At William Stockton Primary School we are passionate about finding opportunities for all our children to excel in Science. Our curriculum aims to inspire each child to achieve their very best, and believe in their hopes and dreams!

To do this we provide our children with a rich, broad and balanced curriculum. A curriculum that creates wonder, excitement and magical experiences, which promotes the love of learning, and creates independence and a thirst for knowledge.

Intent

At William Stockton and Wimboldsley schools, it is our intention to recognise the importance of Science in every aspect of daily life.

The Scientific area of learning is concerned with increasing pupils' knowledge and understanding of our world, and with developing skills associated with Science as a process of enquiry. It develops the natural curiosity of the child, encourages respect for living organisms and the physical environment and provides opportunities for critical evaluation of evidence.

We intend to build a Science curriculum which develops learning and results in the acquisition of knowledge and build a Science curriculum which enables children to become enquiry based learners.

Interconnected opportunities are key to our curriculum. This ensures that the children are seeing 'worth' in their Science curriculum. It also helps the children to develop meaningful and strong schemas so that the new information that they are learning can store in the long term memory. Children

are encouraged to make links in their learning so that their learning is meaningful to them.

In conjunction with the aims of the National Curriculum, our Science teaching offers opportunities for children to:

- Develop scientific knowledge and conceptual understanding through the specific disciplines of Biology, Chemistry and Physics;
- Develop understanding of the nature, processes and methods of Science through different types of science enquiries that help them to answer scientific questions about the world around them;
- Be equipped with the scientific knowledge required to understand the uses and implications of Science, today and for the future.
- Develop the essential scientific enquiry skills to deepen their scientific knowledge.
- Use a range of methods to communicate their scientific information and present it in a systematic, scientific manner, including I.C.T., diagrams, graphs and charts.
- Develop a respect for the materials and equipment they handle with regard to their own, and other children's safety.
- Develop an enthusiasm and enjoyment of scientific learning and discovery.

The National Curriculum provides a structure and skill development for the science curriculum being taught throughout the school.

Implementation

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;

- Science is taught in planned and arranged topic blocks by the class teacher. This is a strategy to enable the achievement of a greater depth of knowledge.
- Teachers encourage and signpost pupils to think carefully about the specific skills that scientists need to ensure that they are able to develop their knowledge
- Planning involves teachers creating engaging lessons, often involving high-quality resources to aid understanding of conceptual knowledge.
- Teachers use precise questioning in class to test conceptual knowledge and skills, and assess children regularly to identify those children with gaps in learning, so that all children keep up.
- Structured conversations are held with all children to ensure that children understand the substantive and conceptual knowledge.
- We build upon the learning and skill development of the previous years. As the children's knowledge and understanding increases, and they become more proficient in selecting, using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence. Children are encouraged to retrieve prior learning to support them in building and

developing meaningful and strong schemas to help them to remember more and know more.

- Working Scientifically skills are embedded into lessons to ensure these skills are being developed throughout the children's school career and new vocabulary and challenging concepts are introduced through direct teaching. This is developed through the years, in-keeping with the topics.
- 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 workshops with experts.
- Interconnected links to other subjects are discovered across the curriuclum.
- Children will be able to build on prior knowledge and link ideas together, enabling them to question and become enquiry based learners.
- Attainment will be assessed termly but children's 'sticky knowledge' will be assessed continually through schema and Knowledge organisers and discussions with children.

Impact

- Children will achieve age related expectations in Science at the end of their Key Stage.
- Children will retain knowledge that is pertinent to Science with a real life context.

- Children will be able to question ideas and reflect on knowledge.
- Children will work collaboratively and practically to investigate and experiment.
- Children will be able to explain the process they have taken and be able to reason scientifically.
- Precision teaching, our school monitoring system will ensure there is a constant review and improve cycle to improve the Science curriculum.