Science

At Christ Church CE Primary we understand the need for all pupils to develop their Scientific ability as a subject in its own right but also as an essential component of all curriculum subjects. A good understanding of scientific knowledge and conceptual understanding helps to support pupils work across the curriculum. Pupils are provided with a Knowledge Organiser which is also shared with parents and carers at the beginning of each topic to specify the knowledge, skills and vocabulary to be acquired and an overview of content.

Intent

At Christ Church CE Primary School, we believe that a high-quality science education provides children with the foundations for understanding and exploring the world around them. Science has changed our lives in a variety of ways and is vital to aid the world's future prosperity, this is apparent now more than ever. Therefore, we aim to deliver a curriculum that develops and nurtures their sense of excitement and curiosity about natural phenomena and makes sense of the world that surrounds them. The core principles of our Science curriculum develop children's ideas and ways of working through investigation and exploration as well as using and applying process skills. They are encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.
High quality teaching and learning experiences allow children to explore their outdoor environment and locality, thus developing their scientific enquiry and investigative skills. Our children are immersed in scientific vocabulary during discreet Science lessons and in the wider curriculum which aids their knowledge and understanding not only of the topic they are studying, but allows them to apply this. Our well-planned progression of Science vocabulary ensures children are extending and embedding a rich and diverse vocabulary. We intend to provide all children, with a broad and balanced science curriculum.

Implementation

In ensuring high standards of teaching and learning in science, we implement a curriculum that is progressive in terms of knowledge, skills and vocabulary throughout the whole school. At Christ Church CE Primary School, planning for Science is a careful and thought-out process in which all teachers are involved to ensure that the school gives full coverage of, 'The National Curriculum programmes of study for Science' and, 'Understanding of the World' in the Early Years Foundation Stage. Science teaching involves adapting and extending the curriculum to match all pupils' needs. Science is taught as discrete units and lessons where needed to ensure coverage and linked to topics when appropriate. In addition, where possible cross curricular links are also made in English lessons across school, in which scientific vocabulary is embedded through carefully selected texts. We ensure that all children are provided with rich learning experiences that:

- Prepare our children for life in an increasingly scientific and technological world today and in the future.

The Intent, implementation and Impact of our Curriculum – *S.T.E.M*

- Help our children acquire a growing understanding of the nature, processes and methods of scientific ideas.
- Help develop and extend our children's scientific concept of their world.
- Build on our children's natural curiosity and developing a scientific approach to problems.
- Encouraging open-mindedness, self-assessment, perseverance and developing the skills of investigation – including: observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Develop the use of scientific language, recording and techniques.
- Develop the use of computing in investigating and recording.
- Make links between Science and the wider curriculum subjects.

Science is taught consistently and to a high standard, once a week for up to two hours. An important aspect of our Science Curriculum is our Science week which takes place in our school each year in which Science teachers from the local High School assist in practical investigations and workshops are held by the Mad Science company of educators. Parents are invited in to part of the week as part of our home-school partnership initiative. Our school also sets up a Science Laboratory for the term which is used for investigations and experiments outside of the usual classroom. This allows children to fully immerse themselves in Scientific world and gives them the experiences beyond their everyday lives. Our Science Ambassadors give pupils the opportunity to work with our Science Subject Leader to continually develop our Science Curriculum. Our Science Subject Leader also provides learning opportunities through our Young Scientists Club delivered to Key Stage One and Two pupils after school each half term giving children the chance to further their understanding by applying their knowledge learnt and extending this to different disciplines within Science. They use their skills gained to articulate, discuss, reason and question a range of Scientific questions and theories.

Impact

The impact and measure of this is to ensure children here at Christ Church CE Primary School have high aspirations, which will see them through to further study, work and a successful adult life. They will not only acquire the appropriate age-related knowledge linked to the science curriculum, but also skills which equip them to progress from their starting points, and within their everyday lives. All children will have a wider variety of skills linked to both Scientific knowledge and understanding, and Scientific enquiry/investigative skills. A rich vocabulary which will enable to articulate their understanding of taught concepts.