

Design and Technology: Textiles 5 Year Plan

Big Ideas	Knowledge	<b>Year 7-Home furnishing</b> Assessments: Teams - 2 every half term Yellow Sticker - 2 every half term Low Stakes Quiz – 2 every half term End of Term Assessment – Week 10	<b>Year 8 -Fabric storage</b> Assessments: Teams - 2 every half term Yellow Sticker - 2 every half term Low Stakes Quiz – 2 every half term End of Term Assessment – Week 10	<b>Year 9-Festivals accessories</b> Assessments: Teams - 2 every half term Yellow Sticker - 2 every half term Low Stakes Quiz – 2 every half term End of Term Assessment – Week 10	<b>KS4</b>	Year 10 <b>DT GCSE – Fabrics and Fibres</b> Mock NEA	Year 11 <b>DT GCSE – Fabrics and Fibres</b>
<b>Explore</b>	- Design Brief - Materials - Users - Ever changing world	<ul style="list-style-type: none"> <li>5 W's</li> <li>Natural and Synthetic fibres</li> <li>Design context</li> <li>6 R's of sustainability and Environment issues</li> <li>Past Designers</li> <li>One-off production</li> </ul>	<ul style="list-style-type: none"> <li>Fabrics and Fibres: How they are formed</li> <li>identifying a user in a brief</li> <li>Sustainability - Social issues</li> <li>Global Cultural designs</li> <li>Present Designers</li> <li>Batch production</li> </ul>	<ul style="list-style-type: none"> <li>Testing fabrics</li> <li>Design context and brief</li> <li>PUN (Primary user wants and needs), Form follows function</li> <li>Stakeholder</li> <li>Environmental, Social and Economic issues</li> <li>Past &amp; present designers</li> <li>Product Analysis</li> <li>Mass production</li> <li>SMART Materials</li> </ul>	AU1	<b>Fabric Storage</b> <b>Big Idea – Explore, Design &amp; Make</b> *Pattern Cutting, Joining, Woods, Textiles *CAD & CAM – 2D design and Laser Cutter *Sewing Techniques *Ergonomics Anthropometrics & CAD and CAM *Orthographic Drawing & Technical Drawing *KO for Wood and Fabric	<b>Big Idea – Design Unit 2</b> *Initial Designs *Testing Materials and properties *Design developments, drawings & Prototypes *Problem solving using CAD *User Testing and Critical Thinking
<b>Design</b>	- Specification checklist - Design Ideas - Technical Drawings and Prototypes	<ul style="list-style-type: none"> <li>Design Ideas on prepared templates</li> <li>Final design</li> </ul>	<ul style="list-style-type: none"> <li>Initial ideas hand drawn by students</li> <li>Perspective drawings</li> <li>Final design</li> </ul>	<ul style="list-style-type: none"> <li>Thumbnails</li> <li>Design specification</li> <li>Technical drawing</li> <li>Final design – fashion illustration</li> <li>Fabric Pattern</li> </ul>	AU2	<b>Sustainability Upcycling Project (Bag / Top)</b> <b>Big Idea – Explore, Create, Make</b> *Illustration skills, *Pattern drawing / adaptations *Tessellation & Fabric Tools *6 R's & Environmental Challenges *Making & Introduction to Over locker * Diary of Production *Evaluation	<b>Big Idea – Create Unit 3</b> *Developing a chosen design – quality sketches and models *Developing quality iterative prototypes *CAD & CAM testing *3D computer drawings *CAD / CNC Levels of Production and Tools
<b>Create</b>	- Testing techniques - User feedback - Final design Proposal	<ul style="list-style-type: none"> <li>Project Techniques: Lino printing, screen printing, fabric paint and fabric crayons</li> <li>Fabric pattern / dimensions</li> <li>Different types of seams</li> </ul>	<ul style="list-style-type: none"> <li>Project Techniques: Batik, block printing and embroidery</li> <li>Components (inserting a zip/button/popper)</li> <li>Fabric pattern and labelling</li> </ul>	<ul style="list-style-type: none"> <li>Project Techniques: Screen print, Tie-dye, Stitch by hand, Sublimation printer</li> <li>User feedback</li> <li>Marking out fabric</li> <li>Transfer Designs</li> </ul>	SP1	<b>Sustainability Upcycling Project – LCA Product Disassembly Easter Egg Packaging</b> *PUN and Questionnaire *Designs and Test Models to user *User Feedback PUN *Technical Drawing / Pattern on CAD *Printing techniques *Step by step plan of production	<b>Big Idea – Make Unit 4</b> *Orthographic / Working Assembly drawing *Technical Plans *H&S in D&T *High quality Prototype *Manufacturing and Printing in Industry
