

COMPASSION

COURAGE

QEMS

Curriculum Overview 2022-23 KS5

Subject	Subject- DT KS5							
Vision statement:	At Landau Forte our curriculum exists to ensure all students regardless of bac We are committed to students being challenged from their previous key stag ambitious, coherently planned and sequenced, and will provide the platform success.	kground and ability have the oppor e learning experiences. Our broad a for preparing students with the fou	tunity to unlock their potential. and balanced curriculum is indations for examination					
	Our Curriculum Intent has been informed by a wide variety of researchers and is steeped in evidence-based research. Christine Counse summarises the aspiration of our curriculum to empower all learners creating a pathway to success in university, their career and life:							
'A curriculum exists to change the pupil, to give the pupil new power. One decisive test for a curriculum is whether it enables eve attaining or disadvantaged pupils to clamber into the discourse and practices of educated people, so that they gain powers of the								
	As well as excellent academic success we aim to ensure our students leave us as polite and well-rounded young adults. Our new core values of Compassion, Courage and Curiosity are currently being embedded throughout our curriculum offer to ensure we continue to meet our social, Pemotional, spiritual, and moral obligations.							
Curriculum intent:	 In line with the Academy's vision to enhance students' understanding of the vision the Design Technology department at Landau Forte Academy QE theoretical knowledge, design concepts and practical skills of the subject but academy. The Design Technology curriculum aims to be; Challenging for all Ambitious Coherent both in planning and sequence Adapted successfully to suit all needs and abilities Broad - covering a range of specialisms and subject disciplines within In delivering a knowledge and practical skill-based curriculum, students will b would be able to apply the theoretical knowledge into their practical outcom course offers at KS4 and 5 ensure there is a wide range of options available to specialisms- in short enabling all our learners to unlock their potential within In summary the Design Technology curriculum is developed and tailored for estudents. The intention of which is to allow students to be challenged in both based around the real-world situations. Our school values are at the heart of Compassion, and courage. 	world by ensuring an educational jo MS aim to deliver a curriculum that inspires them to succeed far beyon e able to not only achieve the best es and make seamless links and con o all learners to suit their needs and our subject area. each specific year group considering n a theoretical context around our s the planning and delivery of our cur	urney guided with care and not only develops students' d their education at the they can academically but nections between them. Our interests within the DT the demographic of our subject and in a practical setting rriculum – Curiosity,					



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Threshold	
Concepts (TCs):	Threshold Concepts (Design Technology – following Iterative design process) BTEC Engineering L3/ A Level Product Design
	 Threshold Concepts TC1 – Contextual relevance: Critical understanding of the real world & wider influences of Design Technology including SMES, develop intellectual curiosity about design & manufacturing systems/products & their impact. TC2 - Research, Investigation & analysis: Create and analyse a design concept using range of skills including science, maths, to inform decisions within design. TC3 – Creativity & Design development: take design risks, show innovation whilst considering role as responsible designer. TC4 – Testing & Modelling: develop in depth knowledge and understanding of materials, components and processes. TC5 – Modification, Recommendations & evaluation: Work collaboratively to develop and refine ideas based on feedback from users, peers & experts.
KS2 National	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an
Curriculum	iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture,
summary:	enterprise, industry and the wider environment].
	When designing and making, pupils should be taught to:
	• Design:
	 use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
	 generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
	Make:
	 select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. accurately
	 select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.
	Fvaluate:
	 Evaluate. investigate and analyse a range of existing products
	 evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
	 evaluate their lucas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have belowd shape the world
	 understand now key events and individuals in design and technology have helped shape the world Technical Knowledge:

