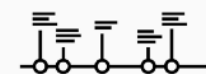


IMPLEMENTATION & IMPACT OF SCIENCE AT MILE CROSS PRIMARY



BIG IDEAS

- Working scientifically.
- Asking questions, carrying out observations.
- Performing tests
- Ordering, classifying, recording and measurements - reaching scientific conclusions.
- Living things
- Plants & Animals
- Materials
- Electricity
- Forces



CONTENT & SEQUENCING

- **EYFS-** Understanding the World: The Natural World/People & Communities. Scientific vocabulary will be introduced to enable children to explore the Natural World and make observations about animals and plants. Children will know some similarities and differences between the Natural World around them and contrasting environments. They will understand some important processes and changes in the Natural World including the Seasons and changing states of matter.
- **In KS1**, children will study the seasons and develop an early conceptual understanding of how day becomes night. An understanding of change over time connects to the study of Plants incl. trees. Children also learn about Animals incl. Humans and later revisit this module to explore Habitats to deep their knowledge. Children are introduced to identifying and classifying materials.
- **In 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 connect 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. A study of Living Things and their Habitats using prior knowledge secures understanding. Electricity is introduced. States of Matter and Sound are introduced.
- **In Upper KS2**, children reuse and draw upon their understanding of Properties & Changes of Materials. Change is also studied within Animals, incl. 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 to their understanding of classification. Light is revisited with a Physics focus. Electricity is enhanced with an advanced study of circuits and Evolution and Inheritance are introduced.



RESOURCES

- High quality texts are used at a level that all children can access.
- Some Science takes place in outside spaces in Forest School, the playground and Nurture Nook.
- Cross-curricular writing is regularly a focus in lessons.
- A wide range of resources are available for carrying out practical and enquiry-based investigations.



RETRIEVAL

- Units of work are sequenced so prior knowledge and concepts are built upon from previous learning.
- Teaching units begin by considering prior knowledge (What do you know?).
- Lessons include techniques used in Maths Mastery/Read Write Inc. e.g. MTTT, Star Words and through the use of concrete materials.
- Low stake quizzes are used for long term memory.



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 (What do you know?)
- Pupils explain what they have found out using scientific vocabulary. Learning is recorded in a variety of ways to explore 'the big questions'.



SUPPORT

- All children, despite ability, are given appropriate access to the curriculum.
- Children produce independent pieces of work to show what they have learned.
- Lessons are adapted for when children need to record information e.g. Use of Clicker, writing frames, TA support, photos of work etc.