Science Policy

Approved by Governors	June 22
Review Date	June 24
Cycle	Biennial

Rationale

Science is a powerful technique for understanding how the world works. The process is ongoing and involves testing ideas and using the results of the tests to modify and improve the original ideas.

Purpose

This policy aims to show how our school intends to fulfil its legal obligations to deliver the National Curriculum and how and where we can go beyond that to create a stimulating and exciting curriculum which will meet the future needs of the children.

Guidelines

- Aims for the teaching of science
- The process of science
- ICT
- The contribution of science to the curriculum and to the wider life of the school
- Curriculum Provision
- Grouping
- SEND
- Early Years
- Equal Opportunities
- Cross curricular themes and links with other curriculum areas
- Health and Safety Issues
- Parental Involvement
- Science Resources
- Assessment, Recording and Reporting
- Behaviour and Discipline
- Marking
- Homework
- Display

Conclusion

This policy should have a positive effect on the teaching and learning of science in the school by encouraging a consistent approach throughout the school.

Monitoring

This policy and the guidelines will be reviewed when necessary – at least every two years.

Aims for the Teaching of Science

Our aims are that all children will:-

- maintain and develop their natural sense of curiosity about the world around them
- develop a set of attitudes which will promote scientific ways of thinking including open-mindedness, perseverance, objectivity and a recognition of the importance of teamwork
- to come to understand the nature of 'scientific method' involving careful observation, the making and testing of hypotheses, the design of different types of enquiry, the drawing of meaningful conclusions through critical reasoning and the evaluation of evidence
- becoming effective communicators of scientific ideas, facts and data
- begin to build up a body of scientific knowledge and understanding which will serve as a foundation for future enquiry

Rushton is a dyslexia friendly school

As a dyslexia friendly school, we will provide quality teaching, differentiated as needed. We will identify and respond to unexpected difficulties, actively working to include all pupils so they can achieve in all areas of learning.

We feel that more children are successful when taught using dyslexia friendly teaching methods. By teaching in this way, we aim to make our teaching and learning fully accessible to all children. We will try to discover how the child learns best and use a variety of multi sensory activities including practical activities and ICT, using eyes, ears, speech, fingers, to stimulate learning.

We aim to enable children to use their strengths for learning while developing the areas they find more difficult.

The Process of Science

The process of science can be characterised by the asking of questions and the construction of models about the world in which we live. This also involves the methodical, logical and controlled search for evidence and answers. To do this science brings together skills and knowledge from other curriculum areas and uses them to develop models of the world in which we live. This will help our children to live as better informed and responsible citizens of the world in the 21st century.

The school sees science as:-

- a core subject of the curriculum
- a means of preparing children to understand the world around them
- encouraging an enquiring mind and developing the skills to investigate problems
- encouraging a sense of wonder
- a subject that many children are fascinated and well motivated by
- having a content that will help children take informed decisions about health and wider social issues such as the environment.

ICT

ICT is regularly used as a teaching and learning multi-sensory tool to consolidate the acquisition of skills in science.

The Contribution of Science to the Curriculum and Wider Life of the School

- Science uses and develops skills and knowledge from many areas of the curriculum in particular English, Mathematics, Computing., R.S.E and Design and Technology.

- It has a methodology for thinking which forms the basis for most intellectual enquiry.
- Its skills and knowledge can be widely applied to everyday life and an understanding of the key concepts will allow children to use this knowledge and understanding in both familiar and unfamiliar situations.
- Appreciation of the nature of science and the contribution it makes to society will encourage children to develop a sense of their responsibilities as members of society and of the contribution they can make to it.
- Learning in science contributes to personal development by encouraging wonder and curiosity, a responsible attitude towards health and safety, and a respect for living organisms and the environment.
- An appreciation of the constantly changing nature of scientific knowledge will give children a better understanding of the process by which scientific models are created, tested and modified.

Curriculum Provision

In the National Curriculum (September 2013), the programmes of study for science are set out year-by-year for key stages 1 and 2. Schools are, however, only required to teach the relevant programme of study by the end of the key stage. Within each key stage, schools therefore have the flexibility to introduce content earlier or later than set out in the programme of study. In addition, schools can introduce key stage content during an earlier key stage if appropriate. All schools are also required to set out their school curriculum for science on a year-by-year basis and make this information available online. Opportunities for accessing specialist science teaching within the LEP are exploited; visitors to school are encouraged and educational visits are organised, in order to provide exciting and stimulating enrichment activities to complement and extend our curriculum provision.

Grouping

All children are taught in vertically grouped, mixed ability classes. The predominant model of working is co-operative group work but, on occasions, it may be more appropriate for the children to work individually or as a whole class.

Special Educational Needs

Teachers ensure that lessons are planned so that all pupils make progress and gain positively from the lesson through a range of differentiated tasks and activities, which encourage full and active participation by all children irrespective of ability.
Care needs to be taken to ensure that children with particular disabilities e.g. language or physical problems will have their individual needs met.
(see Inclusion Policy and SEND Policy)
Pupils who are very able will be challenged with extended activities.

Equal Opportunities

All science will be planned to ensure equal interest and involvement by both girls and boys.

Cross Curricular Themes and Links with Other Curriculum Areas

Science is taught as a specific subject at both Key stages but is linked to other Curriculum areas because of our topic-based approach. Forest school activities will also be used to enhance the science curriculum.

Health and Safety Issues
When engaged in practical science tasks children will be expected to behave in a considerate and responsible manner and to show respect for other people and equipment. Children will be encouraged to think about and discuss the safety aspects of their activities. (All accidents, however slight, should be reported in the school's accident record book).

Parental Involvement
Encouraging parents to take an active part in their child's education is one of the most important ways of improving learning. To this end we involve parents by:-

- encouraging children to go home and talk about their work
- asking parents to help children with any homework which may be set.
- enlisting parent's help in educational visits

Assessment, Recording and Reporting
Assessment of children's work is a continuous ongoing process and records of their attainment and samples of work are kept by the class teacher. Children are tracked in science at the each year and their progress is monitored. The teacher's assessment of science capability is also included in the Statutory Assessment at the end of KS1. Parents are formally informed about their children's progress in an annual written report and there are two consultation evenings during the year. Parents are encouraged to come into the classroom to look at their child's work and to informally discuss their child's progress at any time during the year.

Behaviour and Discipline
Behaviour and discipline in science lessons is particularly important due to the practical nature of this subject. The school's behaviour policy will guide teachers during science lessons.

Marking
Thorough and frequent marking of the children's work has several beneficial effects. For the children it is motivating to know that their work will be marked and valued and for them to get some feedback as to its strengths and weaknesses.
For the teacher it is a chance to communicate directly with the child on an individual basis, to assess their progress and to inform on the effectiveness of the teaching assessment. (see marking policy for further information)

Display
Children will derive much pleasure and benefit by having their work displayed. When possible samples of work will be mounted and displayed within the classroom or on other display boards throughout the school.