

**Darwen St James'**  
C of E Primary Academy



**SCIENCE POLICY 2021-22**

## **Mission**

Nurturing ambition through a living faith.

## **Vision**

Our academy delivers a purposeful curriculum through its living Christian faith. We nurture ambition in all our learners in order for them to become positive citizens of tomorrow.

## **Bible**

Let us not love with words or speech alone but with actions or truth. John 3:18.

## **Introduction**

At Darwen St James we teach Science to all EYFS, key stage 1 and key stage 2 children as part of the normal school curriculum. The school uses the Kent Primary Science Scheme as a framework for planning.

## **Aims and Objectives**

Science teaches an understanding of natural phenomena. It aims to stimulate a child's curiosity in finding out why things happen in the way they do. It teaches methods of enquiry and investigation to stimulate creative thought. Children learn to ask scientific questions and begin to appreciate the way science will affect their future on a personal, national, and global level.

The aims of science are to enable children at Darwen St James' C of E Primary School to:

- Ask and answer scientific questions.
- Plan and carry out scientific investigations, using equipment, including computers, correctly.
- Know and understand the life processes of living things.
- Know and understand the physical processes of materials, electricity, light, sound and natural forces.
- Know about the nature of the solar system, including the earth.
- Evaluate evidence and present their conclusions clearly and accurately.

## **Achieving and maintaining high standards**

At Darwen St James' C of E Primary School we use a variety of teaching and learning styles in science lessons. Our principal aim is to develop children's knowledge, skills, and understanding. Sometimes we do this through whole-class teaching, while at other times we engage the children in an enquiry-based research activity. We encourage the children to ask, as well as answer scientific questions. They have the opportunity to use a variety of data, such as statistics, graphs, pictures, and photographs. They use ICT in science lessons where it enhances their learning. They take part in role-play and discussions and they present reports to the rest of the class. They engage in a wide variety of problem-solving activities.

Wherever possible, we involve the pupils in 'real' scientific activities, for example, researching a local environmental problem or carrying out a practical experiment and analysing the results.

### **Planning**

At Darwen St James' C of E Primary School we use the Kent scheme of work for science as the basis of its curriculum planning. Each unit contains information and advice required for teachers to provide excellent learning opportunities for their children:

- Clear learning expectations
- Engaging activities to enable the learning to happen
- Advice for each activity as to the type of recording the children could do
- Resources required
- Preparation required
- Key vocabulary
- Background science knowledge for teachers
- Information on key scientists who have worked in the different areas of science
- Assessment grids for each of the units
- Methods to hook children into their learning
- Website links
- Very clear and plentiful examples of how children will be able to address 'working scientifically' through practical learning.

The class teacher is responsible for writing the daily lesson plans for each lesson (short-term plans). These plans list the specific learning objectives of each lesson. The topics in science build upon prior learning. We ensure that there are opportunities for children of all abilities to develop their skills and knowledge in each unit and we also build progression into the science scheme of work, so that the children are increasingly challenged as they move up through the school.

We teach science in reception classes as an integral part of the topic work covered during the year. As the reception class is part of the Foundation Stage of the National Curriculum, we relate the scientific aspects of the children's work to the objectives set out in the Early Learning Goals (ELGs) which underpin the curriculum planning for children aged three to five. Science makes a significant contribution to the objective in the ELGs of developing a child's knowledge and understanding of the world, e.g. through investigating what floats and what sinks when placed in water.

### **Teaching Science to Children with Special Educational Needs**

Where necessary, adaptations will be made to the curriculum, to equipment and resources to allow access to Science for pupils with SEN, including provision for pupils that are extremely able in Science.

### **Assessment, Recording and Reporting**

At Darwen St James' C of E Primary School we assess children's work in science by making informal judgements as we observe them during lessons. On completion of a piece of work, the teacher marks the work and comments as necessary. Children's

progress is also recorded on Target tracker on a regular basis to monitor learning throughout the year. Parents are also informed of their child's progress in the reports throughout the year.

The science subject leader keeps samples of children's work and assessments in a portfolio and uses these to demonstrate what the expected level of achievement is in science for each age group in the school and to ascertain current levels of attainment in each year group.

### **Tracking and Monitoring**

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. The science subject leader will write regular reports in which s/he evaluates strengths and weaknesses in the subject and indicates areas for further improvement. The science subject leader has specially-allocated time for fulfilling the vital task of reviewing samples of children's work and visiting classes to observe teaching in the subject.

**Updated September 2021**

**Mrs Davis**