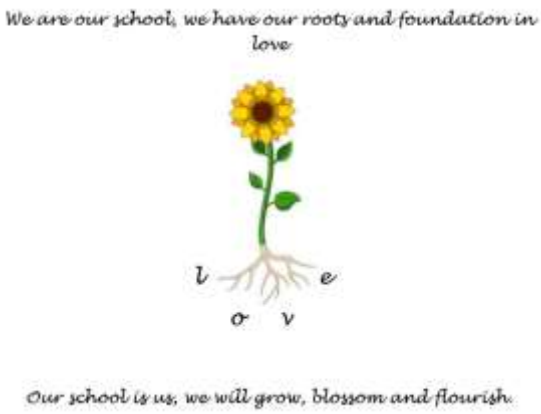
Policy For Science At North Stainley C.E. Primary School



Rooted and Grounded in Love

'Let your roots grow down into him, and let your lives be built on him.'
Colossians 2:7

The principal aim of Science at North Stainley C.E Primary School is to nurture our pupils' natural curiosity and interest of everything in our world. It should provide the children with opportunities to ask questions and develop skills to find the answers to these questions. Through this our pupils will investigate problems, learn how Science works, and discover why Science matters in the world. Through their love of Science, our pupils will develop an understanding of and respect for the natural world.

Aims of Science in our school

The principal aim incorporates the following aims of Science in our school:

- To develop our pupils' enjoyment and interest in Science and an appreciation of its contribution to all aspects of everyday life.
- To provide opportunities for our pupils to build on their curiosity and a sense of awe of the natural world.
- To develop our pupils' scientific knowledge and conceptual understanding and to provide them with the language and vocabulary of Science to be able to explain their understanding to others.

- To develop our pupils' understanding of the processes and methods of science through providing opportunities to carry out different types of scientific enquiries will help them to answer questions about the world around them.
- To equip our pupils with the scientific knowledge required to understand the uses and implications of science, from the past, today and for the future.

Science Curriculum Planning:

Key Stage 1 and 2

The Science Curriculum at North Stainley C.E. Primary School is based on the National Curriculum 2014. The curriculum follows a two year rolling programme (see Science and Design Technology document). Science can be taught in discrete lessons or as part of cross-curricular themes when appropriate. It may also be blocked as part of a mini topic to ensure continuity and coverage.
The programmes of study describe a sequence of knowledge, concepts and skills. While it is important that pupils make progress, it is also vitally important that they develop secure understanding of each key block of knowledge and concepts in order to progress to the next stage. The key knowledge for a science topic is displayed on a knowledge organiser, and this can be used as a learning tool by the children.

Foundation Stage

At our school the Reception Year is taught as part of a mixed aged KS1 class and so will follow the topic areas covered by the KS1 rolling programme. As the Reception Year is part of the Foundation Stage of the National Curriculum the scientific aspects of the children's work is focused on 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,

Progression and Differentiation

Activities are planned to allow children to develop key knowledge, concepts and skills and to progress according to their ability. Activities within classes are matched to specific ability groups.
Opportunities are planned for open investigations that allow for differentiation by outcome. Children are presented with a range of activities.

Assessment For Learning

Assessment for learning is continuous throughout the planning, teaching and learning cycle. We focus on assessing one topic at a time, and assess children's work in science by making judgments as we observe the children during lessons. This is done through questioning, talk and listening to children, as well as reviewing their written work.
Each half term the class teacher will assess each child against the learning objectives set out in the National Curriculum. The assessment in Science is based upon the child's scientific knowledge, understanding and skills (working scientifically). In the Foundation Stage the class teacher assesses the children's knowledge and understanding according to the EYFS Early Learning Goals.
At the end of each year the class teacher will make a formal comment on each pupil's progress in science on their end of year report.

Responsibilities of the Subject Leader

- Monitor the effectiveness of Science teaching and learning by means of lesson observation, pupil interviews, learning walks, sampling children's work and overseeing assessment
- Provide feedback to teaching staff and the headteacher
- Periodically update the whole school planning overview (in consultation with all teaching staff) to ensure it remains relevant and appropriate.
- Attend subject leader network meetings and disseminate new information
- Support teachers in planning and delivering the curriculum
- Manage the resources for teaching Science
- Report to the Curriculum Committee of the Governing Body as requested.

Resourcing

Resources are organised into topic areas and stored centrally so that all staff can access them.

Equal Opportunities:
All children have equal access to the science curriculum and its associated practical activities. All staff are responsible for ensuring that all children, irrespective of gender, learning ability, physical disability, ethnicity and social circumstances, have access to the whole curriculum and make the greatest possible progress. Where appropriate, work will be adapted to meet pupils' needs and extra support given if needed. More able pupils will be given suitably challenging activities. Gender and cultural differences will be reflected positively in the teaching materials used.

Health and Safety

- A risk assessment will be made, as part of the planning process, before any potentially dangerous scientific activity is undertaken.

- Children will be informed of any risks or hazards but will also be encouraged to assess and identify risks for themselves.

- Children will be shown how to use scientific equipment safely.

- Safety glasses will be used where appropriate.

Review
This science policy will be reviewed by the science curriculum leader.
Date for next review of this document: April 2023