Walwayne Court
Primary School

Science Curriculum

At Walwayne Court, Science inspires curiosity about the natural and physical world, developing scientific knowledge and understanding, and equipping pupils with the skills to ask questions, investigate, and think critically. Our curriculum, supported by Developing Experts, ensures pupils can explore, observe, experiment, and understand scientific concepts in everyday contexts.

Our approach is guided by our school values of **Achieve, Belong, and Engage**:

- **Achieve – Aspiration and Perseverance**: Pupils are encouraged to explore challenging concepts, record observations accurately, and refine investigations to reach reliable conclusions.
- **Belong – Kindness and Collaboration**: Pupils work cooperatively in experiments, share observations, and discuss results, respecting each other's ideas and contributions.
- **Engage – Curiosity and Creativity**: Pupils are encouraged to ask questions, explore ideas, and use creativity to design experiments and solve problems.

Implementation

The Science curriculum is carefully sequenced to build knowledge and skills progressively. Pupils begin with foundational understanding in topics such as plants, animals, materials, and seasonal changes, and advance to more complex concepts including forces, electricity, rocks, habitats, and the human body. Learning is structured around the three main scientific disciplines: biology, chemistry, and physics, with opportunities to develop working scientifically skills such as observing, measuring, predicting, and interpreting results.

Teaching strategies include:

- **Practical experiments and investigations** to explore scientific concepts hands-on
- **Observation and data collection**, including tables, charts, and graphs
- **Research projects** and case studies to explore scientific phenomena
- **Discussion and reflection** to develop understanding and scientific vocabulary
- **Real-world examples** and links to current scientific issues, including environmental awareness and sustainability

Adaptations for learners can include:

- **SEND**: Scaffolded experiments, visual prompts like symbols, simplified explanations, step-by-step instructions or flowcharts, additional adult support, and sensory or practical activities anticipated and adapted.

- **EAL**: Explicit teaching of key vocabulary, visual diagrams and cues, practical demonstrations modelled pre-learning if possible, paired discussion to develop language, and clear step-by-step instructions.
- **Disadvantaged pupils**: Access to resources, scaffolded tasks for written or spoken work, enrichment opportunities such as virtual science experiences or visits, and making connections between science and real-life contexts.

Assessment is integrated through observation, questioning, written work and practical reports. Teachers use this information to adapt teaching, provide challenge or support, and ensure pupils build on prior knowledge. Pupils are encouraged to reflect on their investigations, analyse results, and refine their methods. Teachers regularly review and refine their teaching approaches to keep students engaged and help them progress.

Science is taught in a motivating classroom where pupils feel confident to ask questions, explore, and test ideas. Collaboration, discussion, and experimentation create an environment of curiosity, resilience, and mutual respect, supporting both academic and social development. Science enables pupils to link to the wider community/world through hands on learning and real world applications of the subject.

Impact

Through this curriculum, pupils develop secure scientific knowledge, enquiry skills, and the confidence to investigate and explain phenomena. They can carry out practical experiments, analyse data, and draw conclusions based on evidence. Pupils develop critical thinking and problem-solving skills and can make connections between scientific concepts and the real world.

Pupils demonstrate **aspiration and perseverance** in investigations, **kindness and collaboration** in group tasks, and **curiosity and creativity** in exploring scientific questions. Inclusive teaching ensures all pupils make progress from their individual starting points.

By the end of primary school, pupils leave with a strong foundation in biology, chemistry, and physics, the skills to investigate scientifically, and the confidence to continue exploring the world as informed, curious, and reflective learners.