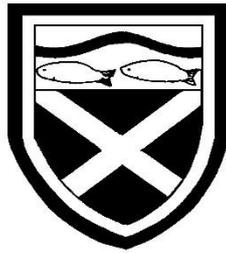


St. Andrew's C E Primary School



Science Policy

Summer 2022

Next Review: Summer 2023

St. Andrew's CE Primary School

Every Child A Champion in Their Own Right. Matthew 5.16 - "Let Your Light Shine."

Science Policy

The main aspects of science to be studied will be determined by the programmes of study of the National Curriculum 2014. This will be taught in the context of our school long-term plan and will operate on a one-year cycle.

Aims:

- To develop scientific knowledge and understanding.
- To develop scientific enquiry skills.
- For children to be confident using scientific language.
- Encourage children to ask questions about the world around them and seek to find answers.
- To be able to record their findings and explain their results.
- To make use of English, Reading, Maths and Computing skills within Science lessons.
- Develop children's enjoyment and interest in science and to build on their curiosity of the natural world.

Role of the Science Co-ordinator:

The designated science co-ordinator is Kelly Smith, who is assisted by a science team. The co-ordinator and team are overseen by Sarah Dibnah (Assistant Head). It is the responsibility of the co-ordinator to:

- Evaluate the success of the school's science.
- Inform planning, monitoring, teaching and evaluation.
- Co-ordinate the assessment of children.
- Provide support for colleagues.
- Manage science resources.
- Plan for the replenishment of resources.
- Consider training implications.

Monitoring and Evaluation:

The science co-ordinator, in conjunction with the senior leadership team, is responsible for the monitoring and evaluation of science standards and provision within the school.

The science subject co-ordinator maintains a portfolio of evidence from monitoring and evaluation activities, this informs future actions.

Our monitoring procedures include:

- Work, planning and assessment scrutiny.

- Lesson observations.

Governors:

Governors are supplied with key findings (data) and the science governor maintains regular contact with the science co-ordinator. Link governors carry out a meeting with the subject leader. A yearly report, compiled by the science co-ordinator is sent to the science governor.

Assessment, Marking and Feedback:

A child's standard will be decided based on the evidence in their science book and the scores they achieve on the end of half-term tests. Children will be given the opportunity throughout the year to carry out scientific enquiries, in order for their working scientifically skills to be assessed and tracked. Teachers assess whether children are working at, above or below the expected standard for their age (Bronze, Silver or Gold) based on understanding and application of the content of the National Curriculum 2014. The child's standard at the start of the year and their individual target is also displayed at the front of their science book. Objectives achieved during lessons are tracked by each class teacher using our online assessment system (O Track).

Throughout the Early Years Foundation Stage, children are taught science as part of 'People and Communities', 'The World' and 'Technology'. Cross-curricular opportunities are planned with specific reference to areas of learning and outdoor provision.

Progress and attainment is reported to parents through parents' open days, end of year pupil reports and assessment slips that are sent home with the children.

Inclusion (please refer also to the School's Inclusion Policy)

- Inclusion is about every child having educational needs that are special and the school meeting these diverse needs, in order to ensure the active participation and progress of all children in their learning.
- Successful inclusive provision is the responsibility of the whole school community, permeating all aspects of school life and applicable to all our pupils.
- Inclusive practice in science should enable all children to achieve their best possible standard; whatever their ability, and irrespective of gender, ethnic, social or cultural background, home language or any other aspect that could affect their participation in, or progress in their learning.

Strategies for Supporting Disadvantaged Pupils:

A variety of strategies will be implemented to support the disadvantaged pupil, such as:

- Differentiated activities. Some of which involves less written work.
- Differentiated investigation questions.
- A practical approach to science teaching.
- Mixed ability groups for investigating.
- Use of resources to aid learning.
- ICT to be used to support children's learning.

More Able Pupils

As with special education needs, the constant monitoring of children's progress throughout the school will highlight children who are particularly able in science and who will be aiming for Gold (exceeding expectations for their year group). Class teachers will address the needs of these children in their classroom by careful grouping of children and setting open-ended investigational work which a child can develop as far as their abilities allow. Teachers also include 'Gold Objectives' each science lesson to challenge these children. We will ensure that they are given the opportunity to develop and extend their abilities to their full potential. The science co-ordinator ensures that more able children with a Gold target are being challenged by Gold objectives.

Strategies for Supporting Higher Ability Pupils:

A variety of strategies will be implemented to support the higher ability pupil:

- Differentiated objectives and activities which include Gold objectives to offer challenge.
- The application of skills used in other curriculum areas.
- Children are encouraged to devise their own questions and to decide on variable to test.
- The use of independent learning in lessons.
- Greater accuracy to be encouraged when using resources.
- ICT to be used to extend and challenge children's learning.
- Children to assess their own learning.

Cross Curricular Issues:

Science has an influence and relevance in almost every curriculum subject, particularly Maths, English and Computing. Links to the curriculum are highlighted in the teachers' short-term planning.

