



Science Statement



Our vision is for pupils to become independent, motivated learners and responsible citizens.

Core values

Honesty	<ul style="list-style-type: none"> • Telling the truth • Taking responsibility for your actions
Positivity	<ul style="list-style-type: none"> • Looking for the good • Trying new things
Determination	<ul style="list-style-type: none"> • Keep trying • Learning from your mistakes
Respect	<ul style="list-style-type: none"> • Caring for everyone • Being polite and friendly
Democracy	<ul style="list-style-type: none"> • Deciding together • Listening to others & sharing ideas
Individuality	<ul style="list-style-type: none"> • Believing in yourself • Asking questions and having ideas
Rule of Law	<ul style="list-style-type: none"> • Following the rules • Sharing & taking turns

Intent

We follow the national curriculum for science (2014) and aim 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.

We aim to inspire and maintain our pupils' sense of excitement and curiosity about the world around them. Our pupils will learn about scientific concepts as they observe phenomena and conduct experimental investigations. We hope that this will foster a lifelong enthusiasm for science that our pupils will take with them to secondary school and beyond. Reading and writing is embedded by applying taught skills when making observations, predicting and writing up reports of findings.

Implementation

We use the National Curriculum for science as the basis of its curriculum planning, which contains yearly required content with sequential content development. Across the school, a scheme of work written by Pearson (Science Bug) is used for planning and resources. Our medium-term plans give details of the work for each unit and make cross curricular links wherever possible. The teaching of science in our school builds upon prior learning and all abilities are given the opportunity to develop their skills, knowledge and understanding in order to work further and deeper. We also build progression into science to ensure that the children are increasingly challenged as they move up through the school.

Teachers have been provided with a Progression of Essential Science Skills (Working Scientifically) document. This outlines the key skills pupils should learn and demonstrate during science lessons.

Teachers are expected to complete an initial assessment at the start of each Science unit. This could be a KWL grid (what I Know, what I Want to know & what I have Learnt), concept map (using key vocabulary) or any other relevant form. This initial assessment informs planning and is revisited at the end of each unit. At least once a half term, teachers also plan for children to conduct a child-led investigation. In these lessons, children carry a science investigation to answer their own scientific question, applying the key skills and content knowledge outlined for their year group. Children either plan, conduct or write up part of it to showcase their skills in this area.

Impact

Attainment descriptors are used to determine pupil attainment as either 'Working towards <', 'Working at =' or 'Working above >' age-related expectations for science. Once each term, class teachers will assess children against these descriptors, taking an average from the units covered and the investigations carried out within them. This will then be passed onto the science subject leader. The science subject leader will monitor the subject through work scrutinies; lesson dips; climate walks; and monitoring the profile of science through discussion with children, teachers and parents (if necessary).