

**Design & Technology Progression map:** breaks down the key concepts to specify the most important knowledge and how that knowledge builds within the curriculum.

Key Concepts D&T	Year 7	Year 8	Year 9
<b>National Curriculum - Design and technology key stages 3 and 4</b>			
<b>Design</b>	<ul style="list-style-type: none"> <li>• Research and explore natural forms,</li> <li>• Using a specification to guide design development</li> <li>• Developing and communicating design ideas</li> </ul>	<ul style="list-style-type: none"> <li>• Introduce ACCESS FM using a writing frame structure to generate a specification</li> <li>• CAD – develop a more complex design using 2D design</li> </ul>	<ul style="list-style-type: none"> <li>• Write a specification using ACCESSFM process</li> <li>• Use 2D design to generate design for paper shade</li> </ul>
<b>Make</b>	<ul style="list-style-type: none"> <li>• Selecting specialist tools, techniques and processes</li> <li>• Health &amp; Safety</li> </ul>	<ul style="list-style-type: none"> <li>• CAM as a manufacturing process</li> </ul>	<ul style="list-style-type: none"> <li>• Quality Assurance</li> <li>• Manufacturing Processes</li> </ul>
<b>Evaluate</b>	<ul style="list-style-type: none"> <li>• Analysing the work of others</li> </ul>	<ul style="list-style-type: none"> <li>• 6Rs and sustainability</li> <li>• Planned obsolescence and the environment.</li> </ul>	<ul style="list-style-type: none"> <li>• Life cycle analysis</li> </ul>
<b>Technical knowledge</b>	<ul style="list-style-type: none"> <li>• Properties of materials</li> <li>• Prototypes of models</li> </ul>	<ul style="list-style-type: none"> <li>• Production methods</li> </ul>	<ul style="list-style-type: none"> <li>• Ethical consideration</li> <li>• Finite and non-finite material</li> <li>• WEEE</li> </ul>
<b>Key concepts - Cooking and Nutrition</b>	<b>Year 7</b>	<b>Year 8</b>	<b>Year 9</b>
<b>Healthy eating</b>	<ul style="list-style-type: none"> <li>• Principles of Healthy Eating and the Eatwell Guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>• Principles of Nutrition and Health</li> <li>• Cook healthy dishes independently</li> </ul>	<ul style="list-style-type: none"> <li>• Principles of Nutrition and Health and Safety.</li> <li>• Safety guidelines</li> <li>• How food can cause ill health.</li> </ul>

<b>Cooking</b>	<ul style="list-style-type: none"> <li>● Basic cooking skills</li> <li>● Use of equipment</li> </ul>	<ul style="list-style-type: none"> <li>● To use specialist skills and equipment</li> <li>● To cook a repertoire of predominantly savoury dishes.</li> </ul>	<ul style="list-style-type: none"> <li>● Show more competency in a range of cooking techniques</li> <li>● Selecting and preparing ingredients</li> <li>● using utensils and electrical equipment</li> <li>● Applying heat in different ways</li> <li>● using awareness of taste, texture and smell to decide</li> <li>● Adapting and using their own recipes</li> </ul>
<b>Food commodities</b>	<ul style="list-style-type: none"> <li>● Use a variety of ingredients both fresh and food cupboard.</li> </ul>	<ul style="list-style-type: none"> <li>● To understand raw and processed commodities.</li> </ul>	<ul style="list-style-type: none"> <li>● Source characteristics of a broad range of ingredients.</li> </ul>
<b>Where food comes from</b>	<ul style="list-style-type: none"> <li>● Food labelling</li> <li>● Ingredients in products</li> </ul>	<ul style="list-style-type: none"> <li>● Nutritional information on food labels.</li> <li>● Shopping independently</li> </ul>	<ul style="list-style-type: none"> <li>● Understand the source, seasonality of food.</li> <li>● Environmental factors</li> </ul>

<b>Key Concepts Engineering</b>	<b>Year 10</b>
<ul style="list-style-type: none"> <li>● <b>R038:</b> Designing processes; stages and strategies, cyclic approach</li> <li>● <b>R038:</b> Sketching and drawing, CAD</li> <li>● <b>R038:</b> Influences on engineering product design</li> <li>● <b>R038:</b> Make, model and evaluate; virtual and physical prototypes</li> </ul>	<ul style="list-style-type: none"> <li>● The iterative design process, including use of analysis tools</li> <li>● Design evaluation techniques</li> <li>● Practical design and product analysis activities</li> <li>● The principles of sketching and drawing</li> <li>● Computer Aided Design (CAD) in the drawing process</li> <li>● Modelling of designs includes both virtual and physical prototyping.</li> <li>● Analysing a provided design specification,</li> <li>● Be able to effectively record the making process</li> <li>● Reflect on how to compare their prototype against the original design specification,</li> <li>● Make suggestions for improvements.</li> </ul>

<ul style="list-style-type: none"> <li>● <b>R039:</b> Sketching design ideas activity</li> <li>● <b>R039:</b> Producing CAD models activity</li> <li>● <b>R039:</b> NEA Assessment</li> </ul>	<ul style="list-style-type: none"> <li>● Modelling of designs includes both virtual and physical prototyping.</li> <li>● Analysing a provided design specification,</li> <li>● Generating design ideas through sketching, and communicating final design proposals using engineering drawings and CAD models.</li> <li>● Product evaluation using primary and secondary research techniques, and through safe practical product disassembly,</li> <li>● How to use parts of the iterative design process effectively.</li> <li>● investigate how manufacturing considerations are an important factor in the design process,</li> <li>● summarise and present their findings effectively.</li> </ul>
<b>Key Concepts Engineering</b>	<b>Year 11</b>
R108- 3D Design Realisation	<ul style="list-style-type: none"> <li>● Prototype Production</li> <li>● Safety</li> <li>● Product evaluation</li> <li>● Assessing Hazards/PPE</li> <li>● Risk assessments</li> <li>● Planning/Gantt chart</li> <li>● Interpretation of a product specification</li> </ul>
R105-Design briefs, design specification and user requirements.	<ul style="list-style-type: none"> <li>● New &amp; emerging technologies</li> <li>● Life Cycle Analysis</li> <li>● Sustainable &amp; inclusive design</li> <li>● Robotics &amp; Nano Technology</li> <li>● Environmental issues/Ethics</li> <li>● Inclusive Design</li> <li>● Carbon Footprint</li> </ul>
<b>Key Concepts Construction</b>	<b>Year 10</b>
<b>Unit 1</b>	Introduction to the construction sector - Introducing: Buildings and Structures and Infrastructure and civil engineering products

