



Science Policy

Intent

At Norden, we believe in creating a high-quality science curriculum that provides the foundations for understanding the world through the specific disciplines of Biology, Chemistry, Physics, working scientifically and inspires children to want to find out more.

Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of knowledge, methods, processes and uses of science. Through building up a body of knowledge and concepts, children are encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They are encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

At Norden, we develop enquiring scientists through high quality teaching of our science curriculum which ensures that:

- Progression is mapped from Early Years to Year Six following the EYFS framework (Understanding the World) and the National Curriculum; the substantive and disciplinary knowledge is built upon year on year to make a progressive and engaging programme of study.
- Scientific disciplinary and substantive knowledge is developed through the specific disciplines of Biology, Chemistry and Physics using the key concepts and five different enquiry types.
- Working scientifically is planned within each unit of learning to ensure inclusion and progression within each year group and each key stage.
- Children are equipped with the scientific substantive knowledge required to understand the uses and implications of science, today and for the future
- Children are able to describe processes and key characteristics in everyday language and are also familiar with, and use, technical vocabulary accurately and precisely.

IMPLEMENTATION

- An appropriate range of teaching and learning strategies are used in all science lessons to capture pupils' interest and to promote effective learning and progress. We use the Link it, Learn it, Check it, Show it, Know it sequence of learning.
- Children are encouraged to; ask questions, solve problems, discover new information, apply and consolidate their knowledge and understanding through first-hand experience, investigations, research and practical work
- Teachers make use of the school and local environments to help pupils apply their scientific substantive knowledge and understanding, to see the relevance of science to their own lives. They set challenging work, tasks and problems to increase children's' knowledge and understanding, to extend their thinking and build their self- confidence.
- Teachers assess children's work in science through formative judgements by; asking questions, observing learners during lessons, observing children solving practical problems, by observing children making models or drawing pictures and talking about their work and by listening to and promoting discussions. Work is marked regularly and children will be given feedback which tells them how well they have done and what they need to do next to improve. Summative assessments, in the form of a quiz, will be carried out during the half term after a unit of learning is completed.
- The science leader supports the teaching and learning of science by; providing strategic leadership and direction, monitoring progress and standards across the school, reviewing and revising the science policy, monitoring and supporting teachers in the teaching of science, keeping staff up to date on new developments in science, monitoring the effectiveness of the planning and development of science, auditing, monitoring the effective and appropriate use

of resources and obtaining new resources.

- STEM activities are encouraged to demonstrate how science can be applied to real life roles and jobs in the workplace
- The teaching and learning of science takes account of the needs of all children, including those with SEND and has high expectations for all.

IMPACT

This policy ensures that all children become confident scientists. Effective teaching ensures that they can solve problems by applying their knowledge and understanding of science with increasing sophistication. Through high quality teaching we enable our children to meet the expectations of each year and prepare them for KS3 by the time they leave our school. Our aim is for children to feel engaged with the world around them and to be provided with the cultural capital to enable them to be successful in the future.

Written by J Harrison Dec 22

Approved by Governors Dec 22

