



St. Bernadette's Catholic Primary School - Science Curriculum Statement

Intent of the science curriculum

As scientists at St Bernadette's our children will be inspired to develop a sense of excitement and curiosity about the world around them. Our curriculum will provide children with experiences that help them recognise the importance of science in every aspect of daily life; including opportunities to explore both our school grounds and local parkland. Our science lessons will ensure that all pupils, regardless of social disadvantage or special educational need, are supported, guided and encouraged in their understanding of how our world works. Pupils will be taught essential aspects of the knowledge (substantive), skills (disciplinary), vocabulary and uses of science as well as about the lives and careers of significant scientists both past and present.

Our science teaching ensures pupils are equipped with:

- The relevant '**disciplinary knowledge**' such as: the asking of questions; observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing and researching using secondary sources.
- and
- The relevant '**substantive knowledge**' such as: what magnetism is, why plants need light to survive and which materials conduct electricity.

So that when they leave our school they are fully prepared for science in KS3

Implementation of the science curriculum

- Science is taught weekly in KS1 and KS2 with lessons being between 50 minutes and 1 hour in length.
- In Early Years, Science is taught through exploration of the world and learning through play (the world around them, seasons, plants, animals, people and health).
- As they progress from EYFS through to Year 6 pupils revisit and develop their knowledge and skills in key topics within science (plants, animals including humans and living things and their habitats).
- As they progress into KS2 pupils are introduced to further key topics within science (light, electricity, sound and forces)
- Teachers deliver expert explanations of scientific substantive knowledge to support the children's understanding.
- Scientific enquiry is threaded through the whole curriculum and teachers demonstrate how to work scientifically, including the use of scientific equipment.
- All units of work have a clear 'learning journey' that can be referred to by both the teacher and the children.
- Scientific enquiry is embedded in lessons and children have opportunities to expand their core skills as they move through the school from KS1 to upper KS2.
- Children have regular opportunities to conduct scientific enquiries and develop their skills in this area.
- Opportunities for problem solving are created to stimulate curiosity and practise scientific skills.
- High-quality scientific vocabulary is demonstrated and accurately used by the teachers and pupils will be supported to use this in their own work.
- Children are introduced to famous scientists (both current and historic) who are pertinent to the area of science being taught.
- There is the opportunity within lessons and units (in the form of sticky starters, 'What we already know' and end of unit assessments) to review previous learning and ensure children have retained key knowledge and concepts.
- Where necessary, tasks are adapted to ensure that all children can access the learning and to ensure children's working memory is not overloaded.
- When required, children are given adult support and scaffolding.
- Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning.
- Workshops with experts are arranged at specific times throughout the year.
- British science week is a key event in the school calendar.

Impact of the science curriculum

By the time they leave St Bernadette's at the end of KS2 children will have developed a natural curiosity about their world and beyond and will feel confident to ask questions about what they notice. They will be aware of how their actions, and the actions of the wider population, affect the world in which we live. Pupils will have access to a broad and relevant **substantive knowledge**, as well as scientific vocabulary, which will allow them to understand and discuss scientific concepts. They will move into the next stage of their

educational journey confident that they can work scientifically and use **disciplinary knowledge** to explore ideas and ask and answer scientific questions.