



# The Grove Primary School

*"The Grove School Cares"*

Science Policy

September 2022



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**Document Control**

<b>Document reference:</b>	Science Policy	<b>Date implemented:</b>	06/09/2021
<b>Version:</b>	18.0	<b>Date modified:</b>	06/09/2021
<b>Revision due date:</b>	06/09/2022		
<b>Reviewed by:</b>	S Hastings	<b>Sign and date:</b>	06/09/2022
<b>Authorised by:</b>	B Atkinson	<b>Sign and date:</b>	06/09/2022

**Change History**

<b>Version</b>	<b>Date</b>	<b>Description</b>
18.0.1		Added in use of floor books. Changed information on assessment. Added in which area of science each topic covers.

**Related Documents/Policies**

<b>References</b>	<b>Title</b>
	Science Overview
	Science objectives



### **Rationale**

At The Grove Primary School our aim is to provide a curriculum that supports the development of scientific skills, knowledge and understanding. In order to do this, we draw upon and make use of the child's own natural curiosity and experiences.

#### **We aim to:**

- Teach children scientific skills required to widen their understanding of their world.
- Teach children about scientific concepts.
- Allow the children to have hands on experiences of science to extend their understanding.
- Teach about nature and the world around us.
- Teach children how to work safely.
- Show how science has affected the world and the work famous scientists have done.
- Encourage a willingness to cooperate and collaborate through class/group discussion.
- Encourage the children to enjoy their science and foster a positive attitude to the subject.
- Encourage children to think critically.
- Encourage children to persevere and understand that sometimes things take a while to happen.

#### **The objectives are:**

- To use the National Curriculum Document and Science Curriculum Coverage Documents when planning and teaching.
- To offer a progressive programme of teaching which builds upon previously acquired skills.
- To teach topics where appropriate and be dynamic in the planning between key stages, if needed.
- To give as many opportunities for hands on and experimentation, even at the most basic of level.
- To develop and build investigative skills involved in questioning, planning, predicting, observing, measuring, interpreting, recording and concluding.



Science is one of the 'core' subjects of the National Curriculum. This document explains how Science is delivered, managed, assessed and monitored in 'The Grove Primary School'.

All those teaching Science will be supported by the Science co-ordinator and will be expected to consult with her/him at regular intervals in order to maintain quality.

### **Science Curriculum Planning**

The school uses the National Curriculum objectives and Curriculum Coverage as a basis of its curriculum planning. The statutory coverage has been used alongside some of the non-statutory elements of the curriculum to create a medium term plan that all classes follow.

We carry out our curriculum planning in science in two phases (long-term and medium-term), the long-term plan maps the scientific topics studied in each term during the key stage.

Our medium-term plans gives an objective for each week.

The class teacher is responsible for understanding and teaching science on a day to day basis but is not expected to produce a written plan for this.

The new National Curriculum builds on knowledge gained and is progressive so that some topics are repeated but at a higher level of understanding. We differentiate to ensure that there are opportunities for children of all abilities to develop their skills and knowledge in each unit.

### **Science Books**

Teachers will introduce science topics to children and allow them to lead the direction of some of the work and investigation for example when studying light the children use their knowledge gained throughout a topic to come up with a question to investigate at the end of the topic, encapsulating what they have learned but directed by their interests. This will make science more child lead but also allow them to ask questions around a topic which can be explored further. Science recorded in books will take a variety of approaches including sketches, mind maps, diagrams and will mean children can record their results in their own way e.g. graph, table, picture. Year 1 and 2, alongside their science books also use



floor books. This allows the children to work collaboratively to record what they have found or are learning.

## Topic Areas

### Science in the Foundation Stage

Science is taught in the EYFS through child directed learning as part of the Early Years Framework for example, through investigating how to make play dough and observing the processes involved. The Science Co-ordinator works with the class teacher to ensure desirable learning outcomes and the development of 'early' investigative skills.

Working Scientifically is interwoven through all topic areas.

### Biology Focus

### Chemistry Focus

### Physics Focus

#### Year 1

- Plants (identifying a range of common wild and garden plants, identifying the basic structure of a flowering plant, identify deciduous and evergreen trees)
- Animals including humans (naming animals, identifying herbivores, carnivores, omnivores, naming parts of an animal and identifying parts of a human)
- **Everyday materials**
- **Seasonal changes**

#### Year 2

- Living things and their habitats
- Plants (how seeds grow, what a plant needs)
- Animals including humans (basic needs, importance of exercise)
- **Uses of everyday materials.**

#### Year 3



- Plants (function of parts of plants, what plants require, how water is transported in plants)
- Animals including humans (nutrition, skeletons of humans and animals)
- **Rocks**
- **Light**
- **Forces and magnets**

#### **Year 4**

- Living things and their habitats (grouping of creatures, classifications, changes to environment)
- Animals including humans (digestive system, teeth, food chains)
- **States of matter**
- **Sound**
- **Electricity (simple circuits, switches, conductors and insulators)**

#### **Year 5**

- Living things and their habitats (life cycles of a mammal, amphibian, insects and bird, reproduction of plants and animals)
- Animals including humans (life cycle of a human)
- **Properties and changes of materials**
- **Earth and space**
- **Forces**

#### **Year 6**

- Living things and their habitats (classification of characteristics, reasoning for classifications)
- Animals including humans (circulatory system, diet, drugs and exercise, nutrient and water transport)
- Evolution and inheritance
- **Light**
- **Electricity (voltage, variations in how components function, symbols for circuits)**

All students will approach science through investigation, thus it is intended that all scientific knowledge will be acquired through direct experience supported by information obtained from a variety of sources such as; teacher, computer database/internet, written texts and t.v



programmes. This emphasis on investigation means that all students can be provided with an accessible Science curriculum regardless of their developmental level and the complexity of their disabilities.

The Science Policy is due to be reviewed annually

### **Assessment and Recording**

Throughout a topic, children's work will be evidence in both their books and on Tapestry. Each learning objectives will be assessed using 'Behind, Working Towards, Expected or Greater Depth' on a grid, which can be found at the beginning of each section of work in books. Work on Tapestry will be linked to the corresponding learning objectives and also assessed using the system above.