



GCSE – YEAR 10 – DT – CURRICULUM OPVERVIEW
CURRICULUM MAP

Autumn Term		Spring Term		Summer Term	
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Themes	Key Themes	Key Themes	Key Themes	Key Themes	Key Themes
<p><u>New emerging technologies</u> 1-Industry and enterprise 2- Sustainability and the environment 3- People culture and society 4 – Production techniques and systems.</p> <p>Unit assessment</p>	<p><u>Informing design decisions</u> 1-Critical evaluation of technologies. 2- contemporary and future scenarios. 3-Ethical and environmental perspectives. <u>Energy</u> 1-Energy generation. 2-powering systems.</p> <p>Unit assessment</p>	<p><u>Materials, devices & systems</u> 1-Modern and smart Materials 2- composite materials. 3- Technical Textiles 4- Mechanical devices 5- Electronic systems 6- programmable components.</p> <p>Unit assessment</p>	<p><u>Material types</u> 1-ferrous and non-ferrous metals. 2-Papers and Boards. 3-Polymers. 4- Textiles. 5- Natural and manufactured timbers.</p> <p>Unit assessment</p>	<p><u>Designing principles</u> 1- Social and economic challenge 2- The work of others 3- Avoiding design fixation 4-Developing design ideas.</p> <p>Unit assessment Prepare for the End of Year exams</p>	<p><u>Timbers</u> 1-Sources, origins and properties. 2-selection and reinforcement of materials. 3-Material stock forms and production. Material processing and finishing.</p> <p>Unit assessment</p>
Assessment / Composite Tasks	Assessment / Composite Tasks	Assessment / Composite Tasks	Assessment / Composite Tasks	Assessment / Composite Tasks	Assessment / Composite Tasks
<p>Focused practical tasks 1-Timber jointing techniques. 2-Laminating timber. 3- Turning processes with the Lathe</p> <p>Desk Tidy Project Prototyping using card,hand modelling including lasercutting processes. Multimedia Design (timber / plastic / metal). Intro to CAD/CAM / 2D Design.</p>	<p>Lighting project Soldering processes</p> <p>Desk Tidy Project Introduction to materials, workshop, practices, tools, and processes. Working with timber, plastics and metals. Accuracy, Quality Assurance and Quality Control. Developing self-regulation in workshop.</p>	<p>Trinket box 2D CAD Laser cutting and comb jointing of a hinged container</p> <p>Group work, Vietnam, recycling system design. The design of a renewable energy system for Easter Island. The redesign of a go-kart using green energy, modern, composite, SMART materials and technical textiles.</p>	<p>Branding project for local industrial company - Unilever. 3D packaging of a new product from one of their range</p> <p>Introduction to Mechanical and Control / electronic Systems (revisit NETs) Zombie Apocalypse Automated House Protection Mechanical Systems calculations. Egg Challenge</p>	<p>Metacognition Context based project providing students with freedom to drive project forward. Theme is - How do we educate youngsters about the value of saving money?</p>	<p>Contextual challenges Investigate the 6 contextual challenges issued by the exam board for the NEA unit 2</p>