	<p>Introduction to the construction sector - Introducing: Building services engineering and Professional and managerial roles</p> <p>The Built Environment life cycle:</p> <ul style="list-style-type: none"> <li>• Raw material extraction</li> <li>• Manufacturing</li> <li>• Construction</li> </ul> <p>Technologies and materials:</p> <ul style="list-style-type: none"> <li>• Main materials involved in fitting roofs and finishing interiors</li> <li>• Renewable technologies and materials</li> </ul> <p>Sustainable construction methods:</p> <ul style="list-style-type: none"> <li>• The benefits of sustainable construction</li> <li>• Pollution and the preservation of the natural environment</li> <li>• Sustainable materials used to create building frames, walls and roofs</li> </ul>
<p><b>Unit 3</b></p>	<ul style="list-style-type: none"> <li>• Practical skills</li> <li>• Report writing</li> <li>• Types of building and structure: <ul style="list-style-type: none"> <li>○ Different forms of infrastructure construction</li> </ul> </li> <li>• Types of building and structure: <ul style="list-style-type: none"> <li>○ Different forms of low-rise buildings</li> </ul> </li> <li>• Technologies and materials: <ul style="list-style-type: none"> <li>○ Main elements and components of low-rise buildings</li> </ul> </li> <li>• Main materials involved in constructing walls and installing building services</li> <li>• Skills development relevant to electrical</li> </ul>
<p><b>Key Concepts Construction</b></p>	<p><b>Year 11</b></p>
<p>Planning construction projects</p>	<ul style="list-style-type: none"> <li>• Roles &amp; Responsibilities</li> <li>• Finance</li> <li>• Planning</li> <li>• Health and safety when bricklaying</li> <li>• PPE</li> <li>• Bricklaying techniques</li> <li>• Working as a team - different roles</li> </ul>

Safety and security in construction	<ul style="list-style-type: none"> <li>● Site security</li> <li>● Working with others</li> <li>● Health And Safety</li> <li>● PPE</li> </ul>	
<b>Key Concepts Hospitality &amp; Catering</b>	<b>Year 10</b>	<b>Year 11</b>
Unit 1 <ul style="list-style-type: none"> <li>● The Hospitality and Catering Industry Learners</li> </ul>	<ul style="list-style-type: none"> <li>● 1.3.2 HACCAP forms</li> <li>● 1.4.1 Food related ill health:</li> <li>● Food labelling laws</li> <li>● Food safety legislation</li> <li>● Food hygiene.</li> <li>● Practical:</li> </ul>	<ul style="list-style-type: none"> <li>● Create proposals for a new provision</li> <li>● Providers within the hospitality and catering industry</li> <li>● Legislations of personal safety</li> <li>● Operation of hospitality and catering establishments</li> </ul>
Unit 2 <ul style="list-style-type: none"> <li>● Hospitality and Catering in Action</li> </ul>	<ul style="list-style-type: none"> <li>● 2.3.1 How to prepare and make dishes: prepare techniques/knives skills/cooking techniques</li> <li>● 2.3.3 Food safety Practices</li> <li>● 2.1.1 Understanding the importance of nutrition</li> <li>● 2.1.2 How cooking methods can impact on nutritional value</li> </ul>	<ul style="list-style-type: none"> <li>● Nutritional needs of a range of client groups</li> <li>● Plan nutritional dishes to go on a menu.</li> <li>● Safe and hygienic food preparation</li> <li>● Cooking and finishing skills</li> <li>● Safely plan</li> <li>● Prepare</li> <li>● Cook</li> <li>● Present nutritional dishes.</li> </ul>

<b>Key Concepts A level Design &amp; Technology</b>	<b>Year 12</b>	<b>Year 13</b>
Technical Principles (Paper 1, 30% of A level)	<ul style="list-style-type: none"> <li>● Materials and their applications</li> <li>● Classification of materials</li> <li>● Methods for investigating and testing materials</li> <li>● Performance characteristics of materials</li> </ul>	<ul style="list-style-type: none"> <li>● Design for manufacture, maintenance and disposal</li> <li>● Ease of manufacture</li> <li>● The use of computer systems (CAD/CAM)</li> <li>● Enterprise and marketing</li> </ul>

	<ul style="list-style-type: none"> <li>● Enhancement of materials</li> <li>● The use of finishes</li> <li>● Modern industrial and commercial practice</li> <li>● The requirements of product design and development</li> <li>● Inclusive design</li> <li>● Health and Safety</li> <li>● Protecting designs and intellectual property</li> <li>● Disassembly</li> <li>● Design communication</li> </ul>	<ul style="list-style-type: none"> <li>● Rapid prototyping</li> <li>● Forming and redistribution processes</li> </ul>
<ul style="list-style-type: none"> <li>● Designing and making principles (Paper 2, 20% of A level)</li> </ul>	<ul style="list-style-type: none"> <li>● Iterative design process</li> <li>● Design theory</li> <li>● technology and cultural changes</li> <li>● Social, moral and ethical issues</li> <li>● Product lifecycle</li> <li>● Testing</li> <li>● Selecting appropriate tools, equipment and processes</li> <li>● Planning</li> <li>● International standards</li> </ul>	<ul style="list-style-type: none"> <li>● Selecting appropriate tools, equipment and processes</li> <li>● QA /QC</li> <li>● Prototype development</li> <li>● The use of the design process</li> <li>● Critical analysis and evaluation</li> </ul>
<ul style="list-style-type: none"> <li>● Non Exam Assessment (NEA 50 % of the A level))</li> </ul>	<p>Focused practical making tasks that allow students to</p> <ul style="list-style-type: none"> <li>● apply technical principles and</li> <li>● designing and making principles for small scale making tasks.</li> </ul>	<p>NEA - Individual based project where students select and apply the relevant technical and designing and making principles relevant to their chosen focus product and in line with the assessment criteria.</p>

**Long-term plan:** organises the knowledge from the progression map into units to give an overview of what is taught when in the curriculum.

