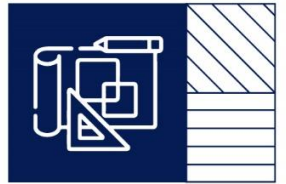




# Design Technology Curriculum Overview



Year	Unit 1 DT	Unit 2 DT	Unit 3 DT
7	D&T – Design: Core Skills	D&T – Making: Copper Dog Tag	D&T – Technology in Society: Eco DesignQ
	<p>This introduces developing different sketching and basic modelling skills, including using isometric drawings, and annotating sketches to communicate design ideas.</p>	<p>Students are required to develop making skills to manufacture a copper dog tag. Discussion of range of metal work careers, including jewellery designers.</p> <p><b>Careers</b> <b>PSCHE: Transition &amp; Safety</b></p>	<p>This helps students to understand what eco design is, how it affects product design, and ways to reduce the effect of design on the environment.</p> <p><b>Careers</b></p>



Year	Unit 1 DT	Unit 2 DT	Unit 3 DT
9	D&T – Contextual Challenge	D&T – Designer Clock Project	D&T – Evolution of Design
	<p>Students will complete a contextual challenge based around the context of Wearable Tech.</p> <p>Students will move through the key areas of: Empathise – Define – Ideate – Prototype – Test.</p> <p>Additional core areas that are covered are: Design sketching 7 modelling techniques. Microcontroller programming.</p>	<p>Students begin to follow the initial stages of the NEA with this project. They begin with research into existing designers and work in a sketchbook format.</p> <p>They will move through Product Analysis – Specification – Idea Generation – Design development – Final presentation drawing.</p> <p><b>Careers</b></p>	<p>Following on from the D&amp;T Technology in society unit in Year 8 students will continue to look at how Design &amp; Technology influences the world around them.</p> <p>Students will look at the evolution of design through product analysis. They will look in detail at the differences between technology pull and market push before looking at product evolution. Their understanding will be tested with a test before finishing the sessions on the future of design and modern/smart materials.</p>





Year	Unit 1 DT		Unit 2 DT		Unit 3 DT	
10	Wall Organiser Woods	Energy Generation & Storage Careers PSHCE	New and Emerging Technologies PSHCE	Papers and Boards Careers	E-Textiles	NEA Task
	<p>Students will complete a wall organiser that will include timber theory, working with plastics and how to work with metals.</p> <p>This is all underpinned with the knowledge of how to work safely in the workshop and builds upon the skills gained at KS3.</p>	<p>Students will look at how design affects the world around us in terms of environmental considerations. Eco based industries are looked into and the advantages/disadvantages of these evaluated. Students will also look at how energy is generated and stored.</p>	<p>Students will look at the areas of new and emerging technologies. This will cover Market pull Technology Push. Consumer choice, legislation and consumer rights. Social, cultural and environmental responsibilities.</p>	<p>In this unit students will cover the specialist area of Papers &amp; Boards. This will include the Sustainability of paper &amp; card. Corrugated card &amp; Material Selection. We will also look at high volume paper production.</p>	<p>During this E-textiles project students will look at Control systems, input, process, output. The graphic communication of circuits will be covered. Students will also cover design development, manufacturing, Technical Knowledge and Evaluation of their products.</p>	<p>At the start of this term the NEA Contexts are released, and this will run until the end of the year and into Year 11.</p> <p>During this term students will begin their NEA, looking at Analysis of contexts, identifying problems, research skills focused on materials, processes and current designers.</p>





Year	Unit 1 DT		Unit 2 DT		Unit 3 DT	
11	NEA – Research & Developing a Brief and Specification	NEA – Generating and Developing Design Ideas	NEA – Manufacturing & Evaluation	Core Technical Principles	Specialist Technical Principles	
	<p>Students have started their NEA during the last term of Year 10. They will continue this term, working on the Identifying and investigating Design Possibilities. They will continue working on their NEA during this term. They will move into Developing a design Brief and the writing of their Specification.</p>	<p>Now that students have completed a Design Brief and Specification for their chosen product they will move onto the Generating and Developing Design Ideas section of their project. This will include lots of sketching, physical and virtual models.</p>	<p>This term students will complete their NEA ensuring that they have manufactured a prototype of sufficient quality before moving onto Analysing and Evaluating their Design Decisions and prototypes.</p>	<p>Students will now begin to prepare for the exam. Core technical principles units will be re-covered with an emphasis on how their subject knowledge will be utilised within the exam context.</p>	<p>Students will continue to prepare for the exam. Specialist technical principles units will be re-covered with an emphasis on how their subject knowledge will be utilised within the exam context.</p>	

