**Science Curriculum – Intent, Implementation & Impact**

**Intent**

At Lawley Primary School, our vision for science is rooted in curiosity, discovery, and understanding of the world around us. We aim to cultivate a lifelong love of science in all our pupils by offering a knowledge-rich, vocabulary-rich and enquiry-driven curriculum. With support from the White Rose scheme, our science curriculum is designed to ensure that every child:

* Develops deep scientific knowledge and conceptual understanding in biology, chemistry and physics.
* Gains the skills needed to work scientifically, including questioning, investigating, interpreting results, and drawing conclusions.
* Builds a broad and rich scientific vocabulary, enabling them to articulate ideas confidently and accurately.
* Understands the relevance of science in everyday life and its applications in the wider world.
* Builds resilience, critical thinking, and collaborative skills through hands-on enquiry and discussion.

We are committed to ensuring that our science curriculum is inclusive, ambitious and accessible to all learners, including those with SEND and EAL, while challenging and extending the most able.

**Implementation**

Our science curriculum is delivered with the support of the White Rose Science scheme, which provides a structured, coherent and progressive approach to teaching and learning across the school. Here's how we bring science to life at Lawley Primary School:

**Curriculum Structure**

EYFS: Science is explored through Understanding the World, promoting awe and wonder through observation, exploration and open-ended questioning.

KS1 and KS2: Each year group follows carefully sequenced units from White Rose Science, covering biology, chemistry and physics topics aligned with the National Curriculum.

**Units include:**

* Seasonal changes
* Animals including humans
* Everyday materials
* Forces and magnets
* Light and sound
* Earth and space
* Evolution and inheritance (UKS2)

**Knowledge and Skills Progression**

Each unit builds on prior knowledge with explicit links to earlier learning.

Children develop and revisit ‘working scientifically’ skills, such as:

* Asking and answering scientific questions
* Setting up fair tests
* Making observations and measurements
* Recording data using charts, graphs and tables
* Drawing conclusions and evaluating investigations

**Curriculum Resources**

* High-quality, well-structured lessons using White Rose Science to support.
* Practical, hands-on investigations and experiments in every unit.
* Vocabulary development and retrieval in lessons.
* Use of visual aids, models and digital resources to enhance understanding.

**Enrichment and Wider Opportunities**

* Visits from scientists and STEM professionals.
* Links to real-world science careers and global issues.
* Eco initiatives and sustainability projects (e.g. recycling, gardening, biodiversity surveys).
* Science Days and whole-school investigations to promote excitement and teamwork.

**Impact**

The impact of our science curriculum at Lawley Primary School is that, by the time children leave us, they have developed a secure understanding of the scientific world around them, a lasting sense of curiosity, and the confidence to question, explore and investigate.

Our pupils are equipped not only with essential scientific knowledge but also with the skills to think critically, apply their learning, and communicate their ideas effectively. They leave Lawley Primary with a positive attitude towards science and a readiness to build on their learning at secondary school and beyond.

**Assessment and Monitoring**

Assessment is an integral part of every science lesson at Lawley Primary. Teachers continuously assess children’s understanding through observation, questioning, and analysis of their work. This real-time feedback allows staff to adapt teaching, support pupils effectively, and provide challenge where appropriate.

Key strategies include:

* Formative assessment through ongoing questioning, discussion, and observation to inform next steps in learning.
* Flashbacks at the beginning of each lesson to revisit prior learning, reinforce key concepts, and identify any gaps in knowledge.
* Assessment of 'working scientifically' skills is based on teacher judgement, considering pupils’ ability to plan, carry out and reflect on scientific enquiries.
* Monitoring through pupil voice surveys and scrutiny of children’s work to evaluate engagement, progress, and depth of understanding.

These approaches ensure that assessment is meaningful, manageable, and directly informs high-quality teaching and learning in science.

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