Science

Policy

Amberley Parochial School

Providing the rich soil that enables
our children to develop deep roots and flourish.

Chair of Governor: Dr Holmes
Approved by: Standards Committee
Approved on: Autumn 2 2020
Review Date: Spring Term One 2023 by Standards Committee
Other relevant policies: Safeguarding Policy, Special Educational Needs and Disabilities, Behaviour Policy, Remote Learning Policy, Amberley Immersion Curriculum, Homework, Teaching and Learning and Assessment

Science Policy

Introduction

This policy is written in conjunction with the Amberley Curriculum policy which states our Intent, Implementation for our Amberley Immersion Curriculum.

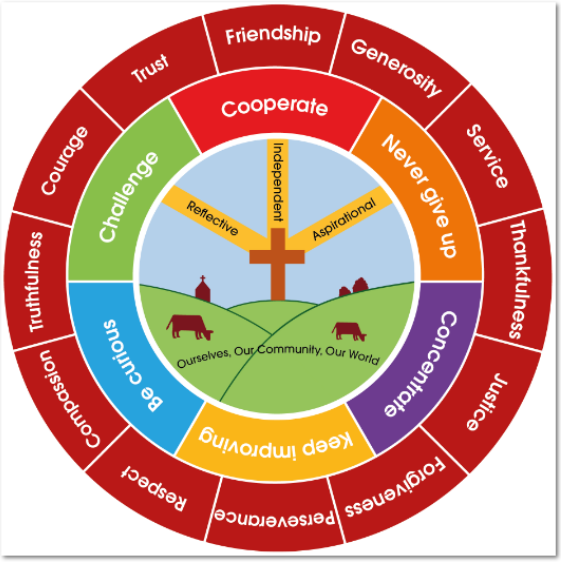
> *As a Church school we identify Christian Values that underpin the whole school and the wider community. These values inform our school's vision, aims and ethos. The values that relate particularly to this policy are Perseverance, Courage and Respect.*
>
> *Our Learning Powers underpin the attitude to learning that the children are fostered to develop at Amberley Parochial School. In all aspects of science lessons, the Learning Powers of Curiosity, Challenge, Never Giving Up, Co-operation, Concentration and Keep Improving continually utilised for the children's development within the subject.*

Curriculum Intent

The Amberley Immersion Curriculum has been designed and developed taking into consideration pupils, parents, staff and governing board views and opinions as well as meeting statutory requirements.

We have ensured that our Immersion Curriculum encompasses the School Vision Wheel which has been established alongside our Biblical teaching of 'The Sower'. These support our pupils learning journey, embracing values and learning skills for life. We are driven as a community to ensure that our pupils recognise that they have unique skills to benefit themselves, to support their community and to give to the wider world. This is embedded within our intent and implementation of our Immersion Curriculum.

The Amberley Vision Wheel



Science Intent

For all learners to have…

- The ability to think independently and raise questions about working scientifically and the knowledge and skills that it brings.
- Confidence when using practical skills, for example, planning and carrying out scientific investigations.
- Excellent scientific knowledge and understanding which is demonstrated in written and verbal explanations, solving challenging problems and reporting scientific findings.
- The ability to use English, Maths and Computing skills to a high standard to support their Scientific knowledge and understanding
- A passion for science and an understanding about what it means to be a scientist

At Amberley, each unit of Science contains the key elements of - **working scientifically**, **biology** (understand plants, animals and humans, investigating living things, evolution and inheritance), **chemistry** (investigating materials), **physics** (understanding movement, forces and magnets, light and seeing, investigating sound and hearing, understanding electrical circuits, the Earth's movement in space.)

Curriculum Implementation

All pupils are entitled to a broad and balanced curriculum, whatever their ability. At Amberley, we follow our Amberley Immersion Curriculum across the school. This is based on the National Curriculum Requirements. In addition, we have incorporated key milestones at the end of Key Stage 1, Lower Key Stage 2 and Upper Key Stage 2. These milestones are skills that the children will be assessed against to obtain their attainment and progress.

The Amberley Immersion Curriculum has been mapped out over a two-year programme (Cycle A and B) so all pupils receive the required coverage of the National Curriculum. In addition, the skills and knowledge they are taught are progressive, ensuring continuity and progression across the school. Each unit has a focused planning sheet highlighting aims and objectives. In addition, rationale is included where appropriate.

All stakeholders have access to this information which is placed on the school's website.
The Amberley Immersion curriculum was planned by all teachers after consultation with parents, pupils and governors.

Science Impact

The children of Amberley will understand and develop the traits and skills needed to **become Scientists.** They understand that Science is about how the world works, and they aim to behave like scientists in the way they **ask questions**, **make observations** and **draw conclusions**. They will accumulate a knowledge and skills base that will allow them to deepen their understanding in a range of areas of Science.

The Early Years Foundation

At Amberley, our Early Years Foundation Stage curriculum aims to give young children a foundation in the core skills needed for an 'Understanding of the World' which provides the stepping stones for History, Geography, Science and RE. To develop early and prerequisite Scientific understanding, we will look at similarities and differences in relation to places, objects, materials and living things, and give children the opportunity to talk about the features of their own immediate environment and how environments might vary from one another. They will make observations of animals and plants and explain why some things occur, and talk about changes.

Teaching and Learning

To ensure consistency and development of practice across the school, there are agreed procedures for common activities to ensure continuity and progression. This contributes to the development of understanding and confidence in the use of such procedures by both educators and pupils.

Whilst science will at times be related to other subjects through cross curricular links, teachers also plan specific activities to provide development of the skills, knowledge and understanding of science. These activities will take account of children's previous experience in science. Teachers will ensure that the objectives of the lessons and the criteria for achievement are clear to all pupils.

Special needs and equal opportunities

Science is a way to communicate and respond to experiences. Every child's response is unique and activities in science are planned which allow pupils to respond according to their abilities, with appropriate differentiation by support, resources and outcome.

Teachers will provide instruction and guidance on technical processes to take account of individual needs. In line with the school's equal opportunities policy, all children will have an entitlement to all aspects of the science curriculum.

Assessment, Recording and Reporting

Assessing the children's achievement will be planned into lessons and used to guide subsequent lessons. Teachers record the progress that children make by assessing their work against the learning targets from the National Curriculum and Milestones. Teachers will make termly assessments of attainment and progress for each child. Children are always encouraged to self-assess and reflect on their achievements.

Resources

A range of basic resources are available in each classroom. They are presented in such a way that they are accessible and are maintained in good order. Additionally, less frequently used resources are kept centrally. It is the responsibility of each teacher to ensure that these are maintained to the same high standard as those in the individual classrooms.

Books and other visual materials to support learning are available in the classrooms and the library. When appropriate the school uses outside resources, visitors and links with community to support learning. As well as the wealth of inspiration offered by the natural surroundings of the school.