<b>Year 7 D&amp;T</b>						
<b>Project 1</b>		<b>Project 2</b>		<b>Project 3</b>		<b>Food Technology</b>
Unit Title:	Unit Title:	Unit length:	Unit Title:	Unit length:	Unit Title:	Unit length:

Acrylic Pen Holder 7 Lessons	Textiles Banner	16 Lessons	Pewter Jewellery	16 Lessons	Food and Cooking Practical and Theory	
<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>● Properties of polymers-focussing on acrylic</li> <li>● Forming and shaping of acrylic</li> <li>● Health &amp; safety in the workshop</li> <li>● Numeracy-marking and measuring materials</li> </ul>	<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>● Understand the importance of safety in the classroom</li> <li>● Gain a knowledge of basic textiles equipment and their uses</li> <li>● Be able to follow a pattern to cut out fabrics</li> <li>● Aware of the process of applique as a technique for surface decoration</li> <li>● know how fabrics can be joined together by hand or machine</li> <li>● understand how fabrics can be strengthened by using interfacing</li> </ul>	<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>● Research and explore natural forms,</li> <li>● Use a specification to guide design development</li> <li>● Develop and communicate design ideas</li> <li>● CAD -Develop a simple shaped design using a template on 2D Design</li> <li>● Select specialist tools, techniques and processes to make in pewter and in fabric incl surface decoration techniques</li> <li>● Use CAM to produce the mould for the keyring</li> <li>● H&amp; S in the workshop and relative to the tools being used</li> <li>● Analyse the work of others to broaden their understanding of how products work</li> <li>● Evaluate pewter key ring ad cushion against the specification</li> <li>● Learning about the properties of pewter (metal)</li> <li>● Properties of different fabrics and how they affect performance in a product</li> </ul>	<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>● Healthy and Safety</li> <li>● To use equipment to learn basic skills needed in cooking</li> <li>● To learn and demonstrate different cooking methods</li> <li>● Using different food commodities</li> <li>● Sensory Analysis and reflection</li> <li>● Independence in the kitchen</li> </ul>			

<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>● Design</li> <li>● Make</li> <li>● Evaluate</li> <li>● Technical knowledge</li> </ul>	<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>● Design</li> <li>● Make</li> <li>● Evaluate</li> <li>● Technical knowledge</li> </ul>	<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>● Design</li> <li>● Make</li> <li>● Evaluate</li> <li>● Technical knowledge</li> </ul>	<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>● Make</li> <li>● Evaluate</li> <li>● H&amp;S</li> </ul>
<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● Presenting design ideas</li> <li>● Knowledge of different products</li> <li>● H&amp;S in a practical lesson</li> </ul>	<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● Awareness of surface decoration techniques</li> <li>● Properties of natural/animal fibres</li> <li>● Use of textiles equipment</li> <li>● Following the design process</li> <li>● Designing and making a textile product</li> </ul>	<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● Investigating products</li> <li>● designing ideas</li> <li>● Making in different materials</li> <li>● Evaluating products against design criteria / specification</li> </ul>	<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● Knowledge of Healthy Eating</li> <li>● How to cook using basic cooking skills</li> <li>● Understanding of the kitchen and the ways of working.</li> <li>● Following recipes</li> <li>● Evaluating products</li> </ul>
<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● Finished product</li> <li>● Knowledge of equipment &amp; tools</li> <li>● Understanding of properties of polymers</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● Use a specification to guide design development</li> <li>● Select and use specialist tools, techniques and processes to embroider fabrics</li> <li>● Finished banner and the range and quality of the embroidery used for surface decoration</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● CAD -Develop a simple shaped design using a template on 2D Design</li> <li>● Use CAM to produce the mould for the keyring</li> <li>● Learning about the properties of pewter (metal)</li> <li>● Select specialist tools, techniques and processes to make in pewter</li> <li>● H&amp;S in the workshop and relative to the tools being used</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● Dishes made each lesson</li> <li>● End of half term/term assessment tests</li> </ul>

Year 8 D&T						
Project 1	Project 2		Project 3		Food Technology	
Unit 1 Woodworking Skills 7 lessons	Unit Title: TEXTILES Sweet project	Unit length: 16 Lessons	Unit Title: Clock Project	Unit length: 16 lessons	Unit Title: Diet and Health Practical and Theory	Unit length:
<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>● Knowledge of workshop health and safety</li> <li>● Safe use of tools and machinery</li> <li>● Manipulation of manufactured boards</li> <li>● Finishes of timber</li> <li>● Joining materials</li> </ul>	<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>● Knowledge of fabric construction and properties of woven fabrics</li> <li>● Develop skills and creativity to embellish fabric</li> <li>● Use of the sewing machine and health and safety awareness</li> <li>● Joining techniques and use of quality assurance</li> <li>● Evaluate existing products on the market to identify strengths and weaknesses</li> </ul>		<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>● Designing on 2D design within a specified template</li> <li>● Introduction to ACCESS FM to analyse an existing clock</li> <li>● Complete a specification adding desirable criteria, after being given essential criteria</li> <li>● Environmental issues when designing with plastic</li> <li>● Sustainability - 6R's</li> <li>● Assemble the clock from component parts</li> <li>● Evaluate against specification. Give possible improvements.</li> </ul>		<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>● Pupils will deepen their knowledge and understanding of food and nutrition.</li> <li>● Pupils will deepen their knowledge of food provenance.</li> <li>● Develop food skills and techniques.</li> <li>● Pupils will further develop and demonstrate the principles of food hygiene and safety.</li> <li>● Pupils will deepen and apply their knowledge of consumer food and drink choice.</li> <li>● Pupils will develop the creative, technical and practical expertise needed to perform everyday tasks confidently.</li> <li>● Pupils will build and apply a repertoire of knowledge, understanding and skills in order to create and make recipes and dishes for a wide range of people.</li> <li>● Pupils will evaluate and test their ideas and the work of others.</li> </ul>	

