



Beechwood Primary School

SCIENCE POLICY

Aims and Objectives

We live in an increasingly scientific and technological age where children need to acquire the knowledge, skills and attitudes to prepare them for life as well as world-wide developments. We, at Beechwood Primary School, believe that the teaching of science develops in children an interest and curiosity about the world in which they live, and fosters in them a respect for the environment. Through the framework of the National Curriculum, science aims to:

- Equip children to use themselves as starting points for learning about science, and to build on their enthusiasm and natural sense of wonder about the world.
- Develop through practical work the skills of observation, prediction, investigation, interpretation, communication, questioning and hypothesizing, and increased use of precise measurement skills and ICT.
- Encourage and enable pupils to offer their own suggestions, and to be creative in their approach to science, and to gain enjoyment from their scientific work.
- Enable children to develop their skills of co-operation through working with others, and to encourage where possible, ways for children to explore science in forms which are relevant and meaningful to them.
- Teach scientific enquiry through contexts taken from the National Curriculum for science.
- Encourage children to collect relevant evidence and to question outcome and to persevere.
- Encourage children to treat the living and non-living environment with respect and sensitivity.
- Stress the need for personal and group safety by the correct usage and storage of resources.
- To enable children to appreciate that we do not always know the answers and results when carrying out scientific enquiry.
- To develop pupil's enjoyment and interest in science
- To enable pupils to effectively communicate scientific ideas by using scientific vocabulary

Curriculum Planning

Science is a core subject of the National Curriculum and pupils undertake science activities every week at both Key Stages. In Foundation Stage it is incorporated in the Early Learning Goal 'Knowledge & understanding of the world' in which pupils develop the crucial knowledge, skills and understanding that helps them make sense of their world. At KS1 and KS2, the new science curriculum is embedded into the creative curriculum. Programmes of study are covered over a two year learning cycle. Medium term plans take into account the importance of developing our pupils 'skills of working scientifically (SC1). These skills are taught as part of and alongside Life Processes and Living Things (SC2),

Materials and their Properties (SC3) and Physical Processes (SC4). At Beechwood we include SEN as an integral part of our planning.

Teaching and Learning

All lessons include wherever possible;

Clear learning objectives which are shared and reviewed with the pupils

A variety of teaching and learning strategies including: exploration, investigative enquiry and illustrative enquiry

Questioning

Discussion

Demonstrations

Explanations

Instructions by the teacher

Practical activities to advance and consolidate knowledge and skills

The use of specific scientific vocabulary

Problem solving and investigative tasks

Safety issues and instruction

Whole class teaching

Group teaching

Subject Specific Resources

Most of the resources are kept in a central store in which teachers and teaching assistants have access. Any breakages or missing apparatus must be reported to the science co-ordinator who is responsible for the maintenance of these areas.

Equal Opportunities

We are committed to providing all children with an equal entitlement to scientific activities and opportunities regardless of race, gender, culture or class.

Differentiation and Inclusion

We meet the needs of all our children by differentiation in our science planning and in providing a variety of approaches and tasks appropriate to ability levels. This will enable children to take an active part in scientific learning and practical activities and investigations and to achieve the goals they have been set. Some children will require closer supervision and more adult support to allow them to progress whilst more able children will be extended through differentiated activities. By being given enhancing and enriching activities, more able children will be able to progress to a higher level of knowledge and understanding appropriate to their abilities.

Able Gifted and Talented

These children have been identified by staff and placed on the A, G and T register- they each received an individual action plan in order that their skills can be developed. At present the support given to other able pupils in the class in order to enhance their skills is usually undertaken by the class teacher who has often organised the class groups with this in mind.

SEN

The aim is to ensure that all pupils make progress and gain positively from each lesson. All teachers aim to;

- Man lessons so that pupils can be included
- Use a range of resources, including the use of ICT, effectively to allow access to whole class or group work
- Differentiate tasks or activities
- Organise the class and deploy staff to support group or individual needs

Assessment

Assessment for learning is continuous throughout the planning, teaching and learning cycle. Children are continuously assessed by:

- 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.
- Science learning ladders linked to each unit of work.
- Science APP inputted continuously into 'Classroom Monitor'
- UKS2 use Rising Stars Science Tests to inform assessment

Marking is used to acknowledge achievements and to show the pupils what they need to do in order to improve. Teachers monitor/assess pupils' progress and comment on it in November and March and at the end of each school year as part of the reporting to parents. National curriculum levels are also given then.

Health and Safety

Safe practice as indicated in The Association of Science Education publication, 'Be Safe' must be promoted at all times. Teachers must also take into account the school's Health and Safety policy and the guidance for educational offsite visits. Particular attention must be given to avoiding the use of anything that aggravates individual pupils' allergies. Safety issues have been identified in medium-term planning.

Personal, Social and Health Education

This is taught as part of the units on ourselves, keeping healthy and life cycles. Sex education and personal hygiene is taught by Year 5/6 class teachers in gender groups after consultation with parents.

Subject across the Curriculum

Every effort is made to link the Science units covered to other topics across the curriculum.

Monitoring and Evaluation

Teachers place medium term plans in Subject Leaders folders in the first week of every half term.

Subject leader's monitor the plans for coverage and progression.

Subject leaders will monitor and evaluate their subject throughout the school in line with the observation rota.

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Reviewed: June 2014

Review: June 2016

Governors Chair of Curriculum and Welfare: _____

Head Teacher: _____
