Our science curriculum aims to create inquisitive, confident and knowledgeable scientists ready to lead on the world's future developments.

It aims to develop this by providing high-quality, practical and explorative lessons with a rich and meaningful curriculum.

BIG IDEAS

Biology
Living things
- Plants & animals
- Plants
- Evolution & inheritance

Chemistry
- Materials
- Rocks
- States of matter

Physics
- Seasonal changes
- Light
- Electricity
- Forces
- Earth & space
- Sound

Working Scientifically
- Asking questions, carrying out observations
- Performing tests
- Ordering, classifying, recording and measuring- reaching scientific conclusions.

CONTENT & SEQUENCING

- **EYFS-** Understanding the World: The Natural World. Scientific vocabulary will be introduced to enable children to explore the Natural World and make observations about animals and plants. They will understand some important processes and changes in the Natural World including the Seasons and changing states of matter.

- **KS1-** Children are introduced to identifying and classifying materials. Children will study the seasons and develop an early conceptual understanding of how day becomes night. They also learn about animals including humans and their habitats.

- **Lower KS2-** Rocks are studied and connected with prior knowledge of Materials. A study of Animals is built upon from KS1. Forces & Magnets are introduced and connected with KS1 Materials. The abstract concept of Light is made concrete. Plants are studied to develop a more sophisticated understanding of their parts and functions. Electricity, States of Matter and Sound are introduced. A study of Living things & their Habitats is studied to build on prior knowledge.
- Upper KS2- children reuse and draw upon their understandings of Properties & Changes of Materials. Change is also studied within Animals, Including Humans; focusing on growth. Earth & Space develop the conceptual understanding of our place in the universe. A study of Forces sophisticates the knowledge acquired in LKS1. Living Things focuses on differences in life cycles and enables children to add their understanding of classification. Light is revisited with a Physics focus. Electricity is enhanced with an advance study of circuits. Evolution & Inheritance is introduced and explored.

RESOURCES

- Use of Curriculum Vision allows children to access a variety of high-quality texts.
- Access to live science shows within school once a year.
- A wide range of resources are available for carrying out practical enquiry-based investigation.

RETRIEVAL

- Units of work are sequenced so prior knowledge and concepts are built upon from previous learning.
- Low stake quizzes are used for long term memory.
- Pre and post independent activities are added to units to connect learning.
- 'Strong Start' lessons are used to ensure consistency.

PROGRESS

- Units of work are sequenced so prior knowledge and concepts are built upon from previous learning in a spiral curriculum.
- Teaching units begin by considering prior knowledge.
- Pupils explain what they have found out using scientific vocabulary. Learning is recorded in a variety of ways to explore 'the big questions'.
- Constant development of pupil voice across the school.

SUPPORT

- All children, despite ability, are given appropriate access to the curriculum.
- Children produce independent pieces of work to show what they have learned.
- Variety of outcomes to show knowledge, for example written, evidence me or pupil voice.
- Dual coding and use of visuals on knowledge notes and knowledge organisers.
- Small teaching groups to ensure all needs can be met.