



St Charles Catholic Primary School

SCIENCE

Mission Statement:

The community of St. Charles School believes that Jesus is at the heart of everything we do. We are committed to giving every child, every opportunity to achieve their potential in mind and body in a happy, safe and caring environment.

Intent

At St Charles Catholic Primary School, our vision is to give children a science curriculum which enables them to confidently explore and discover the world around them, so that they have a deeper understanding of the world we live in. We believe science encompasses the acquisition of knowledge, concepts, skills and positive attitudes.

The 2014 national curriculum for science aims to ensure that all pupils:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.
- are equipped with the scientific skills required to understand the uses and implications of science, today and for the future. We understand that it is important for lessons to have a skills-based focus, and that the knowledge can be taught through this.

At St. Charles these skills are embedded within science lessons and developed consistently over time. Teachers have high expectations for all children to achieve and enjoy Science and to be able to use the skills they have acquired in a range of contexts. Throughout the programmes of study, the children will acquire and develop the key knowledge and vocabulary that has been identified within each unit and across each year group, as well as the application of scientific skills. We ensure that the 'Working Scientifically' skills are built-on and developed throughout the children's time at our school so that they can apply their knowledge of science when using equipment, conducting experiments and building arguments

We aim to create fun and stimulating science lessons that nurture children's natural curiosity and their on-going development.

Through a hands-on, enquiry-based curriculum which promotes:

- questioning
- challenge
- working practically
- investigating
- evaluating
- making choices
- working independently
- using scientific vocabulary

Children also develop an understanding of how important and relevant science is to their lives, now and in the future through enterprise, Science Days and STEM activities.

Implementation

At St Charles we ensure high standards of teaching and learning in science, we implement a curriculum that is progressive throughout the school. Which is organised into topics and year groups and designed around the statutory requirements for Primary Science and gives full coverage of the National Curriculum.

At the start of each topic teachers take time to find out what our children already understand and want to find out through grids. Through teacher modelling and questioning we want our children at St Charles to wonder and be amazed by the world around them as we recognise that our children sometimes lack experiences. Key scientific language is modelled and taught throughout lessons enabling our children to be familiar with and use vocabulary accurately.

We are committed to providing exciting, hands on and practical experiences for all children at St Charles. In turn this will help promote independent learning, curiosity and a love for enquiry and knowledge. Teachers are also encouraged to plan trips and visitors to enhance our children's learning experience when possible.

Once a year, the whole school works off a timetable and participates in a 'Science day'. A theme runs across the school, with children investigating a Science/STEM question. This enables children to immerse themselves in science and its vocabulary. They will learn about scientists, make real life links and work through the steps of a scientific investigation. At the end of the day, all classes share their findings.

EYFS

Nursery staff are embedding science in children's learning landscapes, but many children don't realise they're doing it. Staff help to make that link with the children. If we don't allow children to explore and investigate for themselves, and know that it's science, where will the Tim Peakes of tomorrow come from?

Early years is about exploring and investigating the world, and about having fun and playing. Science combines these two key elements, which are crucial to establishing a lifelong love of learning. It also connects all other areas of learning, from language (describing what's happening in an experiment, learning new vocabulary) to maths and engineering (modelling, construction). As every child is unique and may learn at different paces, at St Charles we believe in catering for the needs of all children in the school.

Impact

Children enjoy and are enthusiastic about science.

Children are confident to use and explain scientific vocabulary.

Children can ask questions about their science learning and reflect on their knowledge.

There is a clear progression of children's work and teachers' expectations.

Children are becoming increasingly independent in science, and completing pupil lead investigations.