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	 apply their und understand an understand an apply their und 	derstanding of how to s d use mechanical syste d use electrical system derstanding of computi	strengthen, stiffen and oms in their products [for s in their products [for ng to program, monito	reinforce more complex struct or example, gears, pulleys, can example, series circuits incorp or and control their products	ures ns, levers and linkages] orating switches, bulbs	s, buzzers and motors]
Learner skills:	Critical thinking	Organisation	Collaboration	Adaptability	Oracy	Self-quizzing
	CRITICAL THINKING	ORGANISATION	COLLABORATION	ADAPTABILITY	ORACY	SELF QUIZZING
Year 13 Engineering Certificate	Year 13 Term 1 Unit 10, Unit 3	Year 13 Term 2 Unit 3, Unit 10	Year 13 Term 3 Unit 3 Unit 10	Year 13 Term 4 Unit 3 Unit 10	Year 13 Term 5 Unit 3	Year 13 Term 6
The Big Question	Unit 3: Learning aim A: Design triggers, challenges, constraints and opportunities, and materials and processes Unit 10: Learning aim A: Develop a three dimensional computer aided model of an engineering product that can be used as part of other	Unit 3: Learning aim B: Interpreting a brief into operational requirements and analysing existing products Unit 10: Learning aim B: Develop two-dimensional detailed computer aided drawings of engineering product that can be used as apart of	Unit 3: Topic C: Using an iterative process to design ideas and develop a modified product proposal Unit 10: Learning aim C: Develop a three dimensional computer model for a thin walled product and fabricated product that can be used as	Unit 3: Topic C: Using an iterative process to design ideas and develop a modified product proposal Unit 10: Learning aim C: Develop a three dimensional computer model for a thin walled product and fabricated product that can be used as part of other engineering processes	Learning aim D: Technical justification and validation of the design solution	N/A



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Big picture questions:	engineering processes. Unit 3: What are design triggers and challenges? What are the constraints around system level and equipment level? How do different material properties affect production? What is a mechanical power transmission? How are different manufacturing processes used? Unit 10: What is solid works and how is it used in	other engineering processes Unit 3: How do we design to meet customer need? What are the regulations and constrains around design? What is market analysis and what factors affect the marketing of products? How do we analyse a products performance? What are the environmental factors around production?	part of other engineering processes Unit 3: What is the iterative design process? How do we communicate an idea or design? What ways can we draw designs? What information needs to be presented along side ideas? Unit 10:What is a thin walled design product? How can we design in CAD to produce a thin walled design?	Learning aim D: Technical justification and validation of the design solution Unit 3: What is the iterative design process? How do we communicate an idea or design? What ways can we draw designs? What information needs to be presented along side ideas? Unit 10: What is a thin walled design product? How can we design in CAD to produce a thin walled design? Unit 3: What are statistical methods and measurements in deisgn?	Unit 3: What are statistical methods and measurements in deisgn? How do we validate designs?	
	What is a mechanical power transmission? How are different manufacturing processes used? Unit 10: What is solid works and how is it used in CAD? How do we use solid works as a design tool?	products? How do we analyse a products performance? What are the environmental factors around production? Unit 10: How do we use hand drawing to influence a design outcome? What are hand drawing methods?	presented along side ideas? Unit 10:What is a thin walled design product? How can we design in CAD to produce a thin walled design?	walled design product? How can we design in CAD to produce a thin walled design? Unit 3: What are statistical methods and measurements in deisgn? How do we validate designs?		



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PASS					MP
Content	TC1 – Contextual	TC1 – Contextual	TC1 – Contextual	TC1 – Contextual relevance:	TC1 – Contextual
(Linked to TCs):	relevance: Critical	relevance: Critical	relevance: Critical	Critical understanding of	relevance: Critical
	understanding of the	understanding of	understanding of	the real world & wider	understanding of the
	real world & wider	the real world &	the real world &	influences of Design	real world & wider
	influences of Design	wider influences of	wider influences of	Technology including SMES,	influences of Design
	Technology including	Design Technology	Design Technology	develop intellectual	Technology including
	SMES, develop	including SMES,	including SMES,	curiosity about design &	SMES, develop
	intellectual curiosity	develop intellectual	develop intellectual	manufacturing	intellectual curiosity
	about design &	curiosity about	curiosity about	systems/products & their	about design &
	manufacturing	design &	design &	impact.	manufacturing
	systems/products &	manufacturing	manufacturing	TC2 - Research,	systems/products &
	their impact.	systems/products &	systems/products &	Investigation & analysis:	their impact.
	TC2 - Research,	their impact.	their impact.	Create and analyse a design	TC2 - Research,
	Investigation &	TC2 - Research,	TC2 - Research,	concept using range of skills	Investigation &
	analysis: Create and	Investigation &	Investigation &	including science, maths, to	analysis: Create and
	analyse a design	analysis: Create	analysis: Create	inform decisions within	analyse a design
	concept using range	and analyse a	and analyse a	design.	concept using range
	of skills including	design concept	design concept	TC3 – Creativity & Design	of skills including
	science, maths, to	using range of skills	using range of skills	development: take design	science, maths, to
	inform decisions	including science,	including science,	risks, show innovation	inform decisions
	within design.	maths, to inform	maths, to inform	whilst considering role as	within design.
	TC3 – Creativity &	decisions within	decisions within	responsible designer.	TC3 – Creativity &
	Design development:	design.	design.	TC4 – Testing & Modelling:	Design development:
	take design risks,	TC3 – Creativity &	TC3 – Creativity &	develop in depth	take design risks,
	show innovation	Design	Design	knowledge and	show innovation
	whilst considering	development: take	development: take	understanding of materials,	whilst considering
	role as responsible	design risks, show	design risks, show	components and processes.	role as responsible
	designer.	innovation whilst	innovation whilst	TC5 – Modification,	designer.
	TC4 – Testing &	considering role as	considering role as	Recommendations &	TC4 – Testing &
	Modelling: develop	responsible	responsible	evaluation: Work	Modelling: develop
	in depth knowledge	designer.	designer.	collaboratively to develop	in depth knowledge
	and understanding of	TC4 – Testing &	TC4 – Testing &	and refine ideas based on	and understanding of
	materials,	Modelling: develop	Modelling: develop	feedback from users, peers	materials,
		in depth knowledge	in depth knowledge	& experts.	



