## Year 10 Design and Technology GCSE Curriculum Map – 2022-23

	Autumn 1	Autumn 2	Spring 1	Spring 1	Summer 1	Summer 2
Year 10	Section A: Materials Categories	Section B: Timber Based	Section A: Core Technical	Section B: Textile based	Section C: Designing and Making	Begin NEA
		Products	Principles	materials	Principles	
e	Material Categories:	Section B Specialist Technical	Systems approach to designing	Section B Specialist Technical	Use of Primary and	Pupils will receive the context
Knowledg	Papers and Boards	Principles: Timber Based	knowledge	Principles: Textile Based Products.	Secondary data: Market	from the exam board and begin
	Natural and manufactured	Products.	Electronic components	Sources and origins of	research, interviews and	to work on their Non-Examined
	Timbers	Sources and Origins- What are	Circuits –	textile materials. What are	human factors such as	Assessment work.
	<ul> <li>Metals and Alloys</li> </ul>	the primary resources? What are	input>process>output	the primary resources?	ergonomics and	Identifying and investigating
	Polymers	the main processes involving in	<ul> <li>CAD/CAM software and its</li> </ul>	How are they made into a	anthropometric data.	design possibilities.
	Textiles	making wooden products?	application	workable form?	Analysis/Evaluation of data.	Producing a Design Brief and
	Material properties: absorbency,	Natural and Manufactured	Mechanical Devices – changes in	<ul> <li>Using and working with</li> </ul>	Design Briefs and	Specification.
	density, fusibility, electrical and	Boards.	force and movement Knowledge	textiles materials.	Specifications: How we	
	thermal conductivity. What is a	• Seasoning.	Cams, Linkages, types of	Ecological Issues - Mileage	write an effective brief and	
	materials strength, hardness,	Ecological Issues-	motion, levers, gears,	of the product from raw	a clear specification.	
	toughness, malleability, ductility	Deforestation, Mileage of	pulleys, force and motion.	material to final disposal.	Ihe work of others: Design	
	and elasticity?	the product from raw	Development in Materials	6Rs Managed Forests.	movements, designers and	
	Communication of design	And the material to find disposal.	Modern Materials-	Stock Forms and sizes.	design companies.	
	ideas- sketching technique	Stock Forms and sizes	Graphene, Metal Foam and	How to mark out, cut and	Design Strategies-     Collaboration User control	
	and communication of	Stock Forms and sizes.	Titanium.	shape textiles and what	design a systems approach	
	lideas. (Thick/thin	Surface Infisites and     troatmonts	Smart Materials-     Thermochromic nigmonts	tools to use.	itorativo dosign. Avoiding	
	intes/rendering).	<ul> <li>How to mark out out and</li> </ul>	nhetachromic pigments,	How to join and finish     toutiles, what tools and	Fixation	
	<ul> <li>Isometric drawing tochniques, two point</li> </ul>	shape timbers and which	Shano momony alloys	methods are involved	i ixation.	
	norsportivo	tools to use	Composite materials - GPP	methous are motived.		
	3D Printing Knowledge	<ul> <li>How to join and finish</li> </ul>				
	Uses in real world different	timbers – what tools and	Technical Textiles			
	software materials	methods are involved.	• reclinical rextiles.			
	2D and 2D Drawing	Marking out timber	Systems approach to designing	Cutting shaping and	Foldable, Elat Pack and Fasily	NEA: Non Examined Assessment
cills	<ul> <li>ZD and SD Drawing</li> <li>Techniques – Hand drawn</li> </ul>	Cutting shaping and	Making a circuit	<ul> <li>Cutting, shaping and</li> <li>finishing textiles materials</li> </ul>	Transportable	30-35 Hours
š	<ul> <li>Isometric drawing</li> </ul>	Cutting, shaping and     finishing timbor	Embodding a systems into a	<ul> <li>loining textiles materials.</li> </ul>	Context – writing a brief	Pupils will work independently to
	Orthographic drawing		Dribeduling a systems into a	Structuring long answor	<ul> <li>Besearch – client interview</li> </ul>	complete their NFA – but a
	1 and 2 point perspective	Making an outcome	Using CAD/CAM		and writing surveys	suggested route through could be
	<ul> <li>I and 2 point perspective.</li> <li>2D design drawing</li> </ul>	Answering Multiple choice	Lasor cuttor	question responses.	Analysing a product	as follows:
	• 2D design drawnig.	Answering Multiple choice     guestions and short answer	Mechanical devices		Writing a Specification	Writing a Context.
	CAD.     AD.     D.     D.	questions Analysing the key	Creating movement		Croative Designing	Besearching a brief - Mind
	SD Printing.		Creating movement.     Short answer questions		<ul> <li>Evaluation - including client</li> </ul>	map of ideas. Examples of
	Osing 3D Design software.	language	• Short answer questions, modelling the longer		feedback	different products. Product
	Creating products.		answer questions		<ul> <li>Knowledge of Key</li> </ul>	analysis. Client Interview.
	Initiple choice question.		diswer questions.		designers	Questionnaire and results.
					<ul> <li>Tolerance – working</li> </ul>	• Evaluation of Research.
					accurately	Writing a design brief and a
					Eull Exam paper practice	specification.
						• Looking at the work of
						others- how can this
						influence positively on
						designing.
						• Designing and annotation to
						a context.