

Intent	Research link	Implementation	Impact
<ul style="list-style-type: none"> ❖ To inspire pupils to be innovative and creative thinkers who have an appreciation for the product design cycle through ideation, creation, and evaluation. <p>R - We encourage pupils to explore products which are already available and show respect when analysing and appreciating these products as well as when evaluating their own creations and those of others too.</p> <p>O - Pupils are open minded in the product design cycle, they think about their own ideas but also use inspiration from others to support their creative thinking.</p> <p>C- Pupils are curious about the product which they are creating. They are inspired by others and explore how products may be changed and altered, during the product design cycle.</p>	<p>Modern D&T can achieve this by bringing together science, mathematics, design and coding – grounding rigorous academic engineering theory in real-world, practical applications. It should be exciting, challenging and relevant, so that it attracts the brightest minds. A subject like this offers teachers the opportunity to inspire a generation of problem-solving inventors who will build the technology of the future.</p> <p style="text-align: center;">James Dyson foundation</p> <p>Design and Technology education helps develop children’s skills through collaborative working and problem-solving, and knowledge in design, materials, structures, mechanisms and electrical control. They are encouraged to be creative and innovative, and are actively encouraged to think about important issues such as sustainability and enterprise.</p> <p style="text-align: center;">Design and Technology association.</p>	<ul style="list-style-type: none"> ❖ A clear and effective, bespoke cross curricular scheme of work that provides coverage in line with the National Curriculum. Teaching and learning should facilitate progression across all key stages. ❖ Provide and access to resources which aid in the acquisition of skills and knowledge ❖ Pupils to have opportunities to develop their innovative and creative skills. ❖ Pupils to understand the product design cycle and be proficient in designing, making and evaluating whilst developing their technical knowledge. 	<ul style="list-style-type: none"> ❖ Pupils build and apply a repertoire of skills, knowledge and understanding to produce high quality, innovative outcomes, including models, prototypes, CAD, and products to fulfil the needs of users, clients, and scenarios. ❖ Pupils understand and apply the principles of healthy eating, diets, and recipes, including key processes, food groups and cooking equipment. ❖ Pupils self-evaluate and reflect on learning at different stages and identify areas to improve.

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<ul style="list-style-type: none"> ❖ We want pupils to develop the confidence to take risks, through drafting design concepts, modelling, and testing and to be reflective learners who evaluate their work and the work of others. <p>R - As pupils test and are reflective, they will be respectful of the designs of others and evaluate work in a respectful way.</p> <p>O - Pupils will be open minded and take risks when drafting, designing, testing and modelling. They will be open minded to the designs of others and listen to the opinions and reasons of others.</p> <p>C - Pupils show curiosity when trying out new things and when taking risks. They will ask questions based on their previous knowledge to build on this.</p> <p>K - During the designing and making process, pupils will show kindness to others. Pupils will help and support each other in the making of work.</p>	<p>“Design and Technology should be as riveting and relevant as the career it channels into. Logical, creative and practical, it’s the only opportunity that school students have to apply what they learn in maths and science – directly preparing them for a future in engineering.”</p> <p style="text-align: center;">James Dyson</p> <p>‘In the 21st century, scientific and technological innovations have become increasingly important as we face the benefits and challenges of both globalization and a knowledge-based economy. To succeed in this new information-based and highly technological society, students need to develop their capabilities in STEM to levels much beyond what was considered acceptable in the past.’ National Science Foundation</p>	<ul style="list-style-type: none"> ❖ A clear and effective scheme of work that provides coverage in line with the National Curriculum. ❖ Teaching and learning should facilitate progression across all key stages. Pupils will build their skills in all 4 areas of: Design, make, evaluate and in developing their technical knowledge. ❖ Children will be encouraged to take risks, try things out for themselves in all stages of the designing and making process. ❖ Pupils to be reflective in their creating and through each stage of the process, focusing on what went well and what could be improved the next time. 	<ul style="list-style-type: none"> ❖ Pupils will understand the functional and aesthetic properties of a range of materials and resources. ❖ Pupils will understand how to use and combine tools to carry out different processes for shaping, decorating, and manufacturing products. ❖ Pupils will have an appreciation for key individuals, inventions, and events in history and of today that impact our world.



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<ul style="list-style-type: none"> ❖ We aim to build an awareness of the impact of design and technology on our lives and encourage pupils to become resourceful, enterprising citizens who will have the skills to contribute to future design advancements. R - Pupils will show respect in design and technology and will show respect when others are making contributions, respecting the designs of other. O - Pupils are open minded and ask questions on the impact of design and technology in our lives. C - Pupils show curiosity on the impact of design and technology. They want to ask questions and find out more so that they can become resourceful, enterprising citizens who can contribute to future design advancements. 	<p>Design and Technology can open doors for young people. It offers the creativity of an arts subject and the analytical rigour of the sciences. The subject offers students the chance to shape tomorrow's world by developing new ideas and technologies.</p> <p style="text-align: center;">James Dyson</p> <p>The top skills and skill groups which employers see as rising in prominence in the lead up to 2025 include groups such as critical thinking and analysis as well as problem-solving, and skills in self-management such as active learning, resilience, stress tolerance and flexibility.' WEF Future of Jobs Report</p>	<ul style="list-style-type: none"> ❖ Pupils to understand design and technology in their world. This to be relevant to pupils so that they understand the importance of this when completing the designing and making process. ❖ Pupils to be given the opportunities to be resourceful, enterprising citizens and have adults who inspire and lead the pupils to show this. ❖ Where appropriate, links to be made to STEM and industry, enabling pupils to see links and see technology in action. 	<ul style="list-style-type: none"> ❖ Pupils will have an appreciation for key individuals, inventions, and events in history and of today that impact our world. ❖ Pupils recognise where our decisions can impact the wider world in terms of community, social and environmental issues. ❖ Children are responsible, competent, confident and creative users of information and communication technology. ❖ Children will be able to apply the British values of democracy, tolerance, mutual respect, rule of law and liberty when using digital systems