



Striving For Excellence Together

Design Technology Product Design Curriculum Map

<p>Key Concepts: (Threshold Concepts) <i>State the big ideas or skills that students will revisit throughout the curriculum</i></p>	<p>Understanding of hazards & risks. Material properties & applications. The development of practical experience, knowledge, and skillset. Understanding the links between Design & Technology and industry/ careers.</p>
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10	Topics	Assessment	Key Concepts	Key Vocabulary	Our Pillars	Knowledge tracking
	The key topics taught in this term. (Change term to topic if appropriate)	Give the name, nature/content and date of the assessment in this term.	Where are the key areas of this subject visited and revisited?	List the Tier 3 words that will be encountered.	Does this unit address any of our 4 pillars?	What prior learning does this term's curriculum build on and what future learning does it link to?
Term 1 Project 1	Sustainability Project	Practical outcome- Sustainability project. Isometric drawing.	-Natural & manufactured boards - The 6R's of sustainability -Product life cycle -Workshop practical skills	Market pull Technology push Isometric	Life Beyond SWR Life After SWR Diversity & Inclusivity	Links to skills learnt KS3 DT in terms of practical skillset. Workshop skills will be revisited throughout KS4 in preparation for NEA practical outcome.
Term 2 Project 2	Chocolate Bar Project	Practical outcome- Chocolate Bar Design Task- Chocolate Bar design ideas	-Producing a logo & packaging (revisited from Y8 & Y9 Graphics) -Shaping and forming plastics -Thermosetting & Thermoforming plastics -Paper, card & board -Developing CAD/CAM skills	Thermosetting Thermoforming Vacuum forming Blow moulding Injection moulding	Life Beyond SWR Life After SWR	Workshop skills will be revisited throughout KS4 in preparation for NEA practical outcome. Links to KS3 Graphics projects and skills learnt in relation to CAD.
Term 3 Project 3	CAD/ CAM Project	Scale drawing task using CAD. Practical outcome- CAD/CAM produced product (badge, keyring, phone stand etc)	-CAD/CAM skills -Advantages and disadvantages of CAD/CAM -Examples & real-life applications	CAD/CAM DXF. File	Life Beyond SWR Life After SWR	CAD/CAM links to previous learning in KS3 Graphics. CAD/CAM skills will be revisited during the design process AO2 of the NEA.
Term 4 & 5 Project 4	LED Night Light Project	Practical outcome- LED night light. Electronic symbols and circuits.	-Electronic symbols & circuits - Joining methods -CAD/ CAM to produce a laser cut/ etched design. - Natural & Manufactured boards. -Workshop practical skills	Dovetail joint Finger joint Mitre joint Thermosetting Thermoforming	Life Beyond SWR Life After SWR	Workshop skills will be revisited throughout KS4 in preparation for NEA practical outcome. Skills re-visited from the Y9 PD project- wood skills & forming plastics.

Alongside project work & NEA students will cover theory topics referenced in the Eduqas specification in preparation for their Y11 summer examination.



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Term 6	NEA A01- Identifying and investigating design possibilities.	Eduqas exam board 50% weighting of overall GCSE (externally moderated)	-Primary & Secondary research. - Task analysis		Life Beyond SWR	Links to skills learnt over KS3 & K34 in relation to forms of research.
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11	Topics	Assessment	Key Concepts	Key Vocabulary	Our Pillars	Knowledge tracking
	The key topics taught in this term. (Change term to topic if appropriate)	Give the name, nature/content and date of the assessment in this term.	Where are the key areas of this subject visited and revisited?	List the Tier 3 words that will be encountered.	Does this unit address any of our 4 pillars?	What prior learning does this term's curriculum build on and what future learning does it link to?
Term 1	NEA A01- Identifying and investigating design possibilities. A01- Developing a design brief & specification.	Eduqas exam board 50% weighting of overall GCSE (externally moderated)	-Primary & Secondary research. - Task analysis -The specification criteria	Specification	Life Beyond SWR	Links to skills learnt over KS3 & K34 in relation to forms of research.
Term 2	NEA A02- Generating & developing design ideas.	Eduqas exam board 50% weighting of overall GCSE (externally moderated)	-The design processes. -Developing ideas & the role of critique within modifying designs.	Critique Modifications Prototype	Life Beyond SWR	Links to skills learnt over KS3 & K34 in relation to the design process.
Term 3	NEA A02- Generating & developing design ideas. A02- Manufacturing a prototype.	Eduqas exam board 50% weighting of overall GCSE (externally moderated)	-The design processes. -Developing ideas & the role of critique within modifying designs. -Manufacturing a product to meet a specification & design brief. -The role of testing & prototyping within the design process.	Critique Modifications Prototype	Life Beyond SWR	Links to skills learnt over KS3 & K34 in relation to the design process. Draws upon student's practical skillset and knowledge learnt during KS3 & KS4 DT lessons.
Term 4	NEA A02- Manufacturing a prototype. A03- Analysing and evaluating design decisions and prototypes.	Eduqas exam board 50% weighting of overall GCSE (externally moderated)	-Manufacturing a product to meet a specification & design brief. -Modifications based on client feedback.	Specification	Life Beyond SWR	Draws upon student's practical skillset and knowledge learnt during KS3 & KS4 DT lessons. Re-visits evaluation skills developed during term 1-5 of the Y10 mini projects.



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Term 5	Revision	Eduqas exam 50% of overall GCSE (externally marked) Revision of topics referenced in the EDUQAS GCSE Design Technology specification.	Topics listed within the Eduqas GCSE DT specification.			Draws upon students' knowledge learnt across KS3 & KS4.
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Alongside project work & NEA students will cover theory topics referenced in the Eduqas specification in preparation for their Y11 summer examination.