

Develop children who are curious about the world, are confident to ask questions and eager find their own

Allow children opportunity to explore and investigate the world around them, gaining key substantive knowledge, whilst also securing crucial procedural and disciplinary skills they will need to be successful in experimenting.





All children will have high quality, lessons that provide children the opportunity to be resilient and aspirational, allowing them to deepen their understanding of key scientific concepts.

Use of high-quality resources to give opportunity for modelling and investigation, as well as ensuring disciplinary skills are developed and progress, year after year.





Key scientific vocabulary is clearly identified for each block of learning and children will be exposed to and have opportunity to use it.

Allow children to critically engage with science, providing opportunities to think independently, question, investigate and discover, giving children to foundations to problem solving.





what do we aim to do?

Science is not a collection of facts but a way of

thinking about the world around us

A WELL SEQUENCED CURRICULUM

All blocks of scientific learning are well planned and organised to maximise children's progress. In EYFS, learning is planned around the children's interest and the EY book spine. This allows even our youngest children opportunities to apply scientific concepts within a context they are familiar with.

As our curriculum is on a 2 year cycle, children will cover all the science objectives for their key stage by the end of the phase.



Highly effective teaching strategies are used to engage pupils in meaningful scientific enquiry, promote collaborative learning, and develop critical thinking skills. Teachers demonstrate a strong subject knowledge and utilise a range of resources and ICT to support interactive and immersive learning experiences. Differentiation and personalised support ensure that all pupils can access and excel in science.



From YR I-6 Science is taught in blocks rather than weekly sessions to allow children to revisit prior knowledge quicker. Each block of learning has a knowledge organiser that clearly outlines the key substantive knowledge to be taught, key vocabulary, prior knowledge and possible experiences, to support the planning process.

school



Every block of learning will have a set of predetermined key vocabulary which children will be constantly exposed to during their learning and have opportunities to use when making observations, explaining phenomena or posing questions.





DISCIPLINARY AND SUBSTANTIVE KNOWLEDGE

The Science Progression of Skills document also ensures that there is clear guidance on the disciplinary skills being taught in every phase and show how these skills progress through the

VOCABULARY

IMPLEMENTATION HOW WILL WE ACHIEVE OUT INTENT?

PRACTICAL ACTIVITIES

Every block of science learning will provide opportunities for hands on, practical activities. The purpose of these will be to either, demonstrate concepts-this gives children a context to pin their knowledge to- or to discoverthis is children posing a question, planning an investigation and conducting it. When planning practical activities, teachers are clear what the purpose of the activity is.

Over the course of an academic year, children will have opportunity to conduct investigation in all of the 5 enquiry types:

- observe over time
- Comparative/fair test •
- Research
- Pattern seeking
- Identify, classify and group

ENRICHING OUR CURRICULUM

We want Science to be exciting and engaging and for the children to understand the real world of science. Whenever possible, we ensure we have considered appropriate trips and visitors, to progress learning or provide contextual experiences for our students.



CROSS-CURRICULAR SKILLS

The natural link between science and maths ensures children have opportunity to transfer skills to collect and present data. Skill progression has been planned to ensure children have the appropriate maths skills to be successful in science. Furthermore, children will have planned opportunities to use technology in their science lessons. When covering science topics, there will be a range of carefully selected texts available to the children, giving them the opportunity to read widely about the concepts they are learning about and encouraging them to conduct their own

INCLUSION & ASSESSMENT

Teachers continually assess throughout lessons and provide support to pupils. Assessment can be in the form of low stakes retrieval guizzes which allows opportunity to identify misconceptions. Teachers will also assess at the end of each session and use this to inform their planning. The content of the curriculum is not reduced for pupils with SEND, rather the manner in which they access the curriculum and the work related to it. High expectations are maintained for all pupils.

IMPLEMENTATION HOW WILL WE ACHIEVE



Pupils can confidently use scientific vocabulary in a range of contexts. They make links between the vocabulary used in other areas of the curriculum.



Pupils can generate scientific questions linked to their learning and can suggest ways these questions could be answered.







Pupils are excited and curious about science and engaging in learning fully. They share their learning with enthusiasm and talk about their findings.





ACHIEVED OUR AIMS?





