



Science at RNSF

Intent

Our Christian vision is to ignite a creative spark; illuminating new possibilities, hidden potential and big dreams, enabling each and every child to embark on a unique adventure towards life in all its fullness (John 10:10.)

With this in mind we aim every day and through the Science Curriculum for children at Rode & Norton School Federation.....

- to be **inspired** by the world around them and to be curious about how things work.
- to **explore** and be playful, yet systematic, to wonder, to be inquisitive, resilient, and curious scientists
- to be flexible, critical thinkers, who question, make connections, and **discover** great things
- to be confident, inquisitive thinkers who believe in themselves, their BIG ideas and their ability to test, **create** and innovate.
- to **flourish** as independent, resourceful scientists, who have the ability, desire and compassion to influence and change the world for the better.

In RNSF we believe that every child should have the chance to participate fully in the Science National Curriculum with knowledge and skills and progress built on in small steps so challenging end points can be met. We aim to equip children with the scientific skills needed for them to develop their knowledge and discover great things through studying the science skills and topics weekly in termly units. Children will learn how to use correct subject specific vocabulary and will learn how to relate what they do in the classroom to the world around them and the world of work.

Implementation

At Rode & Norton School Federation Science is taught as a specific subject in single year groups with the subjects matched to the curriculum topics as far as possible to enable cross curricular links and learning.

The National Curriculum is taught in full and plotted on our Science Curriculum grid. The Scientific enquiry skills are revisited in every year group for extra depth and understanding.

Physics, Chemistry and Biology are taught sequentially throughout a child's education in the school and these objectives are plotted on a planning document, so teachers are able to see and build upon prior learning.

Our teacher's use the National Curriculum to select objectives and creatively tailor teaching and learning to meet the needs and interests of the children in their class. Lessons are knowledge led, with key knowledge taught and modelled explicitly by the class teacher.

Learning is scaffolded and differentiated to meet the needs of all learners. All children are expected to reach the learning objectives, but children can be supported with word mats and information supports.

Our Science Curriculum goes beyond the breadth of the National Curriculum as teachers are encouraged to consider opportunities to use the school grounds and the local area for activities which enables children to base their learning on firsthand experiences enhancing the teaching and learning in Science within our school. Learning is enhanced with science weeks, the yearly egg challenge, and well-planned school trips and visitors. The love of Science learning is further deepened through initiatives unique to RNSF like the 15 things to do. Through this, classes are committed to fun science activities such as "blowing things up!"

RNSF has made a commitment to facilitate children participating in curriculum STEAM events on a termly basis. These activities use the children's resilience, reflectiveness, and science enquiry skills to invent a solution to a problem, usually presented to the children in the form of a question.

For example:

How can we remove microplastics from a sandy beach?

Can we use these resources to create a tower to withstand a hurricane?

Can we build a catapult to send the snowballs the greatest distance?

Who can build the strongest bridge?

Impact

The children at Rode & Norton School Federation will develop a sense of curiosity and wonder about the world; they will confidently ask questions and make connections and will gain the scientific knowledge and skills to enable them to explore and discover the world around them and their place within it. Science will be a subject that children look forward to and want to discuss their learning at home.

The children's knowledge and skills will develop progressively as they move through the school, not only to enable them to meet the requirements of the National Curriculum but to enable them to flourish as inquisitive, resilient, and curious scientists.

Children will know about scientific and STEAM careers and what it means to be a scientist and will leave our school with the mindset that that is a career choice open to them.