

Subject Leader Position Statement

Subject Science

Date September 2022

<u>Intent</u>

Aims (taken from the National Curriculum 2014)

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.

'Working Scientifically' is described separately in the programme of study but must always be clearly related to the teaching of Science content in the programme of study. 'Working Scientifically' specifies the understanding of the nature, processes and methods of Science for each year group. This should not be taught as a separate strand but should be embedded within the content of Biology, Physics and Chemistry, focusing on the key features of scientific enquiry, so that pupils learn to use a variety of approaches to answer relevant scientific questions.

Our aims in teaching Science include the following:

- Preparing our pupils for life in an increasingly scientific and technological world
- Fostering concern and active care for our environment
- Supporting our pupils in acquiring scientific skills and knowledge
- Providing layered scientific vocabulary for them to articulate their understanding and knowledge

Rationale

Science in our school will harness the natural curiosity of children in the Early Years Foundation Stage, promote respect for living organisms and the natural environment and ensure that our children will acquire scientific knowledge. We want them to be able to retain what they know and recall what they've learnt in subsequent year groups, so becoming more knowledgeable and independent learners as they progress through the key stages. Through being actively engaged in the subject matter and learning, pupils see a purpose to their knowledge, which builds a desire to keep learning. New knowledge is acquired through an active discovery, discussion and questioning approach and learning is layered over the year and spiralled across years. Prior learning is made explicit as well as revisited, and spacing is used to make learning 'sticky'. Enrichment opportunities within school will ensure all our pupils have experiences to make links between their learning and the world in which we live. We believe our curriculum will prepare our pupils well for their secondary education and that it inspires them to find out more about the world around them. We aim to provide our pupils with the cultural capital they need to succeed in life. This capital is developed through making Science a real-life possibility with increased



awareness of job roles linked to Science; pupils have the chance to experience Science events and workshops and units have real life outcomes.

Bradley Primary will ensure that appropriate resources and support are provided to allow all pupils to access and engage with learning this core subject. Communication and explanations of scientific vocabulary, knowledge and understanding will be accepted in a range of formats such as pictorial models or verbal as well as written explanations to ensure that children of all abilities can participate fully with this curriculum. At Bradley Primary, we believe that a deep and enriched curriculum is essential for all pupils, regardless of ethnic origin, gender, class, or disability.

Implementation

The Science subject leader is responsible for the curriculum design, delivery and impact in this subject. This includes regularly meeting with Governors to review and quality assure the subject area to ensure that it is being implemented well and coverage, breadth and balance is adequate. To ensure high standards of teaching and learning in science, we implement a curriculum that is progressive throughout the whole school. Science is taught in discrete weekly lessons. We ensure that teachers have the same expectations during Science lessons that they would have when teaching English or Mathematics and that any mathematical task (such as measuring or drawing graphs) is pitched at an age-appropriate level to ensure sufficient challenge. It is vital that any mathematical or English barriers should not impede a child's scientific learning, thus meaning dialogue learning is a central part to our science teaching. The Science curriculum at Bradley Primary School is based upon the 2014 Primary National Curriculum in England, which provides a broad framework and outlines the knowledge and skills taught in each Key Stage. Teachers plan lessons for their class using our progression of knowledge and skills document, which incorporates working scientifically. A variety of teaching approaches are used based on the teacher's judgement. Teaching key subject specific vocabulary is also a key part of our science curriculum. The vocabulary children will need for that unit are identified on the school's progression document and this builds upon the vocabulary they have learnt in earlier years. The key vocabulary will be identified in the vocabulary on the children's knowledge organisers.

Support Available

CPD will be offered to staff where needed, this may be a course to attend, an online CPD programme to take part in or the subject leader delivering training to the rest of the staff.



Assessment

Science assessment is based on teacher's assessment of children. This is then reported on the school's assessment document and the percentage of children working at, above and below the expected standard are identified. At the end of Key Stage 1 and Key Stage 2, the results are submitted. At the end of a unit, teachers will identify if a child is working at the expected standard for the objectives covered. This is then passed on to the subject leader.