

Science: Intent, Implementation and Impact



Intent

The 2014 National Curriculum for Science aims to ensure that all children:

- Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- Develop understanding of the nature, processes and methods of science through different types of science enquires that help them to answer scientific questions about the world around them.
- Ensure that children are equipped with the scientific knowledge required to understand the uses and implications of Science today and for the future.

At Tenacres, it is our intention to recognise the importance of Science in our wider life. We aim to expose children to as many new experiences and opportunities as possible through workshops, outside visitors, the STEM Crest Award and through engaging and hands on teaching experiences. Through Science, we aim to increase pupils' knowledge and understanding of their work and develop through enquiry-based learning. We ensure that the Working Scientifically skills are built on and developed throughout the child time at the school so that they can apply their knowledge of Science when using equipment, conducting experiments, building arguments and explaining concepts confidently.

Implementation

- Science will be taught in topic blocks by the class teacher to link to our project-based/creative curriculum.
- Children will be exposed to accurate and appropriate scientific language in order to understand, apply and communicate their knowledge.
- Children will be exposed to and use a range of resources to develop their knowledge and understanding of working scientifically.
- Teachers will use precise questioning in class to test conceptual knowledge and skills and assess children regularly to identify those children with gaps in learning.
- Staff will plan a clear and comprehensive scheme of work in line with the National Curriculum aims and the Understanding of the World EYFS objectives, where teaching and learning should plan for practical, investigative opportunities where ever possible.
- Staff will make cross curriculum links where possible and appropriate.
- Children will be able to build on prior knowledge and link ideas together, enabling them to question and become enquiry-based learners.
- Attainment will be as assessed after each unit of work using age related assessment trackers.
- Children are offered a wide range of opportunities such as the STEM Crest Award, visits, trips and visitors to complement and broaden the curriculum. These are purposeful and link with the knowledge being taught in class.

Impact

This approach will result in fun, engaging, high-quality Science education that provides children with the foundations and knowledge for understanding the world.

- Children will enjoy and are enthusiastic about Science in our school.
- There will be a clear progression of children's work and recording styles throughout the school.
- Children will retain knowledge and be able to question and reflect upon their learning.

- Children will work collaboratively and practically to investigate and experiment.
- Children will be able to explain the process they have taken and be able to reason scientifically using age appropriate vocabulary such as observing, measuring, prediction, hypothesis, experiment, interpret and evaluate.
- Through 'culture capital opportunities', children will have the understanding that Science has changed our lives and that it is vital to the world's future.
- Most children will achieve age related expectation in Science at the end of the year (as monitored through assessment trackers).