Science in our schools

Curriculum Drivers

Ambitious: We aim to provide a practical hands-on curriculum which engages the children and encourages them to explore, discover and develop a curious scientific mind.

Inclusive: Due to the practical nature of our lessons, they are easily accessed by all children. We scaffold their learning to meet individual abilities and use a variety of resources suitable for all.

Knowledge Rich: We make vocabulary our priority. We use vocabulary booklets for EAL children. Planning is coherently sequenced from the White Rose Curriculum. Each session begins with a recap of previous learning to help embed prior knowledge. Vocabulary books are used to aid the retrieval of key words/ phrases. Teachers have scientific word mats to help them build the scientific sentences.

Fluent: We aim to ensure that children use scientific vocabulary correctly and develop their oracy skills by encouraging them to repeat a sentence that has been dictated to them. This is the preliminary skill to allowing them to start writing scientific phrase.

Sequencing of content

In the EYFS, we use development matters and in KS1 and KS2 we follow the White Rose curriculum to deliver the content for: Plants, Animals including humans, Everyday materials, Seasonal changes, Working Scientifically, Living things and their habitats and Use of everyday materials. In KS2 we further the children's knowledge by covering electricity, states of matter, forces and magnets, light, rocks, sound, evolution and inheritance and earth and space.

In a science lessons we will see: introduction of vocabulary, use of sentence stems to support oracy, opportunity to be curious, question and make predictions and practical hands on activity.

Diversity

We believe that science is for everyone, and that everyone can be a scientist. We know that some of the families in our school don't yet believe this and want this to change for our children. We aim to foster a growth mindset and show all children they can achieve. Misconceptions are a part of our learning, and we address these as they arise, we even highlight that sometimes teachers make mistakes too! We recognise we have a diverse cohort of children some with a variety of SEN needs and aim to make science a lesson everyone can enjoy.

Big Ideas:

Vocabulary: We build upon previous knowledge and introduce new vocabulary ensuring it is purposeful.

Questioning and Curiosity: Children are encouraged to question and answer questions. They are encouraged to direct their own learning to test out their own theories.

Practical: We want all children to have the opportunity to explore practically and test out their theories and experiencing their results.

Retrieval practice

All lessons include an element of retrieval, as new knowledge is embedded by building on previous learning.

We give children the chance to remember learning within a sequence, but also over time to support long term memory and foster connections between concepts.

We aim that over time children's retrieval speed will increase as their confidence and knowledge grows.