

YEAR 10 CURRICULUM PLAN FOR TECHNOLOGY (PRODUCT DESIGN)



TOPIC	KEY LEARNING	ASSESSMENT
D&T in our world - Market Pull, Technology Push	<ul style="list-style-type: none"> ○ Understand how people and manufacturing affect a products evolution. 	<p>Print 10 images of food products, with recognised brand names, that you get with your shopping.</p> <p>Project assessed against existing criteria that is linked to the task, and available to pupils, on Firefly.</p> <p>Revise for class test</p>
D&T in our world – Consumer Rights & Legislation	<ul style="list-style-type: none"> ○ Understand how D+T affects our world ○ Be aware of Consumers rights & Legislation 	<p>Revise for class test</p>
Designers Responsibilities (Introduction to LCA/Sustainability)	<ul style="list-style-type: none"> ○ Understand why designers and manufactures who design with plastics have responsibilities 	<p>Revise for class test</p>

Product Life Cycle and Sustainability	<ul style="list-style-type: none"> ○ Understand how people product use and products life cycle affect the environment 	<p>Complete the GCSE questions.</p> <p>Revise for class test</p>
Renewable Energy	<ul style="list-style-type: none"> ○ ○ Be able to name and understand the 6 different methods of producing renewable energy. 	<p>Complete the A3 revision sheet</p> <p>Revise for class test</p>
Material Classification / Scales of Production / Material Properties / Manufacturing Systems	<ul style="list-style-type: none"> ○ ○ Be able to name specific materials and know how they are classified ○ Understand that different materials have specific properties and how these can be utilised. <ul style="list-style-type: none"> ○ Be aware of the different scales of production and be able to identify where a product fits into this system. ○ Understand how a product can be produced on a global scale 	<p>Complete the A3 revision sheet</p> <p>Produce a wire sculpture, taking advantage of the metal wires malleability.</p> <p>Revise for class test</p>
Plastic Manufacturing	<ul style="list-style-type: none"> ○ Be able to identify where plastic manufacturing techniques have been used in everyday products. 	<p>Complete the A3 revision sheet</p> <p>Complete the GCSE questions.</p> <p>Revise for class test</p>
SMART Materials & composites	<ul style="list-style-type: none"> ○ You should be able to name the 6 different smart materials and understand their uses. ○ Be able to identify composite materials ○ Be able to understand and use key words in context. 	<p>Complete the A3 revision sheet</p> <p>Complete the GCSE questions.</p> <p>Revise for class test</p>

Papers and Boards inc. 2d CAD & Iterations	<ul style="list-style-type: none"> ○ Be able to name paper and boards and know how they are measured and recycled ○ Use the 'Iterative Design' process ○ Use previous learning in the design of a phone stand 	Project assessed against existing criteria that is linked to the task, and available to pupils, on Firefly. Revise for class test
Perfume / Aftershave POS stand & free gift - CAD/CAM	<ul style="list-style-type: none"> ○ Understand why prototypes are important in the design process ○ Be able to come up with original ideas quickly ○ Understand how and why a Specification should guide your design ○ Be able to complete Design Iterations independently ○ Use CAD to model all aspects of a design idea ○ Confidently select tools and equipment to manufacture your idea ○ Be able to critically analyse and evaluate your project / idea 	Project assessed against existing criteria that is linked to the task, and available to pupils, on Firefly.
Controlled Assessment - Analysis & investigation.	<ul style="list-style-type: none"> ○ Identify and investigate design possibilities ○ The design context must be analysed critically. ○ There will be a number of possible design tasks identified. ○ Detailed and relevant research will be evident ○ Consider the needs and wants of users ○ Analysis of existing products ○ Research into past / present professionals ○ Opportunities are carefully considered before final brief. ○ Understand the task and the needs and wants of users. ○ A clearly defined design brief is evident. ○ A detailed specification is generated to drive designing. ○ Measurable criteria included. ○ The specification is used throughout the designing process. 	Revise Exam Question for the week. The level of control for Controlled Assessment tasks allows for them to be completed at home.
Revision for Y10 Mock Exam	<ul style="list-style-type: none"> ○ Consolidate all previous learning and be able to relate it to GCSE exam style questions 	