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	Y7 - Wooden Desk Tidy 	Y7 NEA – Contextual Challenge 	Y7 STEM – DNA/ Bug Hotel/ Aerodynamics 	KS3 NC MAP: Units for D&T 	KS4
DESIGN	<ul style="list-style-type: none"> investigate and analyse products through disassembly. BTEC Comp. 2  develop detailed design specifications to guide thinking 	<p>‘Addressing the needs of people with disabilities’</p> <ul style="list-style-type: none"> use research including the study of different cultures investigate and analyse products through disassembly use 2D and begin to use 3D CAD packages to model ideas 		Problem Solving Designing (modelling) Forces and Stresses Function/ Aesthetics Iterative Design Mechanical Systems Programming Prototypes (3DP)	GCSE D&T: Units 3/5a / 5b / 6 BTEC Engineering: Comp. 2
MAKE	<ul style="list-style-type: none"> use a broad range of material joining techniques make use of specialist equipment 	<ul style="list-style-type: none"> produce models of ideas using CAM to test out ideas. BTEC Comp. 1  use a broad range of material joining techniques including heat processes and adhesives 	<ul style="list-style-type: none"> Bug Hotel: Select from and use a wider, more complex range of materials and components, taking into account their properties 	Problem Solving Designing (modelling) Forces and Stresses Function/ Aesthetics Iterative Design Mechanical Systems Programming Prototypes (3DP)	GCSE D&T: Units 4 / 6 / 7 BTEC Engineering: Comp.1
EVALUATION	<ul style="list-style-type: none"> evaluate products against original specification. BTEC Comp. 1  	<ul style="list-style-type: none"> actively involve others in the testing of the product 	<ul style="list-style-type: none"> DNA: Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers. BTEC Comp. 1  	Problem Solving Designing (modelling) Forces and Stresses Function/ Aesthetics Iterative Design Mechanical Systems Programming Prototypes (3DP)	GCSE D&T: Unit 4 BTEC Engineering: Comp. 1
TECHNICAL KNOWLEDGE	<ul style="list-style-type: none"> produce ordered sequences and schedules for making BTEC Comp. 2  GCSE Unit 3. Physical Properties of Materials  	<ul style="list-style-type: none"> investigate the physical properties of materials GCSE Unit 5. Timbers, Papers & Boards.  	<ul style="list-style-type: none"> Aerodynamics: Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions GCSE Unit 3. Physical Properties of Materials  	Problem Solving Designing (modelling) Forces and Stresses Function/ Aesthetics Iterative Design Mechanical Systems Programming Prototypes (3DP)	GCSE D&T: Units 3 / 5b / 7 BTEC Engineering: Comps. 2

DESIGN & TECHNOLOGY CURRICULUM MAPPING - KS3 RES. MATERIALS TECHNOLOGY

 Y8 – Mechanical Sweet Dispenser 	Y8 NEA – Contextual Challenge 	Y8 STEM – Diabetes/ Structures/ B - Hound 	KS3 NC MAP: Units for D&T 								KS4
DESIGN	<ul style="list-style-type: none"> consider the influence of lifestyle factors and consumer choices 	<p>‘Supporting developing countries’. BTEC Comp. 1 </p> <ul style="list-style-type: none"> know about an increasing range of designers/ engineers consider the influence of a range of lifestyle factors/consumer choices use specifications to inform the design of products generate creative ideas 	Problem Solving	Designing (modelling)	Forces and Stresses	Function/ Aesthetics	Iterative Design	Mechanical Systems	Programming	Prototypes (3DP)	GCSE D&T: Unit 6 BTEC Engineering: Comp. 1
MAKE	<ul style="list-style-type: none"> use learning from mathematics to help design and make products understand the performance of structural elements to achieve solutions Unit 2: Mechanical systems 	<ul style="list-style-type: none"> exploit the use of CAD/CAM equipment to manufacture products. BTEC Comp. 1  	Problem Solving	Designing (modelling)	Forces and Stresses	Function/ Aesthetics	Iterative Design	Mechanical Systems	Programming	Prototypes (3DP)	GCSE D&T: Units 2 / 4 / 7 BTEC Engineering: Comp.1
EVALUATION	<ul style="list-style-type: none"> understand how mechanical systems enable changes test, evaluate and refine ideas and product against a specification. BTEC Comp. 2  	<ul style="list-style-type: none"> test, evaluate and refine ideas and products against a specification 	Problem Solving	Designing (modelling)	Forces and Stresses	Function/ Aesthetics	Iterative Design	Mechanical Systems	Programming	Prototypes (3DP)	GCSE D&T: Unit 2 BTEC Engineering: Comps. 1 & 3
TECHNICAL KNOWLEDGE	<ul style="list-style-type: none"> consider additional factors such as ergonomics, anthropometrics use mathematical modelling to indicate gearing systems Unit 1: Investigate and analyse new and emerging technologies 	<p>Structures: Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions</p> <ul style="list-style-type: none"> BTEC Comp. 2  Unit 5: Metals & Alloys 	Problem Solving	Designing (modelling)	Forces and Stresses	Function/ Aesthetics	Iterative Design	Mechanical Systems	Programming	Prototypes (3DP)	GCSE D&T: Units 1 / 2 / 4 / 5c BTEC Engineering: Comp. 2

