

At **KS3**, and beyond, the intent of the Design & Technology department is to nurture pupils to develop the skills and knowledge that allow them to become independent learners and discerning consumers. Through the design process pupils develop their creativity, thinking skills, practical abilities and a sense of pride in their own work, in an iterative way. They grow in confidence, working individually and as members of a team, being able to appreciate the technological advancements that have contributed to the way of life they experience today in modern Britain, studying designers, both current and in the past. They also gain an insight into the classification and properties of materials and the sustainability issues that are faced by the planet, our use of the resources we harvest from it and the social, moral, cultural and ethical issues associated with designing and manufacturing for a range of users in a contemporary society

At **KS4**, pupils build upon their basic knowledge of materials and gain a deeper insight into the manufacturing processes involved in the journey from raw material to finished product. They study a common core of technical principles that include sustainability and the ecological and social footprint associated with responsible design. Finite and non-finite resources are researched as well as the technological advances that are being continually developed and incorporated into the products of which we, as consumers, take advantage. Pupils gain awareness and learn from wider influences including historical, social, cultural, environmental and economic factors. Pupils have the opportunity to work creatively when designing and making and apply technical and practical expertise. Pupils experience the use of advanced software packages and CAD/CAM and understand that the equipment they use is a school-based version of industrial manufacturing techniques. In Yr11, pupils demonstrate their knowledge of the design process by carrying out a Non-Exam Assessment within their chosen material area and produce a concise portfolio and working prototype within a contextual challenge set by AQA.

Year	Knowledge (Topics/Unit of work? What pupils will 'know'	Prior Knowledge (KS2/Previous learning)	Skills acquired What pupils will be able to 'do'	Concepts developed (What pupils will understand?)	Key Vocabulary (Tier 3)	Writing & Communication
7 (one term)	Core skills/Design & Make Task. - The wider use of textiles in our society - Investigate technical textiles for specific uses and demonstrate an understanding of the wider use of textiles. Featuring examples from a range of industries to illustrate different uses and applications - Understanding fibres and fabrics - What the properties of fabrics used today are and why it is important to understand this. - Learning to look - How to generate and communicate design ideas in textiles >Influence of other cultures on design - Making - How to construct a decorative and functional cushion using the practical	Revision/reflection/recap of learning journey so far at home/ks2. Examples of KS2 coverage from x2 feeder primaries audit suggest- GP Year 5 how to plan and make Tudor felt purses. How to sew, weave, knit or use a range of different uses. Select and use a range of materials, components including textiles according to their functional properties and aesthetic qualities. How to select a wide range of tools and equipment to complete practical tasks, shaping, joining, finishing. Year ¾ how to plan and make Egyptian collars using textiles and simple stitching. Sew, weave, knit. select appropriate materials and equipment. Combine, temporarily and permanently. G Yr1- How can two squares of fabric keep you warm?	- Safe practice using textiles equipment and processes - Identify the properties of natural and manmade fibres and know how to identify them - Construct fabric - Decorate and embellish fabrics using dye, print and stitch, both hand and machine - Operate a sewing machine - Research how current textile designers work in the commercial world - Work to a design brief - Sketch concept ideas - Developing ideas using a variety of methods - apply maths to design - Follow a sequence of instructions verbal & written - Demonstrate practical skills: measuring, pinning, folding, cutting, sewing, techniques, Cutting Skills (Accuracy and Precision Task)	- How to work safely in a practical environment - Iterative Design process - Constraints - How to make informed choices with fabrics and premanufactured components - How to creatively adapt a design - How to plan a practical activity - How to work effectively with others - How to work independently - Ownership of choices and development of communication and organisational skills. - Application of ideas in a practical context - Decision making with fabric properties in mind - Pupils should understand the wider role of textiles in everyday lives, beyond fashion and furnishing - How to add print and stitch to fabrics to make them more interesting and how practising designers achieve this	- Appliqué - Transfer print - Sequins - Tie dye - Hand embroidery - Fabric pens/paints/crayons - CAD CAM machine embroidery - Bondaweb - Heat press - Button - Covered buttons - Zip - Knitted - Warp knit - Plain weave - Twill weave - Satin Weave - Bonded/non-woven	Purposeful writing tasks promoted, using department wide acronym PEEL, (Point, Example/Evidence, Explain/Elaboration Link) throughout KS3 and 4. Dual coded in all classrooms as colourful display above teacher's white board for reference. Evaluation and review, including what went well, Even better if and Next steps, for every practical task. Lesson overview promotes communication and dialogue with pupil's gaining inference and increasing ownership of learning, planning, organisation and decision making, communicating needs with parent/carers. - Revision of learning so far - Health and safety tasks - Designing and creativity task - Understanding structure of recipes - application tasks - small equipment task - Application of knowledge task

