



# SHERRIER CE PRIMARY SCIENCE OVERVIEW



## Intent

Science has changed the way we think of our lives and is imperative to the world's future prosperity and survival. All pupils at Sherrier are taught essential aspects of the knowledge, methods, processes and life uses of science. They are taught to understand how the world works by carefully making predictions, hypothesising and then making observations and results based upon investigations.

Starting out from the basics of vocabulary, children will then build upon a foundation of vital knowledge and recognise the power of scientific explanations and develop a sense of curiosity, excitement and intrigue about every day natural phenomena.

## Implementation

Foundation Stage lays the building blocks in which we work Scientifically at Sherrier. This is where the children begin to acknowledge Science for its true wonder. Working Scientifically at a young age exposes them to the vast vocabulary involved and allows them to begin to understand the world and locality of the school surroundings.

This continues to build key stage 1 as the pupils experience and observe phenomena, as well as looking more closely at a natural and humanly constructed world around them. They are encouraged to ask questions about what they notice and helped to develop their understanding of scientific ideas by using different types of enquiry to answer their own questions. This can include observing changes over a period of time to weather, noticing patterns, grouping and classifying things, carrying out comparative tests, and finding things out using secondary sources of information from books etc. They begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways. Exposing them to this, in particular in Year 2, allows a foundation for the children to deepen their understanding of the wording surrounding them on a weekly basis.

The principal focus of science teaching in lower key stage 2 is to allow pupils to broaden their scientific view of their own surroundings. They do this through exploring and testing/developing ideas about relationships between living things and familiar environments. This can then allow them to begin to develop their ideas about functions, relationships and interactions in everyday situations. All of this can then help them to understand concluding observations and how this links to their results and predictions.

The main area of focus for upper key stage 2 is to develop a deep lying understanding of a wide range of scientific skills. This can range from exploring, researching and investigating scientific ideas. Pupils can then draw conclusions regularly, independently and accurately based upon prior experiences. They should select the most appropriate ways to answer science questions using different types of scientific enquiry, including observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information. These are all areas in which working scientifically can expand their vast knowledge, starting from foundation stage and continuing until they leave Sherrier.

**Impact**

By the time Sherrier pupils have left our school, they should have the following understanding...

- A secure knowledge and understanding of scientific vocabulary
- The ability to predict, hypothesise take accurate measures/results and conclude investigations.
- The ability to evaluate and challenge investigations and prove their own theories.
- A passion for Science and the everyday phenomena that surrounds them.
- A desire and want to understand why things in the world are the way they are.
- The ability to know, apply and understand the matters, skills and processes for each programme of study they have undertaken.
- Have an understanding of the skills that working scientifically can bring.
- The ability to describe associated processes and key characteristics in common language, but they should also be familiar with, and use, technical terminology accurately and precisely.
- Apply their mathematical knowledge to their understanding of science, including collecting, presenting and analysing data.
- To understand the social and economic importance and implications of science in the wider community.
- To have developed a wide range of scientific understanding and ideas.
- Be able to ask their own questions based upon scientific phenomena and should seek answers to those questions through collecting, analysing and presenting data.