DESIGN & TECHNOLOGY CURRICULUM MAPPING - KS3 RES. MATERIALS TECHNOLOGY

	 Y9 – Angle Poised Table Lamp 	Y9 NEA – Contextual Challenge 	Y9 STEM – Cantilever Challenge 	KS3 NC MAP: Units for D&T 	KS4
DESIGN	<ul style="list-style-type: none"> investigate and analyse products that are less familiar develop specs. to include a wide range of requirements ACCESSFM BTEC. Comp 1 	<p>‘Encouraging a healthy lifestyle’</p> <ul style="list-style-type: none"> Unit 4: Analyse products considering life cycle analysis (6 R’s) <p>AQA develop design specs that include a wider range of requirements</p>	<ul style="list-style-type: none"> communicate design ideas using annotated sketches, detailed plans, 3D and mathematical modelling, oral and digital presentations and computer-based tools. BTEC. Comp 2 	Problem Solving Designing (modelling) Forces and Stresses Function/ Aesthetics Iterative Design Mechanical Systems Programming Prototypes (3DP)	GCSE D&T: Units 4 / 6 BTEC Engineering: Comps. 2 &
MAKE	<ul style="list-style-type: none"> create production schedules that inform all manufacturing stages BTEC Comp 1 adapt methods of manufacture to changing circumstances 	<ul style="list-style-type: none"> use 3D CAD to model, develop and present ideas create production schedules to inform manufacturing of product. BTEC. Comp 2 	<ul style="list-style-type: none"> Select from and use a wider, more complex range of materials and components, taking into account their properties 	Problem Solving Designing (modelling) Forces and Stresses Function/ Aesthetics Iterative Design Mechanical Systems Programming Prototypes (3DP)	GCSE D&T: Units 3 / 7 BTEC Engineering: Comps. 1
EVALUATION	<ul style="list-style-type: none"> select how to evaluate and modify a product to improve performance produce a report for improvements - Practical Skills Assessments BTEC Comp 1 	<ul style="list-style-type: none"> select methods to evaluate a product/ modify to improve performance BTEC. Comp 2 produce short reports, making suggestions for improvements (Practical Skills assessments) 	<ul style="list-style-type: none"> Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists BTEC Comp 1 	Problem Solving Designing (modelling) Forces and Stresses Function/ Aesthetics Iterative Design Mechanical Systems Programming Prototypes (3DP)	GCSE D&T: Unit 4 BTEC Engineering: Comps. 1
TECHNICAL KNOWLEDGE	<ul style="list-style-type: none"> match/ select suitable materials considering their fitness for purpose Unit 5: Polymers and Electronic Systems 	<ul style="list-style-type: none"> analyse how products can be manufactured via ‘cradle to grave’ BTEC Comp 2 	<ul style="list-style-type: none"> Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions 	Problem Solving Designing (modelling) Forces and Stresses Function/ Aesthetics Iterative Design Mechanical Systems Programming Prototypes (3DP)	GCSE D&T: Units 4 / 5d BTEC Engineering:

