



DT Intent, Implementation, Impact

Intent	<p>Design and Technology is the marrying of both problem-solving thought process and practical skills. At Sandy Lane Primary School, children are given opportunities to develop both of these abilities in a variety of contexts. Children learn to think about and to solve problems, both as individuals and as part of a team and while doing so they develop practical, technical and creative skills.</p> <p>Our pupils will be designers. They will explore their ideas within a variety of contexts, considering their own and others' needs, wants and values and the practical applications of their designs in a learning environment where it is safe to experiment, safe to fail, re-design and improve. To do this, children will select appropriate tools, technologies and materials, test and evaluate their own and others' work, reflect on how outcomes could be improved, learn about the importance of nutrition, food hygiene and safety and understand how design and technology has shaped the world we live in.</p>
Implementation	<p>The Design and Technology curriculum is delivered through a series of different areas:</p> <p>Structures:</p> <p>Key Stage 1 - Build structures such as windmills and chairs, exploring how they can be made stronger, stiffer and more stable. Recognise areas of weakness through trial and error.</p> <p>Key Stage 2 - Continue to develop KS1 exploration skills, through more complex builds such as pavilion and bridge designs. Understand material selection and learn methods to reinforce structures.</p> <p>Mechanisms:</p> <p>Key Stage 1 - Introduce and explore simple mechanisms, such as sliders, wheels and axles in their designs. Recognise where mechanisms such as these exist in toys and other familiar products.</p> <p>Key Stage 2 - Extend pupils understanding of individual mechanisms, to form part of a functional system, for example: Automatas, that use a combination of cams, followers, axles/shaft, cranks and toppers.</p> <p>Textiles:</p> <p>Key Stage 1 - Explore different methods of joining fabrics and experiment to determine the pros and cons of each technique.</p> <p>Key Stage 2 - Understand that fabric can be layered for effect, recognising the appearance and technique for different stitch and fastening types, including their: ● Strength. ● Appropriate use. ● Design</p> <p>Electrical Systems:</p> <p>Key Stage 2 only - Create functional electrical products that use series circuits, incorporating different components such as bulbs, LEDs, switches, buzzers and</p>

	<p>motors. Consider how the materials used in these products can: ● Protect the circuitry. ● Reflect light. ● Conduct electricity. ● Insulate.</p> <p>Digital World: <i>Key Stage 2 only</i> - Learn how to develop an electronic product with processing capabilities. Apply Computing principles to program functions within a product including to control and monitor it. Understand how the history and evolution of product design lead to the on-going Digital revolution and the impact it is having in the world today.</p> <p>Cooking and Nutrition: <i>Key Stage 1</i> - Learn about the basic rules of a healthy and varied diet to create dishes. Understand where food comes from, for example plants and animals <i>Key Stage 2</i> - Understand and apply the principles of a healthy and varied diet to prepare and cook a variety of dishes using a range of cooking techniques and methods. Understand what is meant by seasonal foods. Know where and how ingredients are sourced.</p>
Impact	<p>Our Design & Technology Curriculum gives our children the skills and abilities to engage positively with the designed and made world. As a uniquely cross curricular subject, it gives children an opportunity to apply what they have learnt in maths, science and art (amongst other subjects) to the real world and to real problems which is deeply engaging for them. Our children leave Sandy Lane Primary having learned how products are designed and manufactured, how to be innovative, how to harness the benefits of technology and to make creative use of a variety of resources in order to solve problems in the world around them.</p>

