

Lewknor Church of England Primary School

Science Policy

September 2019 – Review September 2022

Introduction

This policy outlines the teaching, organisation and management of science taught at Lewknor Church of England Primary School. The school's policy for science is based on the new primary curriculum which was statutory from September 2014. The implementation of this policy is the responsibility of all teaching staff.

Intent

At Lewknor Primary we construct a curriculum that is ambitious, broad and designed to give all children the knowledge and cultural capital they need to succeed in life.

Implementation

Teaching is of the highest standard – all subject matter is presented clearly and teachers check pupils understand what they have been taught. Teaching is designed to help pupils remember long-term the content they have been taught and to integrate new knowledge into larger ideas.

Impact

All pupils make at least good progress and achieve highly. They develop detailed knowledge and skills across the whole curriculum.

Teaching Science

At Lewknor we believe that the best science teaching fosters and develops pupils' curiosity in the subject whilst also helping them to fulfil their potential. For our pupils to achieve well in science, they need to acquire the necessary scientific knowledge and also be able to enjoy the experience of engaging in purposeful scientific enquiry in order to help them to answer scientific questions about the world around them.

The new National Curriculum 2014 states why we teach science in schools:

'A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics...Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena.'

Aims

Through high-quality science teaching, we aim to help our pupils understand how major scientific ideas have played a vital role in society. Moreover, we aim to prepare our pupils for life in an increasingly scientific and technological world.

We aim to do this by:

- Delivering high quality, interesting and engaging science lessons;
- Using scientific contexts to develop and consolidate cross curricular skills in literacy, maths and ICT;
- Teaching science in a global and historical context; including the contributions of significant scientists from a range of cultures;
- Developing and extending pupils' scientific knowledge and understanding;
- Developing pupils' ability to work scientifically and involve pupils in planning, carrying out and evaluating investigations;
- Developing pupils' scientific vocabulary and ability to articulate scientific concepts clearly and precisely;
- Ensuring that all pupils are appropriately challenged to make good progress in science.

Teaching and Learning

At Lewknor, teachers plan and deliver high-quality and engaging science lessons incorporating a range of teaching and learning styles. Teachers will provide opportunities for pupils to:

- Learn about science, where possible, through first-hand practical experiences;
- Develop their research skills through the appropriate use of secondary sources;
- Work collaboratively in pairs, groups and/or individually;
- Plan and carry out investigations with an increasing systematic approach as they progress through the school;
- Develop their questioning, predicting, observing, measuring and interpreting skills;
- Record their work in a variety of ways e.g. writing, diagrams, graphs, tables;
- Read and spell scientific vocabulary appropriate for their age;
- Be motivated and inspired by engaging and interactive science displays which include key vocabulary and relevant questions;
- Learn about science using the outdoor learning environment.

Planning

- Science in the Early Years Foundation Stage is planned using the Early Years Curriculum 'Understanding of the World'.
- Key Stage 1 and 2 teachers plan science lessons using the new National Curriculum (2014).
- All science lessons have focussed learning objectives, clear differentiation and success criteria to ensure that pupils make at least good progress.
- 'Working scientifically' is embedded throughout the areas of learning in key stage 1 and 2; this focuses on the key aspects of scientific enquiry which enable pupils to investigate and answer scientific questions.
- Areas of learning within key stage 1 and 2 ensure that statutory requirements are being covered through the specific disciplines of biology, chemistry and physics (teachers may also refer to the non-statutory guidance which provide additional support).
- Please refer to the long term plan for details of the specific areas of learning covered in each year group over the year.

Assessment

- At present key stage 1 and 2 use teacher assessment and pupil assessment at the start of each topic and end of each topic.

- Teachers use effective Assessment for Learning (AfL) strategies which are used to inform their planning and teaching.
- Teachers provide quality feedback to pupils (verbal or written) which clearly identifies how they might need to improve.
- At present, class teachers provide a teacher assessment result and pupils' progress is tracked three times a year against the National Curriculum levels for Key Stage 1 and 2.
- In EYFS, Lewknor School assesses science against the 'Development Matters' statements in the 'Understanding of the world' area of the Early Years Curriculum.

Monitoring

- Scrutiny of work will be carried out by the class teachers during staff meetings and informal discussions will be held between colleagues. The science coordinator will then provide verbal and written feedback.

Health and safety

- Teachers plan safe activities for science and complete a risk assessment if necessary.
- Teachers and teaching assistants are aware of health and safety procedures when using equipment/food in science lessons.
- Teachers ensure pupils are aware of the need for personal safety and the safety of others during science lessons.

Resources

- Science resources are stored in the Upper Junior's classroom.
- The science coordinator carries out regular audits of the science resources and new resources are ordered when necessary.
- The subject coordinator will be informed of any changes regarding science resources i.e missing or broken resources and/or when new or replacement resources are required.

Inclusion

- At Lewknor, teachers ensure that they adopt an inclusive approach to their science planning and teaching; ensuring that pupils of all abilities and backgrounds have an equal opportunity to make good progress and enjoy science.