



Intent

At Rednal Hill Infant School, we aim to develop active, inquisitive scientists who explore and question the world around them. Our practical and investigative curriculum fosters curiosity, creativity and critical thinking through hands-on and play-based exploration, connecting scientific concepts to the real world. Pupils are supported to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own and planned questions including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information.

Implementation

- **Curriculum Design:** The science curriculum in key Stage 1 is adopted from the White Rose Curriculum which incorporates the 2014 National Science curriculum. The White Rose curriculum maps out the progression of both scientific knowledge and working scientifically skills.
- **In the EYFS:** Science learning is woven through the Understanding the World strand of Development Matters, providing thematic, exploratory experiences and fosters a child's curiosity and questioning.
- **In KS1:** Science is taught as a discrete subject for an hour each week. Despite being discretely taught, there are a multitude of links that can be drawn with other subjects such as Humanities, Forest School and Writing and these are explored where appropriate. Each block includes an enquiry question selected from one of the five enquiry types, further enriching children's understanding of the scientific enquiry process. Retrieval of learning is built into the beginning of each lesson with the use of various 'quizzing' techniques: incorporating recent learning ('Think and Link') and longer-term retrieval ('Flashback').
- **Approach:** Strands are repeated from Year 1 to Year 2 e.g. plants, animals and living things and materials; building on knowledge from the previous year.

Assessment

- Assessment for Learning is used to inform teaching and supports feedback.
- End-of-unit assessments measure knowledge and identifies any gaps, which shapes the retrieval focus going forward.

- Data recorded on in-house trackers supports progress monitoring across year groups.
- Evidence of knowledge and understanding is captured in Science books.
- Pupil Book Studies (Alex Bedford) are used to assess long term memory recall.

Impact

- Pupils enjoy practical, hands-on investigations that build long-term understanding and enthusiasm.
- Children confidently use scientific vocabulary to explain and justify findings.
- Data shows that majority of students achieve the expected level in all areas of Science. Gaps identified through assessments are used for future retrieval sessions.
- Pupil voice:
"I like doing investigations and finding out about things." "Science is fun".

Inclusion

- Science is highly practical, with reasonable adjustments made so all pupils can explore, record and discuss their findings effectively.
- Repetition of units and retrieval of learning is used between sessions to support transference to the long term memory.
- Science lessons provide practical, scaffolded tasks that allow all pupils — including those with SEND or language barriers — to access hands-on exploration.
- Lessons are adapted with extra adult support being offered, peer-partnering and varied recording methods so every child collects and analyses data, engages with key scientific vocabulary and participates fully in the learning process.