



# Preesall Fleetwood's Charity CE School

## Science Policy

### Our School Vision Statement

*'You are the light of the world. A school built on a hill cannot be hidden.'*  
*Matthew 5:14 (adapted)*

We will do our best, be kind, share ourselves with our community and shine from our hill, out into the world. At Fleetwood's Charity, we create a happy caring environment based on Christian Values, where we value every child and encourage them to strive for their highest standards of achievement. We ensure that our young people go into the world as confident, independent, responsible citizens with a love for learning.

Our Vision Statement pays homage to our belief that there is something potentially wonderful in each individual, and that this is something to be proud of and share with others.

# **Science Policy**

## **Introduction**

At Preesall Fleetwood's Charity School science stimulates and excites pupil's curiosity about events in the world around them. Since science links direct practical experience with ideas, it can engage learners at many levels. Scientific method is about developing and evaluating explanations through experimental evidence and modelling.

## **Definition of Science**

Science is about children developing a sense of enquiry and extending their knowledge and understanding of the world around them. It includes knowledge about living things, materials, energy and the solar system. Science is concerned with investigation and children using their investigations and knowledge to understand how the world is constructed. Throughout the school, the children will be developing scientific skills that will lead to their work as scientists, planning and undertaking scientific investigations. The main aspects of the science the pupils will learn at our school is determined by the programmes of study of the National Curriculum 2014.

## **Intent**

- to develop pupils' enjoyment and interest in science and an appreciation of its contribution to all aspects of everyday life
- to build on pupils' curiosity and sense of awe of the natural world
- to use a planned range of investigations and practical activities to give pupils a greater understanding of the concepts and knowledge of science
- to introduce pupils to the language and vocabulary of science
- to develop pupils' basic practical skills and their ability to make accurate and appropriate measurements
- to extend the learning environment for our pupils via our environmental areas and the locality
- to promote a 'healthy lifestyle' in our pupils.

## **Implementation**

### **Science in EYFS**

Play underpins the delivery of all the EYFS. In playing, children behave in different ways: sometimes within their play, they may describe and discuss what they are doing and sometimes they may be more reflective and quiet as they play. Within a secure and challenging environment with effective support, children can explore, develop and experiment as they play to help them make sense of the world. The EYFS strand 'Understanding the World' leads directly to scientific elements of the curriculum and leads to more formalised Science learning in KS1 and then KS2.

### **KS1 and KS2**

Pupils in Key Stage 1 will be introduced to science through focused observations and explorations of the world around them. These will be further developed through supportive investigations into more independent work at Key Stage 2. The knowledge and content prescribed in the National Curriculum will be introduced throughout both key stages in a progressive and coherent way using the Lancashire Plans to ensure full coverage of science across both Key Stages.

### **Teaching and Learning Style**

Within our school, Science is taught by individual class teachers, and takes place within the classroom or in our outdoor area. A variety of teaching methods are employed as appropriate, and science regularly involves the children in practical work through small group activities/whole class activities. Teaching methods are wide ranging and include whole class teaching, experimental learning, discovery methods, problem solving, open ended investigations, or a mixture of these.

Through employing a variety of teaching methods we hope to teach the children good practice and increase their scientific knowledge. We are currently focusing on the key learning and skills from the topics we follow from Lancashire plans but are also using KLIPS to ensure appropriate coverage and we can then pass this on to the next teacher which will close any gaps from us having split year groups.

### **Continuity and Progression**

Foundation Stage pupils investigate science as part of Understanding of the World. Children are encouraged to investigate through practical experience; teachers guide the children and plan opportunities that allow the children to experience and learn whilst experimenting for themselves. By careful planning, pupils' scientific skills and knowledge gained at Key Stage 1 will be consolidated and developed during Key Stage 2.

## **Cross-curricular links**

Science is a subject that can easily be linked with other National Curriculum subjects. The Lancashire plans support the class teachers in teaching subjects in a cross-curricular manner and it is primarily the class teachers' discretion on what topics link best with other subjects.

Maths; Science links closely with maths by providing the opportunity to practise and hone skills and knowledge gained from the other. Children have the opportunity to work with data and draw charts and graphs. Science provides the opportunity to practise a variety of maths skills with an engaging context.

Literacy; Science supports the teaching of Literacy by encouraging children to write about what they are going to do and what they have done. They also have opportunities to write instructions, what they will need and also evaluate what went well, this links closely with non-fiction writing.

PSHE; Children in our school are encouraged to evaluate their work with what went well and what they could improve for next time. This is an important part of becoming a confident individual, being able to reflect on their work and willing to make improvements.

Computing; Science links closely with computing by enabling children to collect data and research what they are enquiring about. We also use the internet to watch lots of clips which link closely to our work, this is a crucial part of learning for the children, being able to watch/visualise what they are learning about.

PE; Throughout our school children are made aware of the importance of looking after our body as well as completing experiments on our body/ with food. By linking Science and PE children have the opportunity to learn how to keep our body healthy as well as putting this into practise and feeling the benefits of exercise.

## **Spiritual, Moral, Cultural and Social Development**

We promote SMCS through:

- Encouraging pupils to reflect on the wonder of the natural world that God created
- Awareness of the ways that science and technology can affect society and the environment;
- Consideration of the moral dilemmas that can result in scientific developments;
- Showing respect for differing opinions, on creation for example;
- Co-operation in practical activity;
- Raising awareness that scientific developments are the product of many different cultures.

## **Planning**

All classes (apart from the Foundation Stage) are following the Lancashire cross curricular planning units. These incorporate all the key learning and skills from the Science National Curriculum.

The topics in Science are planned so that they build upon prior learning. We ensure that there are opportunities for children of all abilities to develop their skills and knowledge in each unit. Re-visiting, reinforcement and extension of learning is also built into the Science scheme of work, so that children are increasingly challenged as they move up through the school.

## **Health and safety**

Pupils will be taught to use scientific equipment safely when using it during practical activities. Class Teachers and Teaching Assistants will check equipment regularly and report any damage, taking defective equipment out of action. Children are encouraged to consider their own safety and the safety of others at all times. Teachers will provide a safe and secure environment for children to learn. Any experiments or trips which are considered a particular risk will need a Risk Assessment Form to be completed prior to the activity.

## **Impact**

Throughout the school teachers will assess whether children are working at/above or below the expected level for their age based on their understanding and application of the content of the National Curriculum 2014. Progress and attainment is reported to parents through parents' evenings and end of year reports. We use Scrap books throughout school to evidence and record learning as well as in specific Science/Topic exercise books.

## **Recording and Reporting**

The way in which Science is recorded will vary across the school depending on age and ability. Teachers should ensure that a range of appropriate methods are used. These may include:

- Written accounts including: instructions, reports and explanations
- Diagrams, drawings and pictures
- Annotated diagrams
- Spreadsheets (data collection)
- Charts, graphs and tables
- Model making

Although most Science will follow a pattern of 'Question, Prediction, Method, Results, Evaluate' - it is important to remember that the most valuable time is spent engaging in practical Science which allows children to understand a concept, rather than recording it.

### **Role of the subject Leader**

The Science subject leader is Miss Moore.

The Subject Leader is responsible for improving standards of teaching and learning in Science through:

- Monitoring and evaluating Science through school
- Provision of the Science curriculum
- Maintaining the availability of high quality resources
- Maintaining an overview of current trends and developments within the subject
- Identifying professional development needs of staff and planning CPD

The Subject Leader will report to the link Governor twice a year and report to the Curriculum and Standards sub-committee as required.

**Date of policy: 4/5/20**

**Date of Review: 4/5/23**