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	techniques studied this year - Health and safety in a practical environment - Life without Textiles misconceptions - Where do textiles come from, fibres and fabrics - Fabric construction - Equipment - Sewing machine - Designing - Design Brief - Design specification - Initial design ideas/final design ideas	Yr2- How can you repurpose and item of clothing? Yr3-How can you make a box out of cloth? Yr4-How do you keep a tea towel from slipping off of a cloth? Yr5-Which fabric is ideal for creating a functional and hardwearing lunch bag? Yr6-How can we reduce, recycle and repurpose?	- Improve multi-task, organisation - Evaluate - Research, interleaving character, education, independence, team work - Identify strengths and areas for development - Demonstrate confidence and competence	- Understand how to communicate on paper using different methods and how to use annotation effectively - What compromises are needed between form and function to make a product successful - The heritage of some of our textile's techniques		- Design based reasoning and annotation - Design Specification - Self-evaluation - Revision Q&A so far Generic reading comprehension tasks, Literacy based tasks and knowledge check with application tasks from text books as extension.
8 (one term)	Bags- sustainability Design and make a simple commercially viable product for a target audience that could be made in small quantities to sell in an independent gift shop. - Know how making one product is different from making a number of identical ones - Design Process - Research possible customers and products and choose	Revision/reflection/recap of key concepts from last yrs. course. - H&S - Sewing machine - Properties of fabrics - Warp - Weft - Bias - Selvedge - Pinning accurately - Measuring - Cutting - Using ergonomics & anthropometrics - Design process	- Demonstrate competence and independence, creativity, following instructions, H&S - Further advanced use of the sewing machine including trouble shooting - Safe and effective use of textiles equipment and processes - Relevant testing and choosing of techniques for prototypes - Working with accuracy and precision to a tolerance	- Understand the importance of market research when designing a new product - Generation and development of design ideas for a very simple product - Understand the need for planning before practical work begins - How to visually merchandise a product to promote sales - Creating a corporate image - The relevance of branding related to quality	- Sustainability - Appliqué - Transfer print - Sequins - Tie dye - Reverse appliqué - Hand embroidery - Fabric pens/paints/crayons - Tassel - CAD CAM machine embroidery - Bondaweb - Heat press - Printing methods	Purposeful writing tasks promoted, using department wide acronym PEEL, (Point, Example/Evidence, Explain/Elaboration Link) throughout KS3 and 4. Dual coded in all classrooms as colourful display above teacher's white board for reference. Evaluation and review, including what went well, Even better if and Next steps, for every practical task. Lesson overview promotes communication and dialogue with pupil's gaining inference