<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>● Designing</li> <li>● Making</li> <li>● Evaluate</li> <li>● Technical knowledge</li> </ul>	<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>● Designing</li> <li>● Making</li> <li>● Evaluate</li> <li>● Technical knowledge</li> </ul>	<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>● Designing</li> <li>● Making</li> <li>● Evaluate</li> <li>● Technical knowledge</li> </ul>	<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>● Healthy eating</li> <li>● Cooking</li> <li>● H&amp;S</li> <li>● Where food comes from</li> </ul>
<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● Safety in the workshop</li> <li>● K&amp;U of techniques on joining materials</li> </ul>	<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● Fabric construction: woven fabrics</li> <li>● Use of sewing machine</li> </ul>	<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● How to use 2D design</li> <li>● knowledge of metals as a material</li> <li>● using a specification to evaluate a product</li> </ul>	<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● How to cook using various cooking skills</li> <li>● Using a recipe</li> <li>● Use of food commodities</li> <li>● Knowledge of Food and Nutrition</li> </ul>
<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● End of unit assessment</li> <li>● Finished product/quality of finishing</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● Research and explore the art work of Sarah Graham</li> <li>● Identifying user needs</li> <li>● Carrying out resist method and applique</li> <li>● Evaluate textile product against competitors on the market</li> <li>● Production methods</li> <li>● Prototypes of models</li> <li>● Quality control</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● Introduce ACCESS FM using a writing frame structure to generate a specification</li> <li>● CAD – develop a more complex design using 2D design</li> <li>● Select specialist tools, techniques and processes to make in acrylic</li> <li>● H&amp;S in the workshop reinforced and developed in relation to the tools/equipment/machines being used to make the clock</li> <li>● Properties of acrylic (plastic) and how they affect performance of a product</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● H&amp;S in the food room revisited and developed in relation to the tools and equipment being used</li> <li>● Be able to justify choice of dishes in relation to the needs of the person it was made for</li> <li>● Provenance of the foods used will be understood</li> </ul>

**Year 9 D&T**

		Project 2		Project 3		Food Technology	
Unit Title Sweet Dispenser Mechanisms 16 lessons	Unit Title: Textiles Keyring /British Designers and components	Unit length: 7 lessons	Unit Title: Light Project	Unit length: 16 Lessons	Unit Title: Cooking Independently - Making Choices Practical and Theory	Unit length:	
<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>Know a range of timbers and properties</li> <li>Understand the use of forces and mechanisms.</li> <li>Be able to read and follow a range of technical drawings.</li> <li>Follow workshop health and safety policy</li> <li>Accurately mark out material</li> <li>Safely use hand and machines skills</li> </ul>	<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>Develop an awareness of British designers and their styles</li> <li>Combining different materials and components(electronics)</li> <li>Surface decoration techniques for fabrics</li> </ul>	<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>Adapt given design for CAD/ CAM</li> <li>research different materials that could be used for light</li> <li>H&amp;S</li> <li>Electronics to be used n the light</li> <li>Construction techniques for wood and paperboard</li> <li>Write specification for light</li> <li>evaluate against specification</li> </ul>	<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>Understanding and the importance of looking after yourself and making the correct food choices.</li> <li>To learn how to be independent and to build a positive relationship with food realising the benefits of it to one's physical and mental well being.</li> <li>To demonstrate knife skills, understand healthy eating guidelines and nutrients needed in the body.</li> <li>Cook dishes that can be cooked with/for the family.</li> <li>Sensory Analysis and reflection</li> <li>Cooking with a range of food commodities</li> <li>Shopping independently</li> <li>Homemade vs Takeaway</li> </ul>				
<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>Design</li> <li>Making</li> <li>Technical knowledge</li> <li>Evaluate</li> </ul>	<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>Design</li> <li>Making</li> <li>Technical knowledge</li> <li>Evaluate</li> </ul>	<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>Design</li> <li>Making</li> <li>Technical knowledge</li> <li>Evaluate</li> </ul>	<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>Healthy eating</li> <li>Cooking</li> <li>H&amp;S</li> <li>Food commodities</li> </ul>				

<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● Safe use of tools and machinery</li> <li>● Properties of timber and manufactured boards</li> </ul>	<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● Knowledge of surface decoration and embellishment techniques</li> <li>● Use of the sewing machine and health and safety awareness</li> </ul>	<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● H&amp;S in the workshop</li> <li>● Using CAD/CAM and 2D design specifications and their role in designing and making</li> <li>● how to evaluate a product against the specification and suggest developments / improvements</li> </ul>	<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● Range of cooking skills.</li> <li>● Being able to cook, safely and hygienically</li> <li>● Knowledge of Nutrition and food provenance</li> <li>● Knowledge of Dietary needs</li> </ul>
<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● End of unit test on mechanisms and levers</li> <li>● Finished product</li> <li>● Effectiveness of the mechanism.</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● Quality of finished keyring</li> <li>● Be able to identify key features of British designers</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● Use primary and secondary research of types of lights – analysis of research</li> <li>● Commercial processes</li> <li>● Write a specification using ACCESSFM process</li> <li>● Use 2D design to generate design for paper shade</li> <li>● Use of Artists work to influence design ideas</li> <li>● Repeat patterns created using CAD</li> <li>● Select specialist tools, techniques and processes to make in wood, paper that incorporates LEDs</li> <li>● Finite and non-finite material</li> <li>● Properties of wood, paper and board</li> <li>WEEE</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● Practical assessments</li> <li>● Dishes made and techniques demonstrated</li> <li>● Justification of choice of dishes given</li> <li>● The use of a range of different food commodities in the recipe</li> <li>● Use appropriate sensory testing method to evaluate the dishes</li> </ul>

**Year 10 / Engineering**

[Cambridge Nationals - Engineering Design Level 1/2 – J822 - OCR](#)

[I Want to Study Engineering](#)