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_	components and	and understanding	and understanding		components and	
	processes.	of materials,	of materials,	TC1 – Contextual relevance:	processes.	
	TC5 – Modification,	components and	components and	Critical understanding of	TC5 – Modification,	
	Recommendations &	processes.	processes.	the real world & wider	Recommendations &	
	evaluation: Work	TC5 – Modification,	TC5 – Modification,	influences of Design	evaluation: Work	
	collaboratively to	Recommendations	Recommendations	Technology including SMES,	collaboratively to	
	develop and refine	& evaluation: Work	& evaluation: Work	develop intellectual	develop and refine	
	ideas based on	collaboratively to	collaboratively to	curiosity about design &	ideas based on	
	feedback from users,	develop and refine	develop and refine	manufacturing	feedback from users,	
	peers & experts.	ideas based on	ideas based on	systems/products & their	peers & experts.	
		feedback from	feedback from	impact.		
		users, peers &	users, peers &	TC2 - Research,		
		experts.	experts.	Investigation & analysis:		
				Create and analyse a design		
				concept using range of skills		
				including science, maths, to		
				inform decisions within		
				design.		
				TC3 – Creativity & Design		
				development: take design		
				risks, show innovation		
				whilst considering role as		
				responsible designer.		
				TC4 – Testing & Modelling:		
				develop in depth		
				knowledge and		
				understanding of materials,		
				components and processes.		
				TC5 – Modification,		
				Recommendations &		
				evaluation: Work		
				collaboratively to develop		
				and refine ideas based on		



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Key vocabulary:Unit 3: Design triggers Commercial decisions/ mass/ batch/ one off production scales/ design challenges/ production scales/ design challenges/ power sources and intellectual rights/ trademarks/ regulatory factors and compliance/ trademarks/ regulatory factors and compliance/ trademarks/ component parts/ factors and limitations/ mechanical, physical, mechanical, physical,Unit 3: Duration Unit 3: 2D drawing methods- orthographic/ graphical design/ secondary research/evaluate/ context/ brief/ technical criteria/ design solution/ iterative design component parts/ factors and limitations/ mechanical, physical, considerations/Unit 3: 2D drawing methods- orthographic/ graphical design/ secondary research/evaluate/ context/ brief/ technical criteria/ design solution/ iterative design component parts/ factors and limitations/ mechanical, physical,Unit 3: Customer requirements/ technical criteria/ context/ brief/ context/ brief/ context/ brief/ technical criteria/ design solution/ iterative design context/ brief/ context/ brief/ context/ brief/ teration design teration design teration design context/ brief/ terative design context/ brief/ terative design context/ brief/ terative d	OMPAS
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mechanical, physical, considerations/ CAD/CAM/ standards/ sectional views/ median, and	
thermal and Unique selling Solidworks/ technical solution/thin standard deviation	
electrical or points/ built in planning scales and walled	
magnetic properties/ obsolescence layout/drawing Unit 3: exam/revision/	
bio materials, smart Unit 10: standards and preparation/ statistical	
alloys and nano- CAD/ CAM/ British standards/ measurements/ discreet	
engineered/ surface Solidworks/ Line standards/ and continuous data/	
treatments/ planning scales and sectional views/ collect data/ analyse data/	
coatings/ motion and layout/ drawing technical solution/ evaluate data/ frequency	
movement/ standards and distribution curves/ mean,	
engineering systems British standards/ mode and median, and	
Unit 10: Line standards/ standard deviation	
CAD/ CAM/ sectional views/	
Solidworks/ planning technical solution/	

