



WOOLGROVE SCHOOL

The Science Policy



'Equal opportunities lie at the heart of all that we do at Woolgrove. We are committed to ensuring that every member of the school community, whatever their position, race, gender, disability or religion is given the same chance as any other to access the services and support of the school'

Jane September

November 2017

Review: November 2020

This policy outlines the guiding principles by which this school will deliver the science curriculum in the context of its staffing, health and safety and equal opportunities policies. It is renewed periodically.

Our rationale for teaching science

Science is a way of thinking; thinking skills underpin good primary practice in all subject areas; there can be no effective 'doing' without 'thinking'. Promoting these skills helps to empower young children to become independent learners and to prepare them to taking up their role as well informed constructively critical citizens.

Science is a core subject within the national curriculum. There are two strands: working scientifically and subject knowledge. Our role is to teach working scientifically through the contexts of the subject knowledge. Children working in the Early Years Foundation Stage curriculum are taught the science elements within Understanding of the World.

We believe that a broad, balanced and relevant science education is the entitlement of all children, regardless of ethnic origin, gender, class, aptitude or ability.

Our aims in teaching science are:

- Preparing children for life in an increasingly scientific and technological world
- Fostering concern about and active care for our environment
- Helping children to understand how science has changed our lives and is vital to the worlds' future prosperity
- Helping our children acquire a growing understanding of scientific ideas
- Helping develop and extend our children's scientific concept of their world
- Using imaginative and purposeful activities, that are well managed and enjoyable
- Giving clear and accurate teacher explanations and offering skilful questioning
- Making links between science and other subjects

Attitudes

- Encouraging the development of positive attitudes to science building on our children's' natural curiosity and developing a scientific approach to problems
- Encouraging open mindedness, self-assessment, perseverance and responsibility
- Building our children's self-confidence to enable them to work independently
- Developing our children's social skills to work cooperatively with others
- Providing our children with an enjoyable experience of science, so that they will develop a deep and lasting interest and may be motivated to study science further

Skills

- Providing regular opportunities for child-led enquiries

- Giving our children an understanding of scientific processes and different types of scientific enquiry (observing over time, pattern seeking, sorting and grouping, fair testing and research)
- Helping our children to acquire practical scientific skills
- Developing the skills of working scientifically, including: ideas, questions and planning; observing, hypothesising, measuring and presenting evidence; concluding, communicating, explaining and evaluating evidence
- Developing the use of scientific language, recording and techniques
- Developing the use of IT in investigating and recording
- Developing children's literacy in order that they can read and spell scientific terminology consistent with their ability as well as articulate scientific concepts clearly and precisely
- Enabling our children to become effective communicators of scientific ideas, facts and data

How science is structured through the school

Planning for science is a process of which all teachers are involved to ensure that the school gives coverage of the national curriculum and early years' foundation stage. Science teaching in the school is about excellence and enjoyment, and we adapt and extend the curriculum to match the unique circumstances of our school.

The topics of the science curriculum across the year groups are as follows:

Infant Department – Reception, Year 1 and Year 2 follow the Early Years Foundation Stage curriculum where all children develop their scientific skills and knowledge through cross-curriculum activities and child initiated learning.

Junior Department – Years 3, 4, 5 & 6 follow the Key Stage 1 and/or lower Key Stage 2 national curriculum requirements. Learning will take place as discrete packages and through cross-curricular topics as teachers judge to be appropriate. Over learning is necessary to reinforce the learning of skills and knowledge to ensure that progress is made.

Children's learning focuses on the following scientific topics: Plants, Living things and their habitats, Animals including humans, Seasonal changes, Everyday materials, Uses of everyday materials.

Curriculum letters are sent home each term to inform parents and carers of teaching that will take place that term.

Our approach to science

The essential elements below describe how science is taught in our school:

- Topic planning is found on the shared drive
- Children are given plenty of opportunity to practise science skills
- All resources are kept in the stock cupboard
- The school combines these secondary sources with first-hand experience to build children's' science skills
- We actively teach science skills so these are developed progressively across the school
- We encourage children to ask and answer their own questions as far as practicable
- We use homework, where appropriate, to support school and class activities
- We use cross-curricular links in science to support pupils to transfer their skills between subjects
- We use our wonderful wildlife area to provide real hands-on learning to develop knowledge and scientific skills
- We provide enrichment of the curriculum through clubs, assemblies, visitors and visits

Assessment and recording in science

We use assessment to inform and develop our teaching. We use the school policy on marking and assessment, making sure that targets are set to close gaps in understanding and address misconceptions.

We assess children's progress in working scientifically so that we identify skills that have been achieved which inform future teaching so that progress can be tracked over time.

Role of the science co-ordinator

- To monitor the whole school deliverance of the Science Curriculum.
- To analyse data and assessments as well as monitor other evidence through work scrutinies, planning and lesson observations.
- To manage the science resources.
- To manage the science budget, in collaboration with, and with due regard to the needs of all staff.
- To provide advice on the delivery of the curriculum.
- To circulate examples of good practice.
- To help other staff to develop their science skills by means of their attendance on courses and school based INSET.

This science policy will be reviewed by the science subject leader in three years time or sooner if there is a change to the current policy.