Science

Intent

At St Michaels' CE Primary School, we recognise the importance of science in every aspect of daily life. We have a shared understanding of the value of Science as a core subject and the need to make science fun, enjoyable and accessible to all children.

We endeavour to foster children's natural desire to be inquisitive, question why things happen and understand the way things work, developing and increasing children's knowledge and understanding of our world.

Children will acquire key scientific knowledge through practical experiences; wherever possible and we endeavour to develop children's understanding of the nature, processes and methods of science through different types of scientific enquiries. We will encourage children to respect their physical environment and the living organisms within them.

Our continuing aim is to ensure that children are equipped with the required knowledge and scientific enquiry skills to understand the uses and implications of science, today and for the future.

Implementation

We use the National Curriculum and the Chris Quigley Milestones to enable children to reinforce and build upon prior learning, make connections and develop subject specific language. We teach our topics under Biology, Chemistry and Physics. The milestones are carefully planned to ensure a deep understanding of each topic.

Every class has additional 'Sticky Science' lessons to teach throughout the year which children a fascinating insight into the topics that will be taught in the following year. This pre-teaching element will help the children gain a deeper understanding.

Each unit within Science area will include a working scientifically element to ensure our children plan, carry out and evaluate scientific experiments.

Biology:

- Understand plants
- Understand animals and humans
- Investigate living things
- Understand evolution and inheritance

Chemistry:

- Investigate materials

Physics:

- Understand movement, forces and magnets
- Understand the Earth's movement in space
- Investigate light and seeing
- Investigate sound and hearing
- Understand electrical circuits

Impact

At St Michael's CE Primary School, Science is taught by teachers with good subject knowledge and an understanding of the need to incorporate and develop the use of scientific skills. We aim to deepen the children's understanding of all concepts and knowledge using a range of enquiry skills to embed this knowledge fully following our carefully sequenced milestones. Therefore, there is a clear understanding of the progression of skills and where the children are, where they need to be and how they can be further extended and challenged.

Children are enthusiastic to find out more about the world around them and have a natural curiosity to find out even more. Children can talk about their learning in science and the skills they have used to gain this understanding. Regular monitoring and talking to children about their perception of science takes place.
Science is promoted and is evident throughout the school with science displays, regular visitors and awards for high quality science work.

We measure the impact of our curriculum through the following methods:

- Formative assessing of on-going learning and children's understanding of scientific concepts and knowledge within each science topic. This takes place before and during a unit through hot and cold tasks.
- Termly assessments using our miletones are completed by teachers. They use this knowledge to plan future learning.
- Images and videos of the children's practical learning on SeeSaw.
- Interviewing the children about their learning (pupil voice) with their books.