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	scales and layout/ drawing standards and British standards/ Line standards/ sectional views/ technical solution/					
Assessment:	Unit 3: Yr13 PPE - Knowledge based assessment on; Forces, mechanisms, structures & materials and their properties Unit 10: Assignment A lego car Unit 2 C: resubmission from year 12.	Unit 10:Assignment B Orthographic drawings.	Unit 3: Yr 13 PPE - Past paper (3hrs) - Activity 1,2 & 3 Unit 10: Assignment C- 3D CAD	Unit 3: Yr 13 PPE - Past paper (3hrs) - Activity 4 Unit 10: Resubmission of any outstanding assignments. Unit 3 final exam Part A/ B	Unit 3 final exam Part A/ B	
Key/Historical misconceptions in this unit:						

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Sequencing:	We have chosen to sequence the year 13 Engineering curriculum like this because it follows the specification and running both units paralle means they get both content over a longer period of time and allows for full preparation for the Unit 3 exam as well as time to complete assignments for unit 10.								
National Curriculum plus and values:	n addition to teaching the statutory elements of the national curriculum, we also include some elements required at KS4 to ensure a solid foundation is built at KS3 journey. Courage, Curiosity & Compassion is embedded and cross referenced through all lessons where best fits. The idea of building vocational and careers links through language of aspiration e.g., calling our students chefs or designers and encouraging those wider real-world links to the subject we teach. Also, through linking the curriculum back to careers and real-world experiences in industry e.g., legislation, machinery, equipment, how small production methods can be upscaled to mass production methods etc.								
Year 12 A	Year 12	Year 12	Year 12	Year 12	Year 12	No 12			
Level Product Design	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6			
The Big Question	How do we choose materials & their application? Technical principles 1.1-1.5	How do we choose materials & their application? Technical principles 1.1 -1.5	What are design methods and their processes? Designing and making principles 1.6-1.10	What are design methods and their processes? Designing and making principles 1.11-1.13	How do we use critical analysis & evaluation? Designing and making principles 2.1-2.4	How do we use critical analysis & evaluation? Designing and making principles 2.5-2.8			
Big picture questions:	What materials are available to us? 1.1 How do we know materials are suitable? 1.2	What is meant by forming? 1.4 How can finishes enhance performance? 1.5	What are modern industrial scales of practice? 1.6 How has the digital age changed designing	How do designers & manufacturers consider sustainability? 1.11 What is feasibility? 1.12 What is enterprise? 1.13	What design strategies can we use? 2.1 How has design been influenced by others? 2.2	How do we use critical analysis? 2.5 What tools, equipment & processes do we			

	CURIOSITY		COMPASSION		COURAGE	
	How can we enhance materials to perform better? 1.3		manufacturing industry? 1.7 What are the requirements for product design & development? 1.8 What are safe working practices? 1.9 How do we protect our designs? 1.10		What factors affect change in design? 2.3 How do we use the design process to provide solutions? 2.4	need to consider? 2.6 How important is accuracy? 2.7 What is responsible design? 2.8 What are the design possibilities? (SECTION A) How do we produce a brief & specification? (SECTION B)
Content (Linked to TCs):	T4-Test and model - Develop a broad knowledge of materials and their properties including source & origin. Use a range of practical skills, materials, tools, and equipment. Use a range of testing methods to see if a model is fit for purpose both accurately & safely.	T4-Test and model - Develop a broad knowledge of materials and their properties including source & origin. Use a range of practical skills, materials, tools, and equipment. Use a range of testing methods to see if a model is fit for purpose both accurately & safely.	T3-Design- Develop realistic design proposals, using a range of designing strategies including Isometric/ orthographic and CAD to meet a stakeholder need, within a given context and solves a problem. Link to wider contexts such as environmental impact- Product life cycles	T1- Context – Demonstrate understanding that all design technology activity takes place within all contexts that influence design practice T2-Analysis- Exploration of design opportunities & user's needs, wants & values.	T1,T2,T3,T4 T5- Evaluate and modify- Explain and justify decisions made, linked back to the design, modelling and researching of a context to meet needs of a stake holder. Suggest modifications and changes to make a product or idea more fitting of the context and meet the needs of a stake holder.	T1- Context – Demonstrate understanding that all design technology activity takes place within all contexts that influence design practice T2-Analysis- Exploration of design opportunities & user's needs, wants & values.