Autumn Term		Spring Term		Summer Term	
Unit Title: R038 + R039	Unit length:	Unit Title: R038 + R039	Unit length:	Unit Title: R038 + R039	Unit length:
<b>Domains of Knowledge:</b> <ul style="list-style-type: none"> <li>● <b>R038:</b> Designing processes; stages and strategies, cyclic approach</li> <li>● <b>R038:</b> Sketching and drawing, CAD</li> <li>● <b>R039:</b> Sketching design ideas activity</li> </ul>		<b>R038:</b> Sketching and drawing, CAD  <b>R039:</b> Drawing design ideas activity  <b>R039:</b> NEA Assessment (working on)		<b>R038:</b> Sketching and drawing, CAD  <b>R039:</b> Producing CAD models activity  <b>R039:</b> NEA Assessment (working on)	
<b>Key Concepts:</b> <ul style="list-style-type: none"> <li>● The iterative design process, including use of analysis tools</li> <li>● Design evaluation techniques</li> <li>● Practical design and product analysis activities</li> </ul>		<b>Key Concepts:</b> <ul style="list-style-type: none"> <li>● The principles of sketching and drawing</li> <li>● Computer Aided Design (CAD) in the drawing process</li> <li>● Modelling of designs includes both virtual and physical prototyping.</li> <li>● Analysing a provided design specification,</li> <li>● Be able to record effectively the making process</li> </ul>		<b>Key Concepts:</b> <ul style="list-style-type: none"> <li>● Modelling of designs includes both virtual and physical prototyping.</li> <li>● Analysing a provided design specification,</li> <li>● Generating design ideas through sketching and communicating final design proposals using engineering drawings and CAD models.</li> <li>● Product evaluation using primary and secondary research techniques, and</li> </ul>	

	<ul style="list-style-type: none"> <li>● Reflect on how to compare their prototype against the original design specification,</li> <li>● Make suggestions for improvements.</li> </ul>	<p>through safe practical product disassembly,</p> <ul style="list-style-type: none"> <li>● How to use parts of the iterative design process effectively.</li> <li>● Investigate how manufacturing considerations are an important factor in the design process,</li> <li>● Summarise and present their findings effectively.</li> </ul>
<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● Mass, batch and one off production</li> <li>● Lean manufacturing and JIT production</li> <li>● Vacuum forming, laser cutting and injection moulding</li> <li>● Identify tools and equipment and know what their purpose is</li> <li>● Properties of materials</li> <li>● Purpose of the disassembly process</li> <li>● ACCESS FM and 6 R's</li> </ul>	<p>Gateway Knowledge:</p> <ul style="list-style-type: none"> <li>● The Design Cycle</li> <li>● Design testing &amp; error proofing</li> <li>● New &amp; emerging technologies</li> <li>● Market force</li> <li>● Using CAD as a design tool</li> <li>● Evaluating design and products against a design specification</li> </ul>	<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● Knowledge of CAD drawing packages</li> <li>● Experience of using 2d Design</li> <li>● Why CAD/CAM is used in Engineering</li> <li>● Primary and secondary research</li> <li>● Understanding of a design specification</li> </ul>
<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● Perform effective product analysis. Research existing solutions and assess the development of engineered products.</li> <li>● Develop dextrous skills and gain practical experience of product assembly and disassembly to appreciate manufacturing processes, design features and materials used.</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● An understanding of the requirements of design specifications for the development of products.</li> <li>● Understand the overall design process through study of the design cycle and existing products through product analysis</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● R039 NEA assessment submitted</li> <li>● Mock exam for R038</li> </ul>

**Year 11 Engineering**

[Cambridge Nationals - Engineering Design Level 1/2 Award/Certificate - J831, J841 - OCR](#)

[I Want to Study Engineering](#)

Autumn Term		Spring Term		Summer Term	
<ul style="list-style-type: none"> <li>Unit Title: R108</li> </ul>	<ul style="list-style-type: none"> <li>Unit length:</li> </ul>	<ul style="list-style-type: none"> <li>Unit Title: R108</li> </ul>	<ul style="list-style-type: none"> <li>Unit length:</li> </ul>	<ul style="list-style-type: none"> <li>Unit Title: R105</li> </ul>	<ul style="list-style-type: none"> <li>Unit length:</li> </ul>
<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>Health and safety in the workshop</li> <li>Specification</li> <li>Plan of manufacture and plan of making</li> </ul>		<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>Selection of appropriate materials</li> <li>Wasting, deforming, finishing, commercial and addition processes.</li> <li>Marking out</li> <li>Use of tools &amp; processes including CAD/CAM</li> </ul>		<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>New technologies</li> <li>Life Cycle Analysis</li> <li>Sustainable Design</li> </ul>	
<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>Assessing Hazards/PPE</li> <li>Risk assessments</li> <li>Planning/Gantt chart</li> <li>Interpretation of a product specification</li> </ul>		<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>Key considerations when making a prototype</li> <li>Production of a prototype</li> </ul>		<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>Design brief, specification and user needs</li> </ul>	
<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>Avoiding design fixation</li> <li>Knowledge and ability to use CAD/CAM to generate designs and prototypes</li> </ul>		<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>Prior knowledge of using tools and equipment</li> <li>materials and their properties .</li> <li>ACCESS FM</li> </ul>		<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>Robotics &amp; Nano Technology</li> <li>Environmental issues/Ethics</li> <li>Inclusive Design</li> </ul>	

<ul style="list-style-type: none"> <li>Consider aesthetics, innovation and responding to feedback</li> </ul>	<ul style="list-style-type: none"> <li>Making and manufacturing plans</li> <li>Production techniques and systems</li> </ul>	<ul style="list-style-type: none"> <li>Carbon Footprint</li> </ul>
<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>Can produce a range of working drawings that demonstrate different drawing techniques.</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>Practical skills to produce a prototype product or model using craft-based modelling materials.</li> <li>Computer-controlled &amp; rapid-prototyping processes.</li> <li>Evaluating the prototype, making a comparison of the outcome against the product specification and will also evaluate potential improvements.</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>Unit exam</li> </ul>

