

The Big picture (Overview)

Our science curriculum is designed with the overarching goal of fostering curiosity, critical thinking, and a deep understanding of the natural world. We aim to inspire a sense of wonder and exploration, encouraging pupils to develop scientific skills through hands-on experiences and inquiry-based learning. Emphasis is placed on building key scientific skills such as observation, investigation, and communication, alongside developing secure knowledge of scientific concepts within the context of everyday phenomena.

What it's like to be a scientist in our school (pupil voice)

Reception: "I like plants — they need water to stay alive."

Year 1: "I like learning about the seasons and looking at how they change."

Year 4: "Science is fun because you get to carry out investigations to see if you are correct."

Year 6: "I enjoy science because it is practical and you get to know why and how things work."

Teaching and Learning (Key learning and skills)

Our approach to science teaching begins in the Early Years Foundation Stage, where children's natural curiosity about the world is nurtured through exploration, play, and first-hand experiences. In EYFS, pupils observe changes, explore materials, ask questions, and begin to develop the language of enquiry — laying the groundwork for future scientific learning.

As pupils move through the school, this early curiosity is strengthened and refined through the HEP Science Curriculum, which provides a carefully sequenced programme that builds both scientific knowledge and disciplinary skills year by year. Lessons are designed to promote active learning, hands-on investigation, and purposeful discussion.

What we want our curriculum to help our children know and do (Intent)

At St Finbar's Primary School, our science curriculum aims to ignite curiosity, encourage critical thinking, and foster a lasting appreciation of the natural world.

Following the HEP Science Curriculum, pupils learn through hands-on, enquiry-based experiences that develop both knowledge and scientific skills. In the Early Years, children explore through play and simple investigations, laying strong foundations for future learning.

Across the school, pupils study life processes, materials, physical processes, and Earth and space, gaining a secure understanding of key concepts and how to apply them. Our curriculum nurtures a sense of wonder and environmental responsibility, helping every child to think like a scientist and care for the world around them.

How we organise our curriculum (Implement)

Our science curriculum provides a cohesive and progressive journey from EYFS to Year 6, ensuring that knowledge and skills build securely over time.

In the Early Years, curiosity and exploration are nurtured through practical, play-based experiences in line with the EYFS framework. These experiences lay strong foundations for enquiry, observation, and vocabulary development.

From Key Stage 1 onwards, pupils follow the HEP Science Curriculum, which offers a well-sequenced, knowledge-rich programme of study. This structure enables pupils to revisit and deepen their understanding through carefully planned units, practical investigations, and purposeful discussion.

Hands-on experiments and real-world contexts bring learning to life, while regular opportunities for retrieval ensure that pupils know more, remember more, and can apply their knowledge with increasing independence.

How we know children are knowing and doing more (Impact)

Our science curriculum enables pupils to develop secure knowledge, strong enquiry skills, and a genuine curiosity about the world around them.

Formative assessment is central to our approach, allowing teachers to identify misconceptions and address them promptly so learning builds on firm foundations. Regular half-termly assessments, alongside ongoing observations, book looks, and pupil discussions, help us to monitor progress and ensure high expectations are met across all year groups.

Through this approach, pupils leave St Finbar's as confident, inquisitive learners who can apply their scientific understanding to new situations and think critically about the world they live in.