DARWEN ST JAMES



Nurturing Ambition Through a Living Faith

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 and truth." — 1 John 3:18

Introduction

At Darwen St James' Academy, we teach science to all EYFS, Key Stage 1 and Key Stage 2 children as part of the core school curriculum. The school uses the Kapow Primary Science scheme as a framework for curriculum planning and delivery alongside the EYFS framework.

Aims and Objectives

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

The aims of science are to enable children at Darwen St James' Academy to:

- Ask and answer scientific questions.
- Plan and carry out scientific investigations accurately, using a range of equipment, including digital technology.
- Know and understand the life processes of living things.
- Know and understand the properties and changes of materials, states of matter, electricity, light, sound and forces.
- Know about the nature of the solar system, including Earth.
- Evaluate evidence and present conclusions clearly, accurately and scientifically.

Achieving and Maintaining High Standards

At Darwen St James' Academy, we use a variety of teaching and learning styles in science lessons. Our primary aim is to develop children's scientific knowledge, skills and understanding. Sometimes we achieve this through whole-class teaching, while at other times we engage pupils in enquiry-based research activities. We encourage children to ask, as well as answer, scientific questions.

Pupils have the opportunity to evaluate a variety of data, including statistics, graphs, diagrams and photographs. They use ICT in science lessons where it directly enhances their learning. Children take part in role-play, structured discussions and presenting reports to their peers. They engage in a wide variety of problem-solving activities. Wherever possible, we involve pupils in 'real-world' scientific enquiries, such as investigating a local environmental issue or carrying out practical experiments and analysing the results.

Planning

At Darwen St James' Academy, we use the Kapow scheme of work for science as the foundation of our curriculum. Each unit contains the necessary information and guidance to provide high-quality learning opportunities for all children. These include:

- Clear learning expectations and objectives.
- Engaging activities to enable meaningful learning to take place.
- Advice for each activity regarding how children will record their learning.
- Required resources and necessary preparation.
- Key scientific vocabulary.
- Subject knowledge guidance for teachers.
- Information on key scientists who have contributed to different areas of science.
- Assessment tasks for every unit.
- 'Explore, engage and extend' hooks to inspire interest.
- Recommended digital links and learning resources.
- Clear models demonstrating how children can 'work scientifically' through practical learning.

Class teachers are responsible for adapting daily lesson plans to meet the specific learning needs of their pupils. These plans detail the specific learning objectives for each session.

Each topic in science builds upon prior learning, ensuring ample opportunity for children of all abilities to develop their scientific skills and conceptual understanding. Progression is embedded throughout the science scheme of work, ensuring children are increasingly challenged as they move through the school.

In EYFS, science is taught as an integral part of topic work covered throughout the year. We relate the scientific aspects of the children's work to the Early Learning Goals set out in the EYFS framework (specifically *Understanding the World*), which underpins planning for children aged three to five (e.g. investigating floating and sinking).

In Key Stage 1 and Key Stage 2, children's work is recorded in individual science books.

Teaching Science to Children with Special Educational Needs and Disabilities (SEND)

Where necessary, adaptations are made to the curriculum, equipment and resources to ensure full access to science for pupils with SEND, alongside appropriate enrichment and extension for pupils who excel in the subject.

Assessment, Recording and Reporting

At Darwen St James' Academy, we assess children's progress in science through ongoing formative judgements made during observations, questioning and learning tasks. On completion of a task, teachers mark and provide feedback in line with the school's marking policy. Parents are kept informed of their child's achievement and progress through regular academic reports throughout the year.

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 across the school. The subject leader supports colleagues in their teaching, stays informed about current developments in primary science, and provides strategic direction for the subject. The subject leader regularly writes evaluative reports detailing subject strengths, areas for development, and strategic action plans for ongoing improvement.