



Intent

At Wickham Common, our primary intention is to provide each child with a comprehensive and well-rounded Science curriculum that empowers them to confidently explore and discover the wonders around them, fostering a profound understanding of the world we inhabit.

We want our children to not only learn from their science lessons at Wickham Common but also to ensure that all students develop a robust understanding of key scientific concepts, processes, and methodologies, enabling them to think critically, solve problems, and apply their knowledge to real-world scenarios.

The teaching of Science should ensure that that all children, regardless of their background or ability, have access to an inclusive and relevant science curriculum that challenges and engages them, fostering a sense of belonging and achievement.

We aspire to cultivate a genuine love for science within our students, instilling limitless ambitions in them. We hope they grow up aspiring to become astronauts, forensic scientists, toxicologists, or microbiologists. To realise these ambitions, our approach involves exciting, hands-on experiences that fuel curiosity and encourage questioning. Our goal is for these stimulating and challenging encounters to help each child firmly grasp and expand their scientific knowledge and

Implementation

Our science curriculum is carefully designed to build on the educational programmes set out in the Statutory Framework for the Early Years Foundation Stage and delivered in the early years to teach our reception pupils the *understanding of the world* programme of study related to *the natural world*. In Reception, children experience opportunities to explore the natural world about them making observations and drawings of animals and plants and begin to learn about processes and changes in the natural world around them, including the seasons and changing states of matter.

In KS1 and KS2, children study the national curriculum programmes of study for each year group. Throughout the programmes of study, the children will acquire and develop the key knowledge that has been identified within each unit and across each year group. The key knowledge identified by each year group is informed by the national curriculum and builds towards identified phase end points in accordance with NC expectations.

Key skills are also mapped for each year group and are progressive throughout the school. These ensure systematic progression to identified skills end points which are in accordance with the Working Scientifically expectations of the national curriculum.

Impact

By the end of their schooling with us children have developed a love for learning about the scientific world and are curious and inspired to find out more about Science and relate it to their own lives and aspirations. They will become resilient, independent and curious scientists who ask questions and find things out for themselves.

They have gained a coherent body of knowledge and conceptual understanding about science through the study of the foundations of biology, physics and chemistry. They will be confident in understanding and using the processes and methods of scientific enquiry to explore and answer questions about the world around them.

Outdoor learning will be utilised where appropriate for science lessons and children will have participated in a range of curriculum enhancement experiences, such as visits off-site and inviting scientists in to school.

Pupils have developed a broad vocabulary of science which will enable them to articulate their understanding of taught concepts and are able to use a range of investigations and practical activities giving them a greater understanding of the concepts and knowledge of science.

Children will leave Wickham Common equipped with the knowledge required to appreciate and understand science's contribution to all aspects of

<p>vocabulary while nurturing a passion and eagerness for learning.</p>	<p>The curriculum is designed to ensure that children are able to acquire key scientific knowledge through practical experiences; using equipment, conducting experiments, building arguments and explaining concepts confidently.</p> <p>Wickham Common's approach to Science takes account of the school's own context, encouraging access to places of scientific interest as part of the school's commitment to learning outside the classroom.</p> <p>Children are encouraged to ask questions and be curious about their surroundings and a love of science is nurtured through a whole school ethos and a varied science curriculum.</p> <p>Teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all pupils are capable of achieving high standards in Science. Our whole school approach to the teaching and learning of science involves the following:</p> <ul style="list-style-type: none">• Existing knowledge is checked at the beginning of each topic, looking at key vocabulary, what children know and what they would like to know. This ensures that teaching is informed by the children's starting points and that it takes account pupil voice, incorporating children's interests.• In ensuring high standards of teaching and learning in science, we implement a curriculum that is progressive throughout the whole school. This ensures progression between year groups and guarantees topics are covered.	<p>everyday life. Pupils will have developed the skills, knowledge, understanding and the motivation to prepare them to successfully engage with Science disciplines at Secondary school.</p>
-------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

- | | | |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| | <ul style="list-style-type: none">• Children are encouraged to ask their own questions and given opportunities to use their scientific skills and research to discover the answers. This curiosity is celebrated within the classroom.• Teachers plan engaging lessons, using high-quality resources to aid understanding of conceptual knowledge. Teachers use precise questioning in class to test conceptual knowledge and skills, and assess pupils regularly to identify those children with gaps in learning, so that all pupils keep up. Tasks are selected and designed to provide appropriate challenge to all learners, in line with the school's commitment to inclusion.• Working Scientifically skills are embedded into lessons to ensure that skills are systematically 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.• When assessing understanding and progress, formative assessment is undertaken during lessons as and when teachers identify knowledge gaps or misconceptions. Summative assessment of both science content and enquiry is made to measure and monitor impact. | |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|