety of ways to communicate information. They will be encouraged to regard science as an exciting and valuable part of the curriculum.

Skills

Pupils should develop the intellectual and practical skills that allow them to explore the world of science and to further develop a fuller understanding of scientific phenomena and the procedures of scientific explorations and investigations. This work should take place in the context of activities that require a progressively more systematic and quantified approach, which draws upon an increasing knowledge and understanding of science. The activities should encourage the ability to: -

- plan, hypothesise and predict
- design and carry out investigations
- interpret results and findings
- draw inferences
- communicate exploratory tasks and experiments
- to observe and measure, carefully, accurately and in detail

Planning the School Science Curriculum

The programmes of study for science are set out year-by-year for Key Stages 1 and 2. Teachers will base their planning on the programmes of study for their relevant year groups.

The Programmes of study describe a sequence of knowledge and concepts. While it is important that pupils make progress, it is vital that they develop secure understanding of each key block of knowledge and concepts in order to progress to the next stage.

Pupils should be able to describe associated processes and key characteristics in common language. They should use technical terminology accurately and precisely and build up an extended specialist vocabulary.

The science curriculum reflects the importance of spoken language in pupils' development. The quality and variety of language that pupils hear and speak are key factors in developing their scientific vocabulary and articulating scientific concepts clearly and precisely.

They should also apply their mathematical knowledge to their understanding of Science, including collecting, presenting and analysing data.

Organisation of Science Lessons

Organisation of science lessons will vary according to the age and topic that children are undertaking. Some topics lend themselves to more practical and investigative activities, whilst others may require a teacher based demonstration or factual based discussion or exercise.

Investigative work requires pupils to work on their own initiative and children will be actively encouraged to make their own decisions. Classroom equipment (where possible and appropriate) will be organised in such a way to facilitate investigative work. Pupils will become increasingly responsible for collecting, using and returning equipment to the correct place.

Foundation Stage

Children in Year R will be developing their scientific skills under the foundation stage heading of "Understanding of the World." Throughout their main topics they will carry out activities which allow them to:

- find out about and identify some features of living things, objects and events they observe
- ask questions about why things happen and how things work
- investigate objects and materials using all senses as appropriate
- observe and find out about their environment

Key Stage One

During Key Stage One pupils;

- observe, explore and ask questions about living things, materials and the world around them.
- begin to work together to collect evidence to help them answer questions, find patterns, classify and group objects, research using a variety of sources and carry out fair testing.
- Share ideas and communicate using scientific language
- Use simple diagrams, charts and tables

Key Stage Two

Children are encouraged to:

- Extend the scientific questions they ask and answer
- Carry out a range of scientific enquiries including observations over time, pattern seeking, classifying, grouping and researching
- Plan investigations changing one variable to make a fair test.

Recording

Evidence and recording of work will vary throughout the school. As the children's skills progress they will be expected to record and analyse findings in more detailed ways. They should be encouraged to present work tidily, label diagrams etc as laid out in the Marking Policy. Each child will have a book for recording science activities.

Assessment

Assessment will be made against the learning objectives of the New 2014 National Curriculum and linked to age related expectations for each year group. These are based on teacher observations through each focus area in foundation subjects and through clear formal assessment opportunities for core subjects. Assessment will be in line with the school's assessment policy and this policy should be read in conjunction with this. Progress will be measured using the scientific enquiry statements through different key stages.

Resources

The majority of science resources are kept in the resource area at the back of the ICT suite. Resources are labelled to ease access and staff are asked to return resources as soon as possible after use. Teachers requiring additional resources/consumables should inform the science coordinator in ample time so they can be ordered, particularly in the case of consumables such as batteries.

There are additional resources on the Interactive Whiteboards and as part of Collins Snap Science scheme.

Equal Opportunities, Multicultural Issues and SEN

The school aims to ensure that everyone achieves equal access; discrimination on the basis of colour, culture, origin, sex or ability is unacceptable. Learning approaches are planned with this in mind.

SEND

Children are given access to science irrespective of ability, race and gender (see Equal Opportunities Policy). Teachers are responsible for the learning of all children in the class. This may involve formulating individual learning programmes for any children with particular needs. Activities in science have characteristics which help pupils to achieve success.

- They emphasise first-hand experience;
- Knowledge and skills can be developed in small steps through practical activities;

- Science investigations can capture the imagination and so encourage participation and enthusiasm.

Provision for pupils with Special Educational Needs and Disabilities is planned in line with the Code of Practice for SEN. Tasks are differentiated and matched according to the abilities of the pupils. Additional challenge for high achieving children is provided by the class teacher. We aim to give very able pupils the opportunity to extend their scientific thinking through extension activities such as problem solving, investigative work and research of a scientific nature.

Monitoring

Science will be monitored by the co-ordinator through lesson observation , learning walks, book scrutinies and planning scrutinies.

Governors will monitor Science through the termly Learning Team meetings, annual results data, observation of lessons and study of the School Development Plan.

Health & Safety

Pupils will be taught to use scientific equipment safely when using it during practical activities. Class Teachers, Teaching Assistants and the Subject Leader will check equipment regularly and report any damage, taking defective equipment out of action. Teachers will ensure the School Policy for Health and Safety is integrated into Science teaching