	CURIOSIT	Ϋ́	COMPAS	SION	COURAGE	
Key vocabulary:	Properties Characteristics Conductivity	Functionality Integration Components Seasoning Performance Fabrication Redistribution Wastage Addition	Anthropometrics Ergonomics Legislation Intellectual property	Sustainability Disassembly Feasibility Lean Manufacturing Prototype Entrepeneur Product life cycle	Iterative User Centred design Streamlining Movements Socio economic Ethical Fair trade Sustainable SCAMPER Specification Commercial	Critical analysis Standards Conformity Demographic Accredited Datum Tolerance Dimension Circular economy Carbon footprint
Assessment:	Retrieval Practice Knowledge checks Unit assessments Focused practical tasks	Retrieval Practice Knowledge checks Unit assessments Focused practical tasks	Retrieval Practice Knowledge checks Unit assessments Focused practical tasks	MOCK PPE Retrieval Practice Unit assessments Knowledge checks	Retrieval Practice Unit assessments Knowledge checks	PPE Retrieval Practice Unit assessments Knowledge checks
Key/Historical misconceptions in this unit:	Difference between physical & working properties.					
Sequencing:	We have chosen to se literature we use to su	quence the Year 12 Desuport the course.	l sign Technology curricu	ulum like this because it mirror	 's guidance from gov we	bsite and that of the

CURIOSIT	Y	COMPASS	SION	COURAGE	
In addition to teaching foundation is built earl Courage, Curiosity & C The idea of building vo those wider real-world e.g., machinery, equipt	the statutory element y on in the KS3 journer ompassion is embedde cational and careers li l links to the subject we ment, how small produ	is of the national curric y. ed and cross referenced nks through language c e teach. Also, through l uction methods can be	ulum, we also include some el d through all lessons where be of aspiration e.g., calling our st inking the curriculum back to o upscaled to mass production r	ements required at KS4 st fits. udents chefs or designer careers and real-world e nethods etc.	to ensure a solid rs and encouraging xperiences in industry
Year 13 Term 1	Year 13 Term 2	Year 13 Term 3	Year 13 Term 4	Year 13 Term 5	Year 13 Term 6
 2.1 What are design methods and their processes? 2.3 How does new technology affect product design? 2.6 How do we select the most appropriate manufacturing processes to realise design proposals? 2.7 How do we achieve accuracy in design & manufacture? NEA 	2.2 How have historical styles & movements influenced designers? 2.3 How have socio economic influences helped shape product design and manufacture 2.4 How can we demonstrate the development of a prototype from design proposals? NEA	 2.5 How can we make our design commercially viable using critical evaluation? 2.8 How can designers be more responsible? 2.9 What does it mean to design for manufacture and project management? 2.10 How important are national & international standards within product design? 	4.4 MathsHow does maths feature in product design?NEA CompletionSubmit NEA	NEA final submission Exam prep Revision	N/A
	CURIOSIT In addition to teaching foundation is built earl Courage, Curiosity & C The idea of building vo those wider real-world e.g., machinery, equipt Year 13 Term 1 2.1 What are design methods and their processes? 2.3 How does new technology affect product design? 2.6 How do we select the most appropriate manufacturing processes to realise design proposals? 2.7 How do we achieve accuracy in design & manufacture? NEA	CURIOSITYIn addition to teaching the statutory element foundation is built early on in the KS3 journer Courage, Curiosity & Compassion is embedded The idea of building vocational and careers lit those wider real-world links to the subject we e.g., machinery, equipment, how small productYear 13 Term 1Year 13 Term 22.1 What are design methods and their processes? 2.3 How does new technology affect product design? 2.6 How do we select the most appropriate manufacturing processes to realise design proposals? 2.7 How do we achieve accuracy in design & manufacture?2.2 How have historical styles & movements influenced design and manufacture 2.4 How can we demonstrate the development of a prototype from design proposals? NEA	COMPASEIn addition to teaching the statutory elements of the national curric foundation is built early on in the KS3 journey.Courage, Curiosity & Compassion is embedded and cross referenced the idea of building vocational and careers links through language of those wider real-world links to the subject we teach. Also, through la e.g., machinery, equipment, how small production methods can beYear 13 Term 1Year 13 Term 2Year 13 Term 32.1 What are design methods and their processes?2.2 How have historical styles & movements influenced designers?2.5 How can we make our design commercially viable using critical evaluation?2.6 How do we select the most appropriate manufacturing processes to realise design proposals?2.3 How have socio economic influences helped shape product design and manufacture 2.4 How can we demonstrate the development of a prototype from design proposals?2.4 How can we design proposals? 2.10 How important are national & international standards within product design?NEANEA	CURIOSITYCOMPASSIONIn addition to teaching the statutory elements of the national curriculum, we also include some elements of building vocational and careers links through language of aspiration e.g., calling our status those wider real-world links to the subject we teach. Also, through linking the curriculum back to e.g., machinery, equipment, how small production methods can be upscaled to mass production retrods and their processes?2.1 What are design methods and their processes?2.2 How have historical styles & movements influenced designers?2.5 How can we design commercially viable using critical evaluation?4.4 Maths2.6 How dowe select the most appropriate manufacturing processes to realise design after excuracy in design a manufacture?2.4 How can we demonstrate the development of a prototype from design proposals?2.9 What does it manufacture and project management?NEANEANEANEANEA	CURIOSITYCOMPASSIONCOURAGEIn addition to teaching the statutory elements of the national curriculum, we also include some elements required at KS4 foundation is built early on in the KS3 journey.Courage, Curiosity & Compassion is embedded and cross referenced through all lessons where best fits.The idea of building vocational and careers links through language of aspiration e.g., calling our students chefs or designer those wider real-world links to the subject we teach. Also, through linking the curriculum back to careers and real-world e.g., machinery, equipment, how small production methods can be upscaled to mass production methods etc.Year 13 Term 1Year 13 Term 2Year 13 Term 3Year 13 Term 42.1 What are design motods and their processes? 2.3 How does new technology affect product design?