<b>Year 10 Construction</b> <a href="#">Construction Specification 2022 onwards</a>					
Autumn Term		Spring Term		Summer Term	
Unit Title: Unit 1 + Unit 3	Unit length:	Unit Title: Unit 1 and Unit 3	Unit length:	Unit Title: Unit 1 + Uni 3	Unit length:
<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>Introduction to the construction sector</li> <li>The Built Environment life cycle</li> <li>Skills development relevant to carpentry</li> </ul>		<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>Types of building and structure</li> <li>Technologies and materials</li> <li>Skills development relevant to electrical</li> </ul>		<p>Domains of Knowledge:</p> <ul style="list-style-type: none"> <li>Building structures and forms</li> <li>Sustainable construction methods</li> <li>Skills development relevant to brick laying</li> </ul>	
<p>Relevant Key Concepts:</p> <ul style="list-style-type: none"> <li>Introduction to the construction sector - Introducing: Buildings and Structures and</li> </ul>		<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>Practical skills</li> <li>Report writing</li> </ul>		<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>Technologies and materials:</li> </ul>	

<p>Infrastructure and civil engineering products</p> <ul style="list-style-type: none"> <li>● Introduction to the construction sector - Introducing: Building services engineering and Professional and managerial roles</li> <li>● The Built Environment life cycle: <ul style="list-style-type: none"> <li>● Raw material extraction</li> <li>● Manufacturing</li> <li>● Construction</li> </ul> </li> <li>● Practical learning activities to cover areas of content for carpentry</li> </ul>	<ul style="list-style-type: none"> <li>● Types of building and structure: <ul style="list-style-type: none"> <li>● Different forms of infrastructure construction</li> </ul> </li> <li>● Types of building and structure: <ul style="list-style-type: none"> <li>● Different forms of low-rise buildings</li> </ul> </li> <li>● Technologies and materials: <ul style="list-style-type: none"> <li>● Main elements and components of low-rise buildings</li> </ul> </li> <li>● Main materials involved in constructing walls and installing building services</li> <li>● Skills development relevant to electrical</li> </ul>	<ul style="list-style-type: none"> <li>● Main materials involved in fitting roofs and finishing interiors</li> <li>● Renewable technologies and materials <ul style="list-style-type: none"> <li>● Technologies and materials: <ul style="list-style-type: none"> <li>● Main materials involved in fitting roofs and finishing interiors</li> <li>● Renewable technologies and materials</li> </ul> </li> </ul> </li> <li>● Sustainable construction methods: <ul style="list-style-type: none"> <li>● The benefits of sustainable construction</li> <li>● Pollution and the preservation of the natural environment</li> <li>● Sustainable materials used to create building frames, walls and roofs</li> </ul> </li> <li>● Skills development relevant to brick laying</li> </ul>
<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● Names and uses of tools</li> <li>● H&amp;S practices in the workshop</li> <li>● Knowledge of materials, joints and fixings related to construction in wood</li> </ul>	<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● understanding of PPE related to different trades</li> <li>● General H&amp;S practices in the workshop</li> <li>● basic knowledge of electrical appliances</li> <li>● Writing styles - report writing</li> </ul>	<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● General H&amp;S in the workshop</li> <li>● Different trades working together within the same workplace</li> </ul>
<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● Mock examination of unit 1 content covered to date.</li> <li>● Apply techniques in completion of carpentry tasks.</li> <li>● Apply health and safety practices in completion of carpentry tasks.</li> <li>● Evaluate quality of carpentry tasks</li> <li>● Assessed carpentry practical</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● Mock examination of unit 1 content covered to date.</li> <li>● Apply techniques in completion of electrical tasks.</li> <li>● Apply health and safety practices in completion of electrical tasks.</li> <li>● Evaluate quality of electrical tasks</li> <li>● Assessed electrical practical</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● Mock examination of all unit 1 content.</li> <li>● Apply techniques in completion of brick laying tasks.</li> <li>● Apply health and safety practices in completion of brick laying tasks.</li> <li>● Evaluate quality of brick laying tasks</li> <li>● Assessed brick laying practical</li> </ul>

Autumn Term		Spring Term		Summer Term	
Unit Title: Unit 3	Unit length:	Unit Title: Unit 3	Unit length:	Unit Title: Unit 1	Unit length:
Domains of Knowledge: <ul style="list-style-type: none"> <li>● Planning and costing of a project</li> <li>● Job personal</li> <li>● Tools and materials</li> <li>● Bricklaying skills</li> </ul>		Domains of Knowledge: <ul style="list-style-type: none"> <li>● Health and safety when bricklaying</li> <li>● PPE</li> <li>● Bricklaying techniques</li> <li>● Working as a team - different roles</li> </ul>		Domains of Knowledge: <ul style="list-style-type: none"> <li>● H&amp;S signs</li> <li>● Site security</li> <li>● Fire safety</li> <li>● Working at height</li> <li>● Work of others</li> </ul>	
Relevant Key Concepts: Planning a building project		Key Concepts: <ul style="list-style-type: none"> <li>● Planning a building project - practical aspect</li> </ul>		Key Concepts: <ul style="list-style-type: none"> <li>● Health and safety in the workplace revision</li> </ul>	
Gateway knowledge: <ul style="list-style-type: none"> <li>● Maths - number and geometry</li> <li>● Knowledge of material and tools and equipment</li> </ul>		Gateway knowledge: <ul style="list-style-type: none"> <li>● Bricklaying skills and techniques</li> <li>● Understanding of the material</li> <li>● H&amp;S including PPE</li> <li>● Roles</li> </ul>		Gateway knowledge: <ul style="list-style-type: none"> <li>● General H&amp;S in the workshop</li> <li>● Different trades working together within the same workplace</li> </ul>	
Assessment end-points: <ul style="list-style-type: none"> <li>● Understand job roles involved in realising construction and built environment projects.</li> <li>● Describe activities of those involved in construction projects. Describe responsibilities of those involved in construction projects.</li> <li>● Describe outputs of those involved in realising construction projects Understand how built environment development projects are realised. Describe processes used in built environment development projects.</li> <li>● Calculate resources to meet requirements for built environment development projects. Assess potential effect of factors on project</li> </ul>		Assessment end-points: <ul style="list-style-type: none"> <li>● Completed BBQ and</li> <li>● Unit exam - on- line planning task</li> </ul>		Assessment end-points: <ul style="list-style-type: none"> <li>● Students will understand how to minimise risks to health and safety, explain existing health and safety control measures in different situations.</li> <li>● Students will be able to recommend health and safety control measures in different situations and know how risks to security are minimised in construction.</li> <li>● Students will identify risks to security in construction in different situations and describe measures used in construction to minimise risk to security.</li> </ul>	

success Interpret sources of information.

