Science

Intent

Critical thinking
The ability to ask perceptive questions and explain thinking.

Vocabulary
An understanding of scientific terms and vocabulary.

Investigation
To develop investigation skills in every year group.

Questioning and Recording
"Think like a scientist"
Question, predict, observe, measure and record data in different ways; analyse and present findings.

Sustainability
Build awareness of how science shapes our lives: this can help us become resourceful, active citizens with the skills to contribute and improve the world.

Knowledge
Build knowledge of how to carry out scientific enquiry, and each strand of the *National Curriculum* for Science, together with knowledge about sustainability.

Our Amazing ACORNS Ageements

- **A** We aspire to achieve in all our learning
- **C** We are kind and collaborate to try to improve sustainability
- **O** We are open and honest about what is happening in the world
- **R** We respect the views of others and we respect the environment
- **N** We welcome new opportunities to improve sustainability
- **S** We use our super learning powers in all our learning

Implementation

Teaching and learning

In years 1-6 we follow the *White Rose* scheme, a curriculum with planned progression in small steps, linked to the *National Curriculum*. This focuses on the elements included in our intent statement. Each unit includes discovery and practical activities. Consolidation is built into learning.

Further resources available are physical resources for discovery and investigation, books and IT-based opportunities.

Organisation

In Early Years, children learn through the specific area of Understanding the World, working towards the Natural World Early Learning Goal.

Years 1-6 have units of learning, arranged over the year groups to provide continuity and opportunities to revisit and consolidate learning, building skills step by step. The units are shown in our science rainbow grid.

Elements of science covered

Working scientifically is used across all areas of science learning and includes: ask questions; plan; make observations; take measurements; gather, record and classify data; present findings; answer questions and make conclusions, and evaluate (KS2 only). The main areas of learning are biology, chemistry and physics. Alongside this, we learn about sustainability.

Curriculum mapping.pdf

Enrichment and promotion of science

Enrichment is provided through trips, an allotment area, planting in Early Years, gardening club, Forest Schools, and Science *Memorable Moments.* School Council discuss sustainability regularly and classes have science displays. Science is championed by the subject leader, who carries out ongoing monitoring, then spotlight monitoring in a two-yearly programme. The science action plan is updated, celebrating success and noting next steps, and is shared with staff and governors.

Impact

End points

We aim for pupils to be ready to confidently access their next stage of learning in science, through building skills and knowledge. In Early Years the end point is their Early Learning Goals. In Year 1-6, the skills and knowledge we aim to equip them with are those in the *White Rose* planning *National Curriculum Links* boxes.

We aim for all our children to experience our science *memorable moments*.

Assessment for learning

In Early Years, assessment is through the EYFS curriculum.

In Years 1-6, ongoing teacher assessment is through observation, questioning (including quizzes), activities and completed work. This allows teaching to be modified to promote further learning.

Tracking and evidencing progress

At the end of each unit, the pupils' learning in that unit is assigned working towards, working at or greater depth for the year group.

Half-yearly, each pupil's average outcome is added to a tracking grid, which also allows tracking of different groups.

The subject leader and the senior management team can analyse outcomes and drive further improvement in science.