In addition to regular science sessions, teachers try to make as many cross curricular links as possible in order to utilise their skills in a range of contexts.

The key skills to be promoted include the application of number through primary and secondary data collection. There will also be an amount of problem solving, through finding ways to answer scientific questions with creative solutions. Children will be expected to communicate their ideas and opinions, as well as being able to work with others. They will be expected to improve on and learn from their own investigations. The children's spiritual, moral, social and cultural development will also be enhanced through the science curriculum and breadth of study.

Environmental Awareness:

As a school, we actively encourage children to be aware of environmental and green issues. Through the Science National Curriculum objectives and with links to geography, we include lessons to develop our pupils' understanding. We have held Environment Days to raise

awareness of environmental issues and how children can help. Regular TWEET (Together We'll End Environmental Tragedy.)

Wider Community:

We have a commitment to developing links with the community outside school. Home-school links are developed through Science days to promote the parents' understanding of the subject. Parents also have access to examples of children's work, science objectives and posts about science events on the school's website. Science homework is sent out on a regular basis.

Staff Development:

The development of staff skills and of science teaching is included in the school's development plan. Regular in-house training sessions and workshops are arranged as necessary to inform and inspire staff (both teachers and teaching assistants). The science team will also attend CPD courses as the opportunities arise, which will then be fed back to the rest of the staff.

Resources:

All science resources are kept in K Smith's classroom. The gardening equipment is stored in a cupboard outside. The resources are updated and replaced by the co-ordinator as required.

The Science Garden, growing areas and nature area are natural resources to be used for science teaching as well as to promote cross-curricular activities.

ICT:

ICT is an important feature in the teaching of science. ICT can be used at varying levels and for the development of different skills, such as presenting the results of an investigation using graphs, tables and spreadsheets. The internet will also be a key factor in developing children's knowledge as well as the use of video clips. The school has a number of I Pads available to use for recording explanations, research, labelling photographs and taking part in interactive quizzes to give a few examples. Data logging equipment is also available.

Health and Safety:

Pupils are taught to use scientific equipment safely in lessons. Class teachers, teaching assistants and the science co-ordinator will check equipment regularly and replace resources as necessary. The class teacher will carry out any risk assessments when it is needed and perceived hazards/risks will be reported to the science co-ordinator or the Head, who will determine the appropriateness of the activity. A copy of the ASE book 'Be Safe. Is available for staff to refer to and is kept with the science equipment.

Equality of Opportunity:

All children have equal access to the science curriculum and its associated practical activities. The Senior Leadership Team, Class Teachers and TAs at St. Andrew's CE Primary School 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. All children have an equal access to the science curriculum, its teaching and learning, throughout any one year. This is being monitored by analysing pupil performance throughout the school to ensure that there is no disparity between groups.

Every Child Matters:

This policy should be read in conjunction with Every Child Matters Policy.

At St. Andrew's we strive to ensure all children are able to:

- ▣ Be healthy
- ▣ Stay safe
- ▣ Achieve economic well-being
- ▣ Make a positive contribution
- ▣ Enjoy and achieve

The teaching at St. Andrew's incorporates these 5 key areas throughout the curriculum and staff ensure that all children are able to meet these expectations at all times.

Safeguarding:

St. Andrew's CE Primary School recognises that it has a duty to ensure arrangements are in place for safeguarding and promoting the welfare of children and we will carry out this duty through our teaching and learning, pastoral care and extra-curricular activities.

OFSTED:

Areas for improvement, as outlined by our last Ofsted will be addressed through science, whenever possible.

The highest possible quality of handwriting/presentation/accuracy in spelling/grammar will be expected from all children.

Through the monitoring of science and any subsequent monitoring by the SLT/co-ordinator, teaching will be expected to be at least good.

Staff will challenge all children to reach the highest standards in this subject.

The co-ordinator will use school data to improve and maintain standards of teaching, learning and achievement in science.

Evaluation:

We will continuously evaluate how successful our science teaching is for all children. We need to evaluate our effectiveness and the relevance of this policy. The co-ordinator will gather

information about the delivery of the science curriculum, this information will be used to inform staff development and whole school planning. Children will be involved in the process of evaluation by using their comments and opinions.

Home School Learning

The Home Learning Policy supports the Teaching and Learning Policy. It is a positive enhancement to learning and should be seen as such by pupils, teachers and parents. In order to promote this: All Home Learning tasks are set on Insight so pupils can access the tasks easily and parents can monitor the completion of the tasks and support their children effectively. In the case of children not being present in school (such as during an epidemic resulting in school closures), the use of home learning through email and access to Google Classroom will be used to reduce gaps in learning and will focus on differentiated non-negotiable and basic skills tasks as well as other key areas and objectives essential to the Science curriculum. In the case of a pupil being unable to access technology to view and complete work arrangements will be made for paper learning packs to be collected or posted to individuals. Marking and feedback must be completed as soon as possible.

The designated governor responsible for science is Helen Baggaley, who will be informed of the progress and developments in science at St. Andrew's Primary School.

This policy will be reviewed regularly by Kelly Smith