

Year 9 DT and Textiles Curriculum Plan							
Unit	Core		Hinterland		NC Coverage	Assessment	Whole Education Opportunities
	Knowledge	Skills	Knowledge	Skills			
Timbers – joining (Pencil Case)	<ul style="list-style-type: none"> The different categories within materials Joining methods for timbers Basic understanding to product sustainability Identifying properties of materials Introduction to the production of materials Scales of production and understanding the differences that affect the design of products Using production aids for Batch production H&S for new tools and machines (router/chisel) 	<ul style="list-style-type: none"> Use basic hand tools accurately To accurately mark out on timbre Working by and understanding H&S using a range of processes and machines The ability to create a range of different joints and apply to the correct use Ability to applying Quality Assurance and Control measures to their work before preceding onto the next step To apply finishes to wooden products and understand why/when they are needed 	<ul style="list-style-type: none"> Be able to apply knowledge learnt to make links between topics to fully understand their advantages and disadvantages To understand how materials are chosen due to their properties for a range of products To be able to identify hazards and risks of processes from their understanding within how to act within a workshop. 	<ul style="list-style-type: none"> To independently recall the use of tools and equipment and be able to apply to different processes/projects. To accurately mark and cut using a range of hand tools. To safely use a router To vacuum form using a given mould To apply a finish to improve the aesthetic of the product. Improving dexterity 	<ul style="list-style-type: none"> MAKE- Select from and use specialist tools, techniques, processes, equipment, and machinery precisely EVALUATE- Understand developments in design and technology, it's impacts on individuals, society, and the environment. TECHNICAL KNOWLEDGE – To understand and use the properties of materials 	<ul style="list-style-type: none"> Ability to work independently and safely on tasks Accuracy when marking, measuring, and cutting Starter tasks and Homework – practice GCSE Questions that link to the topics on within the project. Low stakes tasking through starters 	<ul style="list-style-type: none"> Careers Science- categories of materials Geo- sustainability
Introduction to CAD (Door hanger)	<ul style="list-style-type: none"> Investigating and analysing the work of others in order to develop ideas Drawing styles; orthographic, 2-point, Isometric Advantages and disadvantages of CAD/CAM Limitations within designs (processes/materials) 	<ul style="list-style-type: none"> Develop a greater understanding of 2D design in order to create a realistic idea. Realising ideas through effective modelling in order to test ideas Developing a wide range of communicational skills to present ideas To consider 3rd party feedback in order to develop ideas Sketching and rendering 	<ul style="list-style-type: none"> Understanding how the needs/wants of others will affect their future design decisions Understanding the limitations within CAD To understand limitations with materials and machines Understanding stock forms and availability which may impact upon designs 	<ul style="list-style-type: none"> To use several functions independently on 2 D Design (CAD) To model effectively in order to identify problems To design to the needs of different users To develop graphical skills using a range of communicational skills. To develop rendering techniques 	<ul style="list-style-type: none"> DESIGN – Develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools MAKE-select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture 	<ul style="list-style-type: none"> Ability to independently use CAD software To be able to fulfil a brief To design and make a workable product Low stakes tasking through starters and plenaries. 	<ul style="list-style-type: none"> Understanding the needs of different users
CAD Project (Clock)	<ul style="list-style-type: none"> Looking at designers within the AQA specification Looking at the work of others and eras within the AQA specification Applying a range of drawing techniques to communicate ideas Applying knowledge learnt from research in order to write a specification Collecting effective research in order to inform decisions Effective evaluation in order to further develop ideas 	<ul style="list-style-type: none"> Using models in order to test ideas Developing designing in order to effectively communicate ideas to others Accurately using modelling materials and equipment for their correct uses To effectively use adhesives for the correct material 	<ul style="list-style-type: none"> To understand about standard components and their advantages To understand and reflect upon industry and similar manufacture. To understand finishing techniques for plastics if they were hand produced. 	