The Impact of the Brierley Science Curriculum

At Brierley, we offer a high-quality and balanced Science curriculum which equips our children with the foundations to be able to understand the world through a scientific lens. Our curriculum ensures that children, upon leaving Brierley, possess the foundational knowledge required to acknowledge the significance of Science in all aspects of daily life. Consequently, we place great emphasis on the teaching and learning of Science, consistently working towards enhancing the educational experiences we offer to our students.

Our Brierley Science Curriculum Pupils are building up their knowledge and understanding of key foundational scientific ideas as they work through the curriculum. They have many opportunities to ask questions and develop a sense of curiosity about the world around us.

Pupils encounter people who have made significant contributions to the field of science over time, understanding that science has been a quest for understanding for many years, and will continue to be so in the future.

Children leave Brierley with a genuine passion for Science. They are inspired by Science throughout their time at our school, where they engage with our comprehensive and well-rounded curriculum. Here, teachers have introduced children to exceptional teaching and learning experiences.

Children are immersed in essential scientific terminology, which aids in the acquisition of scientific knowledge and understanding across the school. At Brierley, children are constantly exposed to a diverse range of language, which allows them to communicate scientific concepts clearly and accurately.

Our curriculum not only ensures a deep understanding of fundamental scientific processes but has also encouraged children to become inquiry-based learners. They are able to collaborate in activities such as research, investigation, and evaluation, enhancing their learning experiences.

Pupils have constructed a core body of essential science knowledge by progressing through the curriculum. They engaged in asking questions and cultivating a curiosity about the world that surrounded them.

Teachers at Brierley CE Primary School inspire pupils to question the world around them and develop their scientific thinking to enhance their understanding and knowledge. Students at Brierley learn how science can illuminate occurrences, predict behaviours, and analyse causes.

Children at Brierley have many opportunities to engage in practical scientific work. Throughout their time at the school, they focus on the fundamental aspects of scientific inquiry and use a range of methods to answer pertinent scientific questions.

By the culmination of Key Stage 2, all pupils will proficiently utilise and identify various types of scientific inquiry:

- **Observing over time** - Pupils understand gradual changes and developments in natural processes.

- **Seeking patterns** - Students to recognise recurring sequences or relationships in data.
- **Identifying, classifying, and grouping** - Involved categorising objects or observations based on shared characteristics.
- **Conducting comparative and fair testing (controlled investigations)** - Students are able to design experiments to make fair comparisons between variables.
- **Conducting research using secondary sources.** - Pupils have learned how to gather information from references beyond first-hand observation.

By the end of Key Stage 2, children are capable of seeking answers to questions by collecting, analysing, and presenting data. This proficiency equips children at Brierley to advance successfully to Key Stages 3 and 4. By then, they have developed a solid understanding of science, enabling them to participate effectively in more complex discussions on experimental design and control, as part of their ongoing learning journey.

Children have:

- Developed scientific knowledge and conceptual understanding across biology, chemistry, and physics.
- Understand the nature, processes, and methods of science through various scientific inquiries.
- Have acquired scientific knowledge to comprehend the applications and implications of science.
- Exhibit a passion for science and interest in further study and work in this field.
- Retain knowledge with practical real-life relevance.
- Question ideas, reflect on knowledge, and articulate scientific concepts clearly.
- Demonstrate resilience, creativity, and mathematical skills in STEM activities.
- Work collaboratively and practically in investigations and experiments.
- Achieve age-appropriate Science standards yearly.

To summarise, children leave Brierley CE Primary School with a strong foundation in science for future learning and life.