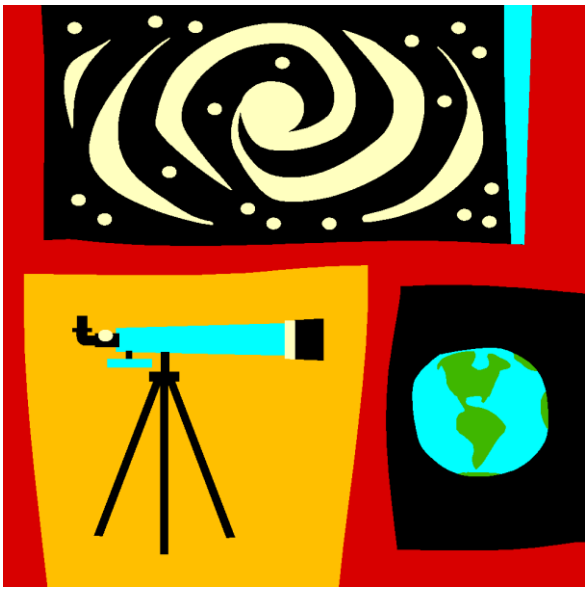
Morland Area C. of E. Primary School

Science Policy



Visions and Aims of Science at Morland Area CE School

Science is an exciting and dynamic subject that engages the children's curiosity about the world around them. At Morland we aim to reflect this through a practical and investigate approach to teaching and learning. Science learning is effective at our school because our children are curious and excited to explore the world around us.

Science is one of the core subjects in the National Curriculum. This policy outlines the purpose, nature and management of the Science taught in our school.

Written: 24/06/2021
Revised: 1.12.2023

Introduction

Our rationale for teaching Science:
Science is a body of knowledge built up through experimental testing of ideas. Science is also methodology, a practical way of finding reliable answers to questions we may ask about the world around us. Science in our school is about developing children's ideas and ways of working that enable them to make sense of the world in which they live through investigation, as well as using and applying process skills.

Our aims in teaching science include the following:

- Preparing our children for life in an increasingly scientific and technological world, introducing them to Science Capital so they believe they can have a role in a STEM role or establishment.
- Fostering concern about, and active care for, our environment.
- Helping our children acquire a growing understanding of scientific ideas.
- Helping develop and extend our children's scientific concept of their world.
- Developing our children's understanding of the international and collaborative nature of science.

Attitudes

- Encouraging the development of positive attitudes to science.
- Building on our children's natural curiosity and developing a scientific approach to problems.
- Encouraging open-mindedness, self-assessment, perseverance and responsibility.
- Building our children's self-confidence to enable them to work independently.
- Developing our children's social skills to work cooperatively with others.
- Providing our children with an enjoyable experience of science, so that they will develop a deep and lasting interest and may be motivated to study science further.

Skills

- Giving our children an understanding of scientific processes.
- Helping our children to acquire practical scientific skills.
- Developing the skills of investigation - including observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Developing the use of scientific language, recording and techniques.
- Developing the use of ICT in investigating and recording.
- Enabling our children to become effective communicators of scientific ideas, facts and data.

Implementation and teaching

The school has a statutory responsibility to cover all the programmes of study for Key Stages 1 and 2. Science is taught in blocks according to the Long Term Plans which are based on the New National Curriculum for 2014. Science is divided into topics and these are taught throug key areas: Biology, Chemistry, Physics and Scientific Enquiry.
Children in all classes will be taught discrete Science lessons and children make links between Science and other subjects where appropriate especially between the STEM subjects. Children will use ICT and computing skills within their Science lessons where it will support their work.

Quality first Teaching and adaptive teaching for inclusion

Activities should be planned in such a way as to encourage full and active participation by all children irrespective of ability. We believe that every learner is entitled to the full range of activities and that these are relevant to all children irrespective to their gender, age, ethnic background or disability.

To allow for inclusion, we cater for different ages and abilities, including those with specific learning difficulties or who need to be challenged through:

· ways of recording and presenting
· year group interest
· different tasks
· extensions
· rotating ability groups
· External enrichment opportunities e.g. through the enrichment network

Assessment of Pupils and Record Keeping

Assessments are made over a period of time and are based on the evidence of more than one activity. Teachers should use formative assessment throughout the teaching of the various topics so as to inform their planning and cater for time to rectify any identified misconceptions. Books will be marked in accordance with school policy, using the star, wish and pupil response boxes.
CUSP mini quizzes and the use of other assessment such as TAPs assessments and KWL sheets at the end of topics help teachers to assess children's learning and therefore feed this back into their planning. Pupils in year 6 will be assessed by the teacher throughout the year. Within each topic there are a number of investigations that the children take part in and the progression of these can be seen by SL during book looks and subject monitoring.

Three times a year assessment is inputted into the school tracking system – scholar pack. Parents will receive a written report and attainment level at the end of the year. Feedback of progress is also given during parents evening in the autumn and spring terms.

Progression

Continuity and progression is planned within the Long Term Plans using CUSP and PLAN to help inform planning. We consider the acquisition of process skills is developmental throughout the school. Progression of investigation skills can be seen through the standardised frameworks for investigation in the Science-co-ordinators file.

Resources

Topic based resource boxes are labelled and stored in the resource cupboards. Other age specific resources may be based in individual classrooms although these should be shared when needed. The classroom itself should be a stimulating working environment, with displays that will promote quality, enjoyment, interest, enquiry and creativity in Science.

Staff roles and responsibilities

All teachers of Science are responsible for monitoring and evaluating science in the curriculum. Teachers are responsible for ensuring each child has access and experiences of science. The co-ordinator will be available to help staff with ideas for the planning of their teaching.

Monitoring and Evaluating

The development of Science is monitored by the co-ordinator working alongside the class teacher, monitoring and assessing coverage and observing displays. It is the role of the Science co-ordinator and Science Governor (Mr Phil Thornton) to monitor Science throughout the school and assess implementation of the Science policy and action plan.

Health and safety

All staff and children will be made aware of the relevance to Health and Safety Policy when undertaking work in science.

Equality Impact Statement.
Following discussion, we consider that this policy has the potential to have a positive impact on equality for pupils. For SRE see separate policy.

Policy ratified by Governors on

Signed: _____

Policy to be reviewed 24/06/2023