Sackville School GCSE Design and Technology Curriculum - Year 11

TERM	WHAT? (Is delivered?)	WHY? (Is this important?)	WHY NOW? (Why is this taught now?)	IMPACT? (What is the impact at the end of this half term?)	ASSESSMENT
Aut 1	Writing a Design specification based on their NEA research from the summer term. Designing products which will fulfil this specification using methods learnt in Y10. A thorough evaluation of each design is completed.	A culmination of their research so far allows for a clear but broad design focus Puts skills taught in Y10 into practice and recaps key techniques that may come upon the exam (drawing styles and user-centred design) Evaluation allows for a product more tightly aligned with the design brief opening up higher marks to a wider range of students	Requires students to refresh themselves of the work completed before the summer break and move forward into the design stage taking into account all major points from their research. Students need a clear idea of what they will be making before they move on to test key techniques. Using visual and written methods allows them to explore their ideas and communicate in a varied manner. Evaluating each design at this stage allows for more targeted testing and modelling - they can clearly see which ideas would be best to take forward and fulfil the design specification with	Students will be able to: ● Write a detailed Design Specification based on their research and justify each point with reference to their client's wants and needs or any other data gathered. ● Complete 8 - 16 different designs in a range of styles to fulfil their Design Specification. These should be varied in appearance and solve the 'problem' identified early on in the research phase.	Formal NEA Assessment criteria on Design Specification (AO1) and Product Design stages (AO2) NEA 20 Marks
Aut 2	Testing techniques and materials they could use in their product for suitability in the fulfilment of their Design Specification Creating a Manufacturer's Specification complete with cutting list with dimensions and materials, scale	Testing small elements of the product (such as joins, seams and materials) allows students to problem-solve and troubleshoot any issues before making their prototype product. Making small-scale models to test proportions and ideas in 3D. Manufacturers' Specification is a culmination of their testing and development and shows their final decisions clearly on 1 page. In industry, this would allow for third-party manufacture	Testing sections allow changes to be made in a time-friendly manner, with consideration and justification as to their impact on the Design Specification Modelling ideas allows students to see the product as a whole and consider final aesthetic, functional and aesthetic details such as joins, finishes and strength. This also allows them to plan their time for the prototype realistically. After completing development work the manufacturer's Specification allows students to be clear on what they will need to make their prototype and allow for purchase / organisation of materials	Students will be able to: ● Test the suitability of their designs and material choices in the fulfilment of the Design Specification. ● Problem solve and make modifications, developing their ideas in 2D and 3D ● Select appropriate materials and components with research into their working and physical properties ● Produce a detailed Manufacturers Specification which could enable third-party manufacture	Formal NEA Assessment Criteria on DevelopingDesign ideas (AO2) NEA 20 marks

	drawing of pattern lay, and final design, care information and full equipment list.		and equipment		
Spr 1	A diary of manufacture, breaking down how long each stage of manufacture will take. Manufacture of the product - creating or adapting patterns, cutting and constructing products.	A diary of manufacture helps students be prepared for each stage, complete quality checks and keep track of any alterations/deviations to manufacture. Manufacturing of the final prototype including a range of manufacturing techniques to solve the design problem and meet the specification.	Students can maximise lesson time using their diary of manufacture as a timetable and equipment list allowing them to manage their time effectively.	Students demonstrate the skills developed over the course and put them into practice for the making of the prototype	NEA - 20 marks
Spr 2	Evaluation and testing Exam Prep (theory and exam techniques)	Students will test their prototype against the speciation. Test the prototype with the client and suggest modifications. This allows the student to identify the success of the prototype. Recap of key areas of the theory to build up confidence. Understand how to answer different sections of the exam paper, what the keywords mean and what the exam response should look like.	This is the final stage of the design cycle and assessment of the NEA. Will cover topics from materials, manufacturing methods, smart materials, composites and new technologies. This will be a recap of the theory content from the start of the course.	This will allow students to review the success of the prototype and review the completed NEA. Will raise the performance and re-enforce knowledge for the exam and improve the combined score of the NEA and exam.	NEA - 20 marks. Test questions and Google quizzes.

Links to L4L Curriculum and Gatsby Benchmarks:

Gatsby Benchmark