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Every Child Matters

# Science Curriculum Statement

Amended

June 2019	September 2022	
December 2019	September 2023	
May 2021		

**Every Child Matters within a loving and caring Christian environment**

Striving for Excellence, Caring for All

**As a RRS (Rights Respecting School – UNICEF) this upholds the following articles from the UNCRC (United Nations Convention on the Rights of the Child):  
Article 29: Every child has the right to be the best they can.**

# 'Science is a way of understanding the universe, and ourselves, better than we ever thought possible'

-Michio Kaku

## **Why we believe Science is important**

We are surrounded by technology and the products of science every day. Public policy decisions that affect every aspect of our lives are based in scientific evidence. And, of course, the immensely complex natural world that surrounds us illustrates infinite scientific concepts. As children grow up in an increasingly technologically and scientifically advanced world, they need to be scientifically literate to succeed. We believe by providing an engaging, hands-on and inspiring Science Curriculum, we can commit to increasing our children's science capital, encouraging all children to see that science is relevant in their lives now and in the future. Teaching science to students is teaching them how to think, learn, solve problems and make informed decisions. These skills are integral to every aspect of a student's education and life, from school and beyond.

## **Intent: We aim for our pupils to be:**

- Inquisitive thinkers who are inspired by the awe and wonder of the world around them and motivated to bring about positive change for the future.
- Of a curious disposition, keen to question and explore the unknown.
- Equipped with accurate and appropriate scientific vocabulary so that they are able to communicate and contribute to scientific discussions, explaining their learning and different concepts.
- Able to draw upon and build on their prior scientific knowledge in order to make effective links, predictions and explain their reasoning.
- Able to plan and carry out a scientific investigation, thinking carefully about the enquiry skills they will use, what equipment they will require and what recordings they could make.
- Reflective learners who can consider the science behind different concepts, able to articulate what they have learnt, not just what they have done.
- Able to evaluate their practice, considering what has worked well and how they would improve in the future.
- Effective communicators who can communicate their ideas, opinions, questions and scientific findings to others through both the written and spoken word.
- Take part in workshops led by experienced STEM Ambassadors and the wider community where they can develop their understanding of scientific concepts within world around them.

## **Implementation: How do we do this?**

- Undertaking and achieving the PSQM Gilt award (BAPA 2018 and CSW 2023) and PSQM award (BEPPA 2019) has helped to create a shared vision and standard for science across school, thus raising the profile of science amongst school stakeholders.
- Our academy professor– a female scientist who accompanies children through the different enquiry types and is a shared emblem for all ages – is championed across all year groups to promote the importance of scientific enquiry. This ensures consistency and focus for science learning across the whole school.
- Science MTP for each year group is monitored by the science team to ensure knowledge and skills coverage and progression.
- POP tasks (proof of progress tasks) and retrieval quizzes have been introduced to support the children in remembering more from the topics and previous topics, building long-term memory changes.

- Working Scientifically skills run throughout the whole school and progressively develop through three milestones. The children have reference sheets at the front of their science books. There is also mapping to show EYFS progression to KS1, KS1 to LKS2 and LKS2 to UKS2.
- Scientific vocabulary is specifically planned for and taught across topics.
- Pupils participate in SciFest, a bi-annual event that provides science visitors in school and evening shows, which the wider school community can access. Science related trips and visitors are organised across the academic year to support classroom learning.
- Science based clubs are available; some of these include Nature Club and Gardening Club.
- Teachers have been directed to free, online CPD which they can access to consistently build on their subject knowledge.
- Science leaders attend termly meetings with other subject leaders in the area to share good practise, keep up to date with publications, explore science learning opportunities and to continually reflect on science provision in our school.
- Successful bids for grants have enabled the academy to purchase science resources to be used in the outdoor environment.
- Termly topic titles can be science based, including, 'Water, Water, Everywhere' and 'Spectacular Science', thus putting science as a subject at the forefront of topic based learning.
- Science is included in termly homework tasks and parents are encouraged to take part in homework activities.

### **Impact**

- Pupils show a positive attitude to science and their learning.
- Pupils are curious and want to question the world around them.
- Pupils see science as important for their future and understand the links to other subjects.
- Pupils talk scientifically using age appropriate vocabulary – they can articulate their learning confidently.

This is monitored through:

- Book/planning monitoring
- Drop –ins by the Science team
- Pupil interviews
- Summative and formative assessment
- Analysis of data
- Moderation

### **Other relevant documents:**

- Academy Improvement Plan
- Science Action Plan
- Curriculum, teaching and Learning Policy
- Whole school long-term plan for science
- Year group Curriculum maps
- Year group MTPs
- Year group Curriculum overviews