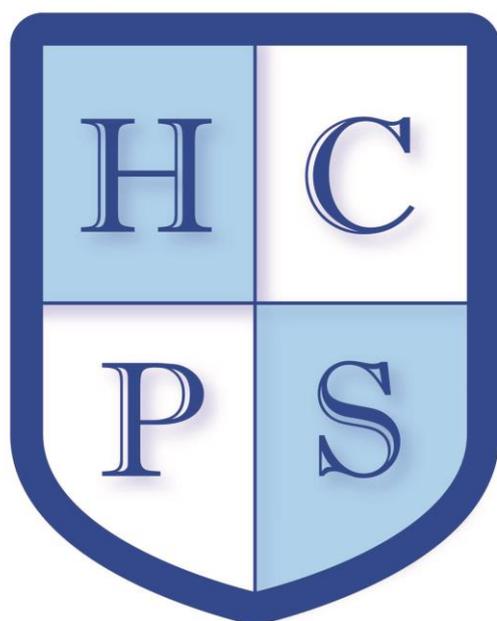


# Hunslet Carr Primary School



## Science Policy

**High Expectations  
Caring  
Positive Attitude  
Successful**

Policy reviewed: March 2017

Next review: March 2019

*High Expectations, Caring, Positive Attitudes & Successful*

## **STRENGTHS OF OUR SCHOOL**



### **The Children**

- Are well behaved, calm and polite
- Are engaged, positive and resilient
- Are supportive and helpful towards others
- Have an input on important decisions
- Have a sense of belonging

### **The Community**

- School supports the whole family not just the child
- Recognises the importance of attendance
- Spreads our growing reputation as a good school
- Helps celebrate the children's achievements
- Supports the school on improving behaviour

### **The Curriculum**

- Is a fun curriculum that is engaging
- Maintains a strong focus on the basic skills
- Is enriched through extra-curricular activities
- Supports our most vulnerable children
- Provides a rich variety of experiences & opportunities

### **The Staff**

- Develop nurturing relationships with children
- Provide good quality teaching and learning
- Support one another to help the children
- Are consistent in how they treat children
- Identify children's SEN needs early

## **THE CURRICULUM WE HOPE TO PROVIDE**



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### **Skills**

Fluent and confident in Reading, Writing and Maths  
Communicate with confidence  
ICT skills fit for the future  
Life skills – money, time, cooking  
Safety skills – Swimming, healthy choices  
Problem solving skills – Patience & Resilience

### **Attitudes**

Confident and independent  
The belief they can reach for the stars  
Celebrate a range of cultures  
Take responsibility for the environment  
Be honest and learn from their mistakes  
Children who are caring and helpful

### **Experiences**

To have 1<sup>st</sup> hand experiences of...  
Going away on a residential trip  
Visiting a range of places of worship  
A chance to look after an animal  
Relevant trips to theatres/farms/beaches  
Taking part in public performances  
Work experiences & further education

### **Knowledge**

High school ready English & maths  
To know about local places of interest  
To know where we are in the world  
Life skills – money, time, cooking  
Information about possible careers  
To know major historical facts  
To know their own strengths

## Introduction

The following document is intended to inform staff, governors, parents and other interested parties of our approach to the teaching of Science at Hunslet Carr.

## Rationale

Science plays a very important part in most aspects of our lives including everyday situations and in the world of work. 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.

Consequently our children have an entitlement to develop their science capabilities.

## Aims

Science at Hunslet Carr 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.

## Teaching and Learning

As teachers it is important that science is taught in a variety of ways. There is scope to use whole class, group and individual work in teaching science and it is vital that children receive these various styles. Children need to be given a variety of tasks including practise and consolidation, investigations and problem solving.

Links between science and other core and foundation subjects should be made where possible to ensure that children see the importance of science within all areas of the curriculum.

## Progression in Science

The school is using Chris Quigley's Essentials curriculum as our framework for teaching science, which is a developmental programme that is matched to the new National Curriculum.

Teachers use the Essentials curriculum to assign Essential Opportunities to different year groups and then planning using Essential Learning Objectives alongside the Rising Stars Switched on Science scheme of work.

Teachers assess the progress of their children using the Chris Quigley's Essential milestones in each year group which allow them to plan effectively based on the children's understanding of topics.

### Foundation Stage

Science throughout foundation stage is taught through play.

### Key Stage 1

The principal focus of science teaching in key stage 1 is to enable pupils to experience and observe phenomena, looking more closely at the natural and humanly-constructed world around them.

They should also:

- be encouraged to be curious and ask questions about what they notice.
- be helped to develop their understanding of scientific ideas.
- use different types of scientific enquiry to answer their own questions.
- observe changes over a period of time.
- begin to use simple scientific language to talk about what they have found out.

Most of the learning about science should be done through the use of first-hand practical experiences, but there should also be some use of appropriate secondary sources, such as books, photographs and videos.

