



Barkisland CE (VA) Primary School
WE BELIEVE, WE NURTURE, WE SUCCEED!

Barkisland CE (VA) Primary School

Science Policy

Overview

The Science topics taught at Barkisland School are determined by the Programme of Study developed in 2014 and skills within each topic are developed throughout Key Stage 1 and 2 through our progressive curriculum. The theme of Working Scientifically underpins all the topics in the Programme of Study and these skills are developed throughout Key Stage 1, Lower Key Stage 2 and Upper Key Stage 2.

Objectives

1. To promote enjoyment and enthusiasm for Science and develop a love of Scientific exploration through exciting, practical, first-hand learning and opportunities to experiment, explore and investigate.
2. To ensure that the statutory requirements of the National Curriculum for Science are taught in depth, with opportunities to work scientifically and develop an understanding of scientific procedures weaved within and throughout the curriculum.
3. To aid pupils to communicate scientifically, by developing their problem solving and reasoning skills and their ability to use the correct Scientific vocabulary.
4. To ensure that the Science curriculum delivered to all pupils, from EYFS onwards, is progressive, providing opportunities for pupils to build upon their prior learning at every stage.
5. To provide ample opportunity for children of all ages to develop their knowledge, skills and understanding of Science by working scientifically to investigate, ask and answer questions related to their topics of study.
6. To ensure learning opportunities are embedded within real-life contexts, enabling children to make links between their learning and the world around them to understand the relevance of Science in their everyday lives, as well as globally.

7. To ensure all children, through support, intervention or challenge, are able to access and progress through the curriculum at a level appropriate to them individually.
8. To support pupils to develop their understanding of safe working practices within the classroom, as well as the field of Scientific study.

Curriculum

Our aim at Barkisland School is to ensure that the Science curriculum we deliver deepens children's understanding, develops a thirst for knowledge, and fosters a love of Science.

Throughout the school, children will be given ample opportunity to discuss, question, investigate, record, analyse and interpret to maximise their learning opportunities. This will be achieved through engaging lessons which incorporate curriculum study; tasks which develop working scientifically skills; and reasoning challenges which enhance the children's abilities to question, explain and understand the curriculum. This will deepen children's understanding of the significance of Science in the wider world and how it is increasingly shaping their future.

The scientific methodology of predicting, testing, observing, recording, analysing and drawing conclusions based on evidence will underpin activities involving working scientifically and Scientific exploration. Where appropriate, Science lessons will feature cross-curricular links across the curriculum, though most prominently with Maths, Geography, Computing, and English.

Accessibility

Science is shaping the lives of all of our children, as the next generation who are growing up in an age of technology and global change. As such, our tailored curriculum is made accessible to all children of all circumstances, through support, intervention and challenge, to ensure there are no barriers to learning.

Safety

- Safety is of paramount importance in the teaching of Science. Teachers, support staff, students and volunteers should be aware of and refer to the Association for Science Education's handbook 'Be Safe' (located in the staffroom), when planning and delivering scientific investigations and experiments.
- Staff must ensure that safe practice in Science is consistent throughout the school so that children will know the correct and safe procedures to use when undertaking scientific investigations.
- All equipment must be carefully stored, cleaned, managed and labelled.

Assessment of Pupils

From Y1 to Y6, understanding of the Scientific curriculum will be assessed at the end of each topic, using teacher assessment and the school assessment target cards. Additional assessment opportunities may also be used to secure judgement, such as end of unit quizzes and mini assessments. There are no formal statutory Science tests for primary children, though school has and may again be selected to participate in the random Sampling

Assessments which allow the government insight into the attainment of primary pupils.

In addition to assessing children's understanding of curriculum content, teachers will also assess children's ability to use and apply reasoning skills and vocabulary. This will happen following the completion of each unit of study throughout the academic year.

Data from assessments is used to identify specific areas for development within children, or specific topics which cohorts have not attained as well in. This is then fed back to teachers, who can review their planning sequence in order to strengthen the understanding of the highlighted areas, and address misconceptions with the children. Subsequent teachers can also then be made aware in transition meetings so that they can re-teach the highlighted skills and gaps in knowledge where there are links in topics, in order to address this before teaching the next sequence of learning.

EYFS pupils are assessed according to the Early Years Foundation Stage Framework.

Enrichment

In order to deepen children's learning within Science and to foster a love of learning, Barkisland School offers a range of enrichment opportunities within Science. These enrichment activities would typically include:

- Science week
- Extra-curricular STEM Science club.
- Visits from STEM ambassadors, who bring experience from working within the field and specialist equipment to enrich the Scientific focus topic.
- Food sciences, where children get several opportunities across the school year to spend the afternoon with our school cook to cook and bake. During these sessions, links are made with the Science curriculum, for example reversible and irreversible changes.
- Links with local feeder secondary schools.

Outcomes

This policy will support teaching staff to teach a progressive curriculum which challenges all pupils at Barkisland School to become keen scientists. Effective teaching will ensure that children can use their scientific understanding and vocabulary to analyse outcomes and explain their learning. This policy should be read and applied in conjunction with other key policies including the Science Implementation document.

*Subject Leader: Matthew Elliott
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