

## Whinmoor St Paul's (VA) C of E Primary School

## **Science Policy**

### Every Child is a Unique Child of God

At Whinmoor St. Paul's Church of England Voluntary Aided Primary School, everything we do is underpinned at all times by the Christian ethos of valuing the individual. We believe that every child is respected as a unique child of God, the future adults in society. We believe children are gifts from God and we are privileged to work with their families and carers, to enable them to live life to the full.

Agreed: April 2022

Review Date: April 2025

Signed: Chair of Governors : Mrs R Davies

Date: 27<sup>th</sup> April 2022

### **Our Mission and Ethos**

At Whinmoor St Paul's Primary school we believe that every child is a unique child of God and lives in a world that God has made.

We aim:

- To provide a safe nurturing environment where every child can achieve his/her full potential
- To inspire a lifelong love of learning
- To value all faiths and cultures and to celebrate diversity
- To develop a sense of respect and responsibility towards self, others and the world in which we live
- To build strong relationships with the local community, our city and the wider world

And to do all this as a caring community based on strong Christian values

The Governing Body and staff of Whinmoor St Paul's Primary School take as our first priority the responsibility to safeguard and promote the welfare of our pupils, to minimise risk and to work together with other agencies to ensure rigourous arrangements are in place within our school to identify, assess, and support those children who are suffering harm and to keep them safe and secure whilst in our care

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### Rationale, Aims, Objectives and Key Staff

#### Aims and Objectives:

At Whinmoor St Paul's, we know that Science stimulates and excites pupils' wonder about phenomena and events in the world around them. We provide children with the knowledge and skills to satisfy their curiosity about the world around them. This includes questioning, experimenting, deducing and reaching conclusions and evaluating the evidence about what has happened, based on evidence. Through science, our children understand how major scientific ideas contribute to the quality of our lives – their influences on business, industry, the environment and medicine. When children are studying, we should foster their enjoyment of exploration, manipulation, comparison, argument and testing.

Science can provide the **WOW! factor** to inspire and engage active learning which children find fun and motivating.

In line with the framework of the National Curriculum, our science curriculum aims to:

- 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 science enquiries that help them to answer scientific questions about the world around them
- equip pupils with the scientific knowledge required to understand the uses and implications of science, today and for the future

#### Key Staff

The Science Leader, supported by the Head teacher, Deputy Head Teacher and phase leaders, is responsible for ensuring the quality of science provision and assessing its impact on the pupils at St. Paul's. The Science Leader and the head teacher will report on developments in the subject – and their impact - to Governors, parents and other outside agencies. Staff, where possible or available will access CPD opportunities presented in-house and by other providers to ensure practice and principles remain up-to-date and take account of the most recent policy guidance and academic research. The SENDCo will be involved in helping teachers tailor and deliver particular aspects of the policy where pupils may need more support in order to access specific part of the science curriculum. The SENDco will work with teachers to tailor all aspects of the policy to ensure that all pupils can fully engage in the Science curriculum.

#### **GENERAL GUIDANCE FOR TEACHING SCIENCE AT ST. PAUL'S**

#### Cross curricular links and spiritual, moral, social, and cultural development

- Science provides many opportunities for spiritual, moral, social and cultural development, and such
  opportunities should be identified on the short term planning format at the beginning of a unit of
  study.
- Science provides many opportunities for cross-curricular learning, particularly with English, maths, art, geography and design and technology. Such opportunities should be identified on the relevant planning documentation.
- ICT should be used as extensively as possible in science teaching, for modelling simulations, gathering subject knowledge, conducting experiments, presenting data and findings and evaluating evidence. Digital cameras and video cameras can be used to collect evidence and present findings, the internet can be used to consolidate and extend knowledge, skills and understanding, data handling packages can assist in the analysis and interpretation of data, and monitoring technology

can be used to measure and gather data for the basis of scientific experimentation. There are a variety of programs available on the server to support learning in all areas of the curriculum.

#### The scheme of work

 At St. Paul's we use Collin's Connect as our main scheme of work. This covers all aspects of National Curriculum requirements. This scheme is supplemented with other provision where appropriate.

# HOW THE SCIENCE LEADER WILL SUPPORT ALL STAFF IN THE DELIVERY OF HIGH QUALITY DAY-TO-DAY SCIENCE TEACHING

#### Update on current developments

Science education is constantly changing as new technologies emerge. The science leader will keep updated with current developments which will impact on teaching and learning. These developments will be cascaded to teaching staff through staff meetings and training opportunities.

#### Resources and safety

Investigative science teaching requires the use of a range of resources, it is a requirement of the national curriculum that pupils are taught to use these resources in a safe manner. Staff have attended CPD training directed at science enquiry and the importance of effective use of the science resources.

#### Health and safety

A copy of 'Be Safe' published by the Association for science Education will be kept centrally in the staffroom with the other science paper based guidance and documentation. This is accessible be accessible to all staff. It is the responsibility of the teacher to ensure they are aware of the safety requirements by reading the booklet. Any safety issues not documented should be referred to the science Leader for clarification.

Where work outside the classroom is to be undertaken, the appropriate risk assessments should be completed, where necessary.

#### POLICY FOR ASSESSING THE IMPACT OF SCIENCE TEACHING ON STANDARDS

Assessment for learning is continuous throughout the planning, teaching and learning cycle. However, children are more formally assessed in KS1 and in KS2 using a variety of methods:

- Through science lesson observations, which will be at an agreed time with an agreed focus, as and when required. The impact of science strategies may also be seen in observations of all other subjects, for example, in the quality of data handling in mathematics or in the quality of report writing produced in literacy.
- Through interviews/surveys conducted with groups of children in school so that the impact of strategies can be seen from their perspective.
- Through regular monitoring of short term planning, which will be assessed at least once a term
  against a set of criteria which refer to general good practice in science teaching and which will make
  explicit reference to the strategies being implemented. Where the Science Leader has concerns
  about the quality of science teaching being delivered, this formal monitoring will occur more
  regularly.
- Through interviews or questionnaires or informal feedback with staff members sought regularly by the Science Leader about the impact of strategies that have been implemented.
- End of unit assessment tests or assessments

 Through detailed auditing and analysis of all aspects of children's work (both that associated with science, and that with other subjects where there is a science component), homework and teachers' feedback about this work.

#### How the Head teacher will monitor and assess the impact of science strategies

The Science Leader will take responsibility for giving the headteacher feedback about the impact of science strategies from the wealth of evidence collected in the ways mentioned above. The headteacher will also be responsible for collecting some data about science as part of the pupil progress aspect of Performance Management. Where strategies are not having the impact intended, either on the school as a whole, or in a particular class, the subject leader(s) will seek further advice or support from the headteacher.

#### How the Governors will monitor and assess the impact of science strategies

When necessary, or when requested, the headteacher will provide feedback to the Governors in the head teacher's thrice yearly report to Governors. The Governors may also seek further information from the science subject leader if this is deemed necessary. External advisors and science consultants will support the Head teacher with the monitoring of good practice through observations and effective feedback to staff.

#### **Inclusion/ Equal Opportunities**

In line with the school's inclusion policy we will continuously strive to ensure that everyone in our school is treated with respect and dignity. Everyone will be given fair and equal opportunities to develop their full potential with positive regard to ethnicity, gender, cultural background or disability.

We have a clear duty under the Equality Act 2010 to ensure that our teaching is accessible to all pupils. Inclusive PSHE will foster good relations between pupils, tackle all types of prejudice, promote understanding and respect, enabling us to meet the requirements, and live the intended spirit, of the Equality Act 2010.