Intent

The experiences of Year 7 provide an excellent foundation for students to build and further develop their subject knowledge, skills and understanding of each subject discipline. Students will consolidate the core skills of each subject and investigate different materials, ingredients, processes, equipment, tools, and machinery including computer aided design (CAD) and computer aided manufacture (CAM) to create products or dishes that demonstrate the sequencing of skills and manufacturing processes through a range of contexts. Students will develop confidence to create, solve problems and make decisions and judgments based on their developing knowledge and understanding of each subject area.

Design & Technology Year 8

The curriculum is organised on a rotational basis, with all students completing four areas of study per year (approximately 10 weeks) of Product Design (multi materials), Product Design (resistant materials), Textiles & Food & Nutrition

	Product Design – Multi Materials	Product Design – Resistant Materials	Textiles	Food & Nutrition
Knowledge (facts, information, concepts and key terminology)	• Ergonomics and usability. • Material properties and uses (aluminium, acrylic). • Engineering and product design manufacturing processes. • Reinforce the iterative design process. • Revision of health and safety.	• Designing to meet the needs of a specific user or audience. • Health and safety in an engineering/product design workshop • Manufacturing processes including CAD/CAM • Working properties of various materials. • Dimensions and tolerance. • Wood joints and joining methods.	• Reinforce the iterative design process. • Investigating the work of other designers. • Use research analysis to focus design ideas for a specified user. • Revision of health and safety. • Fairtrade organic cotton, its properties and its importance in society and its affects globally. • Textiles manufacturing processes.	• Reinforce hygiene and safety rules and procedures. • Analyse a given task/brief. • Know different research methods used to investigate a topic/theme. • Tools used to calculate/assess health – BMI. • Choosing an appropriate recipe. • Function of ingredients – Bread. • Conducting a sensory analysis. • Making a time plan/production plan.
Understanding (ability to connect and synthesise knowledge within a context)	• Use specialist tools and equipment to manufacture products. • How to respond to a design context & brief through focused analysis. • Generating ideas that consider research analysis and the needs of an identified user. • Evaluate work as it develops to ensure their product meets the requirements of the context/user.	• How designers analyse information in response to a design context or brief. • Use specialist product design tools and equipment to manufacture products. • Evaluate their work as it develops to meets the requirements of the design brief and user. • Increase independence through following demonstrations and instructions.	• How to respond to a design context & brief through focused analysis. • Generating ideas that consider research analysis and the needs of an identified user. • Use specialist tools and equipment to manufacture products. • Evaluate work as it develops to ensure their product meets the requirements of the context/user.	• How to analyse a design brief and identify key areas for research. • Use of secondary research (internet) to develop appropriate dishes that meet the demands of the task. • Selecting recipes and plan the making of them including presentation and adhering to correct safety rules/procedures. • Evaluate work as it develops and adapt as necessary.
Skills (successful application of knowledge and understanding to a specific task)	• Analysing information related to the context, design brief and research. • Use analysis to influence idea generation. • Making products using specialist engineering and product design processes (shaping, forming, turning, riveting, finishing). • Evaluate ideas and practical work as it develops and review the success & areas for improvement.	• Analysing information related to the context or design brief. • Generating ideas suitable for an intended user or audience. • Be able to match the correct tool/machine/process to the material with accuracy. • Correct use of subject specific tools and machinery to sand, cut, shape, drill, join, finish. • Applying knowledge of materials to shaping processes.	• Analysing information related to the context, design brief and research. • Use analysis to influence idea generation. • Applying knowledge of materials to manufacture products using specialist textile processes to hand & machine sew, cut, shape, join and decorate (tie dye, applique) materials. • Evaluate ideas and practical work as it develops and review the success & areas for improvement.	• Analysing information related to a design brief. • Selecting concise and relevant research materials and using the information to create an appropriate product. • Creating and following a time plan/ method of making, independently. • Making products using specialist food equipment and techniques (bride and claw, weighing and measuring, presentation) • Conducting sensory analysis and using it to evaluate dishes identifying areas for improvement.
Formal Assessments (those done by all/vast majority of the cohort)	Assessment will take place at the end of each rotation to evaluate students' performance on the effectiveness of their outcome in relation to the complexity of the design (if relevant), accuracy of manufacturing or cooking, finishing and presentation methods and suitability for the audience/ user or purpose.			

By the end of the year students on course for at least a grade 5 in Design & Technology will…

- Respond to a context to formulate and develop ideas using appropriate research to identify a user or a specific need or requirement. This information is analysed and presented using a variety of media (methods include drawing and CAD) to communicate decisions, naming the ingredients and their functions, material and their properties and or qualities which make them suitable for a dish or product. All information is explained and justified.
- Subject specific manufacturing processes are used to make products or dishes to a good standard which demonstrate some precision and quality which are suitable for a user wants or needs or intended purpose.
- All decisions made in the design or making stages have been evaluated and justified and improvements or modifications considered.