



Vision



For children –

- To develop scientific knowledge and conceptual understanding through the disciplines of biology, chemistry and physics.
- To be equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.
- To use a range of methods to communicate scientific information and present it in a systematic, scientific manner, including ICT, diagrams, graphs & charts.
- To develop a respect for the material and equipment they handle regarding their own, and other children's safety.
- To develop an enthusiasm and enjoyment of scientific learning and discovery.



Curriculum Approach

- Unit plans outline small steps progression.
- Ensure that key concepts are fully grasped before moving on.
- Opportunities for developing enquiry skills are embedded throughout.
- Opportunities to think like a scientist and experience hands-on, practical scientific investigations.
- Encourage children to explain their thinking, whether verbally or in written form.



Teaching & Learning Approach

- Retrieval Practice activity at the start of each lesson to recap prior knowledge.
- Construct understanding of working scientifically skills by applying substantive knowledge.
- Explicit teaching of scientific vocabulary, creating opportunities for repeated engagement and use over time.
- Discussions with children to assess scientific understanding, use of scientific vocabulary and to identify and address misconceptions.



Assessment & Feedback

- End of unit summative assessments are carried out at the end of each unit to track attainment.
- Questioning children during lessons to assess understanding and highlight misconceptions.
- The marking policy encourages 'live marking' to address misconceptions at the point of learning.
- Pupil interviews are carried out as part of the monitoring process to assess the retention of learning.
- Formative assessment to be used to support learning and responsive teaching.



01 Develop pupils' scientific vocabulary



02 Encourage pupils to explain their thinking, whether verbally or in written form



03 Guide pupils to work scientifically



04 Relate new learning to relevant, real-world contexts



05 Use assessment to support learning and responsive teaching



06 Strengthen science teaching through effective professional development, as part of an implementation process