<ul style="list-style-type: none"> To utilise alternative CAD packages in order to suit the process Disassembly of similar products in order to identify the workings of a clock 	<ul style="list-style-type: none"> DESIGN- Identifying and understanding user needs. MAKE- Select from and use specialist tools, techniques, processes, equipment and machinery precisely including CAD EVALUATE – Analyse the work of the past and present professionals and others EVALUATE-Test, evaluate and refine their ideas and products against a specification MAKE-select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture 	<ul style="list-style-type: none"> The ability to apply knowledge learnt in order to work independently on CAD packages The end product- realising problems and solving them before they occur The ability to design a range of creative ideas that meet the brief Ability to communicate their ideas through annotation which in cooperates further research. 	<ul style="list-style-type: none"> ICT – advantages of CAD/CAM
Maths within DT	<ul style="list-style-type: none"> Calculating the areas and volume of a range of shapes Scale and ratio Conversion of units Interpreting data Standard stock forms 	<ul style="list-style-type: none"> How to read graphs and tables to inform decisions How to cost materials and measure materials needed Able to upscale drawings Use the correct units 	<ul style="list-style-type: none"> To be able to apply knowledge learnt to previous and future projects Applying understanding of material costing to design decisions 	<ul style="list-style-type: none"> Problem solving Selecting the correct method/material or process 	<ul style="list-style-type: none"> Not in DT NC but will link to Maths. 	<ul style="list-style-type: none"> Low stakes testing GCSE practice questions Ability to apply knowledge to practical tasks when considering materials and quantities Accuracy of measuring and marking out 	<ul style="list-style-type: none"> Links with Maths department Problem solving
Textiles/Smart Materials (Lamp Project)	<ul style="list-style-type: none"> To apply understanding of design limitations/expectations to a specification 	<ul style="list-style-type: none"> Applying prior understanding of skills used to independent and individual tasks 	<ul style="list-style-type: none"> Link to design processes on different scales Manufacture of stock forms 	<ul style="list-style-type: none"> Time management- linking to industry, JIT etc Accuracy within scales and wider implication of tolerances 	<ul style="list-style-type: none"> DESIGN -identify and solve their own design problems DESIGN – Develop specifications to inform design 	<ul style="list-style-type: none"> Quality of the end product Understanding of materials and their properties to select the correct one 	<ul style="list-style-type: none"> Maths – scale Science – material properties

	<ul style="list-style-type: none"> Investigation into new and emerging technologies and materials (SMART) To understand the benefits of Rapid Prototyping (3D printing) To apply scale to designs and making effectively Simple electronics Properties of materials; textiles focus 	<ul style="list-style-type: none"> Ability to design, draw and manufacture a simple 3D product To improve accuracy when using a range of processes 		<ul style="list-style-type: none"> Project management to meet deadlines 	<ul style="list-style-type: none"> DESIGN – Develop and communicate design ideas using annotated sketches, detailed plans and 3D modelling. EVALUATION- Investigate new and emerging technologies 	<ul style="list-style-type: none"> Ability to select the right materials and tools for the different processes Ability to understand design limitations Accuracy of scale 	
TEXTILES							
Ignite lessons Intro to the subject	<ul style="list-style-type: none"> Learn the process of Heat transfer printing Learn Applique technique Stencilling Learn Tie dye/Shibori technique To develop accuracy with 5 basic Hand embroidery stitches CAD/CAM embroidery. How to create 2 d design for Laser cutting Embellishing Sewing machine threading/basic seams/seam finishes Basic pattern drafting for a zip purse (tote bag) Project presentational skills 	<ul style="list-style-type: none"> Be able to create a sample and use Heat press with some assistance. Able to applique independently Able to use stencilling to decorate fabric Able to use tie dye technique with some assistance Learn hand embroidery/refresh knowledge from year 8 Learn the basics of 2D and create a design ready for laser cutting To apply embellishments using beads and sequins 3-5 basic seams and seam finished to draft a basic pattern 	<ul style="list-style-type: none"> To understand and recognise embroidery techniques used on a range of products To make links between mass production and CAD/CAM To recognise the need for machine maintenance To make links between fashion designers and their chosen styles/collections. To recognise how products are made from patterns and why. 	<ul style="list-style-type: none"> To select and practise a range of sewing techniques independently To set up and operate machines with minimal guidance To independently create CAD designs to support communication and accuracy. 	<ul style="list-style-type: none"> MAKE- Select from and use specialist tools, techniques, processes, equipment and machinery precisely 	<ul style="list-style-type: none"> Low stakes tests Independence and ability to recall information Accuracy when investigating techniques Final product accuracy 	<ul style="list-style-type: none"> ICT Art
