



**SCIENCE
INTENT,
IMPLEMENTATION &
IMPACT**

OVERVIEW

At Prenton Primary School the science curriculum will provide children with a purposeful, progressive, language rich science curriculum, which is developed through the aims and objectives of the National Curriculum for Science for Key Stage 1 and 2 and the Statutory Framework for the Early Years Foundation Stage. Our curriculum will be engaging and inclusive of all, providing opportunities for developing a passion for science, creating a sense of excitement and curiosity about the world and natural phenomena.

INTENT

- To develop scientific knowledge and conceptual understanding through the specific disciplines of Biology, Chemistry and Physics.
- To provide all pupils with equal access to a rich, broad, balanced curriculum matched well to their ages, abilities, interests and aptitudes.
- To increase pupils' knowledge, skills and understanding as they grow and develop a passion for science to harness their natural excitement and curiosity and in turn inspire them to pursue scientific inquiry.
- The curriculum will be carefully planned, sequenced and structured to ensure that learning is continuous. It will build upon previous knowledge and will deepen conceptual awareness to ensure pupils are equipped with the scientific knowledge required to understand the uses and implications of science.
- To engage the children's interest and to encourage and motivate them to ask and answer questions, explain and analyse causes, make predictions and solve problems.
- To be exciting and enable children to build upon a body of key knowledge and an understanding of key scientific concepts through different types of science enquiries.
- Scientific vocabulary is taught discreetly in each science lesson to ensure children have a deep understanding and the skills required to progress.
- To open their eyes to awe and wonder and cause them to marvel at the incredible and fantastic world in which they live, discovering why science matters in the world.
- To work with outside agencies, organisations and communities to enrich science teaching and learning. Exciting trips are organised to enhance key learning and promote natural curiosity and passion about science.

IMPLEMENTATION

- The National Curriculum of Science will be used for long-term and medium term planning.
- Short-term planning will be brief. The Kent scheme of work will be used to set out clear learning objectives. In addition, planning will be differentiated and it will show how resources are to be deployed efficiently and effectively to personalise learning for each child.
- Children will be taught how to work scientifically using technical terminology accurately and precisely. They will build up an extended specialist vocabulary to articulate scientific concepts clearly and precisely through discussion and written work.
- Cross-curricular links will be made between subjects where appropriate.
- Maths, Computing and English skills will be applied to sort, collect, present and analyse data.
- Opportunities will be taken to enliven the curriculum through the use of educational visits out of school, parents, visitors and workshops, clubs and through the use of the school grounds, the locality and the wider environment.
- The curriculum will build on previous learning and knowledge will be at the centre of all lessons. Memory builder will be used weekly to assess key learning from the current and previous year to ensure deeper understanding.
- Children will be aware of the enquiry type and working scientifically skills being used in each lesson through an investigative approach to embed key knowledge, enabling pupils to seek answers to questions about the world around them.
- There will be a clear sequence in the teaching and all children will be aware of the structure as they move through school. Units will begin with a pre-assessment followed by a sequence of lessons, including a mid -topic assessment $\frac{3}{4}$ of the way through.
- A range of subject specific resources including ICT will be used to underpin the curriculum.
- SEN needs will be addressed for individual pupils with reasonable adjustments made to ensure they can access the curriculum and make progress.
- The curriculum will be high quality to ensure children become proactive thinkers with the ability to raise questions and develop their understanding of the world in which they live and provide them with opportunities for their future. Raising aspirations will be a key driver for all pupils and staff.
- Using the TAPS framework, we have developed a whole school enquiry map to ensure that children at our school experience 5 different enquiry types, and are explicitly taught age appropriate scientific skills.

SUBJECT IN EYFS:

Science at Foundation Stage is covered in the 'Understanding the World' area of the EYFS Curriculum. It aims to nurture a child's natural curiosity, promote a positive attitude towards learning, and lay the foundation for future scientific understanding. The approach is play-based and child-centred through the emphasis on fostering curiosity, exploration, and a basic understanding of the natural world in the indoor and outdoor learning environment.

- Children will show curiosity and ask questions about their local environment and the world around them
- Children will be encouraged to make observations using their senses and simple equipment through discussions, drawings and photographs
- They will make direct comparisons of living things
- They will be able to explain why some things occur and talk about changes

IMPACT

- Children's work and achievement within the science curriculum will be celebrated and displayed to enable it to make a significant impact on the visual appearance of the school and to contribute positively to the ethos.
- The intent of the exciting curriculum will help them learn about themselves, the animal kingdom and the world in which they live through the specific disciplines of biology, chemistry and physics.
- They will develop their knowledge about issues facing the world and the importance of caring for their environment, building a deeper understanding and capacity to learn.
- Teachers will use TAPS Assessments to monitor children's progress, and adapt their teaching accordingly. The assessment data will clearly support the monitoring of science.
- Memory builder sessions will demonstrate that children not only know more but also remember more, showcasing the effectiveness of our curriculum in reinforcing and retaining knowledge.
- The children will know the importance of practise and recall; the impact being that core knowledge will move to the long term memory.

The curriculum and its implementation will also be closely monitored by subject leaders and through the monitoring of pupils' work /learning environment/twitter/displays around school/pupil voice etc.

The impact of the curriculum will be reviewed annually by all staff and the Senior Leadership Team.

