



## Science Curriculum Statement

### Intent

At Barleyhurst Park, we value the importance of science and scientific enquiry and recognise the need for children to develop a strong curiosity and understanding of the world around them, which is grounded in the use of scientific processes and investigations. To achieve this, we follow the requirements of the National Curriculum whilst ensuring that every science topic is fun, engaging and includes an element of working scientifically. Topics taught are embedded through revisiting certain aspects, such as Plants which is taught in both Key Stages 1 and 2, or Electricity which is taught twice in KS2, and builds on the children's prior scientific vocabulary and knowledge, increases their enthusiasm for the subject matter and helps to secure their understanding in order for them to approach scientific questions in a variety of ways. Throughout their scientific learning at Barleyhurst Park, we want the children to become independent scientists who are able to use relevant equipment, make observations, conduct experiments and investigations, build arguments and explain concepts confidently using scientific terminology, and continue to question and be curious about their surroundings.

### Implementation

The Science Long Term Plan at Barleyhurst Park is rigorous and comprehensive, ensuring that all the key elements of Science are taught across the two key stages and enables progression through the year groups. Furthermore, every topic includes an element of scientific enquiry and problem solving. As a school, we follow a thematic approach to learning and where possible, Science is planned to coincide with each term's Topic theme.

Science is taught weekly, and each new unit of work begins with a diagnostic test so that teachers are able to ascertain what the children have retained from prior learning, address any misconceptions, and adjust their planning accordingly in order to best suit the needs of their class.

Throughout the teaching of the unit, lessons are engaging, relevant and well-resourced. There are plenty of opportunities for observing, questioning, investigating, concluding and working scientifically while the children put their learning and newly acquired scientific terminology into practice- all of which builds upon their previous learning. Lesson content is recapped regularly with the children, teacher's questioning is specific and probing to deepen understanding, and scientific vocabulary is introduced prior to the learning for our SEND and EAL learners so that they can be pre-taught their meanings and uses. A mid-topic assessment is carried out to ensure that children are on track and to further support those who may need some extra guidance, as well as address any misconceptions.

At the end of each topic, key knowledge is reviewed by the children and rigorously checked by the teacher and consolidated as necessary.

### Impact

Our Science Curriculum is high quality, well thought out and is planned to demonstrate progression. Most children will achieve age related expectations in Science at the end of their cohort year. Children will retain knowledge that is pertinent to Science with a real life context. Children will be able to question ideas and reflect on knowledge. Children work collaboratively and practically to investigate and experiment, they will be able to explain the process they have taken and be able to reason scientifically. Teachers track children's knowledge in the diagnostic, mid-unit and end-of-unit assessments.