

# Great Orton Primary

## Science Policy

This policy was reviewed and updated by the School Science  
Co ordinator / Head on

23<sup>rd</sup> April 2018

Adopted by The Governing Body on 21<sup>st</sup> May 2018

Head ...J Robertson.....

Chair of Governors .....L Thorp.....

***Great Orton Primary School Science Policy***

***'The important thing in science is not so much to obtain new facts as to  
discover new ways of thinking about them.'***

-William Lawrence Bragg

## **Introduction**

This policy outlines the teaching and learning of Science in our school . The policy is developed from the EYFS Curriculum and based on Science in the National Curriculum 2014. The implementation of this policy is the responsibility of all teaching staff.

We recognise and promote two types of scientific understanding in our teaching and learning approach :

**Procedural Understanding** – in which scientific skills and concepts are combined to form an overall learning strategy. Children learn how to structure and carry out investigations in order to find scientific answers to problems set in everyday life and contexts.

Programme of Study (POS) 1 – Experimental and Investigative Science – describes this type of understanding.

**Conceptual Understanding** – in which scientific knowledge and application is developed through a series of ideas and concepts.

This describes Programmes of Study: 2 - Life and Living Processes; 3 – Materials and their Properties; 4 – Physical Processes.

## **Aims/ Objectives**

Science in our school is taught and assessed to ensure pupils can and will :

- develop scientific knowledge and understanding
- acquire and use scientific enquiry skills
- ask questions about the world that they live in and make simple predictions about what might happen if ...
- look carefully at the world around them, using their five senses to describe and explain scientifically
- be able to use observations to sort and measure things  
record their findings in drawings, charts, words and tables
- explain how to make their test fair and explain why
- say what happened and explain trends in their results
- have an everyday knowledge of Science to apply in daily life lives
- make use of ICT, Literacy and Numeracy skills
- explore and work safely

In order to achieve these aims we will:

- provide a stimulating environment to promote effective learning in Science
- ensure continuity and progression in Science by liaising with colleagues on areas covered
- give children necessary resources for the children to be taught effectively
- Provide a safe environment in which to explore Science

## **Teaching and learning**

We use a variety of teaching and learning styles in science such as research, investigation, exploration, collaborative work and individual work. We share the learning intention which is skills based with the pupils at the beginning of the lesson. Our main aim is to develop children's scientific skills, knowledge and understanding through challenging, motivating activities that extend the children's learning. This can be through whole class teaching, small group work, paired work or independent learning.

## **Foundation stage EYFS**

We teach the national curriculum for Science.

Planning meets the need of the individuals for Science. The planning is monitored by the Science Coordinator and places an emphasis on practical exploration and investigation.

## **Differentiation**

We differentiate by:

- Dialogue
- Extra time
- Different levels of task
- By questioning
- By outcome
- By different work
- Varying the level of adult support

## **Planning and Delivery**

All children are entitled to a broad and balanced Science curriculum in accordance with equal opportunity, providing that in accessing it their actions do not subject anyone else to additional risk.(SEE GOS Behaviour Policy)

Our Science medium term plans incorporate, computing, and are taught in a topic-based approach.

Lessons are adapted to meet the individual's needs and the focus books (key assessment criteria) are used to ensure coverage of the Science curriculum. Within each unit of work the relevant strands of Science are identified and taught.

On average a child spends a minimum of 1 hour per week across the week.

## **Use of ICT**

ICT will be used as a vehicle to assist the recording of results, the writing up of experiments, research, supporting children to access the subject.

## **Assessment, recording and reporting.**

Assessments are made against developmental statements within the EYFS Curriculum and the learning objectives of the New National Curriculum - linked to age related expectations for each year group.

Formal observations/ monitoring of pupil work (practically and in written recordings ) and through verbal discussion and questioning will be in line with the school's assessment policy with due reference to the marking appendix.

## **Marking**

Will be in line with the school's marking policy.

Pupils will always be offered verbal feedback.

## **Equality**

Science is taught in line with the school's 'Equality Policy'. All children irrespective of gender, race, religion or ability are offered every opportunity to develop their skills in Science through a variety of tasks and resources.

## **SEND**

Children are given access to Science irrespective of ability, race and gender (see equal opportunities). Teachers are responsible for the learning of all children in the class. This may involve formulating individual educational plans for any children with particular needs.

Children with SEND have activities differentiated to meet their needs, however, some activities may be restricted if their participation leads to dangers being posed to other children.

Activities in Science which help pupils to achieve success:

- They emphasise first-hand knowledge.
- Knowledge and skills can be developed in small steps through practical activities.
- Science investigations can be developed in small steps through practical activities.
- Science investigations can capture the imagination and so encourages participation and enthusiasm.

Provision for pupils with SEND is planned in line with the code of practice for SEND. Tasks are differentiated and matched according to the abilities of the pupils. Additional challenges are provided by the class teacher. We aim to give very able pupils the opportunity to extend their scientific thinking through extension activities such as problem solving.

## **Monitoring and Evaluation**

The Science Co ordinator, in conjunction with the HT, monitor and evaluate the Science provision in School.

### **Monitoring and evaluation activities include:**

- Planning, work and assessment scrutiny
- Lesson/team teaching observations
- Sampling of work achieved
- Analysis of standards achieved.
- Governor Monitoring

### **Resources**

- The subject co ordinator will provide suitable resources out of the main budget.
- The subject co ordinator will also take responsibility for the upkeep and regular auditing of science resources.

### **Review**

- This policy represents the whole school view on the provision of Science and when it is reviewed it will be reviewed accordingly.