<b>Make</b>	- Health and Safety planning - Effective use of tools - Final Product	<ul style="list-style-type: none"> <li>H&amp;S in Textiles</li> <li>Use of specialist textiles tools and equipment</li> <li>Project step by step - Table</li> <li>Home furnishing textiles accessories (ie cushion)</li> <li>Constructing a product together</li> </ul>	<ul style="list-style-type: none"> <li>H&amp;S in Textiles RECAP</li> <li>Use of specialist textiles tools and equipment</li> <li>Project step by step</li> <li>Fabric storage product</li> <li>Pattern cutting and constructing</li> </ul>	<ul style="list-style-type: none"> <li>H&amp;S in Textiles RECAP</li> <li>Use of specialist textiles tools and equipment</li> <li>Project step by step</li> <li>Festival accessory product</li> <li>Pattern cutting and constructing</li> </ul>	SP2	<b>2 Week Project Motions and Mechanisms</b> Handling collection: Input Process and Output Analyse Mechanisms – KO Table about different and motions *Exam questions from previous papers <b>2 Weeks Smart Materials</b> *Handling Collection, Testing, Videos <b>Lamp (mood lamp)</b> Week 1: Review on Polymers, Wood and fabrics Input process and output and electronics Week 2: Assembly drawing, Isometric and exploded view.	<b>Big Idea – Evaluate 5</b> *Critical evaluation for manufacture *Evaluation of marketability and User testing <b>Exam Preparation</b> *Materials overview *Manufacturing scales and tools *Inclusive Design and Sustainability
<b>Evaluate</b>	-Testing and performance - Improved product	<ul style="list-style-type: none"> <li>Testing the product (comfort and precision of stitching)</li> <li>Analyse and Evaluate</li> <li>Successes and Areas for improvement</li> </ul>	<ul style="list-style-type: none"> <li>Testing fastenings</li> <li>Analyse and Evaluate</li> <li>Successes and Areas for improvement</li> </ul>	<ul style="list-style-type: none"> <li>Quality check</li> <li>Modifications</li> <li>Analyse and Evaluate</li> <li>Successes and Areas for improvement</li> </ul>	SU1	Week 3: Prototype in Card and assessment on dimension and ergonomics Week 4: Wood wasting, shaping and forming. Week 5: Fabrics and templates. Week 6: Polymers and fusing Week 7: Assembly and diary of the lamp Week 8: Electronics. Evaluate and Review	
Key Terms - KS3		<ul style="list-style-type: none"> <li><i>Hazard, Textiles, Design Context, Sustainability, Designing, User centered design, Seam allowance, Aesthetics, Seam, Functionality, Life cycle Assessment, Evaluate</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Raw edge, Natural fibres, Components, ACCESSFM, Function, Surface treatment and finishes, Design specification, User centered design, Warp and Weft Yarn, Batch production, Form follows function, Analyse</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Life cycle Assessment, Environmental issues, Social issues, Economical issues, Batch production, One-off production, Mass production, Form follows function, Ergonomics, Anthropometrics, User centered design, PUN</i></li> </ul>	SU2	<b>Big Idea – Explore Unit 1</b> <b>NEA Release June 1</b> *Solve Design Context *User Investigation & choice *Product Analysis Secondary *Primary Product Disassembly *Specification Technical NonTech	