



**Intention- What do we want the children to know?**

At Belsay Primary School, we recognise the importance of Science in every aspect of daily life. As one of the core subjects taught in primary schools, we give the teaching and learning of Science the prominence required.

Science teaches an understanding of natural phenomena within the world around us. We aim to stimulate a child's curiosity in finding out why things happen in the way they do.

Striving to teach methods of enquiry and investigation we encourage creative thought. We motivate children to ask scientific questions and support them in their understanding of how Science will affect their future on a personal, national and global level.

We endeavour to ensure that the Science curriculum we provide will give children the confidence and motivation to continue to further develop their skills into the next stage of their education and life experiences.

We intend to promote learning in Science through systematic investigations of the physical, chemical and biological aspects of children's lives that involve first hand experiences, equipping them with the ability to answer scientific questions about the world around them.

Our curriculum has been designed to help children demonstrate:

The ability to think independently and raise questions about working scientifically and the knowledge and skills that it brings

Confidence and competence in the full range of practical skills, taking the initiative in; for example, planning and carrying out scientific investigations

Excellent Scientific knowledge and understanding which is demonstrated in written (KS2) and verbal explanations (all year groups), solving challenging problems and reporting scientific findings

High levels of originality, imagination or innovation in the application of skills

The ability to undertake practical work in a variety of contexts, including fieldwork

A passion for Science and its application in past, present and future technologies.

**Implementation- What will this look like in school?**

Teachers create a positive attitude to Science learning within their classrooms and reinforce an expectation that all children are capable of achieving high standards in Science. Our whole school approach to the teaching and learning of science involves the following:

Through our planning and timetabled weekly teaching of Science across school, we involve problem solving opportunities that allow children to find out for themselves.

Children are encouraged to ask their own questions and are given opportunities to use their scientific skills and research to discover the answers. This curiosity is celebrated within the classroom.

Planning involves teachers using a range of pedagogical strategies and creating engaging lessons. Teachers use concept cartoons and precise questioning in class to test knowledge and skills.

Children are assessed regularly by teachers using the assessment sheets in the front of their exercise books to identify gaps and misconceptions.

We build upon the learning and skill development of previous years. As the children's knowledge and understanding increases and they become more proficient in selecting and using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to arrive at conclusions based on real evidence. As children progress through school year groups, they will develop their communication of ideas from verbal into written methods.

'Working Scientifically' skills are embedded into lessons to ensure they are being developed

throughout the children's school career. New vocabulary and challenging concepts are introduced through direct teaching. This is developed through the years, in keeping with topics where appropriate.

Teachers incorporate a Science experiment opportunity for classes into curriculum units and ensure these are taught once every term (KS1, KS2).

Teachers demonstrate how to use scientific equipment, and the various 'Working Scientifically' skills in order to embed scientific understanding.

Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning and participation in our partnership with the Pele Trust.

**Impact- How will we know we have made a difference?**

The approach at Belsay Primary School results in a fun, engaging, high- quality Science education that provides children with the foundations for understanding the world. Much of Science lends itself to outdoor learning, we provide children with regular opportunities to experience this. Through Science Day, trips, links with the Pele Trust and interactions with expert career visitors, the children have the understanding that Science has changed our lives and that it is vital to the world's future prosperity.

Pupil voice is used to further develop the Science curriculum, through questioning of children's views and attitudes to the subject to support the enjoyment of Science and to motivate learners.