

Nun Monkton Foundation Primary School

"Be curious, be brave and believe"



SCIENCE STATEMENT OF INTENT

INTENT

At Nun Monkton Foundation Primary School, we aim to enable all pupils to understand and marvel at the world around them through enquiry-based learning in Science. We encourage our pupils to be curious and ask questions. We seek to develop key scientific skills by combining subject knowledge with investigation opportunities, practical applications and cross-curricular links. Children will learn about scientific processes and gain an understanding of the purpose and implications of science within their daily lives, further education and life experiences. Our pupils' curiosity, wonder and awe will be harnessed from the Early Years Foundation Stage and they will be supported, through the acquisition and retention of knowledge and skills, to become more proficient and independent learners as they move through the Key Stages. At Nun Monkton, we place an emphasis on respecting living organisms and the natural environment and aim to integrate these values throughout the Science curriculum.

IMPLEMENTATION

- Our long-term plan ensures the breadth and depth of the activities delivered across the school ensures the appropriate coverage set out in the Early Learning Goals and the National Curriculum. Due to the fluctuating cohort and Key Stage composition of our classes year on year, we cannot follow a strict two or three year rolling programme. Instead we follow a roughly two year rolling programme, adapting the theme of Science work flexibly so that progression of understanding occurs.
- Science is taught on a weekly basis during dedicated time to ensure that a positive learning attitude is created and all children can be successful in this core subject.
- Children have many opportunities to develop their own enquiries and observations through planning investigations. Children are taught to select the appropriate equipment to carry out investigations safely.
- Children have opportunities to measure and record the findings of their investigation, analysing their results and communicating these in a variety of ways (written accounts, illustrations, annotated diagrams, model-making, spreadsheets for data collection, charts, graphs and tables).
- 'Science superheroes' are used to help children recognise the type of scientific enquiry they are carrying out: Oliver Observer (observing changes over time), Fair Fiona (comparative and fair testing), Commander Classify (identifying, classifying and grouping), Captain Peeko (pattern seeking) and Billy Bookhead (researching using secondary sources). These are displayed and referred to regularly during lessons.
- There is a focus on developing scientific vocabulary that is relevant to each unit which children will be encouraged to use in discussion and within their written work. Key words may be displayed within the classroom.
- In EYFS, there are three strands related to 'working scientifically': Physical Development (Health and Self-Care), Understanding the World (The World) and Expressive Arts and Design (Exploring and Using Media and Materials). In both the outdoor and indoor learning areas there are opportunities for both child-led and teacher directed exploratory play. The children are encouraged to follow their curiosity, explore using their senses, observe, predict, investigate and be creative when following their natural inquisitiveness.

- In KS1 and KS2, children build on prior learning and consolidate their skills, knowledge and understanding of fundamental principles within the areas of biology, chemistry and physics through a focus on practical science.
- Special events, trips and scientific visitors complement the children's regular opportunities to think scientifically at Forest School as part of their weekly sessions.
- A cross-curricular approach with thematic links is only used when it reinforces the understanding of previously taught science.
- Teachers make judgements about individuals' progress and attainment using observation, listening, discussion and marking. Written and verbal feedback is given to children to guide their progress. At the end of a topic, teachers will record their assessments and use this to inform future teaching and reporting to parents.

IMPACT

At Nun Monkton Foundation Primary School, our science curriculum ignites curiosity, fosters critical thinking, and empowers children to explore the world with wonder and enthusiasm. Through enquiry-based learning, pupils develop the confidence to ask questions, investigate, and draw meaningful conclusions, equipping them with essential scientific knowledge and skills.

Our engaging and practical approach ensures that children not only acquire a strong foundation in biology, chemistry, and physics but also appreciate the role of science in everyday life. From Early Years to Key Stage 2, pupils are encouraged to observe, experiment, and communicate their findings using increasingly sophisticated methods. The integration of 'Science Superheroes' provides a fun and structured way for children to understand different types of scientific enquiry, while a focus on subject-specific vocabulary strengthens their ability to articulate their learning effectively.

Through regular outdoor learning, hands-on investigations, and exciting experiences such as Forest School, educational trips, and visits from scientists, we nurture a deep respect for living organisms and the natural environment. Our flexible, nature-inspired approach ensures that pupils develop both scientific knowledge and a sense of environmental responsibility.

By the time they leave Nun Monkton, our pupils are confident, inquisitive learners who understand the significance of science in shaping their future. They have developed a solid foundation to succeed in further education and beyond, carrying with them a lifelong appreciation for the wonders of the world around them.

Our Science teaching and learning supports the following school aims:

- Enable children to become **independent** and **confident** learners; **well-rounded** characters who are **self-aware**, **reflective** and **resilient** individuals.
- **Care for and about each other**, be **courteous** and **empathetic**, showing **respect** and **understanding** towards everyone.
- Create a **safe and stimulating** place where children are **happy** and **enthusiastic** learners, where they learn how to keep themselves **safe and healthy**, able to **communicate** & work in a **team**, developing **confidence** and **life skills** together.
- Encourage everyone to have **high expectations** of **themselves and others**, **supporting** and **challenging** everyone to **achieve** their best, developing a strong **work ethic**, **self-motivation** and taking **pride** in their achievements.
- Enable children to develop an **understanding of the wider world** through learning and exposure to a **variety of cultures**, **ideas** and **beliefs**, **respecting** and **recognising individuality** and **diversity**.

- Provide a **wide range of interesting and exciting learning opportunities** to **enthuse** everyone to be lifelong learners, through engagement in a curriculum that instils **values for life** and **prepares pupils** for wherever their journey takes them as adults.