



Science Policy

Inquisitive Minds Shape our World

Intent

As stated in the Programme of Study for Science, the aims of the national curriculum in science is 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.

The intent for Science at Worsthorne Primary incorporates all of the above, **with the aim for science to inspire, encourage, nurture children's innate curiosity and enable them to develop a range of skills that are useful and relevant to their own lives.** We value science as a subject for all. We believe inspiring science teaching arises from lessons that place scientific enquiry at the heart of our school's science curriculum. **Children who learn the processes and deeper thinking of investigating, exploring, questioning, and enquiring will develop a skill set that will enable them to thrive now and as a future generation.**

Implementation

Science is a Core subject and will be valued as such. To ensure this, the following will be in place at Worsthorne Primary School:

- PLAN Matrices units for science will be used within each year group. These will be used to ensure full coverage, progression and support for Teachers.
- In EYFS, specific focus of scientific concepts within the area of 'knowledge and understanding of the world' will be taught regularly.
- Each week there should be a minimum of two hours teaching time dedicated to substantive and disciplinary knowledge within KS1 and KS2. This allows children to build on skills and provide the same continuity required of the other core subjects.
- Where possible opportunities within the school week to enhance the science curriculum beyond science lessons should be provided.
- Teachers will account for and build upon the knowledge and skill development of the previous years.

- Teachers should ensure that ‘working scientifically’ skills are embedded into lessons to ensure these skills are being developed throughout the children’s primary school journey.
- New vocabulary and challenging concepts are introduced through direct teaching.

Statutory Requirements

- Science is a core subject in the National Curriculum (for England, Wales and Northern Ireland).
- In England, it has four attainment targets and a statement of breadth of study.

These are:

- Sc1 Scientific enquiry;
- Sc2 Life and living processes;
- Sc3 Materials and their properties;
- Sc4 Physical processes.

Children in the Foundation Stage - the reception class- are taught the science elements of the foundation stage document through the Early- Learning Curriculum: Knowledge and Understanding of the World.

Key Stage One - During Key Stage 1 pupils observe, explore and ask questions about living things, materials and phenomena. They begin to work together to collect evidence to help them answer questions and to link this to simple scientific ideas. They evaluate evidence and consider whether tests or comparisons are fair. They use reference materials to find out more about scientific ideas. They share their ideas and communicate them using scientific language, drawings, charts and tables.

Key Stage Two - During Key Stage 2 pupils learn about a wider range of living things, materials and phenomena. They begin to make links between ideas and to explain things using models and theories. They apply their knowledge and understanding of scientific ideas to familiar phenomena, everyday things and their personal health. They begin to think about the positive and negative effects of scientific and technological developments on the environment and in other contexts. They carry out more systematic investigations, working on their own and with others. They use a range of reference sources in their work. They talk about their work and its significance, and communicate ideas using a wide range of scientific language, conventional diagrams, charts and graphs.

Assessment and Target setting

Work will be assessed in line with the Assessment Policy. In addition to this:

We use assessment to inform and develop our teaching by:

- Starting with an assessment of what children already know and then planning accordingly.
- We assess for learning (AfL). Children are involved in the process of self-improvement, recognising their achievements and acknowledging where they could improve. Activities during, and at the end of, each topic record achievement and celebrate success.
- We mark each piece of work positively, making it clear verbally, or on paper, where the work is good, and how it could be further improved.
- We use a variety of strategies to evaluate the knowledge, skills and understanding that our pupils have gained in each unit: end of unit quizzes; skilful questioning lesson by lesson; summarising learning at end of topics; and science investigations.
- Teachers track progress using Target Tracker on a termly basis. Both statements and steps should be completed.
- The school science lead monitors progress through the school by sampling children's work at regular intervals, analysing data, conducting pupil questionnaires, auditing resources and the learning environment.
- Reports to parents are given verbally at Parent's Evening. Written progress will be given at least once annually, describing each child's attitude to science, his/her progress in scientific enquiry and understanding of the content of science.

Health and Safety in Science:

Pupils will be taught to use scientific equipment safely during practical activities. Class Teachers, Teaching Assistants and the Subject Leader will check equipment regularly and report any damage; removing defective equipment and replacing as appropriate. The School Policy for Health and Safety will be integrated into science teaching.

Impact

- Children to be accessing and ambitious and relevant science curriculum. The curriculum should include progression of substantive knowledge and disciplinary knowledge.
- Children can remember and recall prior science learning and make connections to new science learning.
- Children will receive regular science teaching and learning.

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| Date of Policy | March 2023 |
| Person Responsible | Amanda Cockett |
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