**Year 10 Hospitality & Catering**  
[Hospitality & Catering Specification 2022 onwards](#)

Autumn Term			Spring Term		Summer Term	
Unit Title: 1 and 2		Unit length: 12 weeks	Unit Title: 2	Unit length: 12 weeks	Unit Title: 1 and 2	Unit length: 12 weeks
<p>Domains of Knowledge:</p> <p>Unit 1</p> <ul style="list-style-type: none"> <li>1.3.2 HACCAP forms</li> <li>1.4.1 Food related ill health:</li> <li>Food labelling laws</li> <li>Food safety legislation</li> <li>Food hygiene.</li> <li>Practical:</li> </ul> <p>Unit 2</p> <ul style="list-style-type: none"> <li>2.3.1 How to prepare and make dishes: prepare techniques/knives skills/cooking techniques</li> <li>2.3.3 Food safety Practices</li> <li>2.1.1 Understanding the importance of nutrition</li> <li>2.1.2 How cooking methods can impact on nutritional value</li> </ul>			<p>Domains of Knowledge:</p> <p>Theory:</p> <p>Unit 1</p> <ul style="list-style-type: none"> <li>1.4.2 Symptoms and signs of food-induced ill health</li> <li>1.4.1 Food related causes of ill health</li> <li>1.4.3 Preventative control measures of food-induced ill health</li> </ul> <p>Unit 2</p> <ul style="list-style-type: none"> <li>2.2.1 Factors affecting menu planning</li> <li>2.2.2 How to plan production</li> <li>2.3.2 Presentation techniques</li> <li>2.3.3 Food Safety practices</li> <li>1.2.3 Hospitality and catering provision to meet specific requirements</li> </ul> <p>Practical:</p> <ul style="list-style-type: none"> <li>2.3.1 how to prepare and make dishes: prepare techniques/knives skills/cooking techniques</li> <li>Building preparation and cooking skills and learning through practice covering elements from 1.4.1 and 1.4.3</li> </ul>		<p>Domains of Knowledge:</p> <p>Theory:</p> <p>Unit 1</p> <ul style="list-style-type: none"> <li>1.3.1 Health and safety in hospitality and catering provision.</li> <li>2.3.3 Food safety practices</li> </ul> <p>Practical:</p> <ul style="list-style-type: none"> <li>2.3.1 How to prepare and make dishes</li> <li>2.3.2 Presentation techniques</li> <li>2.3.3 Food safety practices</li> <li>2.4.1 Reviewing of dishes</li> <li>2.4.2 Reviewing own performance</li> </ul> <ul style="list-style-type: none"> <li>Building Preparation and cooking skills and learning through practice covering elements from 1.4.1 and 1.4.3</li> </ul>	

<p>Relevant Key Concepts:  Food safety in relation to the catering industry  Practical cooking skills and techniques  How cooking methods affect the nutritional value of foods</p>	<p>Relevant Key Concepts:  Food poisoning - symptoms, signs and prevention  Menu planning in the catering industry  Developing practical cooking skills</p>	<p>Relevant Key Concepts:  Food safety practices in the food industry  Evaluating dishes made  Presentation skills of food</p>
<p>Gateway knowledge:  Practical skills develop in Y7-Y9, basic knowledge of food safety and nutrition</p>	<p>Gateway knowledge:  Understanding of food safety and legislation from Term 1  Practical skills and process experienced in Term 1</p>	<p>Gateway knowledge:  Food poisoning  Menu planning and planning to meet different dietary needs  Practical skills and process experienced in Term 1 and 2</p>
<p>Assessment end-points:  Mini written assessment on Food labelling, Food safety legislation and filling in a HACCP document</p>	<p>Assessment end-points:  Mock controlled assessment task on 2.1.1/2.1.2</p>	<p>Assessment end-points:  SAMs mock Controlled Assessment Task</p>

## Year 11 Hospitality & Catering

### [Hospitality & Catering Specification to finish 2023](#)

Autumn Term		Spring Term		Summer Term	
Unit Title: 1 and 2	Unit length:	Unit Title: 1 and 2	Unit length:	Unit Title: 1 and 2	Unit length:
<p>Domains of Knowledge:</p> <p>Unit 1</p> <ul style="list-style-type: none"> <li>LO1: Understand the environment in which hospitality and catering providers operate.</li> <li>LO2: Understand how Hospitality and catering providers operate.</li> <li>LO3: Understand how Hospitality and catering provision meets health and safety requirements.</li> <li>LO5 Be able to propose a hospitality and catering provision to meet specific requirements.</li> </ul> <p>Unit 2</p> <ul style="list-style-type: none"> <li>LO3: Be able to cook dishes</li> </ul>		<p>Domains of Knowledge:</p> <p>Unit 1</p> <ul style="list-style-type: none"> <li>Written exam preparation and revision</li> </ul> <p>Unit 2</p> <ul style="list-style-type: none"> <li>Internal practical assessment</li> </ul>		<p>Domains of Knowledge:</p> <p>Unit 1</p> <ul style="list-style-type: none"> <li>Written exam preparation and revision</li> </ul> <p>Unit 2</p> <ul style="list-style-type: none"> <li>Internal practical assessment</li> </ul>	
<p>Relevant Key Concepts:</p> <ul style="list-style-type: none"> <li>Theory</li> <li>Make</li> </ul>		<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>Theory</li> <li>Make</li> </ul>		<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>Theory</li> <li>Make</li> </ul>	
<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>Knowledge and understanding of the hospitality and catering industry.</li> <li>To be able to propose new hospitality and catering provision to meet specific needs, something which is a requirement for the unit 1 external exam.</li> </ul>		<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>This term will be used to further develop practical skills, finish any content not covered and complete the internal assessments for the course.</li> </ul>		<p>Gateway knowledge:</p> <p>This term will be used to further develop practical skills, finish any content not covered and complete the internal assessments for the course.</p>	
<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>Unit 1 external exam</li> </ul>		<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>Unit 2 Internal practical assessment</li> </ul>		<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>Practical assessment of dishes</li> </ul>	