	CURIOSITY		COMPASSION		COURAGE	
Big picture questions:	How do we plan & monitor a project? 2.9 What is the importance of National & International standards in product design? 2.10 How do we manufacture our solution? How do we develop our NEA solution? (SECTION C)	How do we develop our NEA solution? (SECTION C) How do we manufacture our NEA solution? (SECTION D)	How do we manufacture our NEA solution? (SECTION D)	How do we manufacture our NEA solution? (SECTION D)		N/A
Content (Linked to TCs):	T1, T2, T3, T4-Test and model -Develop a broad knowledge of materials and their properties including source & origin. Use a range of practical skills, materials, tools, and equipment. Use a range of testing methods to see if a model is fit for purpose both accurately & safely. T5	T1, T2, T3, T4-Test and model -Develop a broad knowledge of materials and their properties including source & origin. Use a range of practical skills, materials, tools, and equipment. Use a range of testing methods to see if a model is fit for purpose both accurately & safely. T5	T1, T2, T3, T4-Test and model -Develop a broad knowledge of materials and their properties including source & origin. Use a range of practical skills, materials, tools, and equipment. Use a range of testing methods to see if a model is fit for purpose both accurately & safely. T5	T1, T2, T3, T4-Test and model -Develop a broad knowledge of materials and their properties including source & origin. Use a range of practical skills, materials, tools, and equipment. Use a range of testing methods to see if a model is fit for purpose both accurately & safely. T5		N/A



COMPASSION





Key vocabulary:	Critical path analysis Scrum Quality control Quality assurance	Revisit key vocabulary from design process	Revisit key vocabulary from design process	Revisit key vocabulary from design process	Revisit key terms & vocabulary	N/A				
Assessment:	Retrieval Practice Knowledge checks Unit assessments- KLT Focused practical tasks	Retrieval Practice Knowledge checks Unit assessments - KLT Focused practical tasks	Retrieval Practice Knowledge checks Unit assessments - KLT Focused practical tasks	MOCK PPE Retrieval Practice Unit assessments - KLT Knowledge checks NEA completion 50% of final A Level grade	Retrieval Practice Unit assessments Knowledge checks A Level end of course Exam					
Key/Historical misconceptions in this unit:										
Sequencing:	We have chosen to sequence the Year 13 Design Technology curriculum like this because it mirrors guidance from gov website and that of the literature we use to support the course.									
National Curriculum plus and values:	In addition to teaching the statutory elements of the national curriculum, we also include some elements required at KS4 to ensure a solid foundation is built early on in the KS3 journey. Courage, Curiosity & Compassion is embedded and cross referenced through all lessons where best fits. The idea of building vocational and careers links through language of aspiration e.g., calling our students chefs or designers and encouraging those wider real-world links to the subject we teach. Also, through linking the curriculum back to careers and real-world experiences in industry									
	e.g., machinery, equipment, how small production methods can be upscaled to mass production methods etc.									