

# Willerby Carr Lane Primary School



## SCIENCE POLICY

### Introduction

This policy should be read together with the school statement on “Teaching and Learning”.

The aims of the National Curriculum (NC) for Science are that children should:

- 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
- question about the world around them
- be equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

The NC sets out a program of study for Key Stages 1 and 2 which describes a ‘sequence of knowledge and concepts’, as well as a requirement that the program is used to teach the children how to ‘work scientifically’. Our role is to teach scientific working through the knowledge and concepts of the programs of study. Children in the foundation stage are taught science elements through the Early Years Foundation Stage Early Learning Goals - Understanding the World.

### Aims and Purpose

Science is a body of knowledge built up through experimental testing of ideas. Science is also methodology, a practical way of finding reliable answers to questions we may ask about the world around us. Science in our school is about developing children’s scientific understanding of the world in which they live through investigation, the gathering of knowledge and understanding of the scientific process.

We believe that a broad and balanced science education is the entitlement of all children, regardless of ethnic origin, gender, class, aptitude or disability.

### Objectives

Our aims in teaching science include the following:

#### *Attitudes*

- Preparing our children for life in an increasingly scientific and technological world.
- Fostering concern about, and active care for, our environment.
- Helping our children acquire a growing understanding of scientific ideas and how these contribute to technological change which impacts on industry, business and medicine.
- Helping develop and extend our children’s scientific concept of their world.
- Developing our children’s understanding of the international and collaborative nature of science.



- Encouraging the development of positive attitudes to science.
- Stimulate and excite pupils' curiosity about phenomena and the world around them.
- Encouraging open-mindedness, self-assessment, perseverance and responsibility.
- Providing our children with an enjoyable experience of science, so that they will develop a deep and lasting interest and may be motivated to study science further.

### **Skills**

- Giving our children an understanding of scientific processes.
- Helping our children to acquire practical scientific skills.
- Developing the skills of investigation - including observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Developing the use of scientific language, recording and techniques.
- Developing the use of ICT in investigating and recording.
- Enabling our children to become effective communicators of scientific ideas, facts and data.

### **Organisation**

We adapt and extend the curriculum to match the unique circumstances of our school.

KS1 and Foundation stage teachers should be teaching science for approximately one hour each week.

KS2 teachers should be teaching science for approximately two hours per week.

### **Resources**

Science resources are located in the resource room, either in the red trays or on shelves at the back of the room. The library contains a good supply of science topic books.

Pupils should be taught to use the equipment with care and respect. Pupils **should not** be allowed to collect or return resources without being accompanied by an adult. After use, equipment should be returned to the storeroom promptly.

A detailed resource list is available from the science leader. The science leader should be informed of all defects and breakages as soon as possible, and should be informed of any special resources that are required.

### **Planning & Progression**

Lessons are planned with regard to the National Curriculum objectives. Teachers are expected to adapt and modify their plans to suit their children's interests, current events, their own teaching style, the use of any support staff and the resources available.

The teaching of science can be linked to other subject areas, especially Mathematics, English, ICT and D&T, but the children will also study science as a discrete subject.

### **Assessment**

In the EYFS, science is assessed through the Early Learning Goals – Understanding the World. This takes place on entry, at the end of Spring 1 and is recorded in the End of Foundation Stage Profile.

Assessment for learning is continuous throughout the planning, teaching and learning cycle. Children are assessed in KS1 and KS2 using a variety of methods:

- Observing children at work, individually, in pairs, in a group, and in classes.
- Questioning, talking and listening to children
- Considering work/materials / investigations produced by children together with discussion about this with them.
- End of unit assessment tests or assessments.
- 



## Health & Safety

When working with equipment and materials, in practical activities and different environments, pupils should be taught:

- To recognise hazards, assess consequent risks and take steps to control the risk to themselves and others.
- To manage the environment to ensure the health and safety of themselves and others.
- To explain the steps they take to control risks.

Information to support experimental and investigative work is provided in the Association for Science Education publication 'Be Safe', which can be requested from the science leader.

The risk assessment guidelines for the use of the pond should be referred to whenever activities are planned here or in the surrounding area.

Any trips should be planned with due regard to the school policy on taking children out of school. LEA guidance may need to be sought on trips involving farms etc.

## Inclusion

We ensure that all our children have the opportunity to gain scientific knowledge and understanding regardless of gender, race, class or physical or intellectual ability. We aim to teach science in a broad global and historical context, using the widest possible perspective and including the contributions of people of many different backgrounds.

