Science - Intent, Implementation and Outcomes.

I can. (Intent.) 	We can. (Implementation.) 	Stokesay can. (Outcomes.) 
At Stokesay Primary School, we understand that children have a natural inquisitiveness. The ethos of the science is very much line with the aims and purpose of study laid out in the National Curriculum: • Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry, and physics. • Develop an 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. • Are equipped with the scientific skills required to understand the uses and implications of science, today and for the future. We understand that it is important for lessons to have a skills-based focus, and that the knowledge can be taught through this. Science fosters this curiosity of the universe, an understanding of the world around us and a respect for both living and non -living things. We believe that a broad and balanced science curriculum must comprise of several aspects: substantive knowledge, disciplinary knowledge, and a positive attitude towards the subject. The programmes of study in the National Curriculum science document promote a deep understanding of substantive knowledge and concepts that are built upon through Primary School. Pupils are given the correct working scientifically skills to ensure that they can correctly conduct investigations, safely use a range of equipment, record their results and confidently answer questions about them in an increasingly complex way. Vocabulary related to both individual scientific concepts and working scientifically is built upon each year through engagement with working wall displays, year group appropriate glossaries and targeted vocabulary lessons.	Fundamental to the implementation of our science curriculum is an insistence of high standards of learning, supported by enthusiastic and highly skilled staff, whose own subject knowledge is monitored by the science leader. Our whole school approach to science involves the following: • Early Years Foundation Stage science is organised around the specific area of learning 'Understanding the World'. Our outdoor learning area plays a large role in this, allowing pupils the opportunity to observe animals and plants and understand the differences between living things. Despite being drawn from a separate statutory framework, learning in EYFS is not isolated; this learning provides a strong foundation that is built on throughout the rest of school. • KS1 and KS2 follow 2 year rolling programme due to the nature of being mixed age year groups. Where strands of science, such as plants are learned more than once within that Key Stage, the previous year's knowledge is revisited before being built on with new content. We ensure that these units are taught progressively by teaching them both within the same cycle. This ensures that no pupil is taught, for example, Year 2 Plants before Year 1 Plants. • There is no set order within any given year for which strands of science should be taught when. Teachers have each planned, in collaboration with the science lead, a sequence of learning that offers cohesion across their year group. This is sometimes achieved by matching the science strand with the overarching topic. For example, in Year 6 Earth and Space is taught during the 'Extreme Earth. This allows for a deeper learning, as knowledge can be demonstrated across different curriculum areas. Another example would be pairing the science strand to a time of year. For example, teaching plants during the Summer term. Finally, some strands of science work best as standalone units. • Scientific enquiry skills/ 'Working Scientifically' is the basis for disciplinary knowledge in the subject and is embedded across all years of the curriculum.	The successful approach at Stokesay results in a high quality, challenging and engaging science curriculum, that provides children with the foundations for understanding the world. Through trips, outside visitors and hands-on learning, pupils understand the real-world context for science and the applications of accurate scientific investigation skills. Children understand the contribution that scientists have made through the ages, drawing on cross-curricular skills to appreciate the contributions made by those before them. Children at Stokesay overwhelmingly enjoy science and this results in motivated learners. Monitoring the impact of our science curriculum is organised in the following ways: • Through learning walks conducted by both the science leader and members of SLT/ Governors, with feedback given to members of staff where appropriate. • Analysis of Key Stage 1 and Key Stage 2 SATS data by the science leader, in conjunction with other relevant members of staff. • Teacher assessment data using school-wide tracking document. • Book trawls. **SEND** Science is a fully inclusive subject at Stokesay and we are committed to the Special Educational Needs and Disability Code of Practice. While the science curriculum is not narrowed for any pupils, the way that science is both taught and assessed can be modified to reflect the differing needs of pupils. Examples can include using post-it notes or dictation software instead of formally writing out investigations, or using ICT to graph results, instead of drawing them by hand. This means that pupils will be able to access the core science learning without the potential barriers that can come from their educational needs.