Zip bag	<ul style="list-style-type: none"> Setting up and maintaining sewing machines Seams finishes Attaching a zip 	<ul style="list-style-type: none"> To independently thread a sewing machine How to pick, zig zag stitch and overlock 	<ul style="list-style-type: none"> Using the knowledge of existing products to identify advantages and disadvantages of products to influence designs 	<ul style="list-style-type: none"> Utilising knowledge on patterns to demonstrate a higher level of skills 	<ul style="list-style-type: none"> MAKE- Select from and use specialist tools, techniques, processes, equipment and machinery precisely DESIGN – Develop and communicate design ideas using annotated sketches, detailed plans and 3D modelling. 	<ul style="list-style-type: none"> Low stakes testing Accuracy when working with machines Ability to apply prior knowledge to their work Independence on tasks Recall knowledge on processes Ability to work whilst considering the Health and Safety involved. 	<ul style="list-style-type: none">
Sewing machines and Patterns Board shorts	<ul style="list-style-type: none"> Cutting fabrics How to minimise waste Costings of materials Measuring and pinning to a complicated pattern 	<ul style="list-style-type: none"> Independent use of machines to apply decoration and details Utilising the over locker for a multiple of functions 	<ul style="list-style-type: none"> Being able to select the appropriate material for the product's functions Knowledge of pattern matching and how to achieve when making templates. Understanding Quality Control measures used and why Making links between different scales of manufacture 	<ul style="list-style-type: none"> Applying extra features to designs – pockets Accuracy when matching patterns Alternative fastenings Experimentation with materials to select the best for the chosen function 	<ul style="list-style-type: none"> MAKE- Select from and use specialist tools, techniques, processes, equipment and machinery precisely DESIGN – Develop and communicate design ideas using annotated sketches, detailed plans and 3D modelling. DESIGN- Identifying and understanding user needs. 	<ul style="list-style-type: none"> Accuracy of measuring Ability to evaluate and develop ideas Communicational skills Accuracy of the end product 	<ul style="list-style-type: none"> Maths – accuracy of measuring and tolerances.
Fibres and Fabrics	<ul style="list-style-type: none"> Natural fibres and their properties Synthetic fibres and their properties Origins of materials Environmental impact on materials Weft and warp Types of weaves 	<ul style="list-style-type: none"> Ability to visually recognise the different properties within materials Identifying classifications of materials To carry out investigations on materials to identify the properties of materials 	<ul style="list-style-type: none"> To make links between a products function and the properties of materials needed To make wider links of cultural, moral and social in order to make informed decisions To understand how cost drives the use of materials and their availabilities Identifying the locations of materials from where they are sources and applying deeper 	<ul style="list-style-type: none"> To carry out a range of tests to further understand the characters of material groups. 	<ul style="list-style-type: none"> TECHNICAL KNOWLEDGE – To understand and use the properties of materials 	<ul style="list-style-type: none"> Low skills tests Practice GCSE questions Q&A 	<ul style="list-style-type: none"> Science – investigations and making tests fair. Geography – looking at where materials are from and the different working environments

			understanding into the working conditions of other countries.				
<p>Min Project: Cushion cover</p> <p>Fabric manipulation, folds and pleats</p>	<ul style="list-style-type: none"> Identifying the correct tools and equipment for material manipulation Godet, piping and quilting Fabric surface finishes Folds and pleats Gathering and ruching 	<ul style="list-style-type: none"> Independently using a range of process and techniques 	<ul style="list-style-type: none"> To recognise techniques in existing products To understand the advantages of different processes 	<ul style="list-style-type: none"> To apply a range of techniques with accuracy To design for a selected user and be able to make informed design decisions from their needs and wants To experiment with techniques in order to select the most appropriate techniques for the product. 	<ul style="list-style-type: none"> DESIGN -identify and solve their own design problems DESIGN – Develop specifications to inform design DESIGN – Develop and communicate design ideas using annotated sketches, detailed plans and 3D modelling. MAKE- Select from and use specialist tools, techniques, processes, equipment and machinery precisely 	<ul style="list-style-type: none"> Ability to work independently and accurately Low stakes testing Practise GCSE questions Outcome 	<ul style="list-style-type: none"> History – development of materials over time, reasons for the changes in demands.