BRADY PRIMARY SCHOOL



SCIENCE POLICY

## Science Policy

At Brady Primary we believe that acquiring scientific skills and knowledge is the key to children’s understanding of the world around them. Children’s curiosity will be utilised in developing the necessary skills of inquiry and questioning which are needed to become effective scientists and to begin to develop a responsible attitude towards the environment.

There are established principles of Science teaching across the school in Early Years Foundation Stage through ‘Understanding the world’, Key Stage One and Key Stage Two and are regularly reviewed and updated in consultation with all the teaching staff. The established principles are aligned and embedded in the Science curriculum.

The ‘Science principles’ is regularly referred to when planning Science lessons. The document is designed to support and improve the quality of teaching and learning of Science across the school with all staff being committed to providing high-quality, engaging and exciting Science lessons to ensure good outcomes for all the children

The following ‘Science Principles’ should be used.

**Key principles for the Science vision in Early Years Foundation Stage:**

Children explore the school grounds when using their senses

* Children take care of their environment.
* Children talk, draw and write about their observations.
* Children enjoy learning about the world around us.

**Key principles for the Science vision in Key Stage 1 and 2:**

* Children are curious, excited and having fun.
* Children are being challenged and develop an understanding of the world around them.
* Children are using scientific vocabulary.
* Children are sharing ideas and opinions.
* Children are completing practical investigations.
* Children follow up investigations.
* Children know how it is relevant to their lives.

However, teachers are also encouraged to adapt their teaching strategies to personalise the learning experiences to meet the needs of all our pupils by encouraging personal autonomy.

These principles of Science teaching are to be used to inform planning and act as a self-evaluation tool with teachers identifying areas for development in the teaching and learning of Science as well as embedding consistently good practice. This demonstrates a whole-school commitment to improvement in Science.

# Planning

Science is mapped and taught to complement the Cornerstones Curriculum themes and where possible will have links to subject areas across the curriculum (see curriculum offer) Lessons are planned and adapted using Twinkl, ‘Love to Investigate’ investigations and cornerstones and with reference to the National Curriculum programmes of study. Support staff are to be allocated to a group as with all core subjects.

Topics should show progression across the year groups and planning should reflect this see ‘Science Progression’ and ‘Working Scientifically Progression’ document saved in curriculum area>Science.

**CPD**

Teachers can speak to the Science Lead for additional information and can also access <https://www.reachoutcpd.com/> to enhance knowledge and confidence in teaching Science.

# Time Allocation

Science is taught as a discreet subject and timetabled to reflect this. At Key Stage One all classes will devote at least one and a half hours per week to the teaching of Science or equivalent. At Key Stage Two at least two hours per week will be allocated to Science or equivalent.

# Lesson Structure

A range of approaches to the teaching and learning of Science are used at Brady Primary School. This includes providing opportunities for the children to:

* Plan and set up simple, practical enquires for themselves both comparative and fair tests. (Not all investigations require ‘fair testing’)
* Children are also provided with opportunities to gather, record and classify results independently and use results to draw conclusions.
* To conduct research on different scientific concepts to deepen knowledge, understanding and skills.
* As the children progress through the school there will be a greater emphasis on their own planning and implementation of scientific investigations. Investigations, whether whole class, group or individual will be carried out at least once every half-term. (The Cornerstones ‘Love to Investigate investigations’ can be used to supplement any gaps in the Science curriculum for any particular year group). See yearly Science Plan for investigations mapped to topics.
* Wherever possible practical resources relating to Science should be used.

# Equal Opportunities

Teachers will ensure that every learner has equal access to the Science curriculum. See Equal Opportunities Policy for further details.

# Resources

Labelled boxes of resources relevant to elements of the National Curriculum programmes of study are stored centrally in the storage room. Science resources are clearly labelled and staff are able to independently select and choose resources for their lessons, boxes may be borrowed when beginning a new Science topic and should be returned at the end of a lesson. Any loss/breakage of equipment or resource needs should be reported to the Science leader.

**Learning environments**

Science is valued and enjoyed by the children at our school.

* Science displays in the corridor are routinely kept up to date and is of a good standard. This is monitored by Senior Leadership Team and the Subject Leader on a termly basis.
* The Science principles are referred to as a working document in Science lessons to ensure a consistent approach and application of the Science principles in daily teaching practice.
* The Children have access to vocabulary and resources to learn independently of the class teacher and to use the information to encourage further investigation into the current scientific concepts.

# Assessment

# The assessment of Science is to ensure good progress and attainment across the school via teacher formative assessment.

* Pre-learning tasks are used to identify what the children already know and also provide the children opportunities to ask questions about what they would like to find out. This allows Science lessons to be tailored and differentiated to individual children’s starting points and for children to be directly involved in the planning process which leads to a positive impact on progress and attainment across the school.
* Pupils are to use AFL self-assessment faces against the learning objective. Pupils are expected to explain why they have chosen a particular face against the learning objective and success criteria.
* The Science subject leader is to hold termly internal moderations and pupil voice. Teachers are provided with the opportunity to assess pupils working at, below or above Age Related Expectation in Science. Exemplification materials are used in Key Stage One and end of Key Stage Two to support teachers’ judgements to ensure good outcomes for all pupils. A progression map in line with the has been created to ensure pupils make good progress across the school.
* Data is submitted on a half-termly basis onto the schools tracking and assessment system ‘target tracker. Data is analysed carefully with gaps in pupil progress and attainment identified and next steps planned with teaching staff and support staff in closing any existing gaps in progress and attainment.

# Safety

Our policy follows the ‘Be Safe’ document produced by ASE. Each member of teaching staff is responsible for familiarising themselves with this document. A hard copy is kept in with the Science Lead.