



Science Policy

February 2022

Review date: September 2023

Subject Leader: Erica Westwood and Tiffany Sanders

Statement of intent

At Beckers Green, we strive to excite and engage our learners through topics which are selected to enhance their cultural capital. Historically in our community, the experiences of our children have been isolated to their local environment and it is therefore important that we seek to expand horizons within their school experiences. Our curriculum also includes many opportunities for children to understand the cultural importance of Braintree and its geographical and historical context.

We have used this knowledge of our pupils to create a curriculum that is ambitious for all and offers them learning that build on prior knowledge and understanding. Topics and lessons are sequenced carefully to ensure opportunities to revisit and activate prior knowledge are optimised in order to support pupils in transferring information to their long-term memory.

Pupils with additional needs have their needs met through high quality teaching (which may include scaffolded tasks, appropriate support and challenge) or through individualised curriculums where necessary.

Introduction

Teachers will have a high expectation for all children to enjoy and progress in science. They will secure learning so that the children will have a deeper understanding of the world. Teaching will be practical based so that curiosity can be fostered and enquiring minds be developed, enabling us to equip children with strategies for investigating independently and solving problems.

School aims

We aim to:

- Stimulate and excite pupils' curiosity about changes and events in the world
- Satisfy this curiosity with knowledge
- Engage pupils as learners at many levels through linking ideas with practical experience
- Encourage pupils to learn to question and discuss scientific issues that may affect their own lives
- Encourage pupils to develop, model and evaluate explanations through scientific methods of collecting evidence using critical and creative thought
- Explain and show pupils how major scientific ideas contribute to technological change and how this impacts on improving the quality of our everyday lives
- Enable pupils recognise the cultural significance of science and trace its development
- Link with global citizenship to develop a greater understanding of the world in which they live

National Curriculum aims

The national curriculum for science 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

Organisation

Science is taught as a block of lessons to immerse the children, wherever possible, in topics dictated by the National Curriculum. KS2 children follow a two year rolling programme, enabling all children to access the full curriculum, whilst KS1 children follow a progressive repeated curriculum, encouraging secure knowledge

of the world around them. All children will be revisiting areas of the curriculum to ensure progression throughout their learning journey and will be asked to draw on this knowledge to help with investigations, predictions, and justification of their ideas.

Planning (including differentiation, inclusion and evaluation)

All lessons have clear learning objectives and will answer a crucial question closely linked to the Curriculum Planner. A variety of strategies, including questioning, discussion, concept mapping, low stakes quizzing and marking, are used to assess progress. The information is used to identify what is taught next. All topics have a correlating Knowledge Planner with key vocabulary and learning points to be covered which are easily accessible for the children.

Investigations are to inspire the pupils to experiment and challenge the world around them. They will also encourage questioning, making much of the learning child lead.

Pupils are encouraged to develop their skills in, and take responsibility for, planning investigative work, selecting relevant resources, making decisions about sources of information, carrying out investigations safely and deciding the best form of communicating their findings.

Resources

Science resources are kept upstairs in the area used for PPA. These are shared resources for the whole school. Any requests for new resources should be passed to the Science subject leader (Tiff Sanders/Erica Westwood). These should be considered and requested with adequate notice.

Assessment, recording and reporting

Teacher assessments are in line with National Curriculum expectations. Teachers will complete assessments in Science using Target Tracker. These will be available for the next teachers to use during transition week. Children can assess their own learning using Metacognitive strategies which are taught as a school wide approach.

Monitoring

At Beckers Green we believe that the most effective way to monitor the impact of our Science policy is to utilise and triangulate a broad range of moderating activities, involve our stakeholders, and apply these regularly, consistently, and robustly.

Through our annual Monitoring, Evaluation and Review cycle, we employ the following monitoring activities in Science:

- Lesson observations and drop ins
- Data drop and subject leader data review: Using Target Tracker we use the termly data to inform our planning and areas we need to develop or support
- Governor visits. As part of the Governors' Monitoring, Evaluation and Review cycle, lead governors in each subject, make regular visits to school to monitor progress towards the school development plan
- Pupil voice. Senior staff, subject co-ordinators and governors take regular opportunities to listen to the views of pupils in relation to their experience of Science at our school and their feedback actively informs subject development through our curriculum action plan