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	appropriate equipment, techniques and materials for their product. They will devise production plans while manufacturing their product. • Know that fabric properties are crucial to maximise performance • Sustainability • H&S • Revision of the sewing machine • Design Ideas • Design Brief • Design Specification • Evaluation and review • Redesign task with specific target user		• Following written instructions and interpreting diagrams accurately • Practical use of a wider range of fabrics • Apply 'new' concepts to their own products • Product analysis and reformulation of existing products • Pupils will design and make a new, individual product prototype reusing waste items. • Develop advanced hand and machine stitching techniques, printing and dyeing • Advanced manipulation of fabric >use of a wider range of equipment including the embellisher and the needle punch • Investigating different sources of information and assimilating the key points into a presentation to share with others • Applying skills learnt throughout to planning a design and make project • Selecting tools and equipment appropriately to	assurance, costing and target market • The importance of ergonomics and anthropometrics when designing • How to achieve a quality finish in practical • How to achieve consistency in work rate • How to be self-reliant/independent • How to tactfully identify strengths and areas for development • How to help others • How to problem solve and self-critique.	• Block printing • Transfer printing • Button • Covered buttons • Zip • Press Studs/Poppers • Plain weave	and increasing ownership of learning, planning, organisation and decision making, communicating needs with parent/carers. • Sustainability • H&S application • Sewing machine application • Initial design thought process • Design specification • Design annotation tasks • Evaluation/Review • Annotated design task. Generic reading comprehension tasks, Literacy based tasks and knowledge check with application tasks from text books as extension.

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			manufacture a successful prototype - Evaluating and testing product and suggesting improvements in relation to developed criteria - To be adaptable and open to new ideas when designing - Choose correct fabrics and textile processes to make their product - Product analysis and reformulation of existing products			
9 (one term)	Impact of culture capital on merchandise - Monsters - Concept of designing with the environment in mind, using examples from a range of familiar products, re-thought in keeping with the Six Rs principles - Exploring a product's "life cycle" - Practical skills building - How to work a range of textile techniques and skills	Revision/reflection/recap of key concepts from last yrs. course. - H&S - Sewing machine - Properties of fabrics - Warp - Weft - Bias - Selvedge - Pinning accurately - Measuring - Cutting - Using ergonomics & anthropometrics - Design process	Pupils will design and make a new, individual product prototype reusing waste items. - Develop advanced hand and machine stitching techniques, printing and dyeing - Advanced manipulation of fabric >use of a wider range of equipment including the embellisher and the needle punch - Investigating different sources of information and assimilating the key points into a presentation to share with others	- How to build in safety checks when making an item from fabric. - How to predict possible issues and generate quality control measures when making an item from textiles. - How to plan, prepare and multitask in a practical situation Culture Capital – Ugly Dolls film and soundtrack – tackling whole school ethos and culture capital, empathy and resilience and emotional intelligence	- Appliqué - Transfer print - Sequins - Tie dye - Reverse appliqué - Hand embroidery - Fabric pens/paints/crayons - Tassel - Bondaweb - Empathy - Emotional intelligence - Product analysis - Ergonomics - Anthropometrics - Target group - Intended user	Purposeful writing tasks promoted, using department wide acronym PEEL, (Point, Example/Evidence, Explain/Elaboration Link) throughout KS3 and 4. Dual coded in all classrooms as colourful display above teacher's white board for reference. Evaluation and review, including what went well, Even better if and Next steps, for every practical task. Lesson overview promotes communication and dialogue with pupil's gaining inference and increasing ownership of learning, planning, organisation and decision

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	- Follow instructions to create accurate samples of techniques - How to go beyond the instructions and combine and add to the basics - Technology in society - - Fashion - How technology has influenced fashion throughout history leading to current trends - Making activity - How to combine the skills learned and the knowledge to complete an independent making activity - Mainly Designing - The points to consider when designing for an inclusive market - Know that fabric properties are crucial to maximise product performance		- Applying skills learnt throughout to planning a design and make project - Selecting tools and equipment appropriately to manufacture a successful prototype - Evaluating and testing product and suggesting improvements in relation to developed criteria - To be adaptable and open to new ideas when designing - Choose correct fabrics and textile processes to make their product - Product analysis and reformulation of existing products	- Examine our throw-away mentality within the textiles industry - Increase awareness of branding, consumerism and culture capital and how it impacts designing. The environmental issues that have resulted - The importance of exploring alternative solutions - How to follow written instructions in a variety of forms - Selecting tools, materials and equipment appropriately - Aim for high quality work - Use of hand stitching - How developing technologies are transferred to the fashion world to benefit the performance and appearance - The development of a brief and planning of a project - How to adapt designs to make within a given time and within resource constraints - Evaluate prototypes and suggest modifications - Research the health and wellbeing, cultural, religious, well-being and	Client	making, communicating and needs with parent/carers. - WWW, EBI, NS throughout term for practical, design and written tasks. - Generation of ideas - Product analysis - Design Brief - Sampling with reasoning and reflection/evaluation. - Sampling. - Design Specification. Generic reading comprehension tasks, Literacy based tasks and knowledge check with application tasks from text books as extension.

