Science

How are Children Taught?

Science at Kentmere is taught through a combination of direct teaching and carefully planned opportunities for pupils to apply their knowledge through investigation and exploration. This approach ensures that children not only learn scientific content but also develop the skills needed to think and work like scientists.

Our ambitious, co-constructed curriculum has been carefully mapped out by the subject leader, SLT, and class teachers. It outlines the progression of substantive knowledge (scientific facts, concepts and vocabulary) and disciplinary knowledge (how scientists work), covering the National Curriculum and beyond. This ensures that learning is sequential, progressive, and inclusive for all.

Working Scientifically skills are threaded throughout the curriculum. Children are explicitly taught discrete scientific skills such as observing closely, measuring accurately, using equipment including rulers and data loggers, recording data, and interpreting results.

We continue to embed Active Learning and Kagan cooperative learning structures across Science lessons. These approaches support pupils in developing scientific vocabulary, strengthen retrieval practice, and promote high levels of engagement and collaborative learning.

Oracy is woven through every topic. Children “talk as scientists,” using accurate scientific vocabulary to make predictions, explain their ideas, challenge one another’s thinking, and share their findings. This deliberate focus on oracy helps pupils articulate their reasoning and build confidence in scientific dialogue.

Throughout each year, children encounter all five enquiry types: Observing Over Time, Pattern Seeking, Identifying, Grouping and Classifying, Comparative and Fair Testing, and Researching Using Secondary Sources. These varied enquiry types ensure that every pupil develops a broad and secure understanding of how scientific knowledge is generated.

Enrichment opportunities—including educational visits, outdoor learning, visitors, workshops and real-world experiences—enhance Science learning and help build Science Capital. These experiences widen pupils’ knowledge of how science connects to everyday life and support aspirations linked to STEM careers.