

Science

Curriculum Intent

'Science is fun. Science is curiosity. We all have natural curiosity. Science is a process of investigating. It's posing questions and coming up with a method. It's delving in.'
(Sally Ride)

'To raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination and marks real advance in science.'
(Albert Einstein)

'Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science.'
(National Curriculum, 2014)

At Green Ridge, we understand that children are naturally curious and love to ask questions. We encourage this inquisitive nature throughout their time with us. We believe that science allows children to develop knowledge about the world around them and builds on concepts, skills and develops positive attitudes. Through the programmes of study in the Science National Curriculum, children will acquire and develop these skills throughout their time with us. We ensure that Working Scientifically skills are built-on and developed throughout the children's school career so that they can use equipment, conduct experiments, build arguments and explain concepts confidently and continue to ask questions and be curious about their surroundings.

It is our intention to enable children to develop the intellectual and practical skills which will allow them to explore and investigate the world of science and develop a fuller understanding of the world around them. They are immersed in scientific vocabulary, which aids the children's knowledge and understanding not only of the topic they are studying, but the world around of them.

We want to give children the following types of knowledge regarding Science:

- Substantive Knowledge – We aim to give children knowledge of the products of Science and introduce children to the wider disciplines of Biology, Chemistry and Physics.
- Disciplinary Knowledge – This links directly to the 'Working Scientifically' skills that we aim to impart on children. We aim to give children knowledge of scientific methods, knowledge of apparatus and how to use it, knowledge of data analysis and how to interpret results and knowledge of how Science uses evidence to develop explanations.

Our aims

- To promote a love of science by developing the pupils' interest and enjoyment of science;
- To build on the children's curiosity by exploring their questions and allowing them to explore the answers;
- To develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics;
- To develop working scientifically skills: fair testing, classifying and grouping, pattern seeking, observing over time and collecting research from a range of sources;

- To be able to plan and conduct a range of investigations during their time in primary school
- To understand the best way to present data following an experiment or investigation. The pupils will be encouraged to present information in an ordered manner through drawings, writing, diagrams, tables, charts and graphs;
- Pupils will be given the opportunity to develop awareness of the importance of science in everyday life including its relationship to personal health and safety;
- To introduce pupils to the language and vocabulary of science
- To rigorously monitor and assess children's progress in science
- To ensure there is a clear progression between each year group.