

## Intent

At Baldwins Gate Primary School, we aim to harness children's natural excitement and curiosity. 'Let your light shine.' Through science, pupils are encouraged to flourish and let their unique light shine by developing curiosity, resilience, critical thinking and a sense of responsibility for the world around them. Science learning supports the school's Christian vision and values of love, joy and perseverance.

We aim to prepare pupils for life in an increasingly scientific and technological world. Throughout the primary years, all our children will learn to be scientists: to explain and analyse phenomena, make predictions and solve scientific problems. All pupils at Baldwins Gate Primary are taught the key knowledge within the scientific disciplines of 'Biology', 'Chemistry' and 'Physics' to develop understanding of the world around them at an age- appropriate level and in line with the National Curriculum. Teachers nurture a love for the natural world, excitement for future possibilities in science and provide many opportunities for pupils to respond creatively and collaboratively, therefore reflecting the Christian message of 'Love our neighbour as we love ourselves.' (Mark 12:30-31) within their science learning.

## Implementation

At Baldwins Gate Primary School, we follow the National Curriculum programmes of study for science and as part of the planning process, teachers ensure that:

- Science is explored through the Early Years Foundation Stage 'Understanding of the World' strand. We provide opportunities for children to question, wonder, explore, discover, experiment and observe through direct experiences. The children are introduced to scientific vocabulary to help them further their understanding and are asked open-ended questions, so that they can make predictions and have opportunities to question. Our Early Years provision ensures that children have access to a range of materials that work in different ways for various

purposes. Children can use resources and the environment around them to notice similarities and differences, changes over time and discuss their views, predictions and observations with those around them.

- In Key Stage 1 and 2 teachers use the science progression map to ensure effective coverage of the National Curriculum and the three disciplines of 'Biology', 'Chemistry' and 'Physics'. Over the academic year, scientific enquiry will include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources. Science is taught as a discrete subject every week.
- In order to support children in their ability to know more and remember more, there are regular opportunities to review the learning that has taken place in previous units of work as well as previous lessons.
- Scientific vocabulary is explicitly taught, modelled and revisited to enable pupils to communicate their understanding accurately and confidently.
- Science teaching is inclusive and ambitious for all learners. Teachers adapt learning appropriately to ensure that pupils with SEND, disadvantaged pupils, pupils with EAL and higher-attaining pupils can access, participate in and succeed in science lessons.
- At the start of each unit of work pupils will review previous learning and will have the opportunity to 'Show me what you already know'. They will also undertake 'show me what you have learnt' activities at the end of the unit of work, to demonstrate their learning.
- Children are taught to develop a respect for the materials and equipment they handle with regard to their own, and other children's safety.
- Science learning is enriched through practical experiences, outdoor learning, visitors, STEM opportunities and special

events that broaden pupils' understanding of science in the wider world.

- A language rich curriculum is promoted with key vocabulary for each unit of work displayed.
- The Science Subject Leader monitors the quality of education through book looks, pupil voice, learning walks and curriculum reviews. Findings inform subject development priorities and professional development.

### Impact

Teachers use formative assessment, questioning, observation, retrieval activities and review tasks to identify pupils' understanding and inform future teaching. Assessment is used to monitor progression in both substantive scientific knowledge and disciplinary scientific enquiry skills.

The impact of this curriculum design will lead to outstanding progress over time across key stages relative to a child's individual starting point and their progression of skills.

Children will therefore be expected to leave Baldwins Gate Primary School reaching at least age-related expectations for science.