**Year 12 Design & Technology**  
**A-level | Design and Technology: Product Design**

Autumn Term		Spring Term		Summer Term	
Unit Title: 1 and 2	Unit length:	Unit Title: 1 and 2	Unit length:	Unit Title: 1 and 2	Unit length:
Domains of Knowledge: <ul style="list-style-type: none"> <li>● technology and cultural changes</li> <li>● Testing</li> </ul> <b>Paperboard, polymers and wood</b> <ul style="list-style-type: none"> <li>● Materials and their applications</li> <li>● Classification of materials</li> <li>● Methods for investigating and testing materials</li> <li>● Performance characteristics of materials</li> <li>● Modern industrial and commercial practice</li> <li>● The requirements of product design and development</li> <li>● Health and Safety</li> <li>● Design communication</li> </ul>		Domains of knowledge <b>Metals, SMART materials, new materials</b> <ul style="list-style-type: none"> <li>● Materials and their applications</li> <li>● Classification of materials</li> <li>● Methods for investigating and testing materials</li> <li>● Performance characteristics of materials</li> <li>● Modern industrial and commercial practice</li> <li>● The requirements of product design and development</li> <li>● Social, moral and ethical issues</li> <li>● Disassembly</li> </ul>		Domains of Knowledge: <ul style="list-style-type: none"> <li>● Enhancement of materials</li> <li>● Iterative design process</li> <li>● Design theory</li> <li>● Technology and cultural changes</li> <li>● The use of finishes</li> <li>● Product lifecycle</li> <li>● Testing</li> <li>● Selecting appropriate tools, equipment and processes</li> <li>● Planning</li> <li>● International standards</li> <li>● Inclusive design</li> <li>● Protecting designs and intellectual property</li> </ul>	
Relevant Key Concepts: Linked to highlighted materials <ul style="list-style-type: none"> <li>● Technical principles</li> <li>● Designing and making principles</li> </ul>		Relevant Key Concepts: Linked to highlighted materials <ul style="list-style-type: none"> <li>● Technical principles</li> <li>● Designing and making principles</li> </ul>		Relevant Key Concepts: <ul style="list-style-type: none"> <li>● Technical principles</li> <li>● Designing and making principles</li> </ul>	
Gateway knowledge: <ul style="list-style-type: none"> <li>● Develop and deepen Knowledge and understanding of the different materials</li> </ul>		Gateway knowledge: <ul style="list-style-type: none"> <li>● Develop and deepen Knowledge and understanding of the different materials</li> </ul>		Gateway knowledge: Building on prior KS4 knowledge to develop and deepen knowledge and understanding of the remaining domains of knowledge through	

<ul style="list-style-type: none"> <li>To be able to apply the key concepts when making relevant products</li> </ul>	<ul style="list-style-type: none"> <li>To be able to apply the key concepts when making relevant products</li> </ul>	<p>a range of practical learning activities and case studies</p> <p>To be able to apply the key concepts when making relevant products</p>
<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>Selected exam questions from Paper 1</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>Mock exam - Combined Paper 1 and Paper 2 questions</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>Mock exam Paper 1 and Paper 2</li> </ul>

<b>Year 13 Design &amp; Technology</b> <a href="#">A-level   Design and Technology: Product Design</a>					
Autumn Term		Spring Term		Summer Term	
Unit Title: 1 and 2 NEA	Unit length:	Unit Title: 1 and 2 NEA	Unit length:	Unit Title: 1 and 2 Exam preparation	Unit length:
<p>Domains of Knowledge: Delivered through the NEA along with the specific domain of knowledge needed from Y12 that is relevant to the focus on the students NEA</p> <ul style="list-style-type: none"> <li>Design for manufacture, maintenance and disposal</li> <li>Ease of manufacture</li> <li>The use of computer systems (CAD/CAM)</li> <li>Enterprise and marketing</li> <li>Rapid prototyping</li> <li>Forming and redistribution processes</li> <li>Selecting appropriate tools, equipment and processes</li> <li>QA /QC</li> <li>Prototype development</li> <li>The use of the design process</li> <li>Critical analysis and evaluation</li> <li></li> </ul>		<p>Domains of Knowledge: Delivered through the NEA along with the specific domain of knowledge needed from Y12 that is relevant to the focus on the students NEA</p> <ul style="list-style-type: none"> <li>Design for manufacture, maintenance and disposal</li> <li>Ease of manufacture</li> <li>The use of computer systems (CAD/CAM)</li> <li>Enterprise and marketing</li> <li>Rapid prototyping</li> <li>Forming and redistribution processes</li> <li>Selecting appropriate tools, equipment and processes</li> <li>QA /QC</li> <li>Prototype development</li> <li>The use of the design process</li> <li>Critical analysis and evaluation</li> </ul>		<p>Domains of Knowledge: Applying the domains of knowledge covered in Y12 and in the NEA to a range of revision activities.</p> <p>Bespoke support and focus in answering exam questions based on analysis of mock exam performances and previous exam board reports.</p>	

<p>Relevant Key Concepts:</p> <ul style="list-style-type: none"> <li>● Applying the Technical and Designing and making principles to the focus of the chosen NEA</li> </ul>	<p>Key Concepts:</p> <ul style="list-style-type: none"> <li>● Applying the Technical and Designing and making principles to the focus of the chosen NEA</li> </ul>	<p>Key concepts</p> <ul style="list-style-type: none"> <li>● Applying the Technical and Designing and making principles to exam questions</li> <li>● Understanding of command words of the exam paper</li> </ul>
<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● Technical and designing and making principles learned in Y12</li> </ul>	<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● Technical and designing and making principles learned in Y12</li> </ul>	<p>Gateway knowledge:</p> <ul style="list-style-type: none"> <li>● Technical and designing and making principles learned in Y12 and Y13 through the NEA</li> </ul>
<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● Mock exam Paper 1 and Paper 2</li> </ul>	<p>Assessment end-points:</p> <ul style="list-style-type: none"> <li>● NEA assessment</li> </ul>	<p>Assessment end-points:</p> <p>A level examination papers:  Paper 1 Technical Principles  Paper 2 Designing and making principles</p>