KS4 Curriculum Map - Design Technology

10	Design Technology	Computer Science	Hospitality and Catering	Engineering
AUTUMN 1	**Design Ventura Project (Live Brief)** ● Client profiling - needs and wants. ● Designing and modelling. ● Design development and modification. ● Teamwork and communication.	**Component 1 Theory** ● Systems Architecture. ● Memory and Storage. ● End of Unit test(s).	**Unit 1 theory** ● Hospitality and catering provision to meet specific requirements ● Customer requirements in hospitality and catering ● Front and back of house operation ● Practical skills throughout year	**R040 - Practice NEA** Design, Evaluation and Model Making (Part 1) ● What is Design Brief, Specification and Product Analysis? ● Product Analysis using ACCESSFM ● What are Primary and Secondary Research techniques? ● Questionnaires & presenting Data ● Different types of Ranking Matrices including quality function deployment ● Product Disassembly ● Manufacturing Techniques & Production Methods ● CAD using OnShape ● Mini Test
AUTUMN 2	**Letterbox Challenge** ● Research designers needed for theory. ● Design and make a product for design enthusiasts on a chosen designer from the syllabus. ● CAD/CAM - laser cutter/3D printing. ● Material Focus - Papers & Boards.	**Component 1 Theory** ● Computer Networks, Connections and Protocols ● Network Security ● End of Unit test(s).	**Unit 1 theory** ● Working in the hospitality and catering industry ● Menu planning ● Time plans for practical cooks ● Planning, preparing and serving afternoon tea assessment ● Practical skills throughout year	**R040 - Practice NEA** Design, Evaluation and Model Making (Part 2) ● CAD continued ● Physical modelling ● Production planning ● Prototype Production ● Evaluation of Prototype. ● Mini Test
SRIN	**Stool Project (1)** ● Design and make a stool based on ergonomic data collected from an external	**Component 1 Theory** ● Systems Software ● Ethical, Legal, Cultural and Environmental Impacts of	**Unit 2 theory, mock assessment** ● Contributing factors to the success of hospitality and catering provision	**R040 - NEA** Design, Evaluation and Model Making (Part 1)

G **1**	source. ● Ergonomics/anthropometrics. ● Trial joints e.g. mortise and tenon, dowel joint etc. ● Feedback, evaluation and modelling.	Digital Technology.	● Health and safety in hospitality and catering provision ● Unit 2 mock introduction ● Practical skills throughout year	● This will follow the same format as above. ● This contributes to 30% of their final grade.
S **R** **I** **N** **G** **2**	**Stool Project (2)** ● Practical skills using prior knowledge. ● Construction of the stool based on feedback, data and materials. ● Material Focus - Timber, Polymers, Metal	**Component 2 Theory** ● Algorithms ● Producing Robust Programs	**Mock unit 2** ● Understanding the importance of nutrition ● Evaluating and reviewing dishes ● Practical skills throughout year	**R040 - NEA** Design, Evaluation and Model Making (Part 2) ● This will follow the same format as above. ● This contributes to 30% of their final grade ●
S **U** **M** **M** **E** **R** **1**	**Theory. Section A and C** **Completion of letterbox project as above** ● Research context including product analysis, design companies and the work of others. ● Client Profile/Needs ● Design Brief/Specification ● Design ideas/ development modelling. ● Theory as examples: planned obsolescence, scales of production, forces and design strategies. ● Design ideas ● 3d presentation drawing	**Component 2 Theory** ● Boolean Logic ● Programming Languages and Integrated Development Environments.	**Unit 2 theory** ● Food safety in hospitality and catering ● Food related illnesses ● Practical skills throughout year	**R039 - Practice NEA** Communicating Designs (Part 1) ● Manual production of freehand sketches ● Manual production of freehand sketches - design development. ● Mini test (Theory to be added)
S **U** **M** **M** **E** **R**	**NEA** ● Practical skills using prior knowledge of materials and developing finesse. ● CAD/CAM - Fusion 360/TinkerCAD 3D	**Component 1 & 2 Theory** ● Recap of specific units. ● Exam Practice.	**Unit 1 and 2** ● Rag rating and recap ● Practical skills assessment **Food Presentation** ● Different menu types.	**R039 - Practice NEA** ● Manual prediction of engineering drawings. ● CAD ● Mini test

2	Printing/Laser Cutter. ● Modifications based around client feedback. ● Evaluation further modifications. ● Year 10 Internal Exam		● Sensory analysis recap. ● Master Chef challenge. ● Presentation skills.	(Theory to be added)

11	**Design Technology**	**Computer Science**	**Food Preparation & Nutrition**	**Engineering**
AUTUMN 1	**Non-Examined Assessment (NEA) - Set by AQA Examination Board.** ● Investigation of the selected theme. ● Client identification ● Design Brief/Specification. ● Work of other designers ● Design Ideas/Development.	**Component 2 & Practical Programming Component** ● Programming Fundamentals. ● Programming tasks/challenges ● Python programming skills.	**Non-Examined Assessment (NEA 1) - Set by AQA Examination Board.**	**R039 - NEA** Communicating Designs (Part 1) ● This will follow the same format as above. ● This contributes to 30% of their final grade
AUTUMN 2	**Non-Examined Assessment (NEA) - Set by AQA Examination Board.** ● Design development. ● Modelling ● CAD/CAM ● Responding to client feedback. ● Manufacturing specification - cutting lists. ● 3rd Angle Orthographic.	**Practical Programming Component** ● Programming tasks/challenges ● Python programming skills.	**Non-Examined Assessment (NEA 1) - Set by AQA Examination Board.**	**R039 - NEA** Communicating Designs (Part 2) ● This will follow the same format as above. ● This contributes to 30% of their final grade
SRING	**Non-Examined Assessment (NEA) - Set by AQA Examination Board.** ● Final product make ● Responding to client feedback.	**Component 1 & 2 - Theory Revisit** ● Review of exam content. ● End of unit tests. ● Exam Questions	**Non-Examined Assessment (NEA 2) - Set by AQA Examination Board.**	**R038 - Examination** ● Revision and practice questions

1	● Modifications			
SRING 2	**Non-Examined Assessment (NEA) - Set by AQA Examination Board.** ● Evaluation ● Further modification. ● Revision based primarily on need from internal exams.	**Component 1 & 2 - Theory Revisit** ● Review of exam content. ● End of unit tests. ● Exam Questions	**Non-Examined Assessment (NEA 2) - Set by AQA Examination Board.**	**R038 - Examination** ● Revision and practice questions
SUMMER 1	**External Examination Revision** ● Section A - core technical principles. ● Section B - specialist technical principles. ● Section C - design and making principles.	**Component 1 & 2 - Theory Revisit** ● Review of exam content. ● End of unit tests. ● Exam Questions	**External Examination Revision** ● Food safety ● Food Science ● Food Choice ● Nutrition and Health	**R038 - Examination** ● Revision and practice questions
SUMMER 2		**Component 1 & 2** ● Exam	**External Examination Revision** ● Food safety ● Food Science ● Food Choice ● Nutrition and Health	