DESIGN & TECHNOLOGY CURRICULUM MAPPING - KS3 TEXTILES TECHNOLOGY



Y7

Y8

Y9

KS3



NC MAP Units for D&T



KS4

DESIGN	<ul style="list-style-type: none"> analyse the impacts that products can have in the wider world 	<ul style="list-style-type: none"> consider the influence of a range of lifestyle factors use specifications to inform the design of products combine ideas from a variety of sources Develop/ communicate ideas 	<ul style="list-style-type: none"> investigate/ analyse products that are less familiar analyse products considering life cycle analysis (6 R's) develop specifications research the cultural/ religious contexts of the intended users 	Problem Solving	Designing (modelling)	Forces and Stresses	Function/ Aesthetics	Iterative Design	Mechanical Systems	Programming	Prototypes (3DP)	GCSE D&T: Units 4 / 6							
MAKE	<ul style="list-style-type: none"> produce ordered sequences/ schedules for manufacturing use a range of techniques i.e. stitching, fastenings use CAD/CAM to apply finishing techniques, e.g. dye sublimation 	<ul style="list-style-type: none"> use a range of manufacturing techniques including handcraft skills apply a range of finishing techniques, to a broad range of materials 	<ul style="list-style-type: none"> create production schedules to inform the manufacturing make simple use of planning tools, for instance Gant charts 	Problem Solving	Designing (modelling)	Forces and Stresses	Function/ Aesthetics	Iterative Design	Mechanical Systems	Programming	Prototypes (3DP)	GCSE D&T: 3 / 7							
EVALUATION	<ul style="list-style-type: none"> evaluate product v original specification/ identify ways of improving actively involve others in the testing of the product 	<ul style="list-style-type: none"> test, evaluate and refine ideas and product against a specification 	<ul style="list-style-type: none"> select appropriate methods to evaluate the final product in use make suggestions for improvements (Practical Skills assessments) 	Problem Solving	Designing (modelling)	Forces and Stresses	Function/ Aesthetics	Iterative Design	Mechanical Systems	Programming	Prototypes (3DP)	GCSE D&T: Unit 4							
TECHNICAL KNOWLEDGE	<ul style="list-style-type: none"> understand textile fibre sources e.g. natural and synthetic and AQA understand how to modify patterns and use in textile construction Unit 5e Textiles 	<ul style="list-style-type: none"> understand textile fibre sources e.g. natural and synthetic and AQA understand how to modify patterns and use in textile construction Unit 5e Textiles 	<ul style="list-style-type: none"> understand textile fibre sources e.g. natural and synthetic and AQA understand how to modify patterns and use in textile construction Unit 5e Textiles 	Problem Solving	Designing (modelling)	Forces and Stresses	Function/ Aesthetics	Iterative Design	Mechanical Systems	Programming	Prototypes (3DP)	GCSE D&T: Unit 5e							

DESIGN & TECHNOLOGY CURRICULUM MAPPING - KS3 COOKING & NUTRITION

	Y7	Y8	Y9	KS3 NC MAP Units for D&T 		KS4	
DESIGN	<ul style="list-style-type: none"> understand the importance of a healthy and varied diet understand that food provides energy and nutrients 	<ul style="list-style-type: none"> follow procedures for safety and hygiene competently use a range of cooking techniques (prepare ingredients) 	<ul style="list-style-type: none"> make simple use of planning tools, for instance Gant charts compare the cost of food when planning to eat out/ cook at home 	Nutrition & Health	Food Repertoire		WJEC Hospitality & Catering:
MAKE	<ul style="list-style-type: none"> produce costings using spreadsheets for final products 	<ul style="list-style-type: none"> follow steps on how to prepare/ cook food safely and hygienically understand how to season dishes and combine ingredients 	<ul style="list-style-type: none"> use a range of preparation techniques/ methods when cooking modify recipes and cook dishes that promote current healthy eating 	Nutrition & Health	Food Repertoire		WJEC Hospitality & Catering:
EVALUATION	<ul style="list-style-type: none"> evaluate final product and identify ways of improving them 	<ul style="list-style-type: none"> consider how to cook a repertoire of predominantly savoury dishes to feed others a healthy and varied diet 	<ul style="list-style-type: none"> understand the principles of cleaning, preventing cross-contamination, chilling, cooking food thoroughly/ reheating food 	Nutrition & Health	Food Repertoire		WJEC Hospitality & Catering:
TECHNICAL KNOWLEDGE	<ul style="list-style-type: none"> understand how to taste and cook a broader range of ingredients understand how to actively minimise food waste 	<ul style="list-style-type: none"> understand that people choose different types of food understand that food is produced etc. in different ways 	<ul style="list-style-type: none"> understand the influence of food marketing understand the importance of energy balance/ implications 	Nutrition & Health	Food Repertoire		WJEC Hospitality & Catering: