



Dallimore Primary & Nursery School

Science Policy

Introduction

Dallimore Primary and Nursery School seeks to provide broad, rich and well-sequenced science teaching. The children are encouraged to explore and discover, so that they build their knowledge and understanding of the increasingly scientific and technological world we live in. To achieve this, it involves exciting, practical, hands-on experiences that promote curiosity, discussion and questioning, which can be shared with friends and family.

At Dallimore Science is **ACTIVE**.

Active – be as practical as possible with lots of discussion and questions.

Challenging – get us all wondering and thinking more deeply about the world.

Team Building – to learn with our friends and family.

Investigative - allow children to wonder about what might happen if... and then develop methods to test their ideas.

Vocal – make us want to talk about the knowledge or concepts we've learnt.

Exciting – fun, memorable & sometimes messy! Involve experts who come into school or visits to engage our children.

Aims

- To embed key concepts through a balance of substantive and disciplinary knowledge using strategies to help children memorise facts.
- To develop understanding of the nature, processes and methods of science through hands-on scientific enquiry; which progresses in its complexity through the year groups.
- To equip children with the components and composites of scientific knowledge required to understand the uses and implications of science today and for the future.
- To build up specialist vocabulary.
- To use initiative and perseverance when tackling problems, exploring new materials, objects and situations
- To give children an understanding that science has both beneficial and harmful effects on our society and that there are social and moral

implications to science by nurturing a questioning atmosphere through discussion and debate.

- To develop in the children a caring and sensitive attitude towards living things and the environment: incorporate environmental issues sensitively as they arise in the news.
- To encourage children to work co-operatively, and to take an interest in and gain pleasure from scientific enquiry-based activities.

Coverage of the National Curriculum and Assessment

Wherever possible KS1 has adopted a cross-curricular topic-based approach to teaching science. In KS2 science is taught as a separate topic, but links to other subjects when possible. The children will be working scientifically within these topics. The National Curriculum has been used to create long term plans in our 'Dallimore Curriculum' to ensure full coverage of objectives over 2 year cycles.

Short term planning is done with WALT titles providing clear objectives. Assessment is ongoing and informs planning. Objectives met by the children are highlighted on a grid after each topic. This record follows the pupils through the school, allowing teachers in Y2 and Y6 to make the statutory assessments.

At the end of every term, attainment is recorded on iTRACK for each pupil and to show whether their scientific knowledge/skills for the topics covered are commencing, developing, secure, advanced or deep. Any areas that are not secure will be retaught by the end of the year. The 'Working scientifically' column will be updated every term. This is used to help input an overall data entry at the end of the year.

The Foundation Stage will follow the Foundation Stage Profile.

Teaching and learning skills

The aim of our teaching is, where possible, to base it on first-hand experience and scientific enquiry, so the children will be:

-observing, pattern seeking, identifying, classifying, grouping, comparing, testing, questioning, collecting data, analysing and presenting data.

In experimental work teachers will lead and guide a great deal during the early years and aim to withdraw more as the children develop their skills and knowledge, so allowing children to take the lead in planning and conducting experiments, becoming independent learners.

Written work is recorded in the pupils' Topic books in KS1 and Science books in KS2.

Safety in Science

In order to avoid hazards which may occur during practical scientific tasks these steps are followed:

- Science is taught in a structured way
- Teachers make themselves aware of potential hazards by referring to the CLEAPSS website
- The attention of pupils drawn to potential hazards
- Pupils are instructed in ways of working safely
- Pupils are taught to act in a responsible manner

Resources

The science co-ordinators identify needs in discussion with other staff.
All resources are regularly monitored by the science co-ordinators and stored in clearly-labelled boxes in the KS2 corridor.

Science Capital

We realise at Dallimore that how a child engages with science is not only based on what they know but also on people they may know with a science interest plus experiences they have had which build their ideas, opinions and knowledge of science. We aim to build their Science Capital by providing experiences through visitors, visits and topical discussions.

Reviewed – February 2020
Review date – February 2023