

# WHITFIELD ST JAMES CE © PRIMARY SCHOOL

## Policy for SCIENCE

Autumn 2014.



*Involvement, Enjoyment, Achievement*

### Introduction

- This document is a statement of the aims, principles and strategies for teaching and learning about Science.
- It was approved by the Governing Body in Autumn 2014
- This policy will be reviewed Summer 2016 in accordance with the schedule for the review of this, and all other, policy documents as set out in the School's Development Plan.

### Why we teach Science at St James'

At St James' School we teach science to help children to develop inquiring minds and so enhance their understanding of themselves and the world in which they live, thus preparing them for adult life.

### Aims of teaching Science

At St James our aims are to ensure that our children:-

- ❖ develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- ❖ develop understanding of 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
- ❖ promote spoken language by widening children's scientific vocabulary and articulating scientific concepts clearly and precisely
- ❖ have some knowledge and understanding of the importance of the work of some famous scientists

### Planning

In KS1 and KS2 we have yearly plans for the teaching of science based on the new Science Programmes of Study, which are on a two year rolling cycle. Each year group will review their plans at the end of each summer term and be given to the Science Co-ordinator with any changes. Where possible, teachers link science work with topics undertaken in Geography and History. Foundation Stage work towards the science strands of Development Matters E.Y.F.S curriculum: again following a two year rolling programme.

### Continuity and Progression

Each child's progress is monitored using teacher assessments, in conjunction with the National Curriculum level descriptors, and evidence of their achievements for KS1 and II are kept centrally in orange tracking files.

### Teaching Methods/Learning Styles

The Science Scheme of Work will state when and which areas of the science curriculum will be studied, using cross curricular links wherever possible. Teachers themselves will decide how they will teach the scientific concepts to their class. Each teacher has their own particular style and methods, but we all believe that children learn best in an experimental and investigative way and this practical approach is undertaken at all Key Stages.

Scientific concepts and skills are taught by a variety of methods i.e. individual, group work, class lessons - sometimes daily, weekly, or as part of a Science Circus. However, before an investigation takes place, the necessary skills are taught to the children.

At KS2 there is more direct teaching of concepts, either to support the understanding of practical experiences or to increase the children's scientific knowledge.

#### Equal Opportunities and Differentiation

Science investigations are carried out in either mixed ability, or ability groups depending on the particular activity, with the decision being made by the class teacher. The starting points always being carefully selected to appeal to all children irrespective of gender, race or ability. Extension activities are planned where necessary and differentiation is catered for either by outcome, task or support.

#### Resources

Science equipment is stored in a central resource area in labelled boxes. in the resource room. Additional KS1 resources are on the shelves in the corridor of the New Century Classrooms. Resources for the Foundation Stage are stored within the unit.

#### Safety

All the staff accept the responsibility to plan safe activities for science throughout the school.

#### Assessment/Record Keeping

In the Foundation Stage, assessments made from observations are recorded on each child's Profile under 'Understanding of the World'.

Assessment and record keeping in KS1 and KS2 is carried out each term and recorded in orange tracking files. A new recording grid is being implemented in Autumn 2014 in KS1 and this will then filter up into KS2. Examples of children's work, is gathered by the Science Co-ordinator and put into the Science Coordinator's file.

At the end of KS1 and KS2 the children are given a teacher assessed level for science and the results of these are used to inform future planning.

These are passed on to the next teacher when the children move up to the next class.

#### Role of the Headteacher

The Headteacher is responsible for ensuring that the policy is being implemented and that the staff periodically update it. Samples of past terms planning sheets are kept in the Head's Office.

#### Role of the Science Co-ordinator

The Co-ordinator together with the Headteacher, have the responsibility for monitoring progression and continuity of the teaching of the science curriculum throughout the school. The Co-ordinator has the responsibility for the day to day maintenance of the science equipment and for the purchase of new equipment and materials within agreed budgets. The Co-ordinator will try to support colleagues who are planning science activities.

The Co-ordinator will attend courses and, as far as possible, be a resource of scientific knowledge for all the school and ensure that the agreed Scheme of Work is understood and is being implemented.

They will annually review the aims identified on the Whole School Development Plan, and after discussion with colleagues, decide targets for the future. Co-ordinators will make new teachers aware of their responsibilities in the planning and teaching of science and ask for help when necessary.

#### LEA Documentation

The Headteacher will ensure that the school's policy is in line with national policy and that of the LEA.

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