### Lower Key Stage 2

The principal focus of science teaching in lower key stage 2 is to enable pupils to broaden their scientific view of the world around them.

They should:

- explore, talk about, test and develop ideas about everyday phenomena and the relationships between living things and familiar environments.
- begin to develop their ideas about functions, relationships and interactions.
- ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them.
- carry out simple comparative and fair tests and find things out using secondary sources of information.

- draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.

## Upper Key Stage 2

The principal focus of science teaching in upper key stage 2 is to enable pupils to develop a deeper understanding of a wide range of scientific ideas.

At upper key stage 2, they should:

- encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates.
- begin to recognise that scientific ideas change and develop over time.
- select the most appropriate ways to answer science questions using different types of scientific enquiry.
- carry out comparative and fair tests and finding things out using a wide range of secondary sources of information.
- draw conclusions based on their data and observations.
- use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.

***Across all year groups scientific knowledge and skills should be learned by working scientifically.***

## Planning

The long term planning for science follows the framework given by Chris Quigley Essentials, which is matched to the new National Curriculum and the Early Years Framework. The framework is implemented using the Switched on Science scheme of work via medium term topic planning in line with the school planning policy.

Within the planning Learning Objectives and Milestone Success Criteria are shared with the children at some time within the lesson.

## Assessment, Recording and Reporting

Assessment of science can be done in a variety of ways including observation, giving an independent or co-operative task or a test. Both formative and summative assessment will be carried out.

Formative assessment being linked to short term planning and marking to inform future teaching. Summative assessment being at the end of each term to inform next steps, the next teacher, key stage, parents and aid target setting.

This assessment will be done in line with the school assessment policy.

Record keeping will be done in line with school policy and should be done to inform planning. Teachers will make informal records i.e. jotting down individual strengths and weaknesses. They will also make formal records i.e. using Chris Quigley Milestone assessment to assess whether a child is at a basic, advancing or deep level of understanding within the subject.

Reporting of science will be in accordance with statutory requirements. The annual school report covers progress, effort and achievements in science.

### Equal Opportunities

It is important that all children are given the opportunity to develop their science abilities regardless of race, gender, religion, ethnic group, culture or ability. We would also plan and develop children's multi-cultural awareness making sure the curriculum reflects the wider community. Children need relevant experience and language to access our creative curriculum successfully.

### Special Needs

Children on the SEND register and who have specific learning difficulties will be planned for.

### Differentiation

Science provides a good opportunity for differentiation based on:-

- Resources (e.g. providing texts at different levels)
- Outcome
- Progression (e.g. highlighting different skills for different children)
- Task (e.g. setting different tasks within one topic)
- Support (use of support staff)
- Differentiated Success criteria

Children should be allowed to work at their own level of attainment.

### ICT

Each year group has daily access to either Laptops or iPads, which can be used by children to support the teaching of science.

### Homework

This will be given in line with the school homework policy. Science will often be the focus of a learning log whilst it is being taught in class.

### Time

To ensure there is adequate time dedicated to the teaching of science, each class teacher is expected to monitor the coverage of the Essential Opportunities and plan topics accordingly.

## Resources

The school has a number of resources for science.

Resources are readily available for all areas of the Science National Curriculum and can be found in the science cupboard on the first floor of school. The topics resourced in the cupboard include:

- Everyday materials
- Plants
- Animals including humans
- Light
- Sound
- All living things
- Rocks and soils
- Forces and magnets
- States of matter
- Electricity
- Earth and Space
- Evolution and Inheritance

## Safety and Care

The safe use of equipment is to be promoted at all times in line with the Health and Safety Policy.

## The Role of the Head teacher

To ensure that the National Curriculum is implemented.

To encourage and support the subject leader's approach to science development across the curriculum.

To support and encourage all staff in the teaching of science.

To make available the necessary resources to continue the development of science within the school budget.

To promote science in school.

## The Role of the Subject Leader

To promote science in school.

To provide a good example of the teaching of science in the classroom.

To ensure resources are available.

To plan and implement future developments of science through action plans.

To review and monitor both the planning and teaching of science.

To work alongside staff when required.

Attend relevant courses and disseminate information to staff.

Arrange INSET courses for staff.

Organise the acquisition of new resources.

Support colleagues.

Encourage parental involvement.

### Role of the Staff

To ensure that science is used in the classroom in line with the National Curriculum.

With the support of the subject leader and head teacher to implement any changes in the teaching of science.

To ensure there is equality of opportunity in the teaching of science.

To inform the co-ordinator of any problems which may arise in the implementation of science.

Teach and assess the children science.

### Role of the Governing Body

The governors will monitor the development and implementation of science in school.

### Review

This policy is to be reviewed every year.

Name: Nicole Martin  
Science Subject Leader

March 2017