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				socio-economic contexts of their intended users - The advantage of taking creative risks when making design decisions - The importance of ergonomics and anthropometrics when designing		
10 Term 1						
10 Term 2						
10 Term 3						
11 Term 1						
11 Term 2						
11 Term 3						

Year	Knowledge (Topics/Unit of work? What pupils will 'know'	Assessment (KPIs: Diagnostic + Summative)	Cumulative Links (What is revisited?)	Adaptive Teaching (How all pupils access learning)	Future Links (KS4/KS5)
7 Term 1	To be deleted? Duplicated.	Yr. 7 KPI 1: Identifying and understanding how to classify fibres. (class task and assessments)	- Skills from ks2 - H&S - Equipment	- Think, pair, share - Resource packs for tasks	Link with : - primary - Home

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		KPI 2: Create annotated designs to communicate design ideas. (design application) KPI 3: Understanding the construction and properties of fabrics (fabric choice & assessments) & manipulation KPI 4: Follow procedures for safety and understand the process of risk assessment. (Health and safety conduct) • Baseline • Interim assessment • Quick quiz • End of topic Knowledge Test	• Fibres and fabrics • Construction • The sewing machines • Hand sewing • Embellishment • Applique	• Knowledge organisers for key topics • Use of IWB and White board to support tasks/transition and pace/recall. • Colour coding activities • Discussions • Modelling • Dual coding • I do, we do you do.	• Social emotional • Relationships • Feelings • Jobs/careers • Programmes • Experiences • Cross curricular Links: French, media, DT, science, maths, business studies.
8 Term 1		Yr. 8 KPI 1: Quality of Design work, research, showing depth, diversity and creativity (design tasks) KPI 2: Select & skilfully use a range of textile processes machinery and equipment. (H&S/accuracy/precision) KPI 3: Application of key terms & use of literacy in the subject e.g. Design spec & evaluation KPI 4: Quality of functional prototype. (prototype) & aesthetics • Interim assessment • Quick quiz • End of topic Knowledge Test	• H&S • Equipment • target groups • Sustainability • Influences • Cultural links • Creativity • Construction • The sewing machines • Hand sewing • Embellishment	• Scaffolded layouts • Templates • Sentence starters. • Key words and terminology explanations • Displays to reinforce learning • Brain book buddy boss to promote, leadership and independence. • Team teachers for long term memory, explanation skills, social skills and reinforcement.	Link with: • Businesses/ • Target groups • Packaging • Design • Cross curricular- geography, science, maths, business.
9 Term 1		Yr. 9 KPI 1: Consider the range of lifestyle factors of different target groups when designing your prototype. (research) & mind maps KPI 2: Creativity of designs to show the development of your ideas. (designing) KPI 3: Research & apply information to the designs of your Monsters & written tasks (suitable for chosen target group) KPI 4: Select materials that are suitable for your prototype (Appropriate fabric choice)	• H&S • Equipment • Target groups • Skills • Equipment • Experimentation • Adaptation • Culture capital, • Construction • The sewing machines • Hand sewing	• Chef of the week, all pupils can achieve, sense of worth/buy in to course. • Use of acronym's to reduce cognitive load- e.g. PEEL, , Drawers and doors. 4 B's, RSWW.	Link with: • Maths, • Child development • Science • Architecture • Engineering • psychology • designers, • brand creators, • mystery shoppers. • Further education,

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		• Interim assessment • Quick quiz • End of topic Knowledge Test	• Embellishment		• pathways, • a level, • t-levels, apprenticeships, • university, • jobs, • contracts, • future aspirations.
10 Term 1					
10 Term 2					
10 Term 3					
11 Term 1					
11 Term 2					
11 Term 3					