



Leominster Primary School

Science Policy

At Leominster Primary School, we believe science is important because it provides children with the opportunity to understand both themselves and the world around them and develop a sense of responsibility for the environment. It is increasingly important that children appreciate how scientific and technological developments are shaping the world today.

Science in the National Curriculum:

Science is taught through the National Curriculum for Science (DfEE 2013), which has 3 key areas to the programmes of study for Key Stages 1 and 2.

It states that *'A high- quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics.'*

(National Curriculum, pg 144 – DfEE 2013)

The national curriculum for science aims to ensure that all pupils:

- develop **scientific knowledge and conceptual understanding** through the specific disciplines of biology, chemistry and physics
- develop understanding of the **nature, processes and methods of science** through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the **uses and implications** of science, today and for the future.

Knowledge, Skills and Understanding:

Scientific knowledge will be developed from the National Curriculum Programmes of Study, which are:

- Biology
- Physics
- Chemistry

Within this, the teaching of science should develop the key skills of working scientifically, which are:

- Observing over time
- Pattern seeking
- Identifying, classifying and grouping
- Comparative and fair testing
- Research

Equality of opportunity:

The science scheme of work is taught to all children in the school. Work set is differentiated to accommodate the varying abilities within the classroom. It will challenge more able pupils and support those with special educational needs. The school operates a clear policy of opportunity for all regardless

of gender, colour, ability and any other possible discrimination. A positive image of science is promoted to both boys and girls.

Scheme of Work/ Planning:

Science is taught in line with the National Curriculum for Science (DfEE 2013). This has been planned to ensure a balanced coverage of the National Curriculum Programmes of Study for Key Stages 1 and 2, as well as the progression and continuity of knowledge and skills (with a focus on Working Scientifically. See Science scheme of work for further details).

Science will be planned on a unit by unit basis, in line with the school overview for the foundation curriculum, on an agreed format for each unit of work. Planning support is available for the Key Science teachers within each Year group. This is monitored by the subject coordinator and reviewed at the end of each unit by individual class teachers/ year groups.

When children's work is not recorded in their individual Science books, evidence will be recorded and annotated within a 'Class Science Book'.

Cross-curricular links:

Science offers a range of contexts for the development of literacy skills, mathematics, geography and thinking skills. ICT plays an important role in developing communication, data handling modelling skills. Children will use computers, cameras, digital microscopes and other software to aid investigation and research.

Assessment and Marking:

Children will be continually assessed within Science against each of the unit's Programmes of Study, through both written and verbal responses. Teachers are also encouraged to keep electronic evidence (photographic). At the beginning of each unit of work, class teachers are encouraged to complete a 'Diagnostic' assessment- which will inform teachers of the children's prior understanding and also be used to guide future planning. At the end of each unit of work teachers are encouraged to complete an 'End of Unit' assessment, which will show the progression of Scientific Knowledge and Understanding. Working Scientifically will be continually assessed and tracked within Phases (Years 1 & 2, Years 3 & 4, Years 5 & 6). At the end of each Topic, a judgement will be made based on their overall understanding. A green tick will indicate 'secure' understanding; orange tick will indicate 'within' understanding; red tick will indicate 'entering' understanding. Teachers will track children's progress on class objective sheets.

Marking within Science will indicate whether the objective has been met (LO met). When the LO has not been met the marking will give guidance on how they might improve their scientific knowledge, skill or understanding. 'Class Science Books' will provide some evidence of Working Scientifically.

Health and Safety:

In order to maintain stringent health and safety standards, the need for a Risk Assessment is to be considered for every lesson taught. It is necessary for a Risk Assessment to be completed for lessons where there is a risk to children from environmental, resource, chemical reactions, activity or other factors. These need to be submitted to the Headteacher prior to the lesson being delivered. The publication 'Be Safe' (4th edition, Association for Science Education) provides valuable additional guidance for staff as well as the CLEAPSS website.

Resources:

Science resources are stored centrally in a locked cupboard. There is a code for the cupboard known to all class teachers. Resources are available for access by all members of staff. All resources should be returned to this area when not in use.

Staff Development:

The science co-ordinator updates, informs and supports staff as necessary. Training opportunities for the whole staff are available through INSET, arranged in consultation with the science co-ordinator and professional development co-ordinator.

Monitoring and Evaluation:

The subject leader is involved in monitoring and evaluating how science is taught throughout the school and there is an on-going process of monitoring the delivery of science lessons

Staff Responsible	Mrs. Melanie Brookes & Miss Jessica Nightingale
Reviewed By:	Miss Jessica Nightingale
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