



Great Meols
Primary School



Science Policy

“Science knows no country, because knowledge belongs to humanity, and is the torch which illuminates the World.” Louis Pastor

Intent

Through our science curriculum pupils will develop –

- The ability to think independently and raise questions about working scientifically and the knowledge and skills that it brings.
- Confidence and competence in the full range of practical skills, taking the initiative in, for example, planning and carrying out scientific investigations.
- Excellent scientific knowledge and understanding which is demonstrated in written and verbal explanations, solving challenging problems and reporting scientific findings.
- High levels of originality, imagination or innovation in the application of skills.
- The ability to undertake practical work in a variety of contexts, including fieldwork.
- A passion for science and its application in past, present and future technologies.
- A knowledge of a diverse range of scientists to help inspire a love for science.
- A deep understanding of challenging concepts known as ‘Golden Threads’. The Golden Threads for Science are -

Analysing Data	Classification	Fair Testing	Measuring
Research	Observing Over Time	Pattern Seeking	Recording

The detailed intent of the science curriculum is outlined in the following documents found on our school website –

- Science Progression Map
- Science Whole School Long Term Plan
- Knowledge Organisers
- GMPS EYFS subject overview

Implementation

EYFS

In the Early Years Foundation Stage (EYFS), early scientific skills are part of the following prime areas: 'Communication and Language' and 'Physical Development' and form a significant part of the specific area of 'Understanding the World'. Scientific development involves providing children with opportunities to observe changes around them and develop skills in questioning, exploring and observing, then explaining what they have discovered.

Years 1 to 6

- Through Years 1 to 6 children are taught an understanding of the world around them whilst acquiring specific skills and knowledge to help them to think scientifically, to gain an understanding of scientific processes and also an understanding of the uses and implications of science, today and for the future.
- Staff follow the Developing Experts Scheme.
- A science exercise book is used for children in key stage 2 to record their learning and to provide the opportunity for children to review and revisit their ideas. In key stage 1, each class has a science floor book to record their learning.
- At the beginning of each topic, a knowledge organiser is stuck into their books. This knowledge is revisited regularly. The knowledge organiser contains the 'sticky knowledge' which is to be retained by pupils.
- Sticky knowledge is reviewed by the children and rigorously checked and consolidated by the teacher. All learning will start by revisiting prior knowledge for children to retrieve and revisit prior learning. Low threat retrieval tasks such as quizzes are incorporated into every lesson to review learning and facilitate retrieval of knowledge to strengthen memory.
- Key substantive golden threads are revisited to ensure retention of knowledge and to build science schema by making connections across different units of study.
- At the end of a unit of work, children then use this accumulative knowledge to produce a 'double page spread' to display the knowledge that they have retained from the topic.

Impact

- The subject leader is responsible for reporting on standards in science across the school to the governing body.
- We measure progress in science by assessing whether pupils know more, remember more and are able to do more. This is done through low stakes quizzing against the knowledge organiser and the double page spread.

- Children are encouraged to assess and evaluate their own work at the end of each unit to help them appreciate how they can improve their own performance and what targets they would set themselves in the future.
- Progress and achievement in science are passed on to parents and carers at open evenings and in the annual report.

References used to help shape this policy

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