

Science at St Joseph's

Curriculum Intent, Implement, Impact

The National Curriculum 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 knowledge required to understand the uses and implications of science, today and for the future

Intent

The basics for learning in science are taught in the EYFS where pupils begin to learn the basic vocabulary and foundations of science learning and are encouraged to explore the world around them.

At St. Joseph's we teach the National Science curriculum programmes of study for Key Stages 1 and 2 through the Rising Stars Science scheme which we have adapted to meet the needs of our pupils.

Our intent is to ensure that the pupils have the scientific language and concepts they need to make good progress in science and we provide them with real life opportunities to consolidate their knowledge. These opportunities will help children to consolidate and retain the science knowledge they have learnt and also reinforce key scientific vocabulary from each unit.

At St Joseph's we ensure that children experience a varied, progressive and well-mapped-out science curriculum that provides the opportunity for progression across the full breadth of the science national curriculum for KS1 and KS2.

Implementation

We have adapted the Rising Stars Science scheme to ensure that the needs of the pupils at St Joseph's are met and that the National programs of study taught.

We use the outdoor environment to support the teaching and learning of Science. Many lessons are taught through the use of first-hand practical experiences which include using our school grounds. The sequence of lessons in our school helps to embed scientific knowledge and skills, with each lesson building on previous learning.

We encourage our children to use scientific language to talk about what they have found out and communicate and record their ideas and findings in a variety of ways. The children are encouraged to be curious and ask questions about what they notice. They are helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping

and classifying things, carrying out simple comparative tests, and finding things out using for example, books, photographs and videos.

In order to ensure that our children leave St Joseph's with a wide range of scientific experiences that equip them with key knowledge, we have plotted Science trips across the key stages.

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Trip to the local park	Unit 3 Trip to Blackpool Zoo	Unit 4 Trip to a farm	Unit 1 Trip to a beach e.g. Crosby Beach	Unit 1 Visit from RNCM orchestra	Unit 1 Trip to Jodrell Bank	Unit 3 Trip to the natural history section of Manchester Museum
Trip to the zoo	Unit 4 Trip to Platt Fields Park	Unit 5 Trip to Garden Centre	Unit 5 Trip to Bridgewater Gardens	Unit 4 Trip to MOSI	Unit 4 Trip to MOSI	Unit 6 Trip to the Titanic exhibition

All pupils are taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils will be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena.

Formative assessment is done through the use of retrieval and low stakes tests. The information from this form of assessment guides teaching and learning. At the end of each unit there is an end task which is a summative assessment of the knowledge and skills which pupils have developed. Pupils are given opportunities to regularly review and evaluate their work.

Impact

Our Science programme of study will equip our pupils with a sound understanding of the scientific knowledge required to understand the uses and implications of science, today and for the future.

Our pupils will develop the foundations for understanding the world through the specific disciplines of biology, chemistry and physics and will be ready for studying science at Key Stage 3.