



SCIENCE CURRICULUM POLICY/OVERVIEW

“Science is for everyone . . . Science is about exploration, discovery and pushing boundaries.”

Dr Maggie Aderin-Pocock, British space scientist, science educator, and science communicator.

Local Context:

Long Lane Primary is a Community School, built in 1966 and maintained by West Berkshire Council and has links with the local **STEM** network as well as the local and national **Association of Science Educators** networks. Our local area is semi-rural, allowing opportunities to engage in activities that utilise local **community** woodland and the River Thames; extra-curricular science club, gardening club and local science-based trips and visitors build science capital for our children.

Intent

At Long Lane we aim to provide all children with science opportunities that are practical, interactive, interesting and engaging;

We aim to challenge and encourage **independence, resilience** and collaboration, using what the children know as a starting point for planning and teaching.

By encouraging **curiosity** and questioning, we aim to guide children to decide what and how they need to do to find answers to their questions through practical investigation and secondary research.

It is our vision to build on a child’s science capital allowing children to make links to their own lives and to the real world as well as build the skills to help them **aspire** to, and shape, the future of science through their actions and words.

(Please see [Curriculum Policy.docx](#) for details of Cultural Capital at Long Lane)

Implementation

Science at Long Lane begins with what the children already know: an elicitation takes place at the start of each unit of Science. From there, the substantive and disciplinary knowledge starting points are built upon using children's enthusiasm and natural sense of wonder about the world.

Early Years – Our youngest pupils find Science in every exploration they make and, through play, learn early skills of engineering (through making things work) and stimulate a love of nature. This is enhanced through Forest School activities. Through exploration and curiosity, children understand the world around them and in context with a motivation to build, dig, observe patterns and make links. Staff develop these skills from an early age through nurturing curiosity with planned and child centred activities that link with skills and knowledge that feature later in their school journey.

Science lessons in the rest of the school are also practical, stimulating curiosity and questioning. Children work by themselves, pairs and groups and are encouraged to develop a collaborative exploration of Science. The disciplinary skills and scientific enquiry/Working Scientifically are taught, practised and applied through a range of scientific enquiry types and skills taken from the National Curriculum for Science; this takes place over at least two hours per week.

Children are encouraged to:

- collect relevant evidence and to question outcome and to persevere.
- treat the living and non-living environment with respect and sensitivity.
- appreciate that we do not always know the answers and results when carrying out scientific enquiry.

(Please see [Teaching for Learning Policy 2023.docx](#) for details of Learning Behaviours, inclusion and Rosenshine Principles at Long Lane)

Impact

Our approach to Science at Long Lane Primary School means that:

- Children are enthusiastic about their learning and are keen to develop their skills - We are delivering a curriculum based on the children being the scientist. They are discovering and reinforcing their learning through carefully structured discussions, collaboration, investigation and recording.
- Children are exposed to scientific vocabulary and a range of enquiry types
- There is clear progression in the children's learning of scientific concepts and skills
- Children's work shows a range of evidence of the curriculum coverage for all Science topics
- Children are becoming increasingly independent in Science, selecting their own tools and materials as well as completing pupil-led investigations
- Children are ready for their next steps in science learning as they move through school and onto Secondary School
- Children's achievements and learning are regularly celebrated.

Pupil assessment and attainment

Children's learning (and prior learning) is measured using elicitation observations, key questioning, live feedback and marking. This is used to support the planning and development of teaching and learning in the short term. Summative assessments may include pre, mid and post learning tasks (using concept cartoons, Explorify, questions from Testbase and SNAP assessment, for example), and the school's yearly teacher assessment. Assessment is consistent and regular to ensure all children are maintaining good progress and support is implemented where needed.

Teachers use **Assessment for Learning** strategies to ensure that children understand what they are being taught within a context and 'know more and remember more' of the key knowledge and skills outlined in each objective. These will include; mini quizzes, questioning, discussions and observations (including video and photography), peer assessment and appreciation, Think Pair Share, book looks and comparisons. Teacher assessment occurs throughout teaching and learning with support implemented where appropriate. (see Teaching for Learning Policy linked below)

Monitoring and School Improvement Planning

The Geography Lead, the Headteacher, with support from the Governors regularly review and quality assure Music across the school to ensure that it is implemented sufficiently well in line with the National Curriculum Objectives and aligns with the Vision and Values of the school.

Impact is measured through monitoring activities, including; learning walks, questionnaires to staff, pupil voice, looking at evidence of pupil's work, teacher's assessments and any other relevant evidence. In addition, they evaluate the impact and plans for future development of the subject for pupils and staff, utilising action plans, looking to develop new opportunities, refine current practice, plan CPD for staff and feed into the School Improvement Plan (where appropriate) from where Performance Management and school priorities stem.

Health and Safety:

All staff should make themselves conversant with the following regarding science work in school:

- the "Be Safe" safety booklet – **located in the staffroom**. Where appropriate reminders must be given to children about potential hazards and care of the equipment they are using.
- CLEAPSS advice and guidance. <http://science.cleapss.org.uk/> contains publications and is recognised by Ofsted and the HSE as the definitive basis for safe practice for practical work in schools.
- Any trips will be planned with due regard to the school off-site activities policy.

Linked Policies – This policy sits under the following two umbrella policies;

[Teaching for Learning Policy 2023.docx](#)

[Curriculum Policy.docx](#)