



At Grange view we let our light shine, always sparkle and strive to achieve our God given potential.

Let your light shine brightly before others.

Matthew 5:16



Our Ethos

The children are living a Christian life where they aim to flourish and thrive, thinking about our core Christian Values; Friendship, Trust, Forgiveness, Respect and Wisdom to become lifelong learners.

Our Aims

- To provide a stimulating and secure environment, inclusive of children from all faiths and cultures.
- To provide an engaging, meaningful and relevant curriculum that equips all learners with the necessary skills for their educational journey.
- To value all individuals and support them to reach full potential and create an atmosphere of equal opportunity where expectations are high.
- To grow caring citizens who value the world we live in and celebrate moments of awe and wonder.
- To offer opportunities for collective reflections and inspire spiritual development that shape daily lives.
- To help the children to form values which will allow them to make moral choices throughout their lives, not just during their school years.
- To work in partnership between home, school, church and the wider community.

SCIENCE POLICY

1.Legislation and guidance

This policy reflects the requirements of the [National Curriculum programmes of study](#), which all maintained schools in England must teach.

It also reflects requirements for inclusion and equality as set out in the [Special Educational Needs and Disability Code of Practice 2014](#) and [Equality Act 2010](#), and refers to curriculum-related expectations of governing bodies set out in the Department for Education's [Governance Handbook](#).

In addition, this policy acknowledges the requirements for promoting the learning and development of children set out in the [Early Years Foundation Stage \(EYFS\) statutory framework](#).

2. Roles and responsibilities

2.1 The governing body

The governing body will monitor the effectiveness of this policy and hold the headteacher to account for its implementation.

The governing body will also ensure that:

- A robust framework is in place for setting curriculum priorities and aspirational targets
- Enough teaching time is provided for pupils to cover the National Curriculum and other statutory requirements
- Proper provision is made for pupils with different abilities and needs, including children with special educational needs (SEN)
- The school implements the relevant statutory assessment arrangements
- It participates actively in decision-making about the breadth and balance of the curriculum
- It fulfils its role in processes to disapply pupils from all or part of the National Curriculum, where appropriate, and in any subsequent appeals

2.2 Headteacher

The headteacher is responsible for ensuring that this policy is adhered to, and that:

- All required elements of the curriculum, and those subjects which the school chooses to offer, have aims and objectives which reflect the aims of the school and indicate how the needs of individual pupils will be met
- The amount of time provided for teaching the required elements of the curriculum is adequate and is reviewed by the governing body
- Where appropriate, the individual needs of some pupils are met by permanent or temporary disapplication from all or part of the National Curriculum
- They manage requests to withdraw children from curriculum subjects, where appropriate
- The school's procedures for assessment meet all legal requirements
- The governing body is fully involved in decision-making processes that relate to the breadth and balance of the curriculum
- The governing body is advised on whole-school targets in order to make informed decisions

- Proper provision is in place for pupils with different abilities and needs, including children with SEN

2.3 Other staff

Other staff will ensure that the school curriculum is implemented in accordance with this policy.

3. Organisation and planning

3.1 Our Intent: Why our curriculum looks like this:

Our teaching of science for all children is to develop a curiosity and interest in the subject during their time with us and beyond. It is about developing and challenging children's scientific knowledge and conceptual understanding through the different disciplines. Science teaches children to have care and concern for living and non-living things and promotes curiosity about the world they live in.

Through the Programme of Study for Science in the National Curriculum, children will develop knowledge, concepts, skills and a positive attitude, supported through engaging outdoor learning opportunities. Working scientifically is developed throughout their time at Grange View as they progress through each year group, building on their enquiry skills and subject knowledge. By developing these skills it allows them to have greater independence in planning and carrying out fair tests. These tests will allow children to explain concepts using scientific language, build arguments and ask questions showing curiosity about the world. We believe every child can flourish and is encouraged to strive for success.

3.2 Planning and skills progression:

Planning

Our curriculum planning follows a two year rolling cycle in Early Years, Key Stage One and Two. The topics have been chosen based on the National Curriculum and ensuring the themes are engaging and interesting to the children.

The Science focus for each term is mapped out within Topics to ensure all areas of Science are covered.

Skills progression:

Skills progression from Early Years to Year 4 has been developed to ensure all areas of the Science curriculum are covered and to ensure clear progress throughout the year groups. This will also give staff the confidence to teach Science and know what needs to be achieved by the end of each year.

3.3 Pedagogical Choices:

- Using a range of resources such as magnifying glasses, magnets etc.
- Matching it to real-life experiences
- Opportunities for partner discussion and collaborative working

- Use of word power to build awareness and confidence with tier three subject vocabulary

3.4 Subject Spotlights:

At Grange View we like to give every subject it's chance to shine. With Science there is a specific week throughout the year to promote the subject.

We celebrate STEM week (March) in school as a way of developing children's knowledge in Science, Technology, Engineering and Maths and how the subjects link. We have a variety of visitors in from STEM careers and children enjoy workshops and carrying out additional Science investigations. We then come together at the end of the week to share and celebrate our learning.

3.5 Assessment:

Science is a very practical and orally taught subject, through each unit of learning a series of assessment for learning techniques will be used such as no stakes quizzes, show me boards and exit tickets to determine what the children have retained and understood. At the end of every term, assessment tracking sheets are completed by class teachers to identify the children who have and have not achieved the expectations of the National Curriculum.

At the end of a unit a pop task will be used to encourage the children to showcase and apply their learning of Science taught in relation to the intended outcomes.

3.6 Resources:

We have a range of resources in school to help with the teaching of Science and to allow children to complete experiments in all year groups. These resources are checked by the subject leader and replenished and replaced when need be. Some of the resources include;

- Magnifying glasses
- Magnets
- Resources to complete basic electric circuits
- Thermometers
- Torches
- Pond dipping

3.7 Early Years starting Points:

Science is taught through 'Understanding of the world' area of learning in Early Years. During their time in Nursery and Reception, children participate in opportunities to discover the world around them and extend their vocabulary.

Science is taught as part of 'Understanding of the world' covering forces, materials, different environments, natural world and weather/seasons. This gives children the basic knowledge needed in order to access the National Curriculum from Year 1.

These aspects are taught in different areas of provision across our Early Years Unit

both indoors and outdoors.

See our EYFS policy for information on how our early years curriculum is delivered.

3.8 Personal Development

Through group and partner work, discussion and investigation the children develop their tolerance and respect for others. Through our favourite five, children learn all about diversity and learn to accept others around them. We offer a breadth of a curriculum which is above the National Curriculum as we encourage children to be ambitious and succeed in later life. During STEM week, we have a variety of visitors in to inform children of their careers in Science, Technology, Engineering and Maths which motivates children to want to work hard and find a passion. We then try to involve parents with STEM week by inviting them in to see their work and inform them of the learning. Topic letters are also sent home every half term, so parents can see the Science that will be happening and how parents can support with it at home. All Science lessons allow children to explore the beauty of nature and allows lots of 'wow' moments as well as 'now' as they learn what is happening all around them. During Science lessons, children learn about how the world is changing due to climate change and learn how to make a positive contribution to saving our planet.

4. Inclusion

Teachers set high expectations for all pupils. 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 lessons so that pupils with SEN and/or disabilities can study every National Curriculum subject, wherever possible, and ensure that there are no barriers to every pupil achieving.

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 all subjects.

Further information can be found in our statement of equality information and objectives, and in our SEN policy and information report.

4.1 SEND provision:

- Using floor books so that they have the opportunity to develop scientific skills without the pressure of written evidence
- A vast majority of learning takes place in mixed ability pairs, to ensure that support and challenge is available and peer support is encouraged.
- Practical tasks and outdoor activities are used throughout the curriculum to support and engage the slower graspers.
- Pre teaching of key vocabulary with pupils with specific needs

5. Monitoring arrangements

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

- Monitoring visits and conversations
- Learning walks alongside subject leaders
- Termly subject leader reports

Subject leaders monitor the way their subject is taught throughout the school by:

- Planning scrutinies
- Learning walks
- Evidence in floor books
- Pupil voice
- Monitoring of data

Subject leaders also have responsibility for monitoring the way in which resources are stored and managed.

This policy will be reviewed every 3 years by the Science lead.

At every review, the policy will be shared with Committee 2 for approval.

6. Links with other policies

This policy links to the following policies and procedures:

- EYFS policy
- Assessment policy
- Marking policy
- SEN policy and information report
- Equality information and objectives

7. What is it like to be a pupil at Grange View studying Science on a daily basis?

At Grange View First School, Science is purposeful, stimulating, enjoyable and Thought-provoking. Children see the relevance of Science to their own lives and the world they live in.