

Grove Vale Primary School

Science Policy November 2022

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Science Policy for Grove Vale Primary School

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1. Introduction

Science is a way of working that allows children, through practical first hand experiences and secondary sources, to develop their knowledge and understanding of the world in which they live. These experiences should enable children to observe, question, investigate, make sense of and communicate and evaluate their findings.

2. Core Values and Curriculum Drivers

Our school curriculum at Grove Vale Primary School is underpinned by our Core Values – Growth, Relationships, Originality, Valuing ourselves and each other, Enthusiasm, Vitality, Ambition, Love of learning and Empowerment. This ethos is further supported by our curriculum drivers: Be Creative, Be Ambitious, Be Resilient and Be Curious. The curriculum drivers are the means by which the school achieves its objective of educating children in the knowledge, skills and understanding that they need in order to lead fulfilling lives and underpin how Science is taught within the school.

3. Science Curriculum Aims

Science at Grove Vale aims to teach our children the skills, knowledge and understanding they need to question and understand concepts and phenomena that occur in the world around them and equips them with the motivation to seek explanations for these. Children learn the skills required for scientific enquiry and they will begin to appreciate the way science will affect their future on a personal, national and global level.

The aims of our science curriculum are to enable children to:

- develop a questioning and reflective mind by providing a range of exciting and enjoyable activities.
- develop a systematic and logical way of working.

apply their skills and knowledge to investigative work.
come to a deepening understanding of scientific concepts.
work safely and carefully.

It is important that our EYFS curriculum is designed to incorporate child-initiated learning whilst taking into account the needs of the specific cohort with relation to pupils should be active partners in developing the curriculum. Their questions, interests and ideas are therefore utilised to develop and enhance planned learning experiences through the specific area of Understanding The World.

Throughout Key Stage 1 and Key Stage 2 a wide variety of teaching and learning approaches and styles are used to promote pupil engagement with the science curriculum. Staff regularly utilise a range of high quality resources to encourage independent learning and inspire pupils. The use of the whole school environment, both inside and outside (including access to Forest schools), is also used regularly to enrich the curriculum. (See Teaching and Learning and Outdoor Learning Policies).

4. Planning, Teaching and Learning

All children have access to the Early Years Foundation Stage Curriculum and Science National Curriculum. At Grove Vale we use a long term Science curriculum plan using the guidance given by the National Curriculum to ensure that all units are covered. The teaching of Science at Grove Vale may be as a whole class, in small groups or individual work. Staff have access to 'Plan Bee' where they can use and adapt resources to suit the needs of the children.

The Working Scientifically strand of the curriculum underpins children's learning throughout the subject. Biology, Chemistry and Physics subject knowledge is then taught through a vast array of Working Scientifically tasks.

We aim to ensure that lessons are as creative as possible where children learn in a wide range of styles using a wide range of resources. There are various elements to the lesson which are still expected to be incorporated, such as:

- Open ended, probing questions
- Visual, audio and kinaesthetic stimulus
- Opportunities for Speaking and Listening
- Opportunities for children to work independently and collaboratively
- Child initiated learning
- Lessons are concluded with a plenary that consolidates, extends and previews their learning.
- Basic skills in Maths and English are embedded across the curriculum.

See relevant policies for PSHE and SRE for wider curriculum areas.

5. Assessment and recording

At Grove Vale we believe that assessment forms the most important part of children's learning and the teaching they receive. It allows us to raise achievement and offer opportunities for us to determine

next steps in learning. Children are assessed using the National Curriculum and data is uploaded once a term onto insight.

Teacher assessment is ongoing as class teachers are responsible for providing written individual annual reports to parents and discussing children's progress at Parent's Evenings. Across the year, teachers will upload teacher assessment data on to insight. After each unit, children complete an end of unit assessment allowing teachers to show what children have retained.

Children are expected to show some form of recording for at least five science lessons per unit, including at least one scientific investigation per unit of work. Recording can include scientific reports, explanations, research activities, videos and photographs etc. When recording investigations, there must be some form of data handling involved each half term which links to their year groups statistics objectives (years 2 – 5).

6. Inclusion

Teachers set high expectations for all pupils within science. They will use appropriate assessment to set ambitious targets and plan challenging work for all groups, including:

- More able pupils
- Pupils with low prior attainment
- Pupils from disadvantaged backgrounds
- Pupils with SEN
- Pupils with English as an additional language (EAL)

Teachers will plan science lessons so that pupils with SEN and/or disabilities can study all aspects of the Science National Curriculum and ensure that there are no barriers to every pupil achieving. SEN children in KS2 will have separate knowledge organisers so they can access the learning at a level appropriate to them.

Teachers will also take account of the needs of pupils whose first language is not English. Lessons will be planned so that teaching opportunities help pupils to develop their English, and to support pupils to take part in science. Further information can be found in our Equal Opportunities and SEN policies.

7. Health and Safety

All staff should make themselves familiar with the school's Health and Safety Policy and ensure risk assessments are carried out where appropriate and that any hazard is highlighted on the planning. Where appropriate, reminders will be given to children about potential hazards and care of the equipment they are using.

8. Roles and Responsibilities

The governing board will monitor the effectiveness of this policy and hold the Headteacher to account for its implementation. The governing board will also ensure that a robust framework is in place for setting curriculum priorities and aspirational targets with relation to Science.

The Deputy Headteacher and Curriculum Leader maintain an overview of the science curriculum provided by the school and work in partnership with the Headteacher on a range of strategic

planning, monitoring and evaluating tasks, from the full range of evidence provided by other staff, subject leaders and governors. The Science Lead ensures that all the aspects of the Science National Curriculum content are identified within the curriculum overview. The Science Lead also reviews long and medium term plans alongside work to ensure that pupils' learning becomes increasingly more challenging as they move through the year groups, and to maintain an overview of standards within science.

The Science Lead also produces annual action plans, support the writing of long-term and session plans of class teachers, analyse the standards within science, provide or signpost staff towards training and resources and engage in developmental work with external colleagues.

Class Teachers have the final responsibility to produce class specific, long and short term planning for their pupils. They also have responsibility for the standards their pupils achieve, the progress they make and the evidence of this learning. Class teachers should ask for guidance from the Science Subject Lead where appropriate.

9. Monitoring and Review

Governors monitor coverage of the Science National Curriculum subjects and compliance with other statutory requirements through:

- School visits
- Work scrutinies alongside SMT
- Lesson observations with link classes
- Regular reports from the Headteacher and Subject Leads
- Curriculum review at Governing Meetings including the opportunities to question staff
- Attendance of Pupil Progress Meetings

SLT and Subject leaders monitor the way subjects are taught throughout the school by:

- Regular learning walks
- Staff questionnaires
- Work scrutinies
- Pupil conferencing
- Formal lesson observations
- Data collection and analysis

The Curriculum Leader (Science Lead) has responsibility for monitoring the way in which resources are stored and managed.

This policy will be reviewed every two years by the Deputy Headteacher and Curriculum Leader alongside the Headteacher and relevant members of SMT. At every review, the policy will be shared with the full governing board.

10. Linked Policies

- Curriculum Policy
- Teaching and Learning Policy

- Inclusion Policy
- Assessment for Learning Policy
- PSHE Policy
- SRE Policy
- Health and Safety Policy