



Science Policy

Signed: ----- Date: -----
Chair of Governors

Signed: ----- Date: -----
Headteacher

Adopted and Approved by the Governing Body: **October 2023**
Review Date: **October 2027**

Intent

At Singlewell Primary School, we **care** about the teaching and learning of Science. We aim to provide our pupils with the key knowledge and skills required to answer scientific questions whilst encouraging them to be **curious** through questioning. We would like our pupils to leave Singlewell Primary with a confident understanding of how and why the science around them is relevant and important in their lives. Our curriculum has been carefully planned and enables our pupils to build upon their science skills year by year. We aim to instil an **ambitious** approach to investigative work and hope to create **resilient** learners. We follow the National Curriculum which is enhanced by digital experiences using Explorify which emphasises the benefit of discussion, enjoyment and collaboration in Science. Our classrooms highlight the importance of Science at Singlewell as each one features a Science Working Wall. Pupils are introduced to Working Scientifically skills from EYFS to Year 6 through our Working Scientifically Butterflies. We further enhance our Science curriculum through Science Week activities which include educational visits, visitors and **safe** online exploration. We want our pupils to know about key influencers, to see themselves as **equals** in the Science world and to care about Science throughout their lives.

Aims

Our aims in teaching science include the following:

- Preparing our children for life in an increasingly scientific and technological world.
- Fostering concern about, and active care for, our environment.
- Helping our children acquire a growing understanding of scientific ideas.
- Helping develop and extend our children's scientific concept of their world.
- Developing our children's understanding of the international and collaborative nature of science.

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

- Giving our children an understanding of scientific processes.
- Helping our children to acquire practical scientific skills.
- Developing the skills of investigation - including observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Developing the use of scientific language, recording and methods.
- Developing the use of ICT in investigating and recording.
- Enabling our children to become effective communicators of scientific ideas, facts and data, both orally and in written and diagrammatic form.

Principles of teaching and learning

Teaching aims:

- Teaching Science in ways that are imaginative, purposeful, well managed and enjoyable.
- Giving clear and accurate teacher explanations and demonstrations.
- Skilful questioning with open-ended ideas to encourage discussion.
- Making links between science and other subjects.

Science Curriculum

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.
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At Singlewell School, we follow the National Curriculum, ensuring that the teaching and learning of Science is progressive in terms of knowledge, vocabulary and skills.

Children in the Foundation Stage: the reception classes are taught the science elements of the Early Years Foundation Stage Document under the area of learning and development: Understanding of the World.

The high profile is maintained and acknowledged through class and whole school displays.

Equal Opportunities

Science is taught within the guidelines of the school's equal opportunities policy. Science is planned to meet the varied needs of all learners regardless of their gender, background, and culture, physical or cognitive development. Our expectations do not limit pupil achievement and assessment does not involve cultural, social, linguistic or gender bias. We aim to extend and challenge all children, taking into account their strengths and weaknesses and ensuring all pupils take an active part in Science activities.

Health and Safety

It is important that children are taught the rule of safety in science from a young age so that it becomes integral to their experiments and investigations. Materials and equipment need to be treated with respect and care and we endeavour to make sure all children do this. When carrying out scientific activities, children should treat their classroom as though it is a fully equipped science laboratory. We follow the ASE book 'Be Safe' as a model risk assessment and it is consulted when necessary. If investigations or experiments are carried out, PPE may be required, eg use of gloves, aprons, glasses.

Cross curricula skills and links

Science pervades every aspect of our lives and, where possible and appropriate, we will relate it to other areas of the curriculum. We use ICT widely in science. Children are given the opportunity to practise science skills and enhance their presentation using carefully-chosen software, as well as the Internet. ICT equipment is used for enquiry work, including microscopes, digital cameras, video, iPads, data loggers and visualisers.

Assessment

Assessment in Science is continuous, using a range of verbal, self and peer feedback. Children assess their own understanding of the key learning objectives using our Honeycomb Assessment

tool. Children's prior knowledge and understanding will be reflected on the Key Vocabulary Pages at the beginning of each topic. Working Scientifically skills are assessed by both the child and teacher using our Working Scientifically grids and on the Working Scientifically Butterflies, which are displayed in classrooms. Children's effort and attainment will be reported to parents, as well as a comment, on their annual reports.

Enrichment Activities

Wherever possible, the teaching and learning of Science is enhanced by educational visits, using the local area as a resource or visitors to the school. An annual Science Week will also take place to place a spotlight on Science, welcome in visitors and enrich the provision of Science within our school. Competitions are held throughout the year, with a specific Science focus, to promote Science happening today.

Role of Subject Leader

The Science subject leader will:

- provide professional leadership and management for Science and will ensure that it is managed and organised so that it meets the aims and objectives of this policy.
- monitor the teaching and learning within the subject.
- initiate reviews of the scheme of work.
- manage the resources for Science.
- maintain the stock to meet the needs of the curriculum within the allocated budget for Science.

Review

This Science policy will be reviewed by the subject coordinator, following discussions with the Headteacher and other colleagues. Any amendments will be presented to the whole staff and Governing Body before implementation.