

Always building friendships with one another, whilst being thankful for what we have.

The Magdalen Church of England / Methodist Primary School, Wainfleet

Science Rationale

“Equipped with his five senses, man explores the universe around him and calls the adventure Science.”

– Edwin Hubble.

Retention of powerful knowledge and vocabulary

Our science curriculum encompasses all areas of the National Curriculum for Science outlined by the Department for Education. We believe that every pupil should enjoy science education, developing firm foundations of understanding through a curriculum that provides opportunities to explore, question, and investigate the world around them with curiosity.

Application of powerful knowledge and vocabulary

Within our science curriculum, pupils will recall and build upon prior knowledge in order to understand how scientific concepts interlink. Children will have opportunities to work collaboratively, engage in practical enquiry, and discuss their reasoning to become articulate scientists. We want every child to experience success in science by removing barriers to learning and using effective scaffolding and resourcing to support all learners.

At the Magdalen CoE/Methodist Primary, we adopt an enquiry-based approach, underpinned by the Working Scientifically framework to ensure knowledge is retained and applied. Lessons are structured to include both knowledge acquisition and hands-on investigation. Knowledge sessions develop secure understanding of key scientific ideas, while practical sessions allow children to apply this knowledge through observation, experimentation, and analysis.

Inspiration

Scientific enquiry is central to our curriculum, enabling pupils to ask questions, make predictions, and draw conclusions based on evidence. Lessons are carefully sequenced to ensure small steps of learning through explicit teacher modelling, guided practice, partner work, and independent investigation, drawing on Rosenshine's Principles of Instruction to support effective teaching and learning. Concrete experiences and visual representations are used to make abstract concepts accessible, supporting children to develop conceptual understanding.

Remembering to forgive when we have been wronged and hoping to help others less fortunate than ourselves.

while trying hard each and every day to trust other people around us through humility and service.

Determined to show compassion for those around us and develop a community that embraces justice and peace.

Success for Everyone

Opportunities for children to have spiritual experiences should be intentionally planned for and encouraged within lessons. Our science curriculum is deeply connected to spirituality through the awe and wonder inspired by the natural world. As children explore plants, animals, forces, space, and the changing environment around them, they are encouraged to develop a sense of curiosity, appreciation, and respect for creation.

Through careful observation, outdoor exploration, and hands-on investigation, pupils experience moments of wonder that promote reflection on their place within the world and their responsibility to care for it. These experiences nurture a spiritual connection to nature, helping children to see science not only as a subject of knowledge but as a way of appreciating the beauty, complexity, and interconnectedness of life.

The Impact of our curriculum:

- Children can confidently recall key knowledge from current and previous areas of learning.
- Children can confidently apply knowledge to their learning.
- Children are confident using and applying high-level vocabulary.
- Children are independent learners.
- Children are articulate and confident to talk about a wide range of science topics.
- Children demonstrate many high-level skills, such as analysis, reflection and exploration through written and spoken tasks.
- Children enjoy learning and are excited and inspired to learn new things.
- Knowledge is retained in children's long-term memories.
- Children have excellent attitudes to learning.
- Children show self-awareness when forming their own ideas and beliefs.
- Children show respect for all and value difference and diversity.
- Children are open-minded to learn and gain new ideas.
- Children demonstrate appreciation, awe and wonder of the world they live in.