

# Upper School

		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>10</b>	<b>Unit Title/ Learning focus</b>	<p><b>Materials and components</b> To develop a working knowledge of textiles materials and components appropriate to modelling, prototyping and manufacturing throughout year 10 using practical applications.</p> <p><b>Product Design</b> Understand the influence of trend forecasts when designing textiles products; analyse past and present textile designs and products in order to evaluate shape, style, aesthetics, choice of materials and components, construction techniques, decorative techniques, fitness for purpose, marketability; and use the findings of this research to generate new and original design ideas</p> <p><b>Health and Safety in relation to textiles</b></p> <p><b>Processes and manufacture</b> Techniques and Processes select and use appropriate textile tools and equipment; know and understand how to use appropriate tools, machinery and equipment, including an overlocker, accurately and safely to produce own quality products.</p>	<p><b>Fibres and Fabrics</b></p> <p><b>Properties and characteristics</b> Basic composition, physical and aesthetic characteristics of a range of different fibres to include: natural fibres (cotton and wool), regenerated fibres (viscose), synthetic fibres (polyester and elastomeric);</p> <p>Combination, construction and use of textiles fibres and fabrics; combined fibres, to include polyester/cotton and combinations including elastomeric. Investigating woven fabrics (plain weave, twill weave and satin weave), knitted fabrics and one non-woven fabric. Through disassembly investigate how they are constructed. Know that modern microfibres can be used to construct woven, knitted, laminated and micro-encapsulated 'Smart' fabrics; be aware of technological advances in textiles materials and their use in a wide range of industries; assess and evaluate the working properties of fibres and fabrics and how they can impact on fabric choices for products. Be aware of the use of manufacturers' fabric specifications to select fabrics, and how manufacturing techniques and processes can influence fabric choices</p> <p><b>Product maintenance, suitability and fitness for purpose</b> To know and design for the maintenance needs of textile products including typical/popular fabrics made from them and implement current textile labelling, including statutory legislation; understand the factors which constitute suitability/ fitness for purpose, i.e. wearability, warmth, comfort, absorbency, durability, after care, safety, flammability, stain resistance, aesthetic qualities.</p>	<p><b>Finishing Processes</b></p> <p><b>Dyeing and printing</b> have a knowledge and understanding of one basic commercial method and one hand method of dyeing and printing fabric</p> <p><b>Decoration and enhancement</b> To select and know how to use a variety of appropriate surface decorative techniques in order to improve the aesthetic qualities of textiles, fabrics and products.</p>	<p><b>Components Manufactured Components</b> To know how to select, use and evaluate the function, suitability and safety of manufactured components in design and make tasks; identify and have a working knowledge of components including fastenings (to include zips, buttons and Velcro), threads, trimmings, interfacing, motifs, labels and electronic components; be aware of the technological advancements in component design</p> <p><b>Range of processes used for textile production and manufacture</b> To understand the various industrial systems used to produce textile products, including mass, batch and one-off production and procedures including Just In Time, line and sub-assembly; select and use the most appropriate technique(s), process(es) and equipment for manufacture.</p>	<p><b>Design and market influences</b> Candidates should be taught how to analyse textile products and processes.</p> <p>They should consider how design and technology affects the manufacturer, user and environment, and the importance of health and safety issues.</p> <p>They should be aware of new developments in technology and current social issues that may influence product design.</p>	<p><b>Product Analysis Evaluation Techniques</b> How to check design proposals against design criteria; use disassembly to make critical judgements about the design, manufacture and performance of existing products; list design criteria that influence textile product design and use this to test and evaluate the final design proposal; understand the purpose and value of a design specification to guide design thinking; quality assurance through testing and evaluation of quality and fitness for purpose; use ongoing evaluation to make judgements and to suggest improvements during design development and making activities; consider other peoples' views when selecting and refining product designs, to include user trials</p> <p>Evaluation of quality of own product compared with market alternatives Compare design proposal to a similar commercial product in order to review and modify design; evaluate the appeal, quality and fitness for purpose of the design proposal against consumer expectations</p>
	<b>Assessments</b>	GSCE topic question	Practical artefact 1 GCSE Past Paper	Practical samples GCSE topic question	Practical artefact 2 GCSE Past Paper	Revision Controlled assessment Investigating the Design Context	Full GCSE Past Paper Controlled assessment Investigating the Development of Design Proposals
	<b>Homework</b>		<b>Key words for Properties and characteristics</b>	<b>Dyeing and printing techniques to be revised</b>	<b>Range of processes used for textile production and manufacture</b>		
<b>11</b>	<b>Unit Title/ Learning focus</b>	<p><b>Production Planning</b> Planning the development and manufacture of a products: produce plans to ensure efficient production and successful completion, to include: a flow chart to show logical and efficient sequences of work; a</p>	<p><b>Quality Assurance</b> Produce prototypes of own design(s) and test against the design and manufacturing specification and modify the product, where appropriate, to ensure that it meets the specifications; incorporate modifications as</p>	<p><b>Information and Communication Technology related to textiles</b></p> <p>Computer Technology and Communication use ICT as appropriate to research, collect, sort and present information; use graphic techniques, as</p>	<p><b>Finishes</b> Demonstrating a working knowledge of finishes (to include stain resistance, water resistance, flame retardancy, crease resistance) applied to fabrics in order to improve their performance; evaluate the effects of these fabric finishes</p>		

	<p>detailed working drawing;a manufacturing specification;costs of production, including the constraints of budget and time scale.</p> <p><b>Social and Cultural influences on the consumer market</b> Understanding the role of the designer and consider the impact of design proposals on society; identify developments in technologies, social and cultural ideas, fashion trends and economic factors that influence consumer choice and product design.</p>	<p>necessary during manufacture to ensure quality products.</p> <p><b>Consumer choice and ethical issues</b> Understanding the influence of ethical trading and the consumers' role in social and environmentally sustainable design.</p> <p><b>Moral and environmental issues</b> Understanding the moral and environmental issues associated with textiles production; understand what is meant by the recycling of textiles, waste reduction, organic and Fair Trade cotton, bio fibres, biodegradable fibres/fabrics.</p>	<p>appropriate, including CAD and CAM to design, develop, modify, enhance, model and communicate ideas.</p> <p><b>Use of CAD and CAM</b> know and understand the importance and benefits of using CAD/CAM in textile production in a global industry; know and understand that CAD/CAM can be used to aid planning, to enhance accuracy and efficiency of production and assure aesthetic quality; know and understand that CAD/CAM can be important in the reduction of manufacturing costs.</p>	<p>paying attention to use, comfort, safety, maintenance, manufacturing costs and retail price; have knowledge of at least one modern 'Smart' finish to fabrics (to include thermo chromatic printing); have knowledge of emerging technologies: nano materials and integrated electronics within textiles designs</p>		
<b>Assessments</b>	Contolled assessment Making	Contolled assessment Making and Testing PPE1	Contolled assessment Evaluation and Submission.	PPE2		
<b>Homework</b>	Key words for social and cultural influences	Key words for moral and environmental issues				