



# Griffin Primary School

## Science Policy



1	Summary	Science Policy			
2	Responsible person	Tom Havercroft			
3	Accountable SLT member	Louise Pitts			
4	Applies to	<input checked="" type="checkbox"/> All staff <input type="checkbox"/> Support staff <input type="checkbox"/> Teaching staff			
5	Who has overseen development of this policy	Tom Havercroft			
6	Who has been consulted and recommended policy for approval	LGB			
7	Approved by and date	10.11.23 LGB			
8	Version number	2.0			
9	Available on	Every	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Trust website Academy website SharePoint	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
10	Related documents (if applicable)				
11	Disseminated to	<input checked="" type="checkbox"/> Trustees/governors <input checked="" type="checkbox"/> All staff <input type="checkbox"/> Support staff <input type="checkbox"/> Teaching staff			
12	Date of implementation (when shared)	Autumn Term 2023			
13	Consulted with recognised trade unions	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N			



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## 1. Aims and Objectives

The National Curriculum for Science states a high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science.

Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

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.

## 2. Whole School Curriculum Ambition

At Griffin Primary School, our ambition is to provide a curriculum for all of our students designed in response to what we already know about our children. Our over-arching goal is rooted in promoting a positive attitude towards learning so that children enjoy coming to school, developing our children into life-long learners. Our curriculum is designed to provide all of our children with the core knowledge that helps them to make links between their prior and new knowledge, allowing them to develop a deeper understanding and be inspired to continue their learning outside of the classroom.

We aim to provide our children with stability through a consistent curriculum provision, allowing staff to become experts and build in assessment tools. The curriculum is sequenced effectively to enable prior knowledge to be built upon both throughout and across year groups. At the heart of our curriculum there lies a respect for all of the subjects we teach and how this provides our children with an insight into the world around us.

At Griffin we teach children how to develop their behaviours and habits to become effective learners through asking questions in order to develop their curiosity. Griffin's curriculum has been developed so that our children are not afraid to make mistakes and accept ways forward as support rather than criticism.



By the time the children leave Griffin, our ambition is to ensure that they have the necessary skills in Mathematics, English and communication so that they will become positive citizens in their community and the wider world.

### **3. Science Curriculum Ambition**

Our ambition is for pupils to develop excitement and curiosity about the world around them.

- Pupils will have the skills to investigate the natural and humanly-constructed world around them.
- Pupils will have knowledge of living things in order to look after the natural world.
- Pupils will be inquisitive and understand the science behind how things work.
- Pupils will use technical terminology accurately and precisely.
- Pupils will know how their knowledge about Science applies to them in their lives.

### **4. Science Curriculum Implementation**

At Griffin Primary School, the Science curriculum is implemented through a number of elements, outlined below:

- LTP
- Subject schemes of work
- Year group schemes of work
- Progression of skills
- Subject specific skills
- Subject specific vocabulary
- Remember when – recap of prior learning
- Sticky knowledge
- Assessment
- CPD

### **5. Science Curriculum Impact**

- Outcomes of pupils in each year group
- Pupils become aware of the world around them, finding out why things are as they are and becoming curious to find out even more
- Develop a love of learning to take superficial knowledge into deeper knowledge and understanding of the world around us
- Develop aspirations for future engineers (Science/Maths/Technology) using STEM, provide opportunities for STEM sessions and bring in STEM Ambassadors from local employers to raise the profile of careers within these areas



## 6. Curriculum Planning

Science is a core subject in the National Curriculum. Our school uses the National Curriculum Science Programmes of Study as the basis for its curriculum planning in Science. At Griffin Primary School Science is taught weekly, for at least one hour per week.

The long-term plan maps out the units covered in each term during the key stage. This is used to inform the schemes of work for each Science unit. These are written by the subject leader in consultation with SLT and other members of teaching staff to ensure the progression of skills and subject knowledge is sequential and accessible for all.

Activities are planned in Science so that they build on the prior learning of the children. Children of all abilities are given the opportunity to develop their skills, knowledge and understanding, and we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move through the school.

Each lesson includes key knowledge, a focus on one enquiry type and one working scientifically skill. This enables pupils to learn substantive and disciplinary knowledge which they will build on in future lessons.

## 7. Subject Provision across the School

### EYFS

Science is taught in the Foundation Stage under the umbrella of Understanding the World. The early learning goals that provide links with science are:

**ELG 15 – The Natural World** Explore the natural world around them, making observations and drawing pictures of animals and plants., know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

**ELG 16 - Creating with Materials** Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function, share their creations, explaining the process they have used, make use of props and materials when role playing characters in narratives and stories.

The skills of enquiry are also a characteristic of effective learning as highlighted in the Early Years Foundation Stage. Science is taught as part of on-going provision within the Foundation Stage. The mud/outdoor kitchens have a scientific basis as do other areas in EYFS. Children are encouraged to explore using all senses, ask questions and identify similarities and differences and patterns and change.



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## Key Stage 1 and 2

Pupils develop their knowledge of biology, chemistry and physics through progressive strands of learning.

In Key Stage 1 and 2, each unit of learning allows for the teaching of 'Working scientifically' for all pupils in all year groups. 'Working scientifically' specifies the understanding of the nature, processes and methods of science for each year group. The skills taught here are crucial to the development of an enquiring mind. These types of scientific enquiry include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources.

### **8. Resources**

Resources within school are available for the delivery of an effective science curriculum. Resources are stored in the Science cupboard.

A wide range of educational enhancements, including visits and visitors are organised to support the Science curriculum.

### **9. Assessment in Science**

At Griffin Primary School, we assess children at the end of each lesson based on the learning intention and the sticky knowledge taught.

The schemes of work include an end point statement based on the knowledge and skills the pupils will have acquired. Pupils will demonstrate this through answering looking, clue and thinking questions; and demonstrating their knowledge of vocabulary and scientific skills.

### **10. Role of the Subject Leader**

It is the responsibility of the subject leader to write the LTP and schemes of work for each Science unit. The subject leader will also monitor the standards of children's work and the quality of teaching and learning in Science. Monitoring may involve looking at planning, scrutinising work, lesson observations and pupil voice. Pupil voice is valued and helps to inform the vision and aims of Science across the school, pupils are interviewed to gain an insight into the subject.

The subject leader produces an annual action plan for the development of Science and also reviews impact termly; identifies next steps and any CPD needs. This working document is shared with Governors annually. The subject leader will also produce and narrate a presentation about their subject for the Governors bi-